COGNITIVE REPRESENTATIONS OF FUTURE GAINS, MAINTENANCE, AND LOSSES IN THE SECOND HALF OF LIFE.*

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ABSTRACT

The aim of this study is to explore three different developmental dimensions in an aging population. Based on sentence completion responses, the investigation examines personal anticipations of possible gains, maintenance, and losses. Additionally, the effects of age and other personal and situational factors are examined. The study sample consists of 2,934 participants ranging from 40 to 85 years of age, who participated in the German Aging Survey of 1996. Study findings indicate that, to a large extent, the anticipated gains include positive changes in the way of life and increased leisure projects while anticipated maintenance refer to physical and behavioral resources and to lifestyle. Anticipated losses are related to concerns about external living conditions and physical decline. There is a strong association of anticipated gains and maintenance with age, while present health conditions are related to expectations of loss. The implications of the study results for lifespan expectations in the second half of life and for lifespan theory are discussed.

*This research is based on data of the German Aging Survey, which was a collaborative project of the Department of Psychogerontology (F. Dittmann-Kohli), University of Nijmegen, The Netherlands, and the Department of Sociology (M. Kohli), Free University of Berlin, Germany. The study was financed by the German Federal Ministry of Family Affairs, Senior Citizens, Women, and Youth. Data were collected by the Institute for Social Research Infas, Bonn, Germany.
INTRODUCTION

Expectations of one's own actions, experiences, and personal changes in future life play an influential role in the psychological make up of an individual and have been defined as being part of the "developmental space" by Zaleski (1994). They are generally considered as antecedents of decisions and behavior (e.g., Brandstädter & Renner, 1990). Brunstein, Schultheiss and Maier (1999, p. 169) point out that "...developmental psychologists have started to focus on the course of human development from an action perspective, highlighting the importance of motivational concerns and life plans as they emerge from and shape the nature of person-environment transactions over the lifespan." In spite of constantly rising numbers of older persons, however, developmental concepts concerning future expectations are influenced by research on young populations. Future time perception of older people largely has been studied in terms of extension as a structural aspect easily measured and constructed as the time span until the age of death (Plattner, 1990). Studies by Brandstädter, Wentura, and Schmitz (1997) indicate that the future perspective generally becomes less concrete, open, and controllable with advancing age.

In order to study an individual's perceptions of his/her future life, concepts of motivational cognitions such as possible selves (Cross & Markus, 1991), goals (Brunstein, et al., 1999; Lapierre, Bouffard, & Bastin, 1992-93; Nurmi, 1992; Rapkin & Fischer, 1992), and personal projects (Little, 1983) have been utilized. Ryff (1991) found that possible selves (i.e., expected, hoped-for, and feared self-images) become more negative with age. Possible selves concerning health are found to become more prominent (Hooker & Kaus, 1994). According to Cross and Markus (1991), desired possible selves decrease but the relative number that actually comes true increases; so possible selves in later life are more realistic. They tend to be related to the current self and to immediate commitments (e.g., "being a better grandparent"), while younger persons' possible selves include unrealistic ideas about future possibilities more often (e.g., "becoming an important professional") (Cross & Markus, 1991, p. 249).

With respect to goals, Thomas (1989) reports an array of goals among people aged 70 to 90, such as those related to day-to-day life, self-management, contact, acceptance, achievement, and support. Lapierre, Bouffard, and Bastin (1992-93) categorize the goals of older adults into a structure of content domains (e.g., self, others, activities, leisure, and possessions) developed by Nuttin (1985). Their findings indicate that the profile of goals varies with age, health, sex, education, socioeconomic status, and place of residence. Age differences in the content of motivational cognitions seem to be related to changes in roles and life condition (Bouffard, Bastin, & Lapierre, 1996; Dittmann-Kohli & Westerhof, 1999). Bühlner (1975) found four basic patterns of goal striving, each typical of a certain stage of life up to middle age. Among older subjects, however, she did not find a prevailing pattern because of great individual differences in goal striving.
The content of one’s future perspective, viewed as developmental space, has two basic dimensions which represent possible positive changes to strive for on the one hand, and possible negative changes on the other (cf. Klinger, 1994). Contemporary lifespan psychologists stress that at all stages of life, both positive and negative changes (i.e., gains and losses), can be expected (Baltes, 1987, 1997; Fleeson & Heckhausen, 1997), due to the interaction between the changing person and the changing social, cultural, and material life context. It is, however, generally assumed that as a consequence of biological aging and finitude, the balance of gains and losses becomes less favorable with age (Brandstädter, Wentura, & Schmitz, 1997; Staudinger & Freund, 1998; Schindler, 1999).

