

5 Discussion

The aim of the present research was to introduce longing as a new lifespan construct central to the developmental period of adulthood and aging. This research had two motivations. The first motivation was the observation that longing is a common theme in both everyday culture and the humanities, suggesting that it may be a topic worth of psychological inquiry. The second motivation was the framework of lifespan psychology and the search for holistic, lifespan-, and domain- integrative concepts that capture the richness of lifelong development. This dissertation is part of a new research initiative at the Max Planck Institute for Human Development on the psychology of longing (P. B. Baltes et al., 2002), which seeks to combine perspectives from folk psychological theories, the humