The Theory of Integral Individuality by Wolf Merlin

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Abstract: The analysis of Wolf Merlin's ideas on the integral individuality has been performed. The main problem that the theory of individuality addresses is the large number of individual traits. They vary from biochemical to sociopsychological, are heterogeneous in origin, and separated. W. S. Merlin overcomes this dominant trend by contrasting it with the assumption of human unity. This issue relates to individuality, its traits, and connections. Merlin sets out a scientific task to investigate whether individual traits can function jointly. The hypothesis was whether individual traits of diverse origins function in the form of integration. The theory put forward by Merlin allows examination of this hypothesis. It was tested by applying the concepts of levels, polymorphism, and mediation, mainly. On this basis, Merlin considered not only individual differences, but also the ways in which individual traits function together. Then, they were generalized as the theory of integral individuality. In addition, a new field of research has arisen. It has separated itself from the study of personality in general psychology and the research of individual differences in psychophysiology to some extent. The perspective advances a further study of the theory of integral individuality. Finally, the summary completes this work. Herewith, some implications and limitations are traced.

Keywords: Holism, Integration, Integral individuality, Individual traits, levels, polymorphism, mediation.

1. INTRODUCTION

Wolf Merlin (1898-1982) produced a major contribution to the Soviet psychology. His influence on Russian psychology continues. Most notably, this is the theory of integral individuality [1, 2]. It has substantially solved a number of problems. Merlin's theory became known in Western psychology [3, 4].

Initially, Merlin studied individual differences. Later, he supplemented the view of the differentiation of individual traits with their integration. The orientation towards integration led to the development of the theory of integral individuality [1, 2]. The main problem addressed by Merlin in his theory was the following: individual traits exist in great variety, are heterogeneous in origin, and are separated. This view had to be supplemented. The idea of human unity provided a foundation to solve this problem. Departing from this assumption, the theory of Merlin adopts an integrative approach, which allows it to overcome the disunity of individual traits.

The following main features distinguish the theory of integral individuality (TII) from other theories that also study individuality in Russian psychology [5].

1. Individuality deals with individual traits and their connections. Individuality is a broader concept than personality. The former includes the individual traits ranging from biochemical to socio-psychological.

Integral individuality occurs when the researcher focuses not only on individual traits but also on their connections. Individual features should be attributed to individual traits if they remain relatively stable over a period of time and are identical in different relationships.

- 2. TII refers to a class of theories which are rather deductive than inductive in nature. It describes and explains the structures of individual traits.
- 3. The basis of TII is a systemic view. It suggests integrative studies. They seek to find common features in individual traits, even though they have different origins. Thus, integration opposes individual differences and, at the same time, complements them.
- 4. The individual traits are characterized by multiquality, structure at levels, and multi-dimensionality. Multi-quality arises from the fact that individuality consists of many individual traits of different natures. They are divided at levels. Multi-dimensionality means that individuality has two dimensions: individual traits as they exist in their own right (intra-individuality) and as people perceive them (meta-individuality).
- 5. TII points out regularities that allow overcoming the disunity of individual traits. Causal and teleological regularities are taken into account. Other theories are only causal in nature.
- 6. TII examines the integration of individual traits, taking into account levels, polymorphism, and mediation. There are one-to-one connections between individual traits at the same level. Many-to-many (polymorphic) connections arise between individual

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traits at different levels. Some links mediate them. As a result, individuality is integrated.

TII sets and solves two main tasks. First, those individual traits should be assessed that refer to the same level and individual traits that refer to different levels. Second. mediations should be traced with regard to polymorphic connections between individual traits at different levels.

The purpose of this paper is to characterize Merlin's TII and outline some perspectives for its further progress.

2. BACKGROUND AND INITIAL ASSUMPTIONS **Background**

The roots of Merlin's theory lie outside psychological science, but they can be easily found in general systems theory [6]. Bertalanffy [7] proposed one of its first regard. In Russian science, other regards have been developed [8-10]. There have also been systemic approaches that are not related to general systems theory, such as system-structural, systemfunctional, system-historical, and system-integral [11, 12]. In Russian psychology, Barabanschikov [13], Lomov [14], and Merlin [1, 2] have been developed original views on the systemic approach.

Despite the variety of systemic representations, they are based on the idea of the unity of the world. It presupposes a holistic view on the world [15]. A systemic approach creates guidelines for seeing individuality in several features. Then, the ground appears to be considering individuality in several dimensions.

As already noted, the integrative trend fits into the systemic approach. However, integration studies are of detached meaning and need to be investigated separately. The role of TIII by Merlin lies in the fact that he identifies the integration of individual traits as an important issue.

With that, the TII is not the only one to have raised the issue of integration. In recent years (as opposed to previous years), an integrative trend has taken place in Western research [16-19]. The integrative approach applies to a perspectivist approach to theory construction [20], a three-dimensional view of system justification theory [21], subjective well-being [22], and shared reality [23]. Systemic theories are also developed. They are found in personality research [24,

25], in models of dual systems in personality, cognitive and social psychology [26-28].

This is the background and context of TII. It draws on the traditions of psychological science and a systemic approach, but goes further, developing them.

Initial Assumptions

Merlin followed the natural science tradition in Soviet psychology. It comes from Sechenov and Pavlov, who laid the foundations for an objective study of the human psyche. This line was continued by Bekhterev, Lazursky, and Basov, who formed the St. Petersburg (Leningrad) branch of Russian (Soviet) psychology [29-31]. The natural-scientific orientation served as a common background for research into integral individuality.

The initial premise of TII is also one of the lines of general systems theory. Four fundamental system provisions formed the basis of TII. First, Merlin assumed that a systemic approach leads to an interdisciplinary view of individuality. It should be studied not only within the framework of general psychology. but also within physiology psychophysiology, social-psychology and sociology.

Second, it is a statement about levels presented in the theory of structural levels by Brown-Sellars (quoted from [32]). It put forward the position that life is organized at levels. Each of them reveals own laws, they are relatively independent and are not derived from each other. Merlin seemed to have known this theory from an article by Kremyansky [32]. Perhaps, this article helped Merlin to combine ideas of levels and integration, to name his theory "integral individuality".

Third, Bertalanffy's [7] thesis on living systems capable of self-regulation and self-actualization. Merlin [34] took this idea and extended it to the relationship between personality traits. It was viewed under the lens of self-regulation and personality development. These ideas were then applied to integral individuality.

Fourth, this is the assumption that systems have internal sources of activity, teleological determination, and polymorphous features. Bertalanffy [7] developed these ideas in his works and they influenced Merlin.

At the same time, Merlin [1, 2] distinguished his approach from Bertalanfy's general systems theory [7] in its initial understanding as a general theory and from the cybernetic understanding of a large system from the standpoint of Ashby [33]. Merlin [34] noted that the personality is an agent that actively transforms world, so it has the property of self-regulation. Then, it was transferred to the integral individuality. To some extent, TII differs from the above theories because it examines individuality and considers individual traits at different levels to study their integration.

Finally, the initial premises form a powerful foundation for the TII and give it more credibility and confidence.

3. INDIVIDUALITY AS A SYSTEM AND INTEGRATION

In the years when Merlin was developing his ideas, the concept of individuality was unusual if not known to Soviet psychological science. On the one hand, the concept of personality (in general psychology), and on the other hand, individual differences of individual traits (in differential psychophysiology) ruled the day. Perhaps, Ananyev [5] was an exception, he also raised the issue of individuality. Merlin studied precisely the concept of individuality, not the personality within its borders or individual differences that separate individual traits. Moreover, he studied individuality in a different way from Ananyev [5].

The concept of individuality gradually penetrated Russian psychology: first, as an inherited feature, then as a side of personality. Then, there were ideas about the uniqueness of the personality and finally, the concept of integral individuality. It combined both acquired and inherited traits. Since then, the idea of individuality firmly entered Russian psychology, and individuality in personality became the prototype of integral individuality, meaning the unity of diversity and multiple traits in one.