Influential life stage theories (Erikson, Erikson, & Kivnick, 1986; Havighurst, 1982) describe adult development as a series of developmental stages characterized by particular psychological tasks. The tasks refer to fulfillment of role expectations and adaptation to changes in physical, social, and time resources. In this view, the step-by-step solution of developmental tasks results in the successive attainment of developmental gains over the course of time. This viewpoint on the regular course of development contrasts with the idea of increasing losses with age. However, these theories also indicate that failure to deal adequately with a developmental task results in developmental losses. According to Erikson, all developmental tasks include crises that are difficult to resolve definitely.

What gains and losses in adult development actually imply has not been elaborated in theory, nor has it been empirically examined in depth (cf., Dixon, 1999). An investigation into what people perceive as future gains and losses may contribute to the definition of the terms.

Apart from the developmental dimensions of gains and losses there seems to be another important dimension. In addition to hopes for gains, maintenance and continuation of the status quo can be a characteristic of desires and expectations. Having reached important life goals in the social, occupational, and economic domain, maintenance of the situation may appear as the positive outcome that is desired and valued. This form of life trajectory is different from gains; it is not an additional outcome, but more of the same. Various studies indicate the value of stability and maintenance for older persons (Atchley, 1989; Brustein, et al., 1999; Ryff, 1991; Steverink, 1996). Nevertheless, expected stability, maintenance, or continuation has rarely been conceptualized and investigated as a developmental dimension in the second half of life.

Thus, the concepts of maintenance, as well as gains and losses, require closer inspection. To address some of the unanswered questions, this study investigates occurrence and content of anticipated gains, maintenance, and losses among people in the second half of life. The study has been designed to assess the content of personal cognitions in a non-directive manner so that we can be sure that anticipations are not the researchers’ preconceptions about the future perspectives in later life, but relevant personal concerns.
Anticipations of one’s personal future are related to an array of factors influencing the perception of chances and barriers to action and events. Contextual factors become effective in both the present life situation and in the socialization processes, (i.e., experiences and socialization affect personality and future outlook, and thereby expectations of possible changes and the viability of planning and goal setting). One relevant factor of previous socialization and experiences is gender (Block, 1983). Socialization is strongly shaped by the political, economic, and cultural situation in the region of residence (Diewald, 1995). Next to gender and region of residence, education (cf., Bouffard, et al., 1996) and control beliefs (Steverink & Kempen, 1998; Trommsdorff, 1994) also are seen as factors of previous socialization and experiences which affect future expectations. State of health (Steverink & Kempen, 1998) and income are important situational factors of immediate relevance for expectations because they determine to a large extent what can be accomplished.

Additionally, age is a contextual factor of significant consequences for one’s life situation as well as inner disposition. Age is associated with the state of psychophysical functioning, including energy level and mobility. It also is a social indicator of what may happen at a certain stage of life, as is implied in the social clock concept (Hagestad & Neugarten, 1985). Age-regulated or age-dependent aspects of the life course determine many circumstances of living, such as in the domains of work, leisure and family.

Research Questions

As a first step of our research on cognitive representations of the future in the second half of life, we investigated the occurrence of gains, maintenance, and losses in future anticipations. Additionally, we identified the topics people mention with regard to these developmental dimensions. In a further step, effects of contextual factors on anticipation of gains, maintenance, and losses were examined; these factors were age, gender, residence in former East and West Germany, health, level of education, income, and control beliefs.

METHOD

Sample and Procedure

Data from the German Aging Survey were used in the present study. The German Aging Survey (Bode, Westerhof, & Dittmann-Kohli, 2001) was carried out in 1996 in order to explore life conditions and self- and life-conceptions of people in the second half of life. A national probability sample of persons aged 40 to 85 was selected by local authorities. Only people living at home were chosen in order to obtain a population representing common life circumstances pertaining to
middle and late adulthood (Juras-Sozialforschung, 1997). Fifty percent \((N = 4,838)\) of the contacted individuals were willing to participate.

