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POZORNOST' A EMOCIE VO VZTAHU K FUNKCNEJ ASYMETRII HEMISFER

J. Černáček

Súhrn: Neuropsychologické pozorovania pri ľožískových poruchách mozgu, na zdravých
osobách a pokusy na zvieratí svedčia pre funkčnú prevahu pravej hemisféry vo sfére
pozornosti, prejavujúcu sa v oblasti senzorickej, senzomotorickej a motorickej. Obdobným
spôsobom dokazovaná prevaha pravej hemisféry pre emócie sa prejavuje v oblasti
poznávania a manifestovania emócií. Kompetencia pravej hemisféry pre negatívne a ľavej
hemisféry pre pozitívne emócie je menej presvedčivo doložená.

NORMATIVE CONCEPTIONS ABOUT THE LIFE COURSE AND THEIR IMPACT ON ADULTS' GOAL FOR DEVELOPMENT

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Abstract: The research program reported in this talk is focused on adults' conceptions about developmental change throughout adulthood. Conceptions about normative (i.e., typical or standard) developmental change in adulthood is expected to influence various aspects of people's behavior addressed at developmental or age-related phenomena. Among these are the way they perceive other people at certain ages. The former phenomenon will be the primary focus of this talk. In a series of studies we have investigated the degree of inter-individual consensus in normative developmental conceptions as well as their content in terms of expectations about change, its age-related timing, and its perceived controllability. Moreover, the relation between developmental expectations for the self and for "most other people" has been explored. We have found many similarities but also characteristic differences especially with regard to late middle adulthood and old age. Finally, we have studied people's current intentions for developmental change of the self as they relate to their normative developmental expectations for their own age group.

Key words: changes in life course, normative conceptions, aging

This article focuses on a research program we are conducting at the Center for Psychology and Human Development (director: Paul B. Baltes) at the Max Planck Institute for Human Development and Education in Berlin. This research program is geared at investigating people's conceptions about life-span development and their developmental goals.

The human life course can be conceived as a context for action, action directed at development (Heckhausen, 1990 a). It provides a unique

time-graded structure of opportunities and risks for developmental gains and losses. Attempts to actively influence one's own development are constrained in specific age-related ways. Some of these restrictions are fairly rigid, such as the timing of school entry or retirement, some are more lenient. In any event, these age-related constraints provide guideposts for assessing an individual's current developmental status in the life course, and for advising future life planning.

As we know from other kinds of action, a crucial determinant of people's behavior is their mental representation about the situation at hand

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(e.g., Bandura, 1986). That is, mental representations about such questions as: Which of my goals are relevant here? What can be done? What will happen if I do nothing? How likely will action be successful?

One of the unique features of the life course as a context for action is that, although the developmental tasks involved might not be currently relevant to any one of us, they will be or have been at some point in our life course. The life course and its various challenges is therefore personally relevant to everyone. Some of its periods, such as old age might seem somewhat far away for a young person, for instance. However, they will eventually become the critical context for that person's own life management.

The human life course provides a more or less common repertoire of sequential developmental tasks to the members of a given society (Heckhausen, 1990). Therefore, it is essential both for the individual and for the society at large to have conceptions about development and the life course, which are commonly shared. Such normative conceptions about development and the life course represent "social constructions of reality" (Berger & Luckmann, 1966).

Normative conceptions about life-span development probably influence our thinking and actions in various ways. They set the stage for one's own developmental prospects. Certain developmental changes, such as learning a language, might appear more obtainable at some ages than at others.

The individual will therefore try to time respective efforts accordingly, or if that is unfeasible, will know that special effort has to be invested to bring about the untimely change. Moreover, if certain changes, such as becoming forgetful, are expected to occur inevitably at a certain age, the individual will not expect to modify his or her developmental trajectory, and thus will not invest any effort. This way, normative beliefs about development form our expectations about what we can do, what we cannot do, and where to invest special effort in trying to take charge of our developmental future.

Moreover, normative beliefs about development could serve as a frame of reference for evaluating past developmental change in the self. Think, for instance, of undesired developmental changes, such as becoming forgetful in advanced age, or being worn out by mid-life crisis. Here, normative expectations might lead to a downgrading of one's peer reference group, and thereby may help us to maintain self esteem and well-being in spite of unpleasant developmental experiences (P. Baltes & M. Baltes, 1990). If we believe that most of our peers are experiencing the same, we are less likely to blame ourselves; and if we suffer less decline than, we think, most of our age peers do, we actually could pride ourselves to have come up against the stream of aging.