Merlin studied not individual traits separately, but together. He revealed this problem in two ways. First, like Ananyev [5], Merlin turned to the concept of individuality, which opposed individual differences. The concept of individuality implied a holistic study of individuality. Second, Merlin followed a secular trend in science. He emphasized holistic, integrated and interdisciplinary studies of human individuality. In Soviet science, this trend manifested itself first in the Ananyev school [5].

As noted above, Merlin studied individuality from the point of view of integrating its traits. Integration was seen as a way to achieve individuality as a whole. Merlin identified three sources of holistic study. The

first is the systemic approach [14] and the general theory of systems [7]. The second source was the success of related scientific disciplines such as biochemistry, psychophysiology, social psychology, and sociology. The third source was the requirements of social practice. Individual approach arose in the field of labor and an anthropocentric approach came into education instead of a subject-centric one.

This is the ground on which holistic ideas about individuality and the integration of its traits were formed.

Based on the systemic approach, Merlin considered individuality to be composed of several systems and subsystems. Their unity is ensured by the integration of individual traits. It is based on the fact that, on the one hand, systems and subsystems are distributed at different levels, and on the other hand, they are connected. The task is to find out which traits refer to one level, which traits refer to other levels, and how individual traits are related at the same level and between levels. These issues will be considered in the next paragraphs.

4. LEVELS

In spite of the ubiquity of the notion, levels have received little explicit attention in individuality studies. Attempts to provide general and broadly applicable definitions of levels have not been widely accepted in Russian psychology. Merlin's theory fills this gap in the study of individuality to a certain extent. Levels can be designated as classes of individual traits with regularities of their own.

In TII, the concept of levels is important. They form a hierarchy, but they are not subordinate to each other and do not relate as a whole and part. Instead, the levels relate as part and part, being relatively independent and autonomous. This is because each level reveals a separate quality of the integral individuality, and its independent origin is substantial. A separate class of regularities characterize each level of individuality. They ensure the levels different from each other. Individual traits are not randomly distributed across the levels, but rather according to their origin and quality.

In TII, levels are divided according to several criteria: phylogenetic stages, classes of regularities, and ways in which relationships emerge between individual traits.

The levels of integral individuality have the following features.

- 1. Individual traits at different levels start with biochemical traits and end with social status in a group. Their origin is different stages of phylogenesis. In the course of evolution, they acquired stable characters, were preserved as relatively autonomous systems and subsystems, and became fixed at the structural levels of individuality in current life. According to evolutionary criteria, some individual traits emerge earlier, while others emerge later in evolutionary ladder. Each level of individuality is characterized by the same quality and origin, but the levels differ in quality and origin compared to each other.
- 2. Biochemical, nervous system, temperament, and socio-psychological personality, distinguished at different levels. Each level reveals its own causal regularities. Levels are not part of each other like in a Matryoshka doll, but exist separately to some extent. It is necessary to discern the causal regularities at one level from those at another level. There are one-to-one connections between individual traits at the same level.
- 3. Representatives of a separate level are not isolated traits, but rather, if they are connected and form a relatively closed subsystem. For example, markers at the level of nervous system include strength and lability values, as they relate to and characterize the type of nervous system. Markers at the level of temperament include emotionality extroversion/introversion, as these traits relate and characterize the type of temperament.
- 4. Individual traits at different levels are also connected, but otherwise, in a polymorphic manner. They obey teleological regularities. According to Merlin [1, 2], polymorphic (many-to-many) connections arise between individual traits at different levels, rather than one-to-one connections as at the same level. Moreover, the teleological, not causal, regularities provide polymorphic connections between individual traits at different levels.
- 5. Individual traits at the same level govern the differentiation of individuality, while connections between individual traits at different levels ensure the integration of individuality.
- Merlin [1, 2] highlighted individual traits into subsystems, systems, and levels. Herewith,

subsystems have been referred to at levels. He viewed the integral individuality in this way:

- a system of individual traits that refer to the organism; from this, biochemical, somatic, and nervous system traits are derived as subsystems and levels;
- a system of individual traits that refer to the psyche; from this, temperament and personality traits are derived as subsystems and levels;
- a system of individual traits that refer to the socialpsychological patterns; from this, social roles are derived as a subsystem and level.

