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## O RÓŻNYCH PODEJŚCIACH DO ZROZUMIENIA PROCESÓW ROZWOJOWYCH DZIECI

### SUMMARY

#### **On different approaches towards understanding the development of children**

This article aims at presenting various approaches of understanding the complex processes of children's development in the framework of modern developmental psychology. Nowadays, developmental psychology has a huge inventory of methods that are used depending on the needs. An experiment and observation serve as a perfect example of such methods. The authors show that developmental psychology also relies on numerous psychological tests, such as cross-sectional study and longitudinal study. The selection of the study depends on various factors, such as the subject, conditions or results one wants to achieve. Often the data for the research is gathered throughout several years. The above-mentioned studies have their advantages and disadvantages. Nonetheless, they are the best option for researchers studying children's development.

**Key words:** developmental psychology, children's development, experiment, cross-sectional study, longitudinal study, research.

### STRESZCZENIE

#### **O różnych podejściach do zrozumienia procesów rozwojowych dzieci**

Niniejszy artykuł ma na celu przybliżenie zrozumienia procesów rozwojowych dzieci. Autorzy pokazują, iż w rozumieniu natury dziecięcej pomocne są liczne badania psychologiczne, jak na

przykład badanie poprzeczne i badanie podłużne. Wybór badania jest uzależniony od różnych czynników, takich jak przedmiot, warunki lub wyniki, które chce się osiągnąć. Częstokroć zbiór danych do danego badania odbywa się na przestrzeni kilku lat. Wspomniane badania podłużne i poprzeczne mają swoje zalety i wady. W momencie podjęcia decyzji co do metody, należy określić w jaki sposób zostanie zebrana informacja umożliwiająca przeprowadzenie badania. Psychologia rozwojowa ma ogromny inwentarz metod, które są stosowane w zależności od potrzeb. Przykład mogą stanowić eksperyment i obserwacja.

People often do not realize how much psychology affects their lives. Psychology, understood as both an academic discipline and an individual's mental life, plays a great role in everyday life for it virtually determines how we perceive each other, why many of us are prejudiced against others, how, and to what extent, we develop our interpersonal relationships, such as love, friendship or acquaintance, and the like. Psychology, construed as a science, covers almost everything which is of interest to human beings. Eysenck, one of the most renowned psychologists, maintains that we are all psychologists in that we spend much of our time trying to understand the motives and behavior of other people<sup>1</sup>. Psychology is, indeed, a very complex field of investigation, because it deals with the numerous and varied mental processes and manifested behavior. However, it is worth mentioning that a scientific study of children's development began about 150 years ago.

Psychology distinguishes diverse approaches of understanding the development of children. Developmental psychology constitutes a branch of psychology that studies how people grow and change over the course of a lifetime<sup>2</sup>. Developmental psychology focuses on the systematic psychological changes over the entire life span. This scientific study begins its considerations before birth with the growth of the fetus, and then takes into account birth and infancy, moving through the kindergarten years and entry into school, ending with the passages from adolescence to adulthood<sup>3</sup>.

There are many techniques for gathering information about the development of children employed by developmental psychologists. Naturalistic observations, clinical interviews or experiments belong to the most widely known.

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<sup>1</sup> M. Eysenck, *Psychology. An integrated approach*, Essex 1998, s. 10.

<sup>2</sup> K. Van Wagner, *Erickson's Theory of Psychosocial Development*, „The New York Times Company” 2008, s. 34.

<sup>3</sup> M. Harris, G. Butterworth, *Developmental Psychology: A Student's Handbook*, USA 2002, s. 56.

In order to obtain objective information about children, it is advisable to observe them during their everyday lives and then record what happens. Thus, the scientist conducts observations in a naturally occurring situation, without actually being involved in it. However, children can very often feel not very comfortable when some stranger observes them; therefore, it is also a good strategy to have the children observed by somebody who is not unfamiliar to them, like their teachers or parents. The researcher's task, regardless whether it is a nonprofessional parent or a scientist, is to gather information about children's actual behavior and make a detailed record of the events that occur at home, in school etc., without having any effect on their occurrence.

