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Author(s): Kallio, Eeva; Pirttilä-Backman, Anna-Maija

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LAST DRAFT

DEVELOPMENTAL PROCESSES IN ADULthood - EUROPEAN RESEARCH
PERSPECTIVES

Eeva Kallio¹ & Anna-Maija Pirttilä-Backman²

¹ Eeva Kallio, PhD, Senior Researcher

University of Jyväskylä

Institute for Educational Research

P.O. Box 35

FIN-40351 Jyväskylä

FINLAND

eeva.kallio@ktl.jyu.fi

Int. tel. +358 14 2603257, fax. +358 14 2603201

² Anna-Maija Pirttilä-Backman, PhD, Docent

University of Helsinki

Department of Social Psychology

P.O. Box 4

FIN-00014 University of Helsinki

FINLAND

pirttila@valt.helsinki.fi

Int. tel. +358 9 19129343, fax +358 19 122973

Abstract

The main objective of this Special European Issue is to investigate some topical aspects of recent research on adult development in Europe. More specifically, the issue offers a detailed discussion of questions involved in complex forms of adult cognition, scientific thinking, responses to the demands of everyday life, the effects of various life events on well-being, and the construction of an integrated model of the cognitive, social, and personality domains. Theoretically, the articles are based on various viewpoints such as the neo-Piagetian perspectives on thinking, although others have connections with the Vygotskian approach to learning. In conclusion, we assert that the developmental processes of adulthood should always be viewed multidimensionally, contextually and holistically, as the articles themselves clearly demonstrate.

KEY WORDS: cognitive development, personality development, self-development, adulthood, postformal thinking, scientific reasoning, life-events, coping

The research domain of adult development is in its mid-thirties today. As a human being it would be middle-aged; as a recognised research domain it is comparatively young. During the formative years of the domain, electronic means have made international communication easier than ever. Scientific ideas have circulated quickly from one continent to another. Because of this, it is difficult to make any clear distinction between research done in Europe and elsewhere in this field.

Piagetian Roots of the Complexity of Adult Thinking

Jean Piaget's seminal theory of cognitive development focuses on processes of change in causal reasoning (Piaget, 1972). The highest stage of reasoning postulated by Piaget, formal operational thinking, would thus be the pinnacle of the development of causal reasoning abilities. However, in the last decades questions of higher-order adult psychological development have received significant attention both in North America and in Europe. Especially in the field of cognitive development, there have been remarkable scientific endeavours to create new models describing adult cognition (e.g., Alexander, Druker & Langer, 1990; Commons, Richards & Armon, 1984; Demetriou, Shayer & Efklides, 1994; Labouvie-Vief, 1994; Miller, 2000; Sinnott, 1998).

A group of scholars working mostly in the USA during the last few decades (among others Commons, Grotzer & Sinnott, 1990; Commons, Sinnott, Richards & Armon, 1989) have hypothesised a new developmental stage, postformal thinking. Generally, there seems to be a tendency to accept a schematisation of the concept of postformal thinking as a description of adult cognitive development, and the concept of >relativistic dialectical= thinking has been used interchangeably with it to refer to the ways in which thinking develops in adulthood (e.g., Yan &

Arlin, 1995). However, there is considerable disagreement about the empirical status of the postformal stage of development. For example, there is the contradictory evidence presented by Commons, Richards and Kuhn (1982), the failure of replication in Europe (Kallio & Helkama, 1985; Kallio, 1995), and the critical evaluation of this replication attempt by Commons et al. (1995). There have also been critical analyses of the concept of postformal thinking itself (e.g., Kohlberg, 1990; Kramer, 1983; Marchand, 2001); some of the questions raised in these articles have remained empirically and theoretically unanswered. See Kallio (1998) for a theoretical meta-analysis of the heterogeneity of the concept, but also Yan & Arlin (1995), for empirical support for a common statistical factor in some models of postformal thinking. It seems obvious that there should be a separate collection of articles in some forthcoming special issue of JAD analysing further how the concept of postformal, relativistic and dialectical thinking should itself be clarified. However, we stress postformal thinking here because two of the articles included in the Special Issue are more or less implicitly related to the complex forms of thinking that emerge in adulthood.