5. POLYMORPHISM

Polymorphism, Determination, and Levels

Merlin [1, 2] considered polymorphism to arise from teleological determination. At the same time the polymorphism was viewed as a condition that allows overcoming differences in individual traits. They ensured the integration of individuality. In general systems theory, polymorphism reveals a view in which the same system (or subsystem) can take several forms. Polymorphisms have been empirically established [9] in social, biological, chemical, geological, physical systems, as well as spatial, temporal, dynamic, and substantial polymorphisms were established. These evidences support the idea of Vernadsky [35] about polymorphism as a general property of matter.

Polymorphism imparts an open and dynamic character to the system. It opposes traditional views of systems with structures that are closed, static, and rigid. Open and dynamic systems have several structures and transitions can occur between them. The main result of polymorphism consists in keeping the systems as they are, despite their variety of forms. Due to this, the open and dynamic systems acquire new qualities and properties.

One-to-One and Many-to-Many Connections

Merlin [1, 2] points out how to measure one-to-one and many-to-many connections. He applies this, in particular, to exploratory factor analysis. When factors have been computed, their rotation should be omitted to avoid any "simple" structure. Then, two cases can be specified. First, significant loadings of several variables enter only one factor. This means that one-to-one connections appear between the mentioned variables.

as well as between them and the factor to which they enter. Second, the same set of several variables with significant loadings enters two or more factors. This means that many-to-many connections appear between these variables, as well as between them and factors to which they enter.

Merlin suggests that causal regularities manage one-to-one connections and teleological regularities refer to many-to-many connections.

Polymorphic (many-to-many) connections are specified in this way. First, they arise from individual traits at different levels. Second, many-to-many connections are probable, not random. Third, there is an equal probability of individual traits at different levels being connected. A trait a from subsystem A is associated with some traits in subsystem B. Vice versa, a trait b from subsystem B is associated with some traits in subsystem A. Fourth, varying probabilities, not equal ones, refer to one-to-one connections. Both kinds of connections are significant and reliable, not doubtful.

To sum up. some assumptions can be emphasized.

- (A) Many-to-many connections between individual traits arising at different levels are not causal and cause-and-effect relations do not menage them.
- (B) Causal regularities arise at each level separately. Moreover, they differ in nature, ranging at different levels. Each level possesses its own qualities. For example, temperamental traits are heritable while personality traits are under social influence to a large extent.
- (C) Teleological regularities govern many-to-many connections. They emerge between individual traits that occur at different levels. Many-to-many connections are variable, flexible, and aim for a useful outcome. Many-to-many connections ensure a basis for integrating individuality.

Merlin [1, 2] draws also attention to the concept of many-to-many connections in a broader sense. He focuses on this concept as an effective tool to solve a range of issues. Merlin mentions that some problems which were previously considered in isolation can now be combined. In particular, they are bio-social and psycho-physiological ones. This list can be extended when a correspondence between general psychological and socio-psychological patterns is under consideration, as well as socio-psychological and sociological patterns are taken together into

account. Due to this universality, the concept of manyto-many connections can be generalized and put into the class of categories.

6. MEDIATION

The connections between individual traits can be direct or indirect. If only the members A and C are counted, then, their connections are assumed to be direct. If a third member B is supplemented, and the connection between A and C is considered through B, such a connection is called mediated, and B is the mediating link [36].

In its most general form, mediation is a relationship between two traits that takes into account the influence of a third trait. This mentions a new system of relationships. Kuzmin [11] defined the "third" trait as a system-forming one, since it leads to a change in the system.

