Studia Psychologiczne. t. 55 (2017), z. 2, s. 44–51
PL ISSN 0081-685X
DOI: 10.2478/V1067-010-0175-4

Janusz Trempała

Kazimierz Wielki University in Bydgoszcz,
Institute of Psychology

TOWARDS THE "GOOD" HUMAN DEVELOPMENT THEORY

In the paper I present a polemic with Adam Niemczyński'scriticism of empiricism in psychological research, including developmental psychology. I agree that the psychological theory lags behind the facts we gather in our laboratories. However, I suggest that before we start discussing the reasonableness of an empirical approach to the study of development, we should try to eliminateor correct evident errors that we commit within it.

INTRODUCTION

The aim of the discussion initiated by Adam Niemczyński is to "... gain greater self-awareness in research on development". He proposes to undertake epistemological reflection and focus attention on the role of theory in empirical research on human development. I accepted the invitation to this discussion with enthusiasm, because – like Adam Niemczyński – I see a decrease in interest in theoretical disputes, especially in Polish psychological literature. In developmental psychology, it is almost absent.

In the introduction to the discussion, Adam Niemczyński puts forward two theses. The first says that empiricism has dominated research on development. The second, that there is a need to move away from empiricism as an "inadequate concept of experience". At the root of his statement lies the third thesis on psychophysical duality, rather hidden, however in the perspective of history, it seems important for considerations.

I am not sure if I am mature enough for such a broad discussion by Adam Niemczyński. I do not have his knowledge about the history of psychology. In addition, I cannotfind in his lecturein favour of which duality in psychology he speaks, for example in the sense of a coexistence of separate, related or contradictory phenomena, tendencies, principles. The difficulty is deepened by more detailed threads of his statements, which concern limitations and even the unreliability of contemporary empirical research in psychology. His intriguing Introduction is multithreaded. I will try to undertake a discussion with the aforementioned theses on the level of knowledge that I have and according to my understanding of the essence of scientific cognition. I will treat this as the beginning of a broader discussion.

In the introduction of this paper, however, I must make two reservations. First, contrary to the recommendation of Adam Niemczyński, I reject the idea of an "discussion free of assumptions". It is not possible. In the 90s of

the twentieth century, we both conducted research on cognitive and moral development during the life span of people in the so-called post- and neo-Piaget paradigm. On the basis of empirical achievements of this trend, we do not need to refer to the philosophical reflections of outstanding thinkers to state that each individual judgment / belief is always embedded in the context of some knowledge, experience and individual meanings. And only within this framework can it (and is) be justified. Secondly, I accept the assumption that the scientific knowledge is different from the non-scientific one, that it is empirically grounded. Though thoughts are not comparable with the state of affairs, the truth is not a copy of reality. However, only those thoughts that work with their practical consequences can be considered true (see e.g. Lewin, 1936, 1946, Kuhn, 1968, Tatarkiewicz, 1978, and also Falkowski, 2004 and others).

ADAM NIEMCZYŃSKI'S THESIS

Empiricism has dominated research on development. In the first thesis of Adam Niemczyński, a diagnosis is made which I basically agree with. However, it is worth paying attention to two different consequences of empiricism in developmental psychology. The first one is positive. Subordination of developmental research to the requirements of positivist methodology contributed to intensifying research and disseminating knowledge about developmental phenomena. We took from the natural sciences in developmental psychology not only the method, but also the language of description and explanation of the subject of our research. Thanks to this, the results of research on development have become more understandable for representatives of other disciplines and are increasingly used in the mainstream discussion of contemporary psychology. It is with satisfaction that we can say that the developmental approach developed on the basis of empirical psychology is now considered useful and even necessary by an increasing number of researchers in the study of the dynamics of psychic phenomena.
The second consequence is not favourable. Recently, one can observe a disturbing tendency to attach more importance to the data collected than to explaining them. As a result, we are increasingly neglecting theoretical research. It should be emphasized that this trend is not only appropriate for the psychology of development. It has a more general character. We observe it in other sciences and in all modern psychology. We produce in our laboratories an increasing number of empirical data, which are becoming overwhelming to such an extent that we understand less and less the reality we investigate. An increasing number of researchers express themselves and write about the results of their research in such a way as if empirical data were more important than its understanding. If an original thought appears in the interpretation of these data, it usually has a narrow scope of explanation. In addition, let us note that in recent decades we have started to feel a clear lack in the psychological literature of important theoretical syntheses[1]. In my opinion, theory does not keep up with the facts we collect.
It is necessary to depart from empiricism as an "inadequate concept of experience".
The second thesis of Adam is intriguing in its meaning. It contains two messages: (i) it calls for a departure from empiricism; (ii) it suggests that empiricism misunderstands experience. In the first case, however, he states that he does not mean that the psychology of development ceases to be experimental science. His

1 However, I do not want to say that all the historical positions cited by Niemczyński in the Introduction to the discussion deserve to be called "great syntheses".

reflections on the second – as far as I am able to understand them – are aimed at showing the role of "internal experience" in human development. This is accompanied by a suggestion that empiricism removes them into the shadows, ignores intuitions and diminishes the role of theoretical hypotheses in scientific research, whose sources do not always come from knowledge that can be measured experimentally.

After a long thought, I come to the conclusion that my understanding of this, in essence, difficult issue, is different. First, I believe that calling for a departure from empiricism – regardless of intentions – undermines the sense of examiningby the psychology of data available for direct observation and may lead to marginalization of psychology in the mainstream of contemporary scientific discussion. I think that it would not be beneficial from the point of view of the development of that discipline. Second, the empirical position does not – in my opinion – exclude the role of "internal experience" in the process of scientific cognition. I believe that despite the encountered difficulties, through investigating the genesis of mental life, we can empirically describe and explain the role of this kind of experience in the development of an individual, while contributing to the knowledge about the development of scientific cognition. I will develop this thought in the further part of the presented considerations. The starting point is reflection on the most common reasons for failure of empirical research.

FAILURE OF EMPIRISM IN THE DEVELOPMENTAL RESEARCH

Experience in psychology is variously defined. Experience in psychology is usually understood in three senses: (a) as external stimulation (situation); (b) its subjective reflection (interpretation, understanding); and (c) a record in the mind (structure). Every time we examine something else. In the first case, we are interested in objective (measurable) properties / states of a given situation. In the second, w focus on the subjective interpretation of sensory data and understanding of the relationship with the environment. In the latter case, we associate experience in psychology with the organization of mental structures[2].

If I understand correctly the achievements of modern psychology as a science, then behaviour and development are not so much a function of sensory external stimulation, but its interpretation / meaning. In addition, empiricism does not identify objective (scientific) knowledge with the data available for direct observation. Scientific knowledge requires empirical grounding, allowing (in psychology from the time of Tolman) to deduce about what is not available for direct observation indirectly, based on what is given. It seems, therefore, that scientifically we can not only describe, but also explain the genesis (origin) of experience that Adam Niemczyński calls "internal".

Inadequate understanding of the subject of research. Failure of an empirical approach in psychology is often associated with a misunderstanding of the subject of research or rather with its "dilution" by psychologists entering into research areas relevant to other scientific disciplines. This does not mean that participation of psychologists in interdisciplinary research is not recommended. On the contrary, it guarantees a better understanding of the functioning of an individual as a system. The point is that when undertaking interdisciplinary research, one should not forget about

2 In anticipation of further deliberations on the subject of psychological research, it is worth mentioning that at the physiological level, we associate individual experience with the space-time organization of CNS structures and more and more often with the structure of protein inherited in DNA.

the subject of psychological research and what examination methods are appropriate for the discipline.

After intense disputes about the subject of psychological research at the beginning of the 20th century, it seems that it has been established. In general, it can be said that irrespective of theoretical orientation, the subject of psychological research is the individual's activity in relations with the environment, whose most general form (activity) is behaviour. Regardless of whether we study reaction times, accuracy of task performance, judgments, statements, narratives or life careers, we always study specific human behaviour. On its basis, we conclude about psychic activity (its structure and functions). According to this approach, we say that on this basis the goal of psychological research is to describe general laws / principles of human behaviour and development.