You may have noticed that the examples I have just given included two types of phenomena. On the one hand, normative developmental con-

ceptions were used to provide valid information about chances and risks, so that the individual could optimize his or her active developmental interventions. On the other hand, normative conceptions served to console the person by favorable comparison with less fortunate others, or by fending off blame. These two phenomena represent two different kinds of control, referred to as primary and secondary control (Rothbaum, Weisz, & Snyder, 1982; Schulz, Heckhausen, & Locher, in press). Both phenomena represent attempts to maintain a sense of control. With both strategies the individual can avoid being overwhelmed by developmental challenges. Which of the two strategies is appropriate in a given situation would depend on, whether primary control actually is feasible.

We can expect to find both strategies of successful life management reflected in people's conceptions about development, and particularly in the way they view their own developmental status vis-a-vis the normative context of developmental expectations for "most other people" (Heckhausen, in press).

Let me now report on the research we have done. I would like to say, at this point, that at various stages the project has profited from the collaboration of Paul Baltes, Steven Cornelius, and Richard Schulz.

The first question in our research is of course: Are there at all common normative conceptions about development in adulthood that most members of a given society would agree on? And if yes, what do these conceptions

entail?

Three studies were conducted: The first two dealt with adult's and adolescents' expectations about developmental gains and losses in adulthood (Heckhausen, Dixon, & Baltes, 1989; Heckhausen, 1990 b; Hosenfeld, 1988). The third one focussed on the perceived controllability of such expected changes (Heckhausen & Baltes, 1991). The procedures and materials used in these studies were similar, and are given jointly in Figure 1.

The sample contained young adolescents (11 to 17 years), young (20 to 35 years), middle-aged (40 to 55 years), and old adults (above 60 years). Subjects were given a large list of adjectives denoting a variety of psychological attributes, for instance, intelligent, wise, forgetful, bitter, and mentally healthy. The subjects were asked to rate each of these attributes with regard to the following questions:

1) How much does this attribute increase in strength across the adult life span, or does it not increase?
2) How desirable versus undesirable is a developmental increase in this attribute?

3) At which age does this developmental increase typically begin, and at which age does it end?

And finally 4), to what extent can one control, that is promote or hinder, the developmental increase in this attribute?

What were the findings? We had expected to find a pattern of life-span expectations which would reflect a negative view of aging, that is a target-age related shift from a predominance

SUBJECTS

Adolescents (11-17 years)
Young Adults (20-35 years)
Middle-Aged Adults (40-55 years)
Old Adults (over 65 years)

QUESTIONNAIRE

163 person descriptive adjectives
(e.g. forgetful, wise, friendly, anxious)

INSTRUCTION

1. How much does this attribute increase in strength across the adult life span?
2. How desirable/undesirable is this developmental increase?
3. At which age does this increase typically begin, and end?
4. To what extent can one control (promote or hinder) this increase?

Fig.1. Design of the first set of studies (Heckhausen & Baltes, 1991; Heckhausen, Dixon, & Baltes, 1989; Hosenfeld, 1988).

of gains to a predominance of losses. expected to be gains. Thus, although However, the image of old age should the general pattern of normative not be entirely bleak, so that the beliefs about adult development reflect a negative view of aging, people elderly would not be left to despair.

Figure 2 shows the overall ratio of all age groups see some potential of gains and losses across the life for growth even in advanced age. span. Note, that the abscissa shows What about the perceived controllability of changes? Controllability the target ages, but not the subjects' would appear to be the key variable ages.

Figure 2 depicts, as expected, a gradual shift from a predominance of gains expected for early adulthood to a predominance of losses in old age. However, the figure also shows something else. Even in the eighties, about 20% of the total changes are

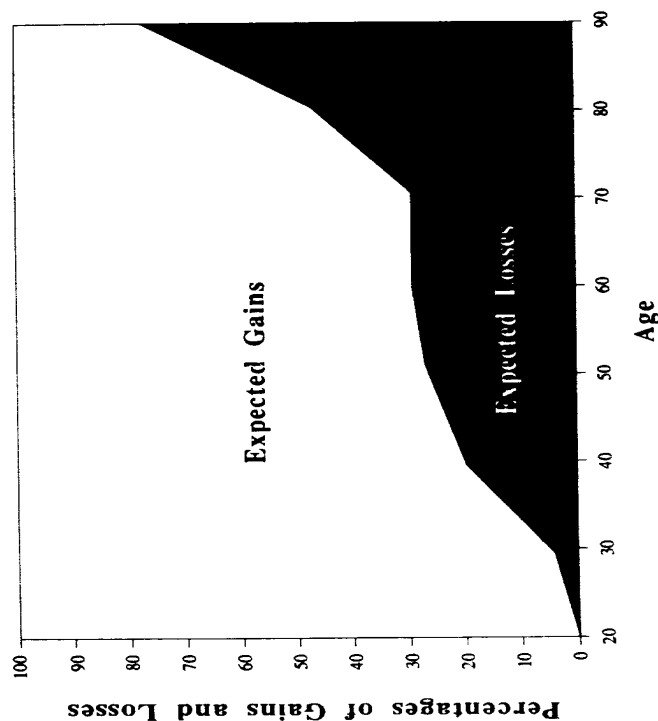


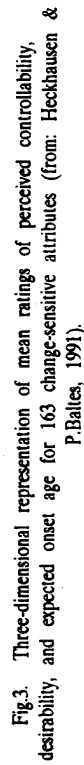
Fig.2. Expected gains and losses across the adult life span (from: Heckhausen, Dixon, & P.Baltes, 1989).

the arrows refers to one attribute. The onset ages 20 through 60 years are shown here in front; desirability from low to high here at the side; and controllability on the vertical scale here, ranging from somewhat below medium to high.

You can see at the controllability scale itself, which starts at a value of 4, that no attributes were perceived to be really low in controllability. Most mean ratings in fact were above the level of "medium controllability". This speaks to a fairly optimistic view about the scope of controllability, and thus plasticity of developmental change overall, even for advanced age.

Second, as we have seen in Figure 4, that no attributes were perceived to be really low in controllability. Most mean ratings in fact were above the level of "medium controllability". This speaks to a fairly optimistic view about the scope of controllability, and thus plasticity of developmental change overall, even for advanced age.

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Let me illustrate more specifically the relationship between the perceived controllability and the desirability of developmental changes. Figure 4 provides a two-dimensional plot showing mean ratings of controllability and desirability for each attribute.

1978; H.Heckhausen, 1987; Kelley & Michela, 1980): People like to take credit for the positive events, but don't want to be blamed for negative ones. Such an attributional pattern is, of course, conducive to successful life management. It encourages the striving for improvement, but also consoles and relieves from self blame at times of losses. It seems characteristic of the dual function of development-related conception - information and consolation -, that the relationship between desirability and perceived controllability was closer for the old and the middle-aged when compared to the young adults. For old adults, who are surely confronted with more losses than younger adults, this attributional bias would be more essential than for younger people.



In a second step, we extended our research paradigm to include self-related conceptions about development. In a recent study, our major goal was

to explore how expectations about one's own development are related to normative conceptions about the development of "most other people" (Heckhausen & Krueger, 1991; Krueger & Heckhausen, 1991; Hundertmark, 1990). As mentioned before, we view normative beliefs about development as social reference frames in, at least, two respects: They can guide action directed at the future, and they might help to generate interpretations of the past. We therefore predict that expected developmental trajectories for the self are similar to expected trajectories for "most other people".

However, self-related trajectories should differ from those attributed to "most other people" in certain respects, namely in the service of self-

enhancement. For instance, if the developmental course of the typical age peer is expected to show decline, the self might be viewed as a praisable exception to this normative age trend. Thus, via social comparison with the expected typical age-related change, self esteem is enhanced or at least maintained, even when facing actual age-related decline in functioning.

Figure 5 provides the relevant information about the design of the self-other comparison study in terms of between and within-subject factors. The total of 180 subjects included 60 subjects from each of the three adult age groups: young, middle-aged, and old adults. This article focuses on how subjects conceived of developmental change for successive decades between 20 and 90 years of adult life, and particularly concentrate on the differences between developmental conceptions regarding the self and those regarding "most other people". Moreover, data will be reported on the subjects' developmental goals.

The age groups were equally divided by gender, and by three levels of educational background: People who finished high school, people with some lower college education, and people who had earned college degrees. The present article focuses on within-subject differences between instructional conditions (e.g., self versus other). Between-subject differences due to age, sex, or educational background are considered elsewhere (Heckhausen & Krueger, 1991).