Merlin [1, 2] attached great importance to mediation. He considered not only the connections between individual traits at different levels, but also mediating conditions, as having a systemic property. It changes itself and changes many-to-many connections. It was suggested to search for mediating links [11]. The individual style of object-related activity is the main mediating link between many-to-many connections. The mediating link is also performed by interpersonal style, experience, choices, social and sociometric status, responsibility, and value orientations [1, 2, 37-39].

Thus, the studies of individual traits in TII include mainly integration and differentiation, levels and mediation, teleological and causal regularities, many-to-many and one-to-one connections.

7. FURTHER PROGRESS

Merlin's TII has the potential for progress. Its expansion is taken into consideration. For this purpose, ideas from other theories can be applied, even though this transfer has certain limitations.

To ensure the progress of TII, the level criterion (in "vertical" order) can be supplemented by the criterion of multidimensionality. It moves towards the line of relationships with the external world (in "horizontal" order). Then, a new perspective emerges. It leads to the concept of a meta-individual world [40], the study of the relationship between integral individuality and intelligence and creativity [41, 42].

The integral individuality is a system, but there are other systems such as close setting, intelligence, and creativity. In order to consider these systems together and combine them in one approach, a conceptual turn away from the systemic approach [1, 2] towards polysystemic research is promising. Its simple case reveals dual systems. They are related despite of their different bases. For example, the theory of the meta-individual world applies to integral individuality and close settings which differ in nature but they are considered together and related [40].

The concept of polymorphism can be supplemented by isomerism [9, 43]. It consists in the fact that the structure of individual traits is mobile and can be redistributed. This means that the same composition can take several structures and transitions between them.

A holonomic view of TII is also emphasized [44]. Holonomy considers the relationships between the whole and parts. On this basis, the integral individuality is seen as holon. Then, a new understanding arises at levels. A dual position of individual traits and their relationship emerges at each of the three levels. For example, temperament traits are part of personality (a higher level) and whole in relation to nervous system (a lower level). Temperament traits are both whole and part. They are distributed across levels, but the crucial feature is that the whole and the part are separate from each other. Individual traits are also complementary, relative, and multidimensional.

8. IMPLICATIONS AND LIMITATIONS

In theory, the TII can serve as a source for understanding the whole person, not just a part of it. Then, a new research perspective arises when the concept of personality traits is expanded to other fields. The expansion is viewed as tripartite. First, the personality traits themselves are studied. Second, the biological traits are intended. Third, the socialpsychological traits are mentioned. All of these can be considered together to be multidimensional and there many-to-many connections are between dimensions.

In research, the view of integration and wholeness is applied in conducting empirical studies. Statistical treatment is directed at tools that fit these assumptions to a large extent. Another line of study relates to structures. They are seen as flexible rather than stable, and their variation is of a particular interest.

In applied study and practice, students at school and university can be differentiated according to an individuality bias. In counseling and psychotherapy, clients are also distinguished according to individual criteria.

Finally, the TII can enable the emergence of new theories that refer to the individuality and integration of their traits.

The TII has some limitations. It is restricted by individual traits. Other concepts like thinking, perception, or emotion go beyond the TII. It applies mainly a structural approach while other regards are rather omitted.

CONCLUSION

The Merlin's TII has made a major scientific contribution to the development of Russian psychology. It put forward the foundation of a new field - the study of individuality in an integrated way.

TII is of great importance because it provides a solution to the problem of individuality in psychological science. This problem is examined using a systemic approach. Its application allows discovering levels, one-to-one and many-to-many connections, as well as mediation links. TII helps to overcome the disparate studies of individual differences by asserting the unity of individuality through integration.

Further development of TII has prospects based on its expansion. TII draws on related theories and uses some of their ideas. It is proposed to make a conceptual turn from systematic to poly-systemic studies, to supplement polymorphism with isomerism. Applying the idea of holon to TII can enrich it.

Merlin's TII has a solid background and solves a set of tasks in an original way. The TII has the potential and resources to ensure its progress and future growth.

DECLARATION OF CONFLICTING INTEREST

The author states no conflict of interest. There are no relevant financial or non-financial competing interests to report.

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