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DIMITRY UZNADZE¹

(1886–1950)
Georgy Ketchuashvili²

Dmitry Nikolaevich Uznadze was a classic Soviet psychologist, one of the most outstanding figures in Georgian cultural history during the first half of the twentieth century. His name is linked with the establishment of the renowned Georgian school of psychology. The original theory developed by him over half a century ago, the psychology of set (*Einstellung* in German; *attitude* in French) is an important achievement of modern psychological science. In the words of the psychologist N. O Connor, ‘Soviet psychology is represented in the universal treasury of science by the names of Pavlov and Vygotsky and by the Georgian school of psychology that grew out of the work of Dmitry Uznadze.’³

Uznadze’s ideas were far in advance of his time. A new understanding of how action is rooted in the personality and of how behaviour is regulated, the discovery of their psychological dimension and the establishment of an original method for research into unconscious forms of mental activity marked the beginning of a new and remarkably promising stage on the road to a knowledge of mental processes.

Uznadze’s special place in the cultural history of the Georgian people is also connected with his contribution to the reform of the education system in Georgia after the October Revolution, and with the founding of the national university in Tbilisi in 1918.

His life

Dmitry Uznadze was born in 1886 in a peasant family in the village of Sakar, which lay in the Province of Kutaisi (western Georgia). His parents accustomed their children to work from an early age, setting for them an example of mutual respect and high moral character. In 1896, Uznadze entered Kutaisi high school, and from the outset showed himself to be a capable and diligent pupil. He was expelled from the school for taking part in the 1905 revolution.

In the same year he left to continue his studies in Switzerland and then in Germany, where he entered the philosophy faculty of Leipzig University. In Leipzig at that time philosophy and psychology were taught by one of the founders of experimental psychology and the creator of the world's first psychological laboratory, Wilhelm Wundt (1832–1920). Many leading European and American psychologists received specialist training from Wundt and later became, like Uznadze, pioneers of experimental psychology in their countries. Such famous scholars as Volkelt, Barth, Spranger and Krueger also lectured in the university at that time. Uznadze attended Wundt's tutorial course, together with Köhler and other subsequently well-known psychologists, and was considered one of the faculty’s best students.

It was during his years as a student that he achieved his first success. In 1907, the Academic Council of the Faculty of Philosophy of Leipzig University awarded him a prize as a third-year student for his work on the philosophy of Leibnitz. Uznadze was awarded the title of Doctor of Philosophy at the University of Halle for his dissertation entitled 'Vladimir Solovev: His Epistemology and Metaphysics' (1909).⁴

In 1909 Uznadze returned home.⁵ During the years 1909 to 1916 he engaged in productive public, educational and scholarly work in the town of Kutaisi, where he taught history in the local high school for boys, psychology and the history of education in the girls' high school, and psychology and logic in the church secondary school for girls. On his initiative a 'Sinatle' girls' school (*sinatle* means 'light') was set up for the first time in Georgia, with teaching conducted in Georgian and in accordance with educational principles developed by Uznadze himself. As a member of the people's university he also delivered many public lectures at the same time.

Uznadze's educational work at this period of his life is worthy of particular mention. His appointment as headmaster of the 'Sinatle' girls' school in 1915 was due chiefly to his generally recognized authority: by then he was already the author of many articles on educational science, philosophy, aesthetics and art, and of several textbooks on ancient history in Georgian. The beginnings of the ideas he later developed⁶ can already be seen in these works, particularly in the 'Introduction to Experimental Pedagogy'.

A new stage in his work began when he took up permanent residence in Tbilisi in 1917. He played an active part in organizing the Georgian national university and establishing the department and laboratory of psychology and education, as well as the Higher Teachers' College. From the outset he delivered the lectures on basic psychology and teacher-education courses at the university.

He would not have been able to carry out his far-reaching plans in the field of psychology if he had not built up a capable academic team. He therefore devoted particular attention to the selection and training of Georgian psychologists. The Soviet Union's first psychology society was formed under his direction by the year 1927.