Prior to an interview about life circumstances, a sentence completion questionnaire was provided which the subjects completed in writing in the presence of the interviewer. The subjects were interviewed at home. After the interview, they were asked to complete a “drop-off” questionnaire containing sociological and psychological assessment instruments, which was collected by the interviewer two weeks later. It included the variables income and control beliefs used in this study. The response rate of the drop-off was 83.4 percent. Refusal to participate and non-response to the drop-off were slightly higher among women, older persons, and West Germans, but the final sample did not reveal substantial sample biases when compared to the drawn sample.

A representative subsample of 2,934 respondents was used to study cognitive representations. It consisted of 48.1 percent men and 51.9 percent women, 45.7 percent of the persons were aged 40 to 54, 30.1 percent aged 55 to 69, and 18 percent aged 70 to 85. The place of residence of 80.8 percent was in former West Germany, of 19.2 percent in former East Germany; 80.9 percent lived with a partner, and 19.1 percent lived alone.

**Measures**

In order to elicit self- and life-conceptions in a non-directive manner, Dittmann-Kohli developed the sentence completion questionnaire and coding scheme “SELE” (Dittmann-Kohli, 1995; Dittmann-Kohli & Westerhof, 1999). This instrument was adopted and used for the German Aging Survey (Bode et al., 2001). The semi-open instrument permits the respondents to express their response in their own words, and in accordance with their personal priorities and its relevance. Freund (1995) and Pötsch and Little (1983) stress the ecological validity of instruments stimulating expression of personal priorities rather than pre-established lists of items. The SELE consists of 28 sentence stems inducing different spontaneous combinations of content. Six of them explicitly refer to the future, i.e., “In the next years . . . . I plan to . . . . . . Later when I am older . . . . . . I am afraid that . . . . . . I intend to . . . . . . I fear that . . . . . . These are the sentence stems selected for our study.

In a first step of a content analysis procedure, codes were applied to classify the sentences according to the categories “gains,” “maintenance,” and “losses.” A separate code was assigned to the statements that did not belong to these categories (e.g., “I intend . . . . to fetch a bottle of beer,” “In the next years . . . . I will be 60,” “the children will leave”) (Timmer, 2000). Gains were defined as situations and events characterized by the respondent as improvement, losses were defined as situations and events characterized as deterioration. The labeling by the respondent determined whether a future event was seen as positive or negative (e.g., “In the next years . . . . I hope to get a divorce” vs. “In the next years . . . . I fear to get a divorce”).
Statements of desired continuation were coded as "maintenance" (e.g., "In the next years . . . I hope to stay healthy"). Occasional negative statements of maintenance (e.g., "In the next years . . . things will not get better") were classified as a subcategory of loss anticipations, because they expressed an expected restriction. Interrater agreement of classifications was tested by means of Cohen's kappa; the average between three raters was Cohen's kappa = .89.

In order to identify content areas of the statements the coding scheme developed for the German Aging Survey was used (Bode et al., 2001). This system of content analysis contained roughly 300 categories across seven life domains. These domains are hierarchically structured with respect to increasingly specific contents (e.g., activities—work—paid work). Interrater-agreement of coded content was measured by percentages of agreement and amounted to 84 percent for seven trained research assistants.

The independent variables health, education, income, and control beliefs were generated from structured questionnaires of the German Aging Survey. The health variable is based on a single item that asks the subjects to assess their state of health on a 5-point scale. Because of their distribution these health judgments were reduced to the dichotomous variable of "good" and "less than good" (53 percent assessed their health as "very good" or "good," 47 percent as "less than good"). Level of education was measured in three categories, "high," "middle," and "low." Income was measured by equivalence income (Mote, 2000) in 14 categories. The control beliefs variable was derived from items asking for perceived influence (control) in seven domains of life (i.e., partnership, family relationships, circle of friends and acquaintances, leisure, health, standard of living, and housing). Control beliefs were assessed on a 4-point scale (no influence, slight influence, considerable influence, very much influence). Factor analysis of the items yielded one interpretable "control beliefs" factor, accounting for 44.1 percent of the variance (Timmer, 2000). Cronbach's alpha for internal consistency of the items is 0.78; the inter-item correlation is 0.34. The items were summarized and the measure was divided into three equal groups, i.e., high, middle, and low beliefs of control.

