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The Bronfenbrenner ecological systems theory of human development

Article is published in “Scientific Articles of V International Conference PERSON.COLOR.NATURE.MUSIC.” October 17-21, 2007. Daugavpils University, Saule. Latvia.

The article has been presented as a keynote speech in this conference.

Abstract

This article is focused on Urie Bronfenbrenner’s ecological theory of human development and socialization. In Finland this theory has been applied in psychology and pedagogy in relation to the phenomena of development and education. In the field of early childhood education the Bronfenbrenner ecological theory has been in recurrent use for well over twenty years.

In this article the light is cast specifically on the applicability of the Bronfenbrenner theory to different areas of student research activity, its degree of social orientation, its main features and the ways of its modeling. The article is a theoretical one, based on written works and the author’s personal experience gained while tutoring student research.

Societies and child development

Urie Bronfenbrenner was an American psychologist. He was the son of Doctor Alexander Bronfenbrenner and Eugenia Kamenetskaja, born on April 29, 1917 in Moscow, Russia. He was 6 years old, when coming to the United States. He died on September 25, 2005. This year it is 90 years since his birth and two years since his death. This article is dedicated to his memory.

Bronfenbrenner is revered as one of the leading world authorities in the field of development psychology. His most important brainchild was the ecological systems theory, where he defines the four concentric systems that are the micro-, the meso-, the exo- and the macrosystems. He later added a time-related fifth system, the chronosystem (Wikipedia – The Free Encyclopedia.)

As of lately, this theory has been renamed as the bioecological systems theory. It underlines the child's own biology as the primary microenvironment that is the fuel for development. The Bronfenbrenner ecological systems theory lays stress on the quality and context of the child's surroundings. Bronfenbrenner maintains that because the child develops, the interaction with the environments acquires a complex nature. The chance for complexity appears since the physical and cognitive structures of a child grow and mature. (Paquette & Ryan 2001.)

Bronfenbrenner, while being one of the conceivers of the Head Start program, uses the bioecological model and with great clarity points out the problems that we run into with our students and our families, say Paquette and Ryan (2001). They are of the opinion that Bronfenbrenner has said that ecology has changed our society. At the time when we are so much engaged to defend our physical environment against the curses of technology, we have not done a thing to reach a similar state of security in the environment of our social life. Family life is losing more ground to the challenges of work. Paquette and Ryan speak of the USA but evidently the tendency is global.

Ecology (Greek oikos = house, environment, and logos = knowledge) in the sense of biology is a teaching about the dependency of living creatures of their surroundings, the ecological system. Bronfenbrenner studied the dependency between man and environment. His principal study under the title of *The Ecology of Human Development* was written in 1979. As the name of the book reveals, the ecological systems theory focuses on the phenomenon of human development.

Bronfenbrenner's theory is also suited for the description of human socialization. Saarinen, Ruoppila and Korkiakangas (1994, 88) remind that Bronfenbrenner adapted the ideas, contained in the definition of ecology, while studying socialization, i.e. observing how a child or a young person little by little becomes a full-fledged member of the society. Here as well socialization is seen as a fruit of development.

Bronfenbrenner visited the Soviet Union and China in the 1950s and 1960s. In 1965 he published a book based on his experience called *Two Worlds of Childhood* that was translated into Finnish in 1974. In the book he describes the process of socialization or how the child who is born into a certain society becomes a social being, a member of the society (op.cit. 12). Helen Penn (2005, 44-45), a widely known British professor and the scholar of the living conditions of the children of developing countries, writes in her book *Understanding Early Childhood Education, Issues and Controversies* that Bronfenbrenner always took a keen interest in the surroundings where children lived and that these visits made his ideas still brighter.

Penn (op.cit. 44) recalls that Bronfenbrenner was especially struck by the kindergarten systems in the Soviet Union and China. These offer children an overall day care and education, children were well fed even in difficult times and they could participate in diverse activities and have a good rest. The society was taking children's education and childhood seriously. Penn (op.cit 44) agreed with what Bronfenbrenner had written earlier in the course of her own trips to Soviet Central Asia.

Penn (op.cit. 45) is critical toward the US system of child care. She says that in the 1960s the American child care provision was a mess and a mess it is in her opinion even today. There is no overall system of state-funded early education and care, as in most other developed countries. Instead, there is heavy reliance on voluntary organizations and parental contributions; a private market with a bit extra for the very poor. Penn holds that there should be a bigger study of what types of impact government policy changes might have on children's life.