Uznadze was the author of the first university textbooks and systematic courses in the Georgian language on various branches of psychology. In addition to his aforementioned 'Introduction to Experimental Pedagogy', these works include *The Foundations of Experimental Psychology* (1925); *Paedology* (1933); *General Psychology* (1940); and *Child Psychology* (1947). On his initiative and under his direct supervision psychological research in Georgia also developed in other research institutions specializing in educational science, psychological testing and neuropsychiatry. The work of these scientific centres proved so productive that when the Georgian Academy of Sciences was founded in 1941 all the requirements were already present for the establishment under its auspices of a scientific institute for psychological research. Uznadze became the institute's first director and also the head of the department of psychology of Tbilisi University, holding the two posts until his death on 12 October 1950.

His philosophical views

The content of Uznadze's philosophical research was greatly influenced by the epistemology of the founder of Russian religious idealism, Vladimir Solovev (1853–1900). As E. Kodua, who has carried out research on Uznadze's philosophical works, has pointed out, it is a great deal easier to comprehend Solovev's philosophy today than in its early years: the intervening period has clearly

highlighted the areas in which Solovev's metaphysics influenced later philosophical systems.⁷ The young Uznadze, starting out on his career, correctly gauged its humanistic emphasis. The question of the meaning and purpose of human existence that subsequently became a major theme in his own research runs through all Solovev's philosophical and artistic writings and social commentary, clearly as a result of the influence of Dostoevsky.

In his dissertation on Solovev's philosophical system, Uznadze described the national roots of the former's philosophical creativity and attempted to identify its personal, subjective origins, in the belief that every philosopher weaves his own ego into his teachings and that every doctrine is a portrait of the thinker who originated it.⁸

After returning home, Uznadze spent some time continuing to work out problems he had encountered during his research on Solovev's philosophical system. Many of his publications from this period are concerned with the meaning of human life and of the nation as a whole and with the ideas of good and evil, life and death.⁹ In these studies he attempts to identify common ground in such apparently diverse subjects as philosophy and poetry, which converge and meet, in his view, precisely in their treatment of the meaning of existence. The affinity between philosophy and poetry 'were the point of departure for a philosophy of life that later found a sequel in existentialism'.¹⁰ Uznadze's merit was not only to establish a philosophical basis for their affinity but to construct a system of proofs based on poetry, particularly the poetry of the Georgian poets, including Baratashvili and Chavchavadze.¹¹

For Uznadze the meaning of existence has as its domain people's actions and socially oriented life—hence his description of humankind's activity in the past as the laying of the first stones in the foundation of the edifice called 'culture'; it was the duty of the present generation to carry on building that edifice. He saw the construction of culture as the principal purpose of *Homo sapiens* and believed that it was chiefly those who dedicated their lives to that common task who remained in the memory of humankind. In his view, the quest for individual happiness and prosperity could not form the real meaning of life. For Uznadze the meaning of existence was to be found on a much higher plane: in culture. Only 'cultural creation' could provide our lives with a meaning.

In defining the meaning of life Uznadze separated its socio-cultural aspect, that is to say the meaning of life of an entire united people or nation, from its 'socio-individual' aspect, which he considered to be the meaning of life for the individual. In the first case, the subject of the meaning of life was a specific nation. The subject in the second case was the individual as a participant in the culture of the people. According to Uznadze the meaning of life for an individual was measured by his or her creative contribution to the transformation and humanization of nature and the establishment of the manufactured world of culture. In this constructive activity he perceived the vocation of *Homo sapiens*, the meaning of life for the individual, and also the meaning of the life of each nation, measured by its contribution to the culture of humankind.

Uznadze linked not only the meaning of life but also the question of death with that of the human vocation. The denial of death and assertion of life acquired meaning through the individual's role as a member of human society and a representative of his or her people. Through unity with that people and by identifying personal interests with those of everybody, the individual realized the meaning of his or her existence and overcame the fear of death. On the basis of that understanding of the meaning of existence, Uznadze condemned all attempts by one people to assimilate another, believing that any such assimilation, and the artificial, enforced intermixing of peoples, ran counter to the meaning of existence both for individuals and for the nation as a whole and was tantamount to destruction of the nation. On the other hand, the

meaning of life, which involved the satisfaction of the people's needs, could be realized only on the basis of harmony between different peoples. None the less, when the interests of a people had to be defended the voluntary sacrifice of the individual was fully justified, as that was also one way of realizing the meaning of human existence.