Analysis

Absolute and relative frequencies of statements expressing anticipation of gains, maintenance, and losses were counted. Additionally, absolute and relative frequencies of the content areas of anticipated gains, maintenance, and losses were calculated. In order to examine the effect of contextual factors on anticipation of gains, maintenance, and losses, three multiple regression analyses were performed, with the respective scores of the three dimensions as dependent variables and age, gender, region of residence, health, education, income, and control beliefs as independent variables. Because of missing values on income, education, and
control beliefs, regression analyses were carried out for 2,132 persons of the sample.

RESULTS

Since six future oriented sentence stems were completed by 2,934 respondents, a total of 17,604 sentences were analyzed. While about one quarter of responses did not refer to the three dimensions examined in the study, 75.6 percent of the sentences were anticipations of gains, maintenance, and losses, as is apparent in Table 1. Almost half of these anticipations referred to gains, 38 percent referred to losses, and 13 percent dealt with maintenance. On average, each person had 2.2 sentence completions classified as gains, 0.6 classified as maintenance, 1.7 classified as losses, and 1.5 unclassifiable sentence completions.

Table 2 gives the areas of content people mention in their anticipations of gains, maintenance, and losses, and the frequencies of statements in these areas.

Anticipated gains referred to the following domains: 1) positive changes in the way of life; 2) new projects and experiences (in particular traveling); 3) social relationships; 4) personality development; 5) work and achievement; and 6) hobbies and sports.

1) Statements concerning expected changes in the way of life emerged most frequently. They referred to the following topics: 1) having more time; 2) taking into account one’s own concerns 3) having more rest; 4) enjoying life or retirement; 5) being more aware of how to live; 6) making one’s days worthwhile; or 7) changes in one’s overall life situation. Examples are:

Table 1. Frequencies of Sentence Completions

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<tr>
<th></th>
<th>N</th>
<th>%</th>
<th>Average per respondent</th>
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<tbody>
<tr>
<td>Total</td>
<td>17,604</td>
<td>100</td>
<td></td>
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<tr>
<td>Referring to gains, maintenance, and losses&lt;sup&gt;a&lt;/sup&gt;</td>
<td>13,310</td>
<td>75.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Not referring to gains, maintenance, and losses&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4,294</td>
<td>24.4</td>
<td>1.5</td>
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<tr>
<th></th>
<th>N</th>
<th>% of 13,310</th>
<th>Average per respondent</th>
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<tbody>
<tr>
<td>&lt;sup&gt;a&lt;/sup&gt;Gains</td>
<td>6,518</td>
<td>49</td>
<td>2.2</td>
</tr>
<tr>
<td>&lt;sup&gt;a&lt;/sup&gt;Maintenance</td>
<td>1,739</td>
<td>13.1</td>
<td>0.6</td>
</tr>
<tr>
<td>&lt;sup&gt;a&lt;/sup&gt;Losses</td>
<td>5,053</td>
<td>38</td>
<td>1.7</td>
</tr>
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Table 2. Content Areas of Anticipations

| N       | 6,518 |

<table>
<thead>
<tr>
<th>N</th>
<th>1,570 (24.1%)</th>
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<tbody>
<tr>
<td>a)</td>
<td>positive changes in the way of life; more time, more concern for oneself; more rest in life; enjoying life, enjoying retirement; being more aware of how to live, make the days worthwhile; changing the life situation in general</td>
</tr>
<tr>
<td>b)</td>
<td>new projects and experiences; traveling; educational and cultural projects</td>
</tr>
<tr>
<td>c)</td>
<td>social relationships; commitment for family and friends; socializing</td>
</tr>
<tr>
<td>d)</td>
<td>personality development; general development; calm and composure; getting along with others</td>
</tr>
<tr>
<td>e)</td>
<td>work and achievement</td>
</tr>
<tr>
<td>f)</td>
<td>hobbies and sports</td>
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<tr>
<th>N</th>
<th>740 (11.4%)</th>
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<tbody>
<tr>
<td>Other: (e.g., health, purchases, possessions, and housing)</td>
<td></td>
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| N       | 1,739 |