Natural observations can be conducted in many contexts in order to study a child's ecology. In psychology the term ecology refers to the situations in which people are treated like actors who encounter some problems. Barker and Wright carried out a research concerning the ecology of human development<sup>4</sup>.

The aim of this research was to observe and describe a natural ecology of schoolchildren in different communities in the US as well as abroad. They, for instance, observed a child from the early morning to the late night, taking into account his activities. According to their results, the observed boy took part in approximately 1 300 different activities in the course of that day. On the basis of their observations the conclusion can be drawn that children by the age of 7 possess a panoply of skills.

However, because of the expensiveness of the many contexts observations, naturalistic observations can include also observations in a single context. This restrict kind of observations is based on a single social setting which is of great importance to children. Consideration has to be given to the research conducted by Lisa Serbin, in which she examined interactions between children and teachers in 15 kindergarten classrooms<sup>5</sup>. She wanted to investigate if the teacher's behavior may unwittingly influence boys and girls so that those boys became aggressive, while girls subordinate. It was discovered that teachers treated their pupils selectively, by paying not equal attention to the misbehavior of boys and girls. Boys were often reprimanded for their bad behavior, whereas girls were rewarded because of their dependent behavior. As a result, this kind of unfair treatment caused aggressiveness among boys.

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4 R. G. Barker, H. F. Wright, *Psychological ecology and the problem of psycho-social development*, „Child Development” 1949, s. 131-143.

5 L. A. Serbin et al, *Behaviorally based masculine and feminine-activity-preference scales for preschoolers: correlates with other classroom behaviors and cognitive tests*, „Child Development” 1973, Vol. 44, s. 796-804.

As it was mentioned above, there are some other different research methods that are used in the study of developmental psychology. An experimental method serves a perfect example. An experiment in psychology is understood as a research which is based on introducing some change in human's behavior in order to measure the effect of that change<sup>6</sup>. The notion of scientific hypothesis is typical of experimental methods. This assumption should be precise enough to be tested and if the hypothesis is proved then the research has scientific value. What is also very important in an experiment is the division between the experimental and control group. The first one consists of individuals whose environment has been changed, whereas the control group does not participate in experimental manipulation. Joseph Campos and his colleagues conducted a research which constitutes a good example of experiment in developmental psychology. The authors wanted to prove that the fear of heights is not innate in the human infant. The experiment in which children had to cross over the visual cliff provided strong support for the assumption that the development of locomotion plays a significant role in the development of the fear of heights<sup>7</sup>.

In psychological research there are two basic research designs that are being used to clarify the process of developmental change, i.e. longitudinal design and cross-sectional design. The first one involves studying the same group of individuals across the life span, i.e. individuals are measured repeatedly through time, on the contrary, the cross-section design, in which a single outcome is measured for each individual, in other words, this design involves looking at different groups of people of different ages<sup>8</sup>. These two research designs can be used with any of the techniques of data collection which was mentioned above.

The longitudinal measurement constitutes a very important research design because it enables discovering the constancy or changes of particular behavior pattern while a child is getting older. However, this method is not free from some disadvantages, like expensiveness of conducting it. Moreover, it happens frequently that during the years of carrying out such a study, children may simply drop out or move out to another city, making the sample unrepresentative. The next drawback of this design is connected with becoming used to the various testing procedures. Participants may learn how to react and respond during the study, as a result, it is dubious, whether the respondents behave in a particular manner, because of the normal development or just because of the gaining the practice in taking the tests.

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<sup>6</sup> M. Cole, S. R. Cole, *The Discipline of Developmental Psychology*, „The Development of Children”, Scientific American Books, New York 1996, s. 17-40.

<sup>7</sup> Ibidem.

<sup>8</sup> P. Diggle, P. Heagerty, S. Zeger, *Analysis of Longitudinal Data*, Great Britain 2002, s. 23.

On the other hand, by cross-section design, one can study, for instance, the development of memory in four different age groups. According to obtained results, it is possible to form the hypothesis about developmental changes in this cognitive process. This approach is also less time-consuming and less expensive, in comparison to the longitudinal one. Because such a study will not be so long-lasting, there is also a smaller possibility of withdrawing from it. Nevertheless, such an approach has also some drawbacks, for example, findings may be confounded by different variables. In testing memory, not only age can play a role but also some differences in childhood nutrition, which could influence the future memory<sup>9</sup>.