Uznadze devoted a considerable amount of attention in his philosophical discourses to the nature of poetry and art as a whole, believing contemporary poetry to be an expression in artistic images of the philosophical question of the meaning of existence. In his view, the difference between philosophy and art primarily was that the former comprehended truth through logic; the latter through artistic imagery.

He believed that the true philosopher and the true artist were united by suffering and by an insuperable urge to solve the secret challenge of life. What was accomplished in philosophy by logical thought was achieved in art through form, as the outlook of the artist was expressed through form and fulfilled through experience on the basis of instinct and intuition.

Unfortunately, we cannot provide here a fuller exposition of Uznadze's philosophical views on existence and the meaning of life, his understanding of art and the various qualities of existence (fear, death, good, evil, etc.) which, in general, form a reasonably coherent system.

Another area of his philosophical work during this period involved problems bordering on psychology. In his study of Solovev's philosophy he had already drawn attention to the question of the unconscious as one of the first states of consciousness: he looked into this subject in considerably greater depth in his works on the philosophy of Leibnitz and Bergson.¹²

Uznadze's study of Leibnitz's concept of *petites perceptions* and of Bergson's intuitionism and anti-intellectualism, which constituted the essence of his doctrine of the unconscious, was central to the development of the future theory of set. As A.S. Prangishvili, one of his pupils and followers, noted, many major strands of modern psychological science (the psychology of the individual, the genesis of consciousness, the unconscious mind, etc.) were delimited in the course of the critique of philosophical doctrines that was the subject of Uznadze's scholarly research.¹³

His views on education

The humanistic orientation of Uznadze's world view shines through just as brightly in his work as that of a theorist and a practitioner of education. During his period in Kutaisi, his conception of education was formed and put into practice at the 'Sinatle' girls school mentioned above, which was the first school for a century to teach in Georgian. In the report he submitted to the board of the 'Sinatle' society in 1916 he formulated general educational principles for the organization of education.¹⁴ Much earlier he had already published a number of educational articles containing an original presentation and discussion of educational questions connected with the development of children in relation to age, as well as his main work on experimental pedagogy (1912).¹⁵

Uznadze maintained an almost lifelong interest in educational science, and during his stay in Tbilisi this developed into an interest in child and educational psychology. He based his educational work mainly on the ideas and findings derived from critical analysis of the experimental pedagogy prevailing at that time in the West and in Russia. He was attracted principally by the fact that it was 'a system involving only operations based on a detailed knowledge of the child's scientifically demonstrated psychological traits'.¹⁶ In his view, experimental pedagogy helped to transform 'strivings of a conscious nature' into part of 'the personal aspirations of the child'.¹⁷

Uznadze saw the main task of the 'Sinatle' school as being the organization of optimal conditions for the all-round development of children's capabilities. On the basis of his dominating idea that the creation of culture formed the principal meaning of human life and that the will was the main motive force of creativity, Uznadze took the view that a school's first aim should be to prepare a person for life through the development of his or her will. Schools should help to raise 'active, strong-willed people'.¹⁸

This insistence on such a targeted approach was undoubtedly new to Georgian pedagogy. And, as the will 'is capable not only of contributing to the enrichment of cultural life but also of being the instrument of its destruction', Uznadze held that the principal task of teaching at school was the inculcation of a 'moral and social will'. For that reason the 'Sinatle' school paid great attention to the inculcation of initiative and boldness and to school self-government (in this Uznadze played a pioneering role in Georgia) as one of the most important means of turning out active pupils with a conscious sense of discipline.

The process of moral education in Uznadze's school was based on the absorption of moral categories through understanding, reinforced by powerful feelings that transformed those categories into a moral force and induced the pupils to act in a given direction. In this connection he attached considerable importance to literature and history and, in the senior classes, to ethics and also physical education; for Uznadze 'there is nothing like physical exercise for strengthening bold and rapid decision-making'.¹⁹ He considered basic health education to be the culmination of concern for physical health.