Bronfenbrenner (1974, 147) summarized his experiences in 1965 in the following way: "If in the Soviet Union they have gone too far in regimenting the child and the kids collective around him/her by forcing upon them the adult society normative system for uniformity, then, on the other hand, in the US they have hit a cul-de-sac by giving children too far reaching liberties and not using at all the positive influence of the kids collective in developing a sense of social responsibility. – In the US we need, on the contrary, a more active parent and other adult participation in family, community and society life." He pledged to pay more attention to the tendencies of growing separatism and brutalizing violence in the US. He wanted to give significance to American good-neighbourly harmony, citizen spirit and love for children.

Why should a student have an idea of the background of theory makers and the origins of their social concepts and experiences? That is why, because these things may have had an impact on their theories. For example, Bronfenbrenner thought that the society was the factor that influenced children's development and this is the key to his entire theory. In his understanding the structure of the society influences everything down to the least detail.

Bronfenbrenner's theory (1979) dwells on human development and follows one's growth into a fully competent member of the society. Thus, it is a developmental psychology theory. It has also been called the theory of socialization (e.g. Saarinen et.al., 1994, 88). Bronfenbrenner (1981) has, true, written a book proper on socialization. His theory has been translated into Finnish as well as the ecological systems theory (Bronfenbrenner 1989; 2002). The English word 'systems' denotes a systems structure and is not the same as 'systematic'.

A student grasp at the very beginning that this theory is not specifically a theory for education of pedagogy, caring or teaching, learning or civilization or foremostly a theory of mental development (Härkönen 2007). Bronfenbrenner's ecological theory is the human development theory. Simultaneously it describes socialization as the way of becoming a member of the society. Naturally, this theory also allows better understanding on education and the problems attached to it. But what is this theory about?

Development and education in Bronfenbrenner's theory

In a book edited by Vasta (2002, 222) there is Bronfenbrenner's (1979, 27) own definition of human development: it is the process through which the growing person acquires a more extended differentiated, and valid conception of the ecological environment, and becomes motivated and able to engage in activities that reveal the properties of, sustain, or restructure that environment at levels of similar or greater complexity in form and content. According to Bronfenbrenner (1989; 2002, 222) the utmost goal of any scientific effort is to understand in a systems way the processes and results of human development as a common equation of man and environment.

Bronfenbrenner did not create his theory out of nothing. He has transformed Kurt Lewin's human behaviour formula to suit straight development description needs. The starting point in itself is highly promising, but imposes certain restrictions as well.

The Kurt Lewin (1935) classical field theory behavior formula is as follows: $B=f(PE)$, where behavior (B) is the result (f) of interaction between person (P) and environment (E) (Bronfenbrenner 1989; 2002, 223). In a book by Saarinen et al. (1994, 90) the same thing is presented in the following way: underlining the meaning of interaction is based on an understanding that an individual's behavior is a consequence of the interaction between person and environment. It is the question of an influence that is effective in both ways: person influences environment and environment influences person.

Bronfenbrenner (1989, 189-193; 2002, 223-224) remade Lewin's formula into the formula of development in the following way: $D = f(PE)$, where developing (D) is the result (f) of interaction between person (P) and environment (E). But because development means change, a process, and it takes place in time, Bronfenbrenner wanted to go on perfecting the formula. The time factor is expressed by bottom indexes in the following way: $D_t = f(t-p) (PE) (t-p)$, where 't' is time under

which the result of development (D) is observed and 't-p' is the period or periods in the course of which the powers that are related to person and environment act together, leading in the course of time to a result that is observed at a certain moment of time. The way of writing the right hand 't-p' in the formula will also mean that the process that produces the developmental change is not a momentary one but takes place in the course of time and can in a way similar to the other factors of the formula change in time. For example, when the child grows older, the processes that are now observed are not necessarily the same as observed before.

Perfecting a formula is a demanding task, no matter if it is undertaken by a student or a scientist, as is the case here. Bronfenbrenner (2002, 223-225) has had to take a new look at the theory he once elaborated. He said that strictly speaking the formula does not define development but its result. He maintains that science, in the first place, is not interested in the phenomena but the processes that produce the phenomena. So, the right hand side of the formula is really interesting. The formula leads to the following definition of development: Development is a series of such processes that intermediate the interaction of the qualities of person and environment in order to produce permanency and change in a person's qualities in the course of life. The researcher's task is to find out what are exactly the personal and environmental qualities that must be treated as the products and the producers of development.