The subject of psychological research is not the physiological activity of the body (including the brain and gene expression), just as it is not society or culture. This does not mean, however, that they do not have (i.e., the brain, genes or society and culture) any meaning for understanding human behaviours and development: they create conditions for mental activity on which we focus. Unfortunately, in research practice, psychologists sometimes in an unauthorized way reduce their inference about behaviour and development to brain activity or gene expression, and on the other hand to the socio-cultural conditions of the genesis of the manifestations of mental life. As a result, they pay more attention to, for example, the functioning of the brain or society than the mental activity of an individual. I believe that psychological research on the activity of the brain or social structures and cultural patterns in this shot are useless from the point of view of the subject of psychological research. On the other hand, this kind of research practice encourages representatives of other disciplines (biologists or pedagogues) to undertake psychological research, which in consequence strengthens the above reductionism.

Inadequacy of measurement methods, data analysis and inference. If we agree that the subject of psychological research is behaviour, i.e. the activity of an individual in relations with the environment, the problem relevant to this discussion is not so much the "inadequacy of empirical experience", which Adam Niemczyński talks about, but rather inadequacy of research methods and inference about the experience accumulated and organized by an individual in their activity, undertaken in interactions with the environment (see Tyszkowa, 1988).[3].

The problem of combining methods of collecting empirical data and their analysis to the nature of phenomena examined by us in the psychology of phenomena is worth a deeper thought. Due to the nature of statements presented in this report, I will limit myself only to signalling problems that – in my opinion – require discussion. Their extension is presented elsewhere (Trempała, Olejnik, 2011, Trempała, 2015, Trempała, Cieciuch, 2016)[4].

Adjustment of the measurement method to the dynamic nature of development. A clear example of this mismatch is inference about some functioning, mechanism of shaping or learning on the basis of a single measurement of "variables" (i.e. at a given time *t*1) and statistical (static) correlations / differences / interactions between them, according to the theoretical model of the researched phenomenon. In this

3 Since Adam Niemczyński refers in his Introduction to the Cracow School of developmental psychology he has received (Szuman, Przetacznikowa), I see no reason to hide that my theoretical-methodological orientation is derived from the positivist Poznań School of research into the development of Maria Tyszkowa.

4 I also presented these problems at one of the cyclic conferences of developmental psychologists (Lublin, June 2014).

proceeding we get a "photograph" of the state / states at a given time of measurement, on the basis of which we conclude about formation, functioning or mechanism. We behave like photographers "stopping the frame" with any dynamic phenomenon / event that we try to explain on the basis of theoretical assumptions about the relationship between the "captured" states of the "variable" we are interested in at a given time. We make the error of static measurement in the study of dynamics of phenomena.

Matching data analysis method to the nature of development. Even if we apply longitudinal measurement (repeated measurement), better suited to the dynamic nature of development, we can make a different mistake. It consists in drawing conclusions on conservation and development rights on the basis of averaged measurement results of the variable or variables of interest to us in different groups of respondents or in different situations and at different test times (occasions, in accordance with the concept of Cattell's "data box"). For example, when we are interested in an "isolated" psychic function (e.g. perception, memory, empathy), we usually look for an average trend (central tendency) in the level of a given variable in a given group / groups or a given situation / situations in various measurements at a given time (occasions). When we are interested in patterns of connections between various functions, we compare the average measures in different groups and / or occasions of measurement. The problem is that if we carefully look at raw data (as it was once said – "on the finger") or use computer modelling, it often turns out that there is no "average" person and / or that there is no "average" pattern of mechanism, formation or functioning. It seems, therefore, that the concept of an average tendency is an abstract which has a limited application in the analysis of such dynamic phenomena as human behaviour and development.