Like in the first set of studies we used an attribute rating format. The

variables, on which the attributes were rated, included "self description at present", "desirability", "perceived controllability" rated separately for the self and for "most other people", and the "expected change from 20 to 90 years of age" also rated separately for the self and "most other people". Ratings of expected change could be given as increases, ranging from 1 to 3, stability, or decreases, ranging from -1 to -3. Finally, we asked the subjects to indicate up to ten "developmental intentions", that is select attributes on which they intended to strive for a change.

The pool of attributes we used was structured by five major psychological dimensions: extraversion, agreeableness, conscientiousness, emotional stability, and intellectual functioning - commonly known as Norman's Big Five. Each of these five factors consisted of two scales; one scale for the desirable attributes, and one scale for the undesirable attributes.

What were the findings? First of all, we replicated our previous finding of a shifting ratio of expected gains and losses across the adult life span. At increasing target ages, less and less gains, and more and more losses were expected.

What about the comparison between self and "most other people" in terms of expected developmental prospects? First, the net change, that is the expected change averaged across age decades in adulthood, are considered. In accordance with the self-enhancement hypotheses, people should expect more increases for

I. BETWEEN SUBJECT FACTORS

($n=180$, 10 in each cell of the between subjects design)

A. AGE : Young ($n=60$), Middle-Aged ($n=60$), Old ($n=60$)

B. EDUCATION : Hauptschule ($n=60$), Realschule ($n=60$), Abitur ($n=60$)

C. Sex: Male ($n=90$), Female ($n=90$)

II. WITHIN SUBJECT FACTORS

A. INSTRUCTIONAL CONDITIONS

1. Description of Self at Present
2. Desirability
3. Controllability
 - a. Self
 - b. Generalized Other*
4. Changeability from 20's to 90's
(Increases: +1, +2, +3 ; Stability: 0; Decreases: -1, -2, -3)
 - a. Self
 - b. Generalized Other*
5. Developmental Intentions (select 10 attributes)

B. QUESTIONNAIRE FORMAT (100 psychological attributes)

1. Dimensions - Norman's "Big Five" (20 items for each dimension)
 - a. Extraversion
 - b. Agreeableness
 - c. Conscientiousness
 - d. Emotional Stability
 - e. Intelligence / Culture
2. Desirability of Attributes
 - a. Desirable (10 for each dimension)
 - b. Undesirable (10 for each dimension)

* Note : That the instruction for the generalized other refers to "most other people of your own age, gender, and educational background".

Fig.5. Design of the self-other comparison study (Heckhausen & Krueger, 1991; Krueger & Heckhausen, 1991).

the self as compared to other people when it comes to desirable attributes, and less increases or more decreases for the self when undesirable attributes are concerned. The predicted pattern was confirmed as is apparent from Figure 6 (two panels). As you can see in the upper panel, for each of the dimensions more increase in the desirable attributes were expected for the self than for "most other people". This difference held statistically only for the dimensions extraversion and intellectual functioning.

The lower panel shows the complementary picture for undesirable attributes. Here, you find on the vertical scale the expected degree of developmental increase or decrease. We see here that for "most other people" more increases in undesirable attributes were expected than for the self. And accordingly for the decreases: Less decreases in undesirable features were expected for "most other people" than for the self. This pattern holds statistically for each dimension, except for conscientiousness.

Hence, we find clear evidence for a self-enhancement effect, both for the desirable and for the undesirable attributes. The developmental prospects for the self are always seen more positively than those for "most other people".

How is this self-enhancing view reflected in the developmental trajectories expected for the self and for "most other people"? We would expect to find a pattern of curves that

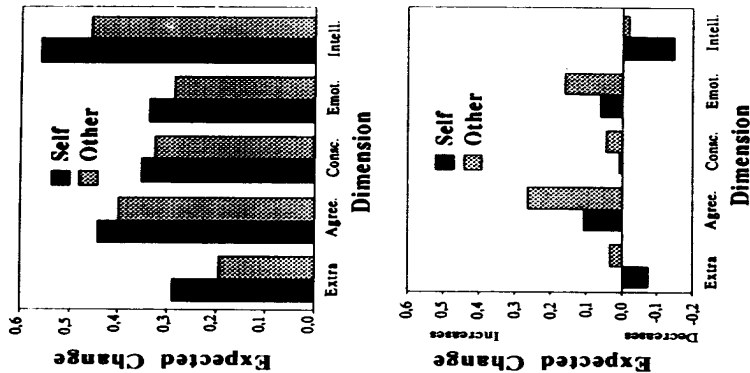


Fig.6. Expected change for self and "most other people" on five psychological dimensions, separately for desirable (upper panel) and undesirable (lower panel) attributes (from: Heckhausen, Krueger, & Hosenfeld, 1989).