European Perspectives on Adult Development: Neo-Piagetian, Vygotskian and other Approaches

Taken as a whole, this Special Issue of *Journal of Adult Development* consists of a selection of papers that represent ongoing research activities in Europe. The topics dealt with in the articles range from the development of thinking to how people give meaning and respond to life events and to a general theory of the human mind and personality. Theoretically, the works cover

neo-Piagetian as well as Vygotskian approaches. We are not trying to delineate any special European brand of research on adult development, even though discussing the possible differences is fascinating as such (cf., for example, Demetriou, Doise & van Lieshout, 1999). Instead, we have tried to bring together examples of interesting current research projects in Europe that reflect the diversity of approaches and themes. Given the limits of a single issue, we have had to exclude several projects which surely would have deserved a place here (see, for example, the research on adulthood being carried out at the Max Planck Institute for Human Development, Center for Lifespan Psychology in Berlin; e.g., Baltes & Mayer, 2000; Baltes & Staudinger, 1999).

In this Special Issue, Dr. Eve Kikas from the University of Tartu, Estonia, presents results of a study dealing with higher-order thinking skills in a group of university students. Her focus is the students' ability to understand certain scientific concepts. She has examined young adults' scientific thinking concerning various physical phenomena. Kikas favours Vygotsky's developmental theory as the basic theoretical underpinning for a conceptualisation of the phenomenon under study. She demonstrates in her article how difficult the adoption of scientific explanations is even among university students operating in their own fields. The cross-cultural robustness of this observation challenges us researchers of adult development to consider seriously the reasons behind this difficulty. Kikas' own explanatory framework comes from Vygotsky, whose works have, from the 1980s onwards, attracted a worldwide interest (Doise, Staerklé & Clémence, 1996).

The article by Professor Andreas Demetriou from the University of Nicosia, Cyprus, concentrates on creating a model of the integration of the mind and personality from late childhood to young adulthood. His construction merges four domains of psychological research: the mind, personality, the environment-oriented, and the self-oriented behavioural systems. Professor Demetriou substantiates his model empirically by describing three studies that demonstrate the

reality of integration. He concludes by proposing some implications of his studies as assumptions to underpin further research on postformal, dialectical thought.

The difficulty of mastering arguments belonging to the highest stages of cognitive development is manifested also in the article by Ms. Anna Kajanne, a doctoral student in social psychology at the University of Helsinki. Her subject is the relationship between the structure and the content of thinking - a question which has not been studied much by cognitive developmentalists (for exceptions, see e.g., Candee, 1976; Emler, 1999). A previous study by Pirttilä-Backman and Hakanen (in press) has explained how the reflectivity of one's thinking relates to one's choice of creation or evolution - or both or neither - as one's view of the origin of the human species. Kajanne demonstrates how in the area of the safety of food additives people's stages of Reflective Judgement (for Reflective Judgment see for example King & Kitchener, 1994; Kitchener & King, 1981) are related to their choices of themes from the public discussion for their own argumentative repertoire.

The topic of Dr. Uwe Sperling (Klinikum Mannheim, Germany) is how individuals deal with problems and changes in various domains of life. He analyses coping repertoires and coping intensities of middle aged people in four life domains. The results corroborate the distinction between general adaptation and domain specific behaviours, which may alter due to individual and societal changes.

Dr. Anna Rönkä, Ms. Sanna Oravala, MA and Professor Lea Pulkkinen (all from the University of Jyväskylä, Finland) write about critical turning points in young adults' lives. The study is a part of the Jyväskylä Longitudinal Study of Personality and Social Development, started in 1968. Self-regulative mechanisms and individuals' ability to modify their life courses are central issues in modern psychological research on adulthood. The writers stress the importance

of >personal choice= or at least of an ability to make sense of and create coherence in one=s life course: individuals are seen as active contributors to their own psychological development.

Change and globalisation are a part of our Zeitgeist. Some of the ideas presented here in this Special Issue have their origin in thoughts put forward in the United States, and similar ideas are being widely tested and discussed internationally. Simultaneously our world is all the time becoming more and more complex, and on a very basic level cognitive development can be viewed as a mechanism for adapting to this complexity; in such circumstances, higher cognitive processes may function as a certain kind of coping mechanisms. At the societal level, a big concern is the difficulty of reaching the highest levels of cognitive functioning. In the midst of this complexity and in a rapidly changing information society, the role of one=s self as the critical subject of a process of selecting essential information is all the time becoming more and more important. A holistic approach is also needed to achieve an integration of distinct, often separate, research subjects (i.e., cognition, personality, emotions), something that is also demonstrated in this Special Issue.

At the same time, we are learning more about the importance of locality in people=s lives. In this Issue the theme of locality is reflected, for example, in the authors= interest not only in the contents of people=s arguments but also in concrete life events and their effects on people=s well-being. In the future we developmentalists should pay more attention to local ways of life and to how the themes of everyday life are integrated into the specific universal developmental processes which have traditionally interested developmentalists.