Matching conclusions to the level of organization of measured behaviours. Empirical psychological research is also damaged by the lack of in-depth reflection of researchers on the level of organization of the behaviours they measure. First of all, the practice of reasoning about individual behaviour on the basis of its judgments / views / attitudes in a given case, common in psychology (mainly in social and educational psychology, but not exclusively), is incomprehensible. For example, we measure judgments / opinions about social behaviour or pro-health behaviours, but on the basis of this kind of data (self-report) many researchers do not infer about self-assessment, views or some mental "hidden theory" of an individual on a given topic, but the behaviour of the subjects in general. For example, on the basis of a report of respondents about their sexual activity, one cannot infer about sexual behaviour of Poles. In this type of research, we forget that what we have measured and what we have in mind refers to completely different aspects of human activity that are of different nature, organization and functional distribution over time. Secondly, we rarely undertake in our research the problem of relations between micro- and macro-developmental changes, which we study using various methods, providing data of different nature from the point of view of their measurement time (short-term), size of behaviour (elementary-complex) and situation (well and less or less well defined). Today – although we often continue to do so – we know that there are no legitimate conclusions about human behaviour in general on the basis of his judgments, and that the micro- and macro-development models of changes in human behaviour cannot be reduced to one another (see Trempała, 2011). Models of micro-genetic changes, contrary to suggestions, such as Gesell or Werner, cannot be generalized to the entire human behaviour.

In research on behaviour and development, we commit many other errors that we are more

or less aware of today. However, the aforementioned ones are enough to say that before we discuss the meaning of an empirical approach in our research, let us first try to eliminate or repair the evident mistakes we make.

THE IMPORTANCE OF THEORY IN DEVELOPMENTAL RESEARCH

Concluding my statement, I would like to focus my attention on the key issue for this discussion, i.e. on the importance of theory in empirical research on development. I think that intuition, subjective experience, as well as more or less correct from the formal point of view assumptions and hypotheses are important in the development of scientific cognition, also in research on the genesis of processes, functions and mental activities. I cannot at this point briefly discuss the problem of the relationship between what is "subjective" and "objective" in individual experience and in scientific cognition. This is a problem that goes beyond the scope of this statement. I will limit myself to two problems in this study, not claiming that they are the most important or the only one in the area of discussion on the role of theory in research on development. In my opinion, they require a special consideration from the point of view of Adam Niemczyński›s suggestion expressed in his Introduction.

First of all, it is difficult to imagine empirical research in isolation from the theoretical model of the studied phenomenon and assumptions about the method of its observation / measurement. From the scientific point of view, a thought / idea / theory is "first", but even the most original cannot be treated as decisive for the truth of knowledge on a given topic. This criterion is practice, or the experience of applying theory in real action (in individual and social experimentation). This view derives, among others from the pragmatic theory of truth (Tatarkiewicz, 1978) and the paradigmatic theory of science development elaborated by Kuhn (1968). In this context, it is worth recalling the historically very distant statement of Lewin that "nothing is more practical than good theory" and his proposition of "action research", which point to the mutual, continuous and inseparable relationship between theory and practice. In his opinion, scientific problems take place "from the street", from everyday observation and thoughts in the head, which we try to order in accordance with principles of the mind, building a formal theory of the phenomenon that interests us. He emphasized, however, that a "good" theory must not only be correct from a formal point of view, but also useful. In his view, the theory is the source of practice, but its application in practice perfects the theory.

Second, in my opinion, a separate epistemological reflection requires the results of empirical research on the early competences of a child, which were taken at the end of the 20th century in neopiagetism. Thanks to technological advances and the improvement of the method of examination of young children, data have been obtained that undermine the widespread thesis that cognition of a child is derived from action. It turns out that infants already have some knowledge about the world (e.g. about the durability of the object, the laws of gravity, elementary causation, language structure, etc.) with which they experiment in action, searching for a "disappearing" object (Donaldson) or reconstructing language (Chomsky). Even Barbara Inhelder (Karmiloff-Smith, Inhelder, 2006), on the basis of empirical research, admitted that every action is preceded by its idea in the mind of even very small children. It seems that we are approaching nowadays the knowledge of where the "non-empirical" experience of an individual comes from. It probably has an anthropogenetic character: its basis is the

cumulative experience of generations encoded in the structure of inherited protein (DNA). Thus, the source of a small child's thoughts / theories as an "experimenter" is its own activity in the dynamic process of searching for new adaptations / solutions in an ever-changing world, on the basis of different experience: gene (inherited), ontogenetic (acquired and remembered) and the current situation.