<table>
<thead>
<tr>
<th>N</th>
<th>935 (53.8%)</th>
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<tbody>
<tr>
<td>a)</td>
<td>health and health related resources; physical and mental well-being; being able to live on one's own</td>
</tr>
<tr>
<td>b)</td>
<td>life style; traits, behavioral patterns; life in general</td>
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<tr>
<th>N</th>
<th>793 (45.6%)</th>
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<tr>
<td>Other: (e.g., income, social relationships)</td>
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| N       | 111 |

| N       | 5,053 |

| N       | 4,942 |

<table>
<thead>
<tr>
<th>N</th>
<th>a) external life conditions: negative financial perspective; unemployment; deterioration of life conditions in general; political mismanagement; criminality; war</th>
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<tbody>
<tr>
<td>b)</td>
<td>consequences of physical decline; getting in need of care; getting in need of help; disabilities of old age</td>
</tr>
<tr>
<td>c)</td>
<td>illness in general</td>
</tr>
<tr>
<td>d)</td>
<td>social losses: loneliness; death, illness, accident of a loved one; one's own behavior</td>
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<tr>
<td>e)</td>
<td>one's own death and dying</td>
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<thead>
<tr>
<th>N</th>
<th>1,362 (27.9%)</th>
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<tr>
<td>1,292 (26.1%)</td>
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<td>1,143 (23.1%)</td>
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<tr>
<td>639 (12.9%)</td>
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<tr>
<td>297 (6.0%)</td>
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<td>209 (4.2%)</td>
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</table>
In the next years . . . I'll take my own needs more seriously.

Later when I am older . . . I want to have more rest and relaxation

Later when I am older . . . I want to get more fun out of life

Later when I am older . . . I'll be more aware of how I live

I intend . . . to change everything.

2) Another content area referred to particular projects of exploration and new experiences, especially traveling, but also educational and cultural projects:

Later when I am older . . . I'll travel around a lot in my camper's van; . . . I'll go on a trip around the world

I plan . . . to go out a lot and get to know new things

Later when I am older . . . I want to learn to play the piano

3) In addition people refer to social relationships, such as being able to spend time with family members and friends or lending a hand in the development and prosperity of children and grandchildren:

Later when I am older . . . I'll be there for my grandchildren to let them profit from my knowledge

Later when I am older . . . I will spoil my grandchildren

In the next years . . . I will have parties and invite friends

4) Personality development is also found to be a concern in the second half of life, particularly in striving for more calm and composure:

I intend . . . to react less hotheadedly

Later when I am older . . . I hope to be as wise as my father

5) Less than 10 percent of the gain anticipations deal with work and achievement. Examples are:

In the next years . . . I will look for a new job

I intend . . . to become head of a primary school

6) The content area "hobbies and sports" is not mentioned very often either:

Later when I am older . . . I will do a lot of hiking

I intend . . . to join a tennis club

Other contents, such as health, housing, and purchases are referred to very infrequently.
Within the anticipations of maintenance, two main content areas were found: health and health related resources for maintenance of the current life style on the one hand, and the active continuation of the current way of life on the other.

1) Anticipations of maintenance of resources deal with physical or mental health and vitality and with the ability to live independently:

In the next years ... I hope to stay in good health, ... I hope to stay mentally fit,

I hope to remain being able to do the household chores

Later when I am older ... I would like to go on living on my own

2) Anticipations to continue the current life style refer to traits, behavioral patterns, and the way of life in general:

In the next years ... I will stay the same cheerful person

I intend ... to keep things the way they are

Later when I am older ... I'll live my life in the same way

Other statements referred to income and social relationships, but these issues were mentioned infrequently.

The loss anticipations predominantly deal with a deterioration of the life situation. Besides feared negative changes, a small number of statements concern negative expectations because of undesired maintenance:

In the next years ... my situation will not get better.