Puroila and Karila (2001, 221) dwell upon the applicability of Bronfenbrenner's developmental theory to the phenomenon of early childhood education. They conclude that development and education are different things, even if they are present at the same time. The goal of education is to support optimal development. If a research, instead of development, focuses on education, the object of the study changes as well.

In my opinion it is so that when education is placed in the formula of development $D_t = f(t-p)$ (PE) (t-p), education looks like a factor of environment (E) that interacts with person during a certain period of time in such a way that its functional result is personal development. In this way it becomes much clearer why there is a specific need for the theory of the phenomenon of education and its research.

It is absolutely important to notice in Bronfenbrenner's theory that development in accordance with the formula is not a summary result but a functional result (f). In many development studies, by the way, actually the analytical models are used, where it is supposed that there only cumulative influences, as if independent from one another. Nevertheless, it has been pointed out that certain

environmental conditions produce different developmental results depending on the personal qualities of the individuals, living under these conditions. The application of such a person-environment-interaction model to human development is one of the most promising directions in the future, though highly challenging theoretically and methodologically. (Bronfenbrenner 2002, 225-226.) Bronfenbrenner's theory just is the very systems theory that allows tackling numerous environmental factors and numerous persons in different interaction relationships, roles, actions and processes.

In the author's opinion, the understanding of the systems nature leads also to a better understanding of the phenomenon of education.

With the help of Bronfenbrenner's theory the process of education, as well as the processes of care and teaching, can be fit into the said development formula as the factors influencing the result of development. The theory brings into the foreground the developing person and the education-designed environment and the people in this environment with all intertwining personal relationships, roles, actions and processes. But, like it has been said, this theory is not aimed at the phenomenon of education itself, which is studied by the education science and pedagogics.

The abovementioned formulas can never actually be seen in researches studies, let alone students' papers. Still, pondering over such matters might lead to a deeper insight into the object of study and its nature. It is important to notice whether, for example, a study, intended in educational science by an education major, is tilting over into the realm of developmental psychology. Of course, it would be important for the tutor to notice this and steer the student back to proper scientific tracks. In general, it would be good to understand that in a study it is necessary to carefully weigh the applicability of theories to the phenomena under study and their related problems. The faculty of distinguishing between education and its phenomena and the basic terminology describing them should be one of the first experiences learnt by a student aspiring to be a teacher.

Systems structures in Bronfenbrenner's theory

According to Bronfenbrenner, development and socialization are influenced by the different width rounds or circles of the environment with which a person is in active inter-relation. This includes three significant assumptions: 1) person is an active player, exerting influence on his/her

environment, 2) environment is compelling person to adapt to its conditions and restrictions and 3) environment is understood to consist of different size entities that are placed one inside another, of their reciprocal relationships and of micro-, meso-, exo- and macrosystems. (Bronfenbrenner 1979; Saarinen et.al., 1994, 88.)

In order to give an as distinct description of Bronfenbrenner's ecological development theory as possible, I will rely on the theory criticisms of his own. The description of the microsystem has been complemented in comparison to the original, the descriptions of the two following ones have remained the same, while that of the macrosystem has changed. In this representation the importance of the microsystem is salient, since its understanding carries the clues for the understanding of other systems as well.

The microsystem

Bronfenbrenner (1989, 227), in order to underline the possible meaning for development of the personal qualities of the significant people in the immediate environment, has added to the original definition of the microsystem an italicized later clause.

According to the text a **microsystem** is a pattern of activities, roles, and interpersonal relations experienced by developing person in a given face-to-face setting with particular physical and material features, *and containing other persons with distinctive characteristics of temperament, personality, and systems of belief.*

Berk (2000) says that the microsystem is closest environment for a child and includes the structures with which the child maintains direct contacts. Paquette and Ryan (2001) interpret Bronfenbrenner's ideas and maintain that at this level the relations between persons are happen in two ways – from the child and towards the child. For example, a child's parents have an influence of his/her beliefs and behavior, but the child can as well influence the parents' beliefs and behavior. Bronfenbrenner calls this bi-directional influence and he points out how such relationships exist on the levels of all environments. The interaction within the layers of the structures and the interaction of the structures between the layers is the key to this theory. In a microsystem the bi-directional interactions are at their strongest and they have a most powerful influence on the child. Still, the interactions on the outer levels can nevertheless have an influence on inner structures. At first the child's relation to other people is dyadic and later on the child can handle several simultaneous

interaction relationships. The nature of the relationships of the 'third parties' and their systems (the N+2 system) influence the child's development in their turn. (Bronfenbrenner 1979, 56, 81; Puroila & Karila 2001, 210-211.)