Uznadze assigned to aesthetic education a place of major importance in the formation of the 'ideally educated individual', thus departing from the traditional curriculum, based on intellectual, moral and physical training. Drawing and music were also harnessed to this end, as was literature. There was a girls choir, and needlework was also practised. The school also did not overlook the educational value of play, a form of human behaviour to which Uznadze attached particular importance. It is worth while to restate in this connection that he was the author of an original theory of play based on the concept of 'functional tendency'

In keeping with his educational ideas about preparation for real life, Uznadze was a consistent opponent of early specialization, arguing for a fully logical selection of instructional content on the basis of its educational value.²⁰ Much later on, in his work on forms of behaviour, he was to write that 'school is neither a playground nor a factory where specific works must be turned out by means of human labour and where, consequently, only those who have already developed the force required are selected for work'. We can see clearly in this statement the principles on which the content and methods of schoolwork should be based. When society develops a specific need, for example, when electric machines are required, it accordingly sets about building fully equipped factories and, in the most efficient manner possible, recruits staff to work in them who have been trained to produce those machines. Teaching is a different matter. Its main goal is the development of young people's capabilities, which must therefore be taken into account in determining the content and methods of instruction at any given time. In other words, the latter must be justified in terms of their educational value. Productive work must be organized on the basis of psychological tests, whereas the content and organization of productive instruction must be justified in educational terms.²¹

For Uznadze, the acme of educational wisdom resided in the achievement of maximum intellectual and spiritual development for a minimum material outlay. He made a special study of the utility of various disciplines and of their quantitative aspect, defining precisely their educational function and linking the study of each subject to psychological characteristics and particularly age-related thinking patterns. In his view the main purpose of providing instruction

was not so much to impart knowledge but rather ‘to expand and develop the mind of the child’.²² Consequently, instruction had to be structured in accordance with thinking processes. In Uznadze’s view, one of the most important goals of school education was to teach children to take an independent, creative approach to their studies.

From the outset he embraced the psychological fact that a thought is usually sparked off by the observation of a problem. Later, with the introduction of the concept of *ob’ektivizacija* (objectification) into psychology, he attempted to define more precisely the sources of human thought.

Uznadze’s views on the use of visual methods as an educational principle are highly interesting. His concept of ‘intense visual methods’ involves ‘not only a visual acquaintance with the subject but also observation of its workings and its relation to other subjects. Manual work related to the subject matter would be of the greatest possible assistance in achieving this goal.’²³

The rule adopted for tests in the ‘Sinatle’ school is also worth noting. Its purpose was to develop a habit of critical thinking and independent evaluation ‘another innovation for Georgian education of the day. Under this rule pupils were first of all given an opportunity to correct their own mistakes.

The didactic principle of the lasting acquisition of knowledge and skills was related in the school to the psychological principles governing instruction (development of the memory, interest and attention, fatigue, etc.). Under Uznadze, the process of instruction was based on activity and awareness as required by the classical writers on education ‘including Comenius, Rousseau, Pestalozzi and Ushinsky’ instead of the largely mechanical assimilation and mindless cramming methods of the old school.

Uznadze connected the implementation of educational ideas closely with the conscious creation of an edifying atmosphere in the school. In his view, the teaching staff needed ‘to believe firmly that children’s hearts and minds should be open to whatever was presented to them. The atmosphere should be founded on trust and love. This is an old truth, but there are major obstacles on the way towards making it a reality.’²⁴

It was an awareness of the need for this sort of atmosphere that led him to reject marking systems, which in his view were always subjective.²⁵

‘Sinatle’ was therefore a new, progressive type of school without precedent in Georgia. The innovation of its founder was that the entire process of education and instruction in the school took account of the psychology of children and progressive teaching experience. It was also geared to the development of an all-round personality.

The psychological theory

Psychology occupied a central position in Uznadze’s scientific work during his second period of residence in Tbilisi. His theory of set, with its experimental basis, made a major contribution to the science of psychology. He was also responsible for a number of outstanding studies on the psychology of thought and speech, perception, attention and the will, and for works in the field of differential genetic psychology, the psychology of labour and the psychology of art.