Regarding feared changes, most often worsening of external life conditions is mentioned; also more than a quarter of the anticipated negative changes deal with consequences of biological decline. The third most important area of feared losses is illness in general; a smaller number refer to issues concerning social relations. Two further but relatively infrequent areas of loss anticipations were identified: negative expectations with respect to one's own behavior and dying. All loss anticipations could be classified within these content areas; there is no "other" category of very infrequently mentioned issues.

1) Worries about external life conditions refer especially to insufficient income and unemployment, but also fears of war, political mismanagement, criminality, and a general deterioration of the life situation are expressed:

I fear that ... my standard of living will go downhill, ... I lose my job
I am afraid ... of war

I fear that ... there won't be many positive things for the socially disadvantaged

In the next years ... my situation will get even worse
2) Statements about consequences of biological decline deal first of all with the need for care and need for help, but also with the disabilities of old age:

I fear that . . . I'll get in need for care
Later when I am older . . . I don't want to rely on others
I fear I have to go into residential care
I am afraid that . . . I'll get more deaf

3) Besides issues of external life conditions and of biological decline, general fears of illness are often expressed:

I am afraid to get cancer

4) Anticipations of loss in the domain of social relations refer to fear of loneliness or to death, accidents or difficulties of a loved one. They are expressed in statements like:

I fear . . . that I will be alone when I am old
I fear . . . something could happen to my eldest son

5) A few negative anticipations refer to the respondents' own behavior. Examples are:

I fear . . . I'll be a loser
I fear . . . that I won't be up to my own expectations

6) The smallest content area within the dimension of loss anticipations dealt with death and dying:

I am afraid . . . to die in pain
I am afraid . . . to die soon

The range of content areas we found in our study reflects the multiple concerns of middle aged and elderly adults regarding their personal future. The profile of statements representing their perceptions of gains includes positive changes in everyday life, new projects and experiences, intensifying social relationships, personal development, work and achievement, and participation in hobbies and sports. Their perceptions of maintenance include maintaining the psychophysical and behavioral resources necessary for their way of life and the active continuation of the current way of life. The perceptions of loss mainly represents concerns about deteriorating life conditions such as income and unemployment, about the consequences of biological decline, about illness in general, and about losses in the social domain. One's own behavior and one's own death and dying play a marginal role in their perceptions of loss.
Following the investigation of the concepts of gains, maintenance, and losses, as represented within the German population aged 40 to 85, we examined the effects of contextual factors on the three different dimensions of anticipation.

Table 3 provides the standard weights in the three separate regression analyses that indicate the effects of age, gender, residence in West or East Germany, health, education, income, and control beliefs on each of the three dimensions.

With respect to anticipated gains, we found effects of age, region of residence, income, and control beliefs, but no evidence of significant effects of gender, health, and level of education. With increasing age, cognitions about further gains clearly diminish. Higher income and stronger control beliefs are associated with greater anticipation of future gain. Also, gain anticipations are found more often among residents of former East Germany rather than former West Germany.

In the sphere of maintenance, effects of age, gender, and health were found, but no effects of region, education, income, and control beliefs. Anticipation of maintenance is expressed significantly more often by older respondents. Women mention maintenance slightly more often than men. Also, people who feel healthy tend to express thoughts of maintenance more frequently.

Regarding losses, effects of health, income, control beliefs, and region of residence emerged, but there were no significant effects of age, gender, and education. People who feel less healthy anticipate more future losses. Additionally, people with a lower income and lower control beliefs are likely to express negative future cognitions. Participants living in East Germany not only anticipate more gains, but also more losses when compared to those from West Germany.
DISCUSSION

In this study we have investigated cognitions of middle-aged and elderly adults which reflect the developmental dimensions of future gains, maintenance, and losses. Additionally, the effects of contextual factors on each of the three dimensions were examined. In discussing our results, we shall concentrate on how the findings sharpen our understanding of future time expectations in the second half of life and how they contribute to a clearer conceptualization of the three developmental dimensions.

The content areas people mention with regard to gains give a clear, differentiated picture of what the respondents expect as developmental improvement. The anticipations focus on personal actions or attitudes to create a pleasant and satisfying lifestyle: making day-to-day life more enjoyable, planning new projects such as traveling, intensifying social relations and self-development. Projects of work and achievement are mentioned, too, but less frequently. Bühler (1975) typified all these kinds of striving as a "tendency towards creative expansion," being a basic tendency in human development and personal growth and found especially among young adults. Our findings suggest that this tendency still plays an important role in the second half of life, but it tends to decrease with age.