Bronfenbrenner (2002, 263-266) made the system definitions more precise and, among other things, paid attention to the belief systems of the people around the child because these can have a stimulating effect on development. Puroila & Karila (2001, 222) have drawn a table where they have planned different educational phenomena for different system levels. They have put educational concepts and belief systems in a microsystem. This interpretation is not quite flawless because an individual's belief systems might cover other environments and because belief systems can also be found in other places but the developing person's head. Actually Bronfenbrenner (1989, 228; 2002, 264-266) does place the belief systems in both the micro- and the macrosystems. In the macrosystem definition he additionally reveals that belief systems can be found inside each system, contained by the macrosystem, i.e the micro-, meso-, and exosystems. Härkönen (1991; 1996) has in her studies of kindergarten teacher idea content and concepts of children's work and work education used the Bronfenbrenner theory as a kind of an ontological articulation tool, as Puroila and Karila (2001, 219-220) has said it. Basing on the aforementioned studies, it can be said that the kindergarten teachers' concept emanate from the society and its culture. Concepts are as well personal qualities as well as something related to all system factors, interactions, roles and relationships. The conclusion drawn in different studies may cover a varying number of the environment systems extensions, depending on what the respondents were asked and how. (Härkönen 1991, 35, 86; 1996, 205, 206, 208).

A microsystem is made up by the developing person's closest surroundings like home, the day care group, the kids in the courtyard, classmates at school, hobby club members or close relatives (Saarinen et.al.,1994, 88, 89). Other examples may include the neighborhood or the religious setting (Penn 2005, 45).

Home or family come to the fore quite naturally while studying the development issues of any person of no matter what age. It is worth while for any researcher to take a close look at a microsystem's persons and relationships and describe them in the researcher's own models.

Sage (1998a) has, based on Bronfenbrenner's theory, made up a family system model (see Internet), where the child is the target. In this case the purpose is to show the child's relations to Mother, Father, brothers and sisters, the other family. All this makes up the child's microsystem. In

the model there should be arrows and words explaining, whether there is an intention to also study the reciprocal relationships between the mentioned persons and parties who surround the child.

Speaking about a day care group, it is necessary to be distinct as to what is the object of study, whether it is a kindergarten group, what is the age distribution and the group's other properties, or is it a family day care group with its specific properties. The properties must be specified distinctly and carefully.

The school class can also be a microsystem for the child. Sometimes I have seen in the students initial plans such an approach that only home is the microsystem and any system further away is either the meso- or exosystem, especially if they are away from home. Yet, the idea behind microsystems is not geography but the person's degree of participation in any system at all. According to the microsystem definition, all environments, in which the developing person is an active participant, are his/her microenvironments.

Sage (1998b) has on the Bronfenbrenner theory basis made up a classroom system model (see Internet) where the child is the target. In this case the target is the relation of the child to the teacher, the teaching intern, classmate 1 and classmate 2. All this makes up one child's microsystem. The model would need arrows or words to explain whether there is an intention to also study the reciprocal relations between the aforementioned persons and parties around the child.

Tonttila's (2006, 11; see Internet) thesis centres around the disabled child and the family, there are descriptions of four microsystems: the family proper, the kindergarten, the school and the immediate environment. In all microsystems an articulated picture is given reciprocal relations between the persons in interaction. This model is a fine example of how the same model can expose all the desired microsystems and the interaction relations of the persons in them, by deftly using arrows for that purpose.

All the abovementioned examples describe the child microsystems. Quite often a student, a developmental psychology or an education major, will run into a situation where there is a need to handle a child or a schoolchild point of view. It must be noted that a study may focus on any one developing person like mother, father, grandma, grandfather, a teacher, a decisionmaker – anybody.

Sage (1998c) has on the basis of the Bronfenbrenner theory drawn a classroom system model (see Internet) where the teacher is the target. Tonttila's (2006, 11) chart clearly includes four microsystems in the same model, but it must be remembered that one model can only include one person's microsystems, not the systems of different persons at the same time. They must each have

there own systems model. In this connection it may also be asked how to use this theory and models to articulate the groups' development process or shall we always eventually come to an individual psychological point of view.