As we have already seen, the origins of the set theory may be discerned in both his philosophical and his educational writings. It was based on a deep analysis of the causes of the crisis in the science of psychology that erupted in the 1920s and on a resolute review of the underlying methodological principles or postulates of classical psychology. As Asmolov wrote,

Only a review of the very foundations of psychology could eliminate the obstacles in its path...That step was taken by Uznadze, who, after conducting a methodological analysis of the foundations...of psychology, singled out the postulate of immediacy, which was a premise of all traditional psychology.²⁶

Uznadze demonstrated that one of the main reasons for the crisis was the dogmatically held view that mental processes were a form of reality operating purely in accordance with its own internal laws. That view was analogous to the 'principle of closed causality' in the physical world, according to which the cause of a physical phenomenon was to be found in the physical world and interaction between a physical phenomenon and its physical environment required no mediating link. In just the same way classical psychology saw in the psyche alone the first cause of psychological phenomena and all changes in such phenomena. On this model facts testifying to a certain correspondence between psychological and physical processes were also interpreted in the spirit of the principle of immediacy, the physical process being the direct cause of corresponding psychological processes. In psychological terms, this view implied rejection of the real living personality, the subject of action, and identification of the self with consciousness—and sometimes, as Freud maintained, with the unconscious.

In this connection, Uznadze wrote that

the question of psychological causality must be answered in such a way that psychology becomes the psychology of the real, living, active person. This means that the concept of the subject must also have its proper place in psychology. It must indeed underpin the entire discipline, together with other equally important concepts. The psychology of abstract functions without a subject must give place to the psychology of the active subject, the operative personality.²⁷

A distinguishing feature of Uznadze's philosophy was his understanding of the object of the mind and, accordingly, of the nature of psychological mechanisms. In his article 'Impersonalia',²⁸ written in 1923, he suggested that the laws of the object determined and controlled the processes of human consciousness: the object 'migrates' as it were into the subject, assuming the latter's state, and organizes the processes of consciousness in accordance with the trans-subjective object. Although empirical evidence in support of this idea was absent at the time, the essential principle underpinning Uznadze's subsequent theory was really formulated then.

Uznadze discovered the path to the solution of a problem that was of prime importance in psychology 'the relationship between physical and mental processes' in their dialectical unity. In his view an explanation of psychological reality should be sought in the history of the development of the mind rather than in bio-physiological processes (although the mind is also a product of the brain). 'Psychology,' he wrote, 'can fulfil its explanatory mission properly only if research is based on the idea that our consciousness is determined by social and historical factors'.²⁹

The key task of psychology 'to explain psychological reality on the basis of developmental principles' remained unsolved within the traditional framework. It was taken for granted that there could not be an early stage in the development of consciousness. Therefore, the question of which stages preceded consciousness and how the transition to active consciousness occurred was never posed. Uznadze drew particular attention to the development of the mind and also to the stages preceding the emergence of consciousness. As consciousness was the highest form of mental development it had to be preceded by early, preconscious, forms of development. The shared and also the distinctive features of the conscious and the preconscious mind had to be established. Uznadze investigated this question at an operational level. In his view the most basic

feature of the mind was the reflection of reality and the capacity to produce suitable behaviour on the basis of that reality.

Uznadze attempted to identify the psychological mechanism determining the activity of the subject in the initial stage of mental development, at the very time when the mind was formed. He held that any specific activity necessarily presupposed two factors: a subjective factor (need) and an objective factor (a situation in which that need was fulfilled). In every single instance the influence of the object depended on the need of the subject. The object could not in itself explain any specific change it brought about in the subject. In the eloquent words of D.I. Ramishvili, 'The properties of the colour red cannot in themselves explain why it produces the effect of salivation and, in general, a readiness to take food. Only the existence of a need and the history of its formation, of the satisfaction of that need by the subject, enable us to understand a particular reaction'.³⁰ But a need can explain a specific effect of the object on the subject only because in Uznadze's theory of set the need itself is perceived as the product of the object's influence imprinted many times over.

Thus, in set theory the stimulus that activates a living being is in each and every case a need, but the nature of the activity is determined by the actual situation. The combination of these two factors induces in a living being a general change that is expressed in a readiness to take appropriate action. This state of readiness mobilizes all the subject's capabilities for meeting the challenge before him or her and anticipates the development of a process of activity. This is the set. For Uznadze, the set is a reality that is far removed from any opposition between the subjective and the objective. Uznadze's set mediated the relationship not only between the physical and the psychological but also between psychological processes.