Anticipations of desired maintenance cover fewer topics and are formulated in a less differentiated way than anticipations of gains. But similar to identified gains, they express to a large extent the deliberate choice of a personal life-style and behavioral pattern. Thus, on the whole, most of the positive anticipations deal with future situations and events as created by individual actions. Compared to the anticipated gains, and losses, anticipated maintenance is mentioned relatively infrequently—only 13 percent refer to maintenance of the status quo. These outcomes support the proposition of Klinger (1994) that human beings first of all are concerned with changes, which appears also to apply to people in the second half of life. Our results suggest that a concept of maintenance in a lifespan perspective includes at least two different aspects: maintenance of resources and the intention to continue one's individual way of life.

In contrast to anticipations of gains and maintenance, loss anticipations very infrequently deal with life situations caused by personal behavior. They refer almost exclusively to uncontrollable influences on development which have been described by Baltes (1987) as historical, normative biological, and non-normative influences. In our data, historical influences are referred to in anticipations of deteriorating life conditions, especially regarding insufficient income, unemployment, and, although less often, regarding war, political mismanagement, and criminality. Normative biological influences are advanced as anticipated consequences of physical and mental decline. However, genuine biological decline and its somatic symptoms are mentioned less often than are negative changes of life conditions due to the biological decline, such as the need for help or care. Anticipations of accidents and illness, in general, deal with Baltes' non-normative
influences. With respect to defining the concepts of gains, maintenance, and losses, we found that these types of external influences are only infrequently mentioned in the positive anticipations.

Despite the fact that the topics of the three dimensions deal with different aspects of future life, we suggest that one basic concern may underlie the major part of the anticipations as a "latent factor" of future expectations, reflecting a central tendency of existential orientation. Gain anticipations are directed toward actively creating one's own life-style. In a similar vein, the anticipations of maintenance to a large extent refer to continuing a self-created lifestyle. Furthermore, the main content areas of loss, insufficient income, and unemployment on the one hand and consequences of physical decline on the other, may be concerns that are explicitly or implicitly stimulated by worries about loss of self-sufficiency and autonomy. Regarding the profiles of represented gains, maintenance, and losses, the anticipations of people in the second half of life can be understood within a lifespan model of personal growth and autonomy. To a certain degree, this view corresponds to models of personal growth developed by Bühler (1975) and other representatives of humanistic psychology. The humanistic approach, however, focuses almost exclusively on the person, rarely considering the context. An improved model of personal growth should include contextual life conditions as developmental factors (cf, Schulz & Heckhausen, 1996). In our data, life conditions are very often mentioned as expected constraints. On the other hand, the life condition "freedom of retirement" is a prerequisite for many of the leisure-oriented gain anticipations. According to these findings, the personal future perspective of aging adults can be understood as a cognitive orientation towards "continuous growth in context."

The second part of the study dealt with associations of the three dimensions of anticipation with age and other situational and personal factors. It must be mentioned that the direction of associations may seem evident, but that verification of these findings is needed. Additionally, age effects found in this cross-sectional study cannot represent lifespan phenomena typical of one person, as is possible in longitudinal studies. Instead, they sample developmental situations, chances, and constraints connected to certain stages of the lifespan. However, the time effects of differential historical conditions do not distort the findings of research in cross-sectional studies. This can be seen as an advantage of this design when compared to longitudinal studies.

Age appears to outweigh all the other factors included in our study with respect to the effects on anticipations of gains and of maintenance. With increasing age, thoughts about expansion in the future diminish, while thoughts about maintenance increase (cf, Dittmann-Kohli, 1995; Dittmann-Kohli & Westerhof, 1999). This may be interpreted as "diminishing future orientation with increasing present orientation of people growing older" and may confirm findings from research on time orientation and aging (Rakowski, 1986; see also Dittmann-Kohli, 1995). At middle and "young old" age, maintenance is not yet a matter of concern, even
though important goals in family and occupation generally will have been reached. Only at a higher age does "more of the same" become more desirable. The absence of age difference with regard to the number of loss anticipations is striking because most gerontological research emphasizes the relationship of increasing losses with aging. Obviously the personal future expectations do not predominantly focus on decline. This also corresponds to recent findings that people do not tend to expect old age as the worst time in life (de Vries, Blando, Southard, & Babcock, 2001).