Thus, dichotomization of the external and internal as well as objective and subjective in human experience seems to be of little use. The behaviour of people (verbal and non-verbal) studied by us at a given time are the function of both. There is an important question about the relationship between these aspects of human functioning and development, which – we must admit – we do not understand well yet.

INSTEAD OF ENDING

I cannot summarize the above considerations in a short way other than expressing gratitude to Adam Niemczyński for evoking in our community a discussion on the role of theory in research on human development. He provoked a reflection that is the source of knowledge. I hope that the discussion will have a continuation, that we will be able to broaden the circle of discussants and deepen our thoughts. I am convinced that psychology of development needs "good" theory, and thus useful in both research and social practice.

REFERENCES:

Falkowski, A. (2004). Pamięć i wiedza w kontekście rozwoju poznania naukowego. *Nauka, 2,* 105-124.

Karmiloff-Smith A., Inhelder B. (2006). If you want to get ahead, get a theory? W: J.G. Bremner, C. Lewis (red.), *Developmental psychology* I. *Perceptual and cognitive development* (t. 3, s. 355-371). London, Thousan Oaks, New Delhi: SAGE Publications.

Kuhn, T.S. (1968). *Strukturarewolucjinaukowych.* Warszawa: Wydawnictwo PWN.

Lewin, K. (1936). *Principles of topological psychology.* New York: McGraw-Hill Book Company.

Lewin K. (1946). Behavior and development as a function of the total situation. W: L. Carmichael(red.),*Manual of child psychology.* New York: John Wiley and Sons.

Tatarkiewicz W. (1978). *Historia filozofii,* t.3. Warszawa: Wydawnictwo PWN.

Trempała J. (2011). Natura rozwojupsychicznego. W: J. Trempała (red.), *Psychologia rozwoju człowieka.* Warszawa: Wydawnictwo PWN.

Trempała J., Olejnik M. (2011). Badanie rozwoju psychicznego człowieka. W: J. Trempała (red.), *Psychologia rozwoju człowieka.* Warszawa: Wydawnictwo Naukowe PWN.

Trempała J. (2015). O pułapkach pomiaru osiągnięć szkolnych: „przeciętny uczeń" nie istnieje. *Kwartalnik Pedagogiczny, 60,* 4, 9-23

Trempała J., Cieciuch J. (2016).The analysis of change in behavior and development: on some errors and possibilities to correct them. *Current Issues in Personality Psychology,* 4(2), 65-74 doi: 10.5114/cipp.2016.60168

Tyszkowa, M. (1988). Rozwójpsychicznyjednostkijakoprocesstrukturacjiirestrukturacjidoświadczenia. W: M. Tyszkowa (red.), *Rozwój psychiczny człowieka w ciągu życia. Zagadnienia teoretyczne i metodologiczne.* Warszawa: Wydawnictwo PWN.

Janusz Trempała

Uniwersytet Kazimierza Wielkiego w Bydgoszczy,
Instytut Psychologii

W KIERUNKU „DOBREJ" TEORII ROZWOJU CZŁOWIEKA

STRESZCZENIE

W swojej wypowiedzi polemizuję z Adama Niemczyńskiego krytyką empiryzmu w badaniach psychologicznych, w tym w badaniach nad rozwojem. Zgadzam się, że teoria psychologiczna nie nadąża za faktami, które gromadzimy. Sugeruję, że zanim podejmiemy dyskusję nad sensem podejścia empirycznego w naszych badaniach, spróbujmy najpierw wyeliminować lub naprawić ewidentne błędy, które w jego ramach popełniamy.

Studia Psychologiczne. t. 55 (2017), z. 2, s. 44–51