Uznadze's original method based on the artificial inducing of sets provides the opportunity for accurate, objective experimental research on the unconscious state and for study of the set through its role in the process of illusory (erroneous) perception that accompanies its apparition and extinction.

The basic method for research on sets introduced by Uznadze is as follows: a need is engendered in the subject to perform a given task. For example, the subject may be asked to compare two balls placed simultaneously in his or her hand and say which is the larger. The balls are presented several (ten to fifteen) times so that the set or disposition (to identify the big one and the small one) induced on each occasion becomes sufficiently well reinforced (these are set-inducing tests), after which 'say the sixteenth time' the original balls of different sizes are replaced by two of identical size, although the subject is still asked to compare their sizes. This test usually reveals that the subject has acquired a fixed set corresponding to the previous tests and now judges one of the two equal-sized balls to be 'larger' or 'smaller'. The set-inducing tests have created a state producing the illusionary perception that equal-sized balls are of different sizes. In Uznadze's view this state is nothing other than a disposition towards a specific activity.

Uznadze and his students discovered many more illusions. It was established, in particular, that the illusory perception of weight considered by scientists for a half a century to be a peripheral phenomenon could actually be explained as being caused by set and was a reflection of the subject's integrated-personality state. Among similar freshly discovered illusory effects were that of volume in the tactile and visual domains, that of pressure, auditory illusion, that of illumination and that of quantity.

In the course of their experimental research Uznadze and his pupils identified a number of characteristics of set. For example, a set established in one domain also manifests itself in other domains. For instance, after set inducing tests requiring subjects to compare large and small rings by touch, they visually perceived equal-sized rings as unequal. Summing up the results of these

experiments, Uznadze wrote: 'We can conclude that a set is not a partial psychological phenomenon but something integral characterizing, as it were, the personal state of the subject'. The set as a disposition to act is consequently an integrated-personality state and not some kind of partial psychological process. This is what distinguishes Uznadze's conception of the set from its treatment in traditional psychology.

Moreover, according to Uznadze's conception, sets are also a characteristic of animals. The ability to react to influences from the external world, chiefly through a set, that is to say 'an integral modification of the subject', is a primary characteristic of an organism: it is the most primitive form of reaction by an organism to the influence of the external environment. But, in animals, sets are much less largely differentiated than in human beings. The fact that the set as an integral dynamic state mediates the animal's reaction to the influence of the external world does not mean, however, that the behaviour of animals and humans may be assigned to the same stage of development or that they are similarly determined. In the 1940s, Uznadze made a special study of the specific features of human behaviour that had social causes. The set theory also proved extremely productive in this context. His identification of the second level of behaviour, the level of 'objectification', which led to a new stage in the development of set theory, belongs to this period.

What is the identifying feature of human action? It resides primarily in the fact that human beings do not act only on impulse like animals but at will, in accordance with their judgement. This specifically human level Uznadze referred to as 'the second level' of the mind, i.e. its higher level. It is reached through a specific act, which Uznadze refers to as 'objectification', whereby the subject singles out an object in the external world. Before reacting to the object the subject perceives it as an object of cognition. He or she normally switches to action at the second level of speech when the smooth process of habitual forms of behaviour at the 'first level', which do not require the participation of the consciousness, runs into difficulties and encounters an obstacle. There may actually be spoken questions ('What's happening?' 'What is it?') or simply astonishment. The subject then becomes aware of switching to the second theoretical level of action, the situation is objectified and the problem identified. He or she objectifies his or her activity, 'mobilizes' himself or herself, and 'prepares' for the next action. The set is established on the basis of objectified content.

Of the fundamental significance of the concept of objectification for theoretical psychology the psychologist K.A. Abul'khanova-Slavskaja wrote the following:

The brilliant revolution in determining relationships brought about by Uznadze in his conception of objectification transferred the determination of action from the needs of the subject's ego to the needs of other people. Linked with this is a particular quality of the subject of the action, which is a methodological starting-point for psychology. Through objectification the action of the subject and the determined nature of his or her action are linked by the needs of other people.³¹

The intensive research work on the psychology of the personality, carried out by Uznadze's school chiefly in the light of the set concept and objectification, gave rise to a particular system of psychology incorporating not only general and genetic (animal and child) psychology but also differential and pathological set psychology.