Tonttila's (op.cit. 11) figure might do with some fine adjustment because the family here is called the ecological reference framework, even though it is the disabled child's point of view and the family is just one microsystem by the side of three others. The entire family is not pictured as participating in all microsystems, mother and father are but not brothers and sisters. It would suffice here to change the title of the figure. It is also important to notice that figures and titles must correspond to each other, as well as these and the entire study must be in line.

The Bronfenbrenner theory based models are mostly circles or ovals one inside another, equipped with names or arrows. Even a researcher may be surprised finding unorthodox figures in the internet (Paquette & Ryan 2001). In this case microsystem is the human body, inside which there is an emotional system, a cognitive system and biology (apparently these in interaction as well, even if not pointed out in the model). This model points towards a renewed appearance of the Bronfenbrenner theory, the bioecological systems theory that I referred to at the beginning of the article (Paquette & Ryan 2001). At the first glance at least, reading the arrows and telling the circles in the figure apart seems to take some time. I have noticed that especially the understanding of the mesosystem and its relaying into models and all the other interaction cause quite often problems.

The mesosystem

The definition of the following system is unchanged, i.e. it has survived Bronfenbrenner's own critique (Bronfenbrenner 1989, 227). **The mesosystem**, comprises the linkages and processes taking place between two or more settings containing the developing person (e.g., the relations between home and school, school and workplace etc.). In other wards, a mesosystem is a system of microsystems. Paquette and Ryan (2001) define the mesosystem by saying that this layer produces the connections between the child microsystems, i.e. connections between the child's teacher and the parents or the child's church and the neighborhood.

Saarinen et.al. (1994, 89) explain the mesosystem by saying that it consists of the relationships that the child's and a young person's Microsystems have between themselves. Important are first of

all the relation between home and mother and child clinic, home and kindergarten, as well as home and school interaction. It is important to see if the influencing factors of socialization have coinciding or opposing directions, in other words, do the different Microsystems support each other or does the developing person perceive them as clashing pressures, are there in different microsystems expectations or obligations for different ways of behavior. According to Bronfenbrenner, the analysis of inter-microsystems relations has been very much onesided. There has been an analysis of how day care and school separately influence child development but it has been overlooked to study the joint influence of them and home.

This opens up new vistas of research for the students, even if it is worth while to correspondingly limit the number of joint influencing factors, otherwise a student paper will grow out of control. Drawing the limits and learning to do that is important but limitations can be made in the direction of depth as well. My experience shows that marking a mesosystem into models may be difficult for experienced scholars and students alike. Further on I will refer to a model by Penn (2005, 45) as an example of a well usable model.

The exosystem

The exosystem, encompasses the linkage and processes taking place between two or more settings, at least one of which does not ordinarily contain the developing person, but in which events occur that influence processes within the immediate settings that does contain that person (e.g. for a child, relation between the home and the parent's work place; for a parent, the relations between the school and the neighborhood group) (Bronfenbrenner 1989, 227).

This here is an example of a definition that should rather be read slowly than glanced over. There are misreadings in the interpretation of this definition. The examples in the brackets help to understand that the question may be about interaction between two different systems where the child does belong, like home and such a system where the child does not belong, but that influences his/her microsystems like home, i.e. it is a parent's workplace. Another example tells the same thing from the point of view of a parent.

The definition leads to an observation that numerous environments where the person is a participant but not a member in at least one or even more environments, may be under study simultaneously. Finally, the question is whether the definition can mean that while the person is not

a member of any environment but the relations between the environments would still form his/her exosystem. Evidently this is so because some books carry in reference to the exosystem only such examples where the developing person not participating at all. It is useful to think it over because they are significant in the way that they and their events influence the environment where the person grows and develops. Especially the parents' work (working hours, nature of work and work environment) as well as the day care and school arrangements create the conditions for the child's and a young person's activities within their microsystems. (Berk 2000; Saarinen et.al., 1994, 89.) Puroila and Karila (2001, 223-224) underline that such exosystems that also describe the aspects that support education, have been studied insufficiently.

The author would still like to add that namely according to the definition the reciprocal connections, relations and processes between these environments are the exosystems in question for the developing person. It is also to pay attention to how the development influencing factors get ever the more complicated.

The macrosystem

As a consequence of Bronfenbrenner's own critique (1989, 228; 2002, 265) of his own theory the definition of the macrosystem changed the most. In the first place it was influenced by Vygotski's theory about the psyche's sociohistorical evolution that led to see the macrosystem as a sociocultural context. Another source was the concept of personal properties that accelerate development, foremostly the concept of conceptual systems. The corrected definition (Bronfenbrenner 1989, 228) runs as follows and the addition is italicized: **The macrosystem** consists of the overarching pattern of micro-, meso-, and exosystems characteristic of a given culture, subculture, or other broader social context, *with particular reference to the developmentally-instigative belief systems, resources, hazards, life styles, opportunity structures, life course options, and patterns of social interchange that are embedded in each of these systems.* The macrosystem can be thought of as a societal blueprint for a particular culture, subculture, or other broader social context.

In the case of the microsystem a reference was made of the conceptual system. Bronfenbrenner (2002, 266) reiterates that the behavioral and conceptual models that are characteristic of the macrosystem are transferred from one generation to another by the means of different cultural

institutions like family, school, congregation, workplace and administration that intermediate the processes of socialization.

Berk (2000) writes that the macrosystem is the outmost layer for the child. It has no distinct framework but it holds inside it the cultural values, traditions and laws. The macrosystem influence penetrates through all other layers. For example, if in a culture it is believed that bringing up children is the parents' task then evidently this culture will not offer much help to the parents in their educational efforts. This in its turn has its effects on the parents' educational environment and their chances to cope with the task of education. (Paquette & Ryan 2001.) Saarinen et.al. (1994, 90) say that the impact of the macrosystem will often be noticed only after making comparison between children and young people, growing up in different societies. Bronfenbrenner (1974) has pointed out the influence of macrosystems by comparing children's socialization in the Soviet Union and the USA. (Bronfenbrenner 2002, 264-265.) Puroila and Karila (2001, 224) have concluded that under the notion of macrosystem Bronfenbrenner might have meant not only the society but cultures and subcultures as well. It must be noted that the social and the culture aspects of the macrosystem are well evident in Bronfenbrenner's new definition. This allows focusing study topics onto these new areas.

The chronosystem

It is surprising that even if Bronfenbrenner's ecological theory refers to human development and even if his chart of development features the development flow time period (t-p), so the time system as related to the systems was not included in the original theory. It came about only later.

The **chronosystem** is a description of the evolution, development or stream of development of the external systems in time. The chronosystem models can cover either a short or long period of time (Bronfenbrenner 1989, 201-202). The time change has been shown in the models (Sage 1998 a, b, c) by using the terms like change, development, history, time and course of one's life. Any system, like this one, includes roles and rules that can have a strong influence on development. Quite a few sources picture the entirety of roles, relations and actions as factors that have influence on development.

Designing the systems patterns

Bronfenbrenner has not (as much as I know) himself designed his own theory but others have done that later. Below a few sources are mentioned that contain these models, partly these are studies made by professionals, partly these are student studies made under my tutorship.

Saarinen et.al.(1994, 89) present a clear pattern that could, true, hold more information because the mesosystem jumps over what the mesosystem actually is according to the definition – a system formed by microsystems.

Hujala has in a number of studies pushed off Bronfenbrenner's theory of development while pondering over the issues of education. The example here is the so-called contextual growth model from the point of view of the child growing up in family and day care (Hujala, Puroila, Parrila-Haapakoski & Nivala 1998, 15). This model is a simplified one if it is compared against the system definitions.

Härkönen (e.g. 1991; 1996) has in her numerous studies used the Bronfenbrenner theory for the articulation of the work education topic. The systems nature of his theory has been one of the reasons that led Härkönen closer to the general systems theory (e.g. Parsons 1968) with the traces of that impact to be seen in her late studies (Härkönen 2003a; 2002b; 2006; 2007).

In the case when the students have needed Bronfenbrenner's theory in their research papers, Härkönen has mostly recommended the use of the model in *Understanding Early Childhood Education* by Penn (2005, 45) (Fig. 1).

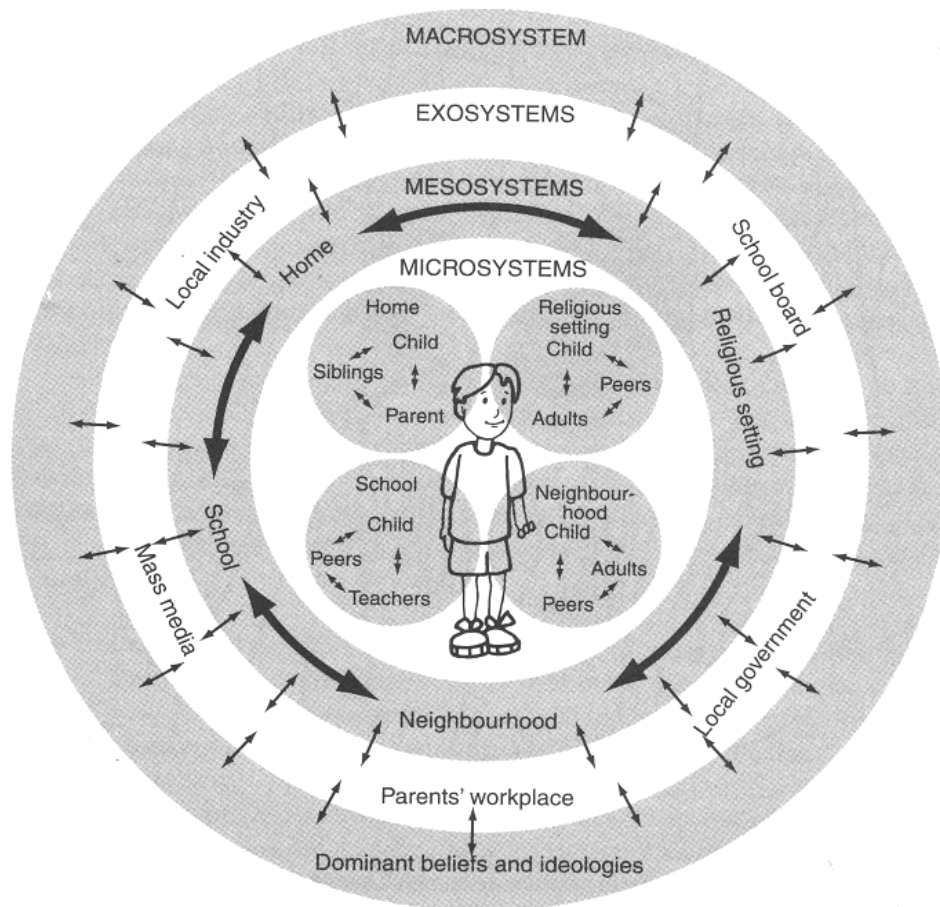


Figure 1. The ecological approach, which hypothesizes the layers of influence on a young child's development. (Picture scanned from Penn, H. 2005. *Understanding early childhood education, Issues and controversies*).

Kettukangas (2007) has studied educational partnership, i.e. the ideas and experiences of the parents of children in the city of Mikkeli day care regarding educational partnership. Toivomäki (2007) has focused on early interference as experienced by kindergarten teachers. Vesa (2005, 29-35) has described small schools as the environment for social interaction and cooperation.

Tonttila (2006, see Internet) has applied the theories of Bronfenbrenner (1979, 22-26) and Garbarino (1990, 78-83) and the design made by Penn (2005, 44-45) in order to deduce a model that depicts the ecological environment of a family with a disabled child in his early years. Tonttila (2006, 11) has done an excellent job in applying the Penn design. By using the models Tonttila has

articulated the entire study and been able to link to each mother under study her own depiction of the support she had received from her ecological environment.

In my experience, in quite many studies made by Finnish scholars and students the simultaneous and multifaceted influence of environments is not taken into account while every attention is directed at the child's immediate environment. This does not help to better understand the social factors of development and therefore the problems and their explanations tip towards the psychology of an individual.

Conclusion

Bronfenbrenner's ecological system's theory, later called the bioecological systems theory, is the theory of human development. It is used in articulating the process of human socialization and it has been a key to understanding education. Bronfenbrenner has shaped Lewin's behavior model into the human development model. Bronfenbrenner underlines the influence on development of different level and size environments, in the first place – social and cultural environments. In the theory distinction is made between the micro-, meso-, exo-, maxo- and chronosystems.

The theory has later on been modeled in different ways. The author of this article recommends the use of the design by Penn (2005, 44-45) because it allows specifying the object of study more distinctly than many others. The author calls for the study of Bronfenbrenner's theory in his original books because many other sources present insufficient interpretations or incomplete models. Bronfenbrenner's theory is a demanding one but it also is deeper than one might think at the first glance. This is also a road to a more general systems thinking.

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