reflects a postponement of developmental decline, and an extended maintenance of developmental growth for the self than for "most other people". Figure 7 provides a plot of the respective expected trajectories. The ordinate indicates the average degree and direction of change: Expected increases are shown above the dotted line, and expected decreases below. The trajectories

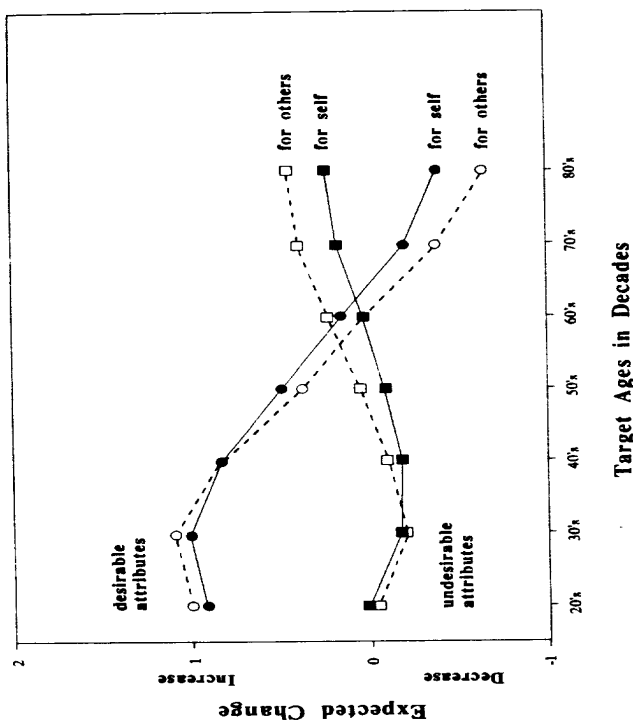


Fig.7. Expected change for self and "most other people" across the adult life span in desirable and undesirable attributes (from: Heckhausen, Krueger, & Hosenfeld, 1989).

expected for the self are plotted in solid lines. Those expected for "most other people" are shown in dotted lines. At first glance, one is struck by the high degree of similarity between the expected trajectories for the self and "most other people". This suggests that developmental expectations for the self closely reflect common and general conceptions about what normally or typically happens as people grow older. It thus seems, that conceptions about the development in "most other people" might indeed serve as a normative framework for sketching one's own development.

However, there are also some differences. In fact, the pattern of curves

confirms our prediction both for the desirable and the undesirable attributes. Starting from the age period of the 60's, the decline in the desirable attributes is viewed as less severe for the self than for "most other people". And as early as for the 40's, increases in undesirable attributes are expected to be greater in "most other people" than in the self.

Finally, we were interested whether people's conceptions about developmental change in "most other people" would be reflected in their own strivings for change. We distinguished between those developmental dimensions which were conceptually viewed as subject to change at a particular

age period, that is normative change, and those developmental dimensions which reflected individual subjects self-perceptions, that is idiosyncratic change. From a purely individualistic perspective on self fulfillment one might

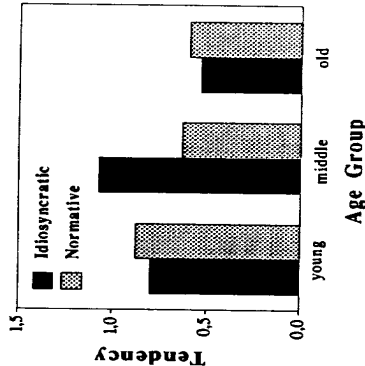


Fig.8. Tendency for choosing idiosyncratic and normative developmental goals in three adult age groups (from: Hundertmark, 1990).

argue the expectation that most developmental goals would be idiosyncratic rather than common to one's age peers. Figure 8 shows the three age groups tendencies to chose idiosyncratic versus normative developmental goals.

Contrary to an individualistic self-fulfillment perspective, Figure 8 shows that normative developmental goals were at least as frequent as idiosyncratic ones, with the expectation of the middle-aged group. With middle-aged adults idiosyncratic goals were somewhat more frequent than normative ones. This age difference is probably due to the fact that middle adulthood as compared to young adulthood and old age has a less densely set developmental agenda. The important finding

remains that normative conceptions about developmental timing are reflected in the way people try to influence their own development.