In the above-mentioned basic monograph on the psychology of set published in 1966 in the United States of America,³² Uznadze referred in broad terms to three basic personality types: dynamic (balanced, well-adapted people); static (behaviour that is not impulsive but, on the contrary, entirely based on objectification and volition and typified by constant reflection and

uncertainty); and variable (people with strong desires, action-oriented but with a conflictual character structure), consisting of two groups: stable and unstable. He presented experimental data showing the type of set characteristic of each of these categories of individual.³³

Uznadze's approach to research on the personality as an integrated whole also proved to be of great interest to modern psychology. Luciano Mecacci chose for the epigraph to a study he published in the 1970s the following words by Uznadze:

It is the task of our science especially to consider the psychological analysis of human behaviour and the laws governing it. A view of human psychological activity that sees it as incorporating the activity of the subject as a whole assumes that psychology should investigate primarily the subject, the personality as a whole rather than individual acts of mental activity.³⁴

In a whole series of works Uznadze made a fundamental contribution to research on many important questions in psychology. These works include: 'The Psychological Basis of Designation' (1923), which inspired a stream of studies in the USSR and abroad;³⁵ 'Understanding Meaning' (1927);³⁶ 'Conceptualization at the Preschool Age' (1929),³⁷ which was first published in German; 'Topical Issues and the Theoretical Basis of Occupational Psychology' (1933);³⁸ 'The Illusion of the Rate of Movement' (1940);³⁹ 'Forms of Human Behaviour' (1941);⁴⁰ 'Objectification' (1948).⁴¹

Uznadze was also the forefather of applied psychology in Georgia. Several psychological-testing laboratories were opened under his direct supervision, as were laboratories for the study of child psychology and educational psychology. This enabled him to develop a conception of the 'periodization' of child development based on an understanding of 'the age environment', an original theory of play, his theory of occupational psychodiagnosis, etc.

Interest in Uznadze's scientific heritage has grown immeasurably in recent times. The effective use of set theory in social psychology,⁴² medical psychology,⁴³ work psychology and ergonomics⁴⁴ provide an indication of how productive his ideas have been. The holding of an international symposium in Tbilisi in 1979 on the unconscious was just one further indication of the wide recognition accorded to Uznadze's scientific legacy.⁴⁵ Today many psychologists both in the Commonwealth of Independent States and abroad (including Hungary, Germany, Canada, United States of America, Japan) are hard at work on issues relating to the psychology of set. After the appearance of a monograph by the prominent Swiss psychologist Jean Piaget concerning experimental research on set, the illusion identified in the visual sphere entered psychological scientific terminology as 'the Uznadze effect'.⁴⁶

As a genuinely classic legacy, Uznadze's works have not yet been fully explored. In all probability several generations of scientists will be needed to comprehend, study and develop the ideas of the great psychologist.

Notes

1. This article was first published in *Prospects*, Vol. 21, No. 4, 1991—Ed.
2. *Georgy Ketchuashvili (Georgia)*. Ph.D. in the psychological sciences in 1971, since when he has been professor and head in the department of Work Psychology and Economics at Tbilisi State University. He has published a large number of works on human information processes, ergopsychology, the psychology of music and the psychology of set. His most recent titles include: *Set as a method of studying fatigue* (In Russian, 1985); and *Some factors of set fixation* (in Georgian, 1986).
3. N. O'Connor, Editor's introduction in N. O'Connor (ed.), *Present-day Russian Psychology*, Oxford, Pergamon Press, 1966.

4. D. Uznadze, 'Wladimir Solowiew: Seine Erkenntnistheorie und Metaphysik' [Vladimir Soloviev: His Epistemology and Metaphysics], Halle, 1909, 168 p. (Doctoral dissertation.)
5. As foreign university degrees were not officially recognized in Russia at that time, Uznadze took the examinations at the History and Philology Department of Kharkov University in 1910–13 as an external student, gaining a first-level diploma.
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