Gender has been found to play a role with respect to anticipation of maintenance. There is one gender specific issue that may contribute to these results—i.e., being able to live on one's own is a specific female concern. Actually, more than 70 percent of women in Germany aged 75 and above live alone (Niederfranke, 1996). With regard to the number of anticipated gains and losses, gender differences were not found.

There is a stronger tendency for the participants in former East Germany to expect change, either positive or negative, than in West Germany. This may be an impact of their change experiences caused by Reunification; further analyses should examine whether there are specific topics on which the differences are based. A general interpretation of these findings is that current concerns reflect the hope for more gains and the fear of losses which are more salient in a population under economic threat.

In our results, subjective health does not show a statistical association with anticipations of gains. This reflects that a variety of attractive activities can become elected for personal projects, which do not require physical strength and energy. Health does have an effect on maintenance anticipations, however. Particularly people who feel healthy wish to continue their present life style and maintain resources necessary for their way of life. Moreover, health shows a strong effect on loss anticipations—people who feel healthy worry less about negative events in the future. Obviously, poor health often results in negative future expectations in contrast to simply aging.

Significant associations of education with future anticipations did not emerge in our study, in spite of the hypothetical possibility that education may enhance the knowledge of enrichment opportunities and of loss compensation. It may be that measures of education in this study did not discriminate sufficiently, so a re-examination with more differentiation of levels may be useful.

Income, as well as control beliefs, proved to have a positive effect on anticipations of gains and a negative effect on loss anticipations. Most of the mentioned activities depend on sufficient means, and planning new activities requires a certain confidence in one's personal control. Poverty and a conviction of weak personal influence are found to be risk factors with regard to negative future expectations.

The examined variables accounted for 22 percent of the variance with regard to gains, but only for 6 percent with regard to maintenance and for 5 percent with regard to losses. Obviously there appear to be other factors that are of influence,
beyond the variables chosen for this study. In order to investigate what causes cognitive representations of the respective dimensions, further studies, including additional contextual factors, are suggested. Our research predominantly focused on variables shaping socialization and personal experiences in the external context. Adding psychological variables which describe the internal context of the person such as well-being, life satisfaction, hope, and affective state might improve the strength of explanation.

Conclusions to be drawn from our findings can contribute to lifespan developmental theory, but they have political implications as well. The study indicates that negative future prospects are to a high degree a matter of perceived unmanageable life conditions, and not primarily concerns and worries raised by age. Poor health, poverty, and a low belief in personal control are associated with negative expectations. Improvement of these preconditions would enhance the confidence in further developmental chances in the second half of life. Another point we wish to stress concerns the life circumstances in late adulthood. The high value of personal independence expressed in the anticipations of age-related losses implies that special requirements are needed for that stage of life. The invention and provision of devices that can compensate for decline in mobility and sensory abilities, and which are affordable for everyone, should be encouraged and subsidized. These tools can improve the belief in personal control among the elderly, and thereby help to maintain self-sufficiency as a highly valued element of life.

By using a semi-open instrument that allowed the subjects to express their personal matters of concern, we obtained concepts of gains, maintenance, and losses in terms of real-life perceptions and cognitions. These findings undermine the traditional view that older age is associated with increasing losses due to physical decline. Lack of developmental possibilities caused by external life conditions, however, may have been underestimated in previous studies of lifespan development. Our study indicates that midlife may be seen as threatened by loss as much as old age. Developmental tasks and problems of life which are typical for middle-aged adults, like securing a living for oneself and one's family, may be perceived as difficult, threatening, and impending loss. We can conclude that the concept of "developmental loss" has to be defined very carefully and should be deduced from the experiences and perceptions of the subjects themselves.

Gains, on the other hand, can emerge from a release from constraints. To be freed from heavy responsibilities of midlife is perceived as a developmental gain and may even outweigh biological decline. The gain anticipations predominantly aim at leisure time and a private life largely free of duties and obligations; in general, they reflect the pleasures and opportunities of the retirement years.

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