And what about these research techniques which were mentioned at the beginning of this work? Do they have both strengths and weaknesses, as the research designs? Which is better an experiment or maybe an observation? It is believed that no one technique is able to answer all questions about individual's development. The usage of a method depends on what a researcher would like to study.

Naturalistic observations are recognized as a basis of a child development research as well as crucial source of data about children's social development. However, these observations are limited to some extent. First and foremost, an observer tends to see selectively, in accordance to his expectations. Secondly, the observer is not able to write down everything during the process of observation. Therefore, he will undoubtedly lose some information, which could be important in further analysis. Sometimes researchers use also some planned note-taking schemes which are only concentrated on looking for particular behaviors. Such schemes, however, do not take into account all these unexpected events during the daily observation, and this also may cause the loss of important details. One should as well bear in mind that recordings of behavior on videotapes take much time to analyze. What also clearly emerges from the observations is that individuals' behavior changes when they know about being watched. This may lead to some artificiality. People are sometimes more polite or helpful only for show, not in real situations, which Graves and Glick proved in their laboratory study of the interactions between mothers and their children<sup>10</sup>. Subsequently, from pure observations researchers are not able to find out which factors are causal. They can only establish a correlation between two or three factors, but it does not tell which factors are causal, i.e. whether one factor causes the other. Encountering

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<sup>9</sup> C. Super et al, *Long-term effects of food supplementation and psychological intervention on the physical growth of Columbian infants at risk of malnutrition*, „Child Development” 1990, Vol. 61, s. 29-49.

<sup>10</sup> Z. R. Graves, J. Glick, *The effect of context on mother-child interaction*, „The Quarterly Newsletter of the Institute for Comparative Human Developments” 1978, no. 2, s. 41-46.

difficulties in establishing causal relations is considered as a biggest disadvantage of this research technique.

Experimental methods deserve as well some discussion and evaluation. One of the biggest advantages is the possibility of isolation of causal factors, therefore, an experiment is believed to be the best method of testing causal hypothesis. There is no doubt, however, that this kind of methods was and still is quite controversial. As a result, ethics constitutes a fundamental issue in all experimental research. It should be impossible to conduct a study which might harm anyone. On the other hand, it is not so explicit to decide, what can be harmful for the participants and what cannot, especially in different cultures. Dating back to the 20<sup>th</sup> century, one should not forget about one of the most controversial experiments conducted by Watson and Rayner, which was called „Little Albert experiment”. This, later recognized as an unethical experiment, had to answer the three following questions: „Can an infant be conditioned to fear an animal that appears simultaneously with a loud, fear-arousing sound? (2) Would such fear transfer to other animals or to inanimate objects? (3) How long would such fears persist?”<sup>11</sup>. At that time the psychological ethics was not popular and the psychologists’ judgments were not strict. Nowadays, it is very important in psychology to protect human right. In order to obey this rule, modern studies are monitored by government agencies. It has to be proved that any experiment will not harm any participant and will even bring some benefits in the long term. The last but not least weakness of experimental method is the artificiality, which may occur during the study. As it was mentioned before, people may behave differently, when they know about being observed. If they are in a laboratory, they may behave differently. These artificial procedures may influence and distort validity of results.

As it may be seen from the above discussion, there is no one dominating approach of understanding the development of children. There is a number of different ways to conduct psychological research, like cross-sectional and longitudinal research. Everything depends on the subject one wants to examine, on prevailing conditions or which results the researcher wants to obtain. Sometimes it takes years to gather all important and crucial information. Both above mentioned designs have their own pros and cons. Once it has been decided which type of research to use, the next step is to determine how the information will be gathered. One can distinguish between diverse research methods that are used in the study of developmental psychology, each with its own strengths and weaknesses. To some of them belong an experiment and observation.

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<sup>11</sup> B. Harris, *Whatever Happened to Little Albert?*, „American Psychologist” 1979, 34, s. 151-160.

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