Let me summarize our findings: In a sequence of studies we have shown, that normative beliefs about development reflect common knowledge, widely shared among people varying in age, gender, and social strata.

According to this common knowledge about development, aging throughout adulthood is a process of ever increasing risks for losses, and ever decreasing chances for gains. However, in spite of this negative view of the aging process, common conceptions about life-span development also involve hope. Hope for some potential of growth even in very advanced age, and hope for personal control to counteract decline.

Expectations about one's own developmental prospects largely follow similar trajectories as those expected to hold for "most other people". However, one's own development is viewed more optimistically. We expect more gains and fewer losses for the self as compared to "most other people". This self-enhancement tendency is particularly salient for the second half of the adult life span, when increases in undesirable attributes are expected to occur earlier in "most other people" than in the self; and likewise decline in positive features appears delayed for the self when compared to "most other people". Finally, when we try to influence our own development, we not only choose aspects of our mind which characterize us as

individuals. A lot of attention and effort is placed on developmental concerns common to our age group, and reflected in consensual conceptions of normative development.

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NORMATÍVNE CHÁPANIE PRIEBEHU ŽIVOTA A JEHO DOSAH NA VYTYČOVANÉ CIELE VÝVINU

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Súhrn: Výskumný program, ktorý bol predmetom referátu na VI. pražskej medzinárodnej konferencii (1991), sa zameriava na chápanie vývinových zmien počas dospelosti. Predpokladáme, že normatívne (typické alebo štandardné) chápanie vývinových zmien v dospelosti má vplyv na rozličné aspekty správania ľudí týkajúce sa vývinových alebo s vekom súvisiacich javov. K nim patria očakávania a plány ľudí zamerané na svoju vlastnú dospelosť, ako aj cesty vnímané inými ľuďmi v iných vekových obdobiach. Tu uvádzaný jav je v centre našej pozornosti. V rade štúdií sme skúmali stupeň interindividuálneho konsensu v normatívnych vývinových chápaniach ako aj ich obsah v pojmoch očakávania zmeny, ich veková súvzťažnosť a ich kontrolovateľnosť. Navyše sa skúmal vzťah medzi vlastnými očakávaniami a očakávaniami "väčšiny iných ľudí". Našli sme mnoho podobností ale aj charakteristické rozdiely najmä vzhľadom k strednej dospelosti a staršiemu veku. Napokon skúmali sme bežné závery ľudí po vlastných vývinových zmenách vo vzťahu k vývinovým očakávaniam v rámci relevantnej vekovej skupiny.

SOCIAL INFLUENCES ON CONDUCT DISORDER IN MID-CHILDHOOD *

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Abstract: Data from a British national longitudinal survey of 9,413 children are used to identify socioeconomic and family factors associated with behavioral change between 5 and 10 years. Boys were more vulnerable to conduct disorder than girls but there were also sex differences in the factors which increased the risk of deviance. Boys reacted adversely to the birth of siblings, having a young mother and stepfather over the whole period, whilst girls in low socioeconomic status families or who recently acquired a stepfather were at increased risk of disorder. Both sexes benefited from having parents with child-centered attitudes.

Key words: conduct disorder; behavior change; parents; social environment.

RESEARCH BACKGROUND

thought to be especially vulnerable to adverse social and family circumstances in the early years before school entry age. What is not known is the extent to which change in social and family circumstances affects children's behavior once a particular pattern is established. For example, does upward social mobility result in reduced risk of behavioral deviance, and does change in parent figures increase the risk of conduct disorder more or less than being in a high risk situation for a prolonged period?

Environmental factors such as housing conditions, socioeconomic status, parental situation and numbers and ages of siblings have been shown to be associated with conduct disorders and other behavioral traits in children of all ages (Fergusson et al, 1990; Goodyer, 1990). The theoretical assumption underlying such associations is that adverse environmental conditions engender stresses which increase the risk interpersonal tension within the family and reduce ability to cope with parenting so that children are apt to respond with aggressive or withdrawn behavior patterns. Children are

This paper describes the results of a statistical analysis designed to investigate these issues using data obtained from a national longitudinal survey of British children.

THE STUDY

* *Editor's note:* The author's original text was received with British spelling but since our computers have only American spelling test, it was necessary to change the spelling in the text to the American standard.

The sample consisted of all the children in England, Scotland and Wales born during the week 5-11