REFERENCES

- Alexander, C., Druker, S., & Langer, E. (Eds.) (1990). *Higher stages of human development*. New York: Oxford University Press.
- Baltes, P., & Mayer, U. (Eds.) (1999). *The Berlin Aging Study: Aging from 70 to 100*. Cambridge: Cambridge University Press.
- Baltes, P., & Staudinger, U. (2000). Wisdom. A metaheuristic (pragmatic) to orchestrate mind and virtue toward excellence. *American Psychologist*, 55 (1), 122-136.
- Candee, D. (1976). Structure and choice in moral reasoning. *Journal of Personality and Social Psychology*, 34 (6), 1293-1301.
- Commons, M., Goodheart, E., Bresette, L., Bauer, N. F., Farrell, E. W., McCarthy, K. G. et al. (1995). Formal, systematic, and metasystematic operations with a balance-beam task series: A reply to Kallio's claim of no distinct systematic stage. *Journal of Adult Development*, 2 (3), 193-199.
- Commons, M., Grotzer, T., & Sinnott, J. (Eds.) (1990). *Adult development. Models and methods in the study of adolescent and adult thought*. Vol. 2. New York: Praeger.

Commons, M., Richards, F., & Armon, C. (Eds.) (1984). *Beyond formal operations*. New York: Praeger.

Commons, M., Richards, F., & Kuhn, D. (1982). Systematic and metasystematic reasoning: A case for a level of reasoning beyond Piaget=s stage of formal operations. *Child Development*, 53, 1058-1069.

Commons, M., Sinnott, J., Richards, F., & Armon, C. (Eds.) (1989). *Adult development. Comparisons and applications of developmental models*. Vol. 1. New York: Praeger.

Demetriou, A., Doise, W., & van Lieshout, C. (Eds.) (1999). *Life-span developmental psychology*. Chichester: Wiley.

Demetriou, A., Shayer, M., & Efklides, A. (Eds.) (1994). *Neo-Piagetian theories of cognitive development*. London: Routledge.

Doise, W., Staerklé, C., & Clémence, A. (1996). Vygotsky in the East and West. *Journal of Russian and East European Psychology*, 34 (2), 67-94.

Emler, N., & Stace, K. (1999). What does principled versus conventional moral reasoning convey to

others about the politics and psychology of the reasoner? *European Journal of Social Psychology*, 29 (4), 455-468.

Kallio, E. (1995). Systematic reasoning: Formal or postformal cognition? *Journal of Adult Development*, 2 (3), 187-192.

Kallio, E. (1998). *Training of students= scientific reasoning skills*. Unpublished doctoral dissertation, University of Jyväskylä, Jyväskylä, Finland. (Available from <http://selene.lib.jyu.fi:8080/vaitos/studies/studeduc/9513912922.pdf>).

Kallio, E., & Helkama, K. (1985). Formal operations and postformal reasoning: A replication. *Scandinavian Journal of Psychology*, 32 (1), 18-21.

King, P., & Kitchener, K. (1994). *Developing reflective judgement: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco: Jossey-Bass.

Kitchener, K., & King, P. (1981). Reflective Judgement: Concepts of justification and their relationships to age and education. *Journal of Applied Developmental Psychology*, 2, 89-116.

Kohlberg, L. (1990). Which postformal levels are stages? In M. Commons, C. Armon, L. Kohlberg, F. Richards, T. Grotzer, & J. Sinnott (Eds.), *Adult development*. Vol. 2. New York: Praeger.

Kramer, D. (1983). Post-formal operations? A need for further conceptualization. *Human Development*, 26, 91-105.

Labouvie-Vief, G. (1994). *Psyche and Eros. Mind and gender in the life course*. Cambridge, NY: Cambridge University Press.

Marchand, H. (2001). Some reflections on post-formal thought [Electronic version]. *The Genetic Epistemologist*, 29 (3), from <http://www.piaget.org/>.

Miller, M. (2000). *Spirituality, ethics and relationships in adulthood: Clinical and theoretical explorations*. Madison, CT: Psychosocial Press/International Universities Press.

Piaget, J. (1972). *The psychology of intelligence*. Totowa, NJ: Littlefield.

Pirttilä-Backman, A. M., & Hakanen, H. (in press). How the origin of human life is constructed? In A. S. de Rosa, S. Ayestaran, & J. Valencia (Eds.), *Social representations in the "social arena": The theory towards applications*. San Sebastian, Spain: Servicio Editorial of the University of the Basque Country.

Sinnott, J. (Ed.) (1998). *The development of logic in adulthood: Postformal thought and its applications*. New York: Plenum.

Yan, B., & Arlin, P. (1995). Nonabsolute/relativistic thinking: A common factor underlying models of postformal thinking? *Journal of Adult Development*, 2 (4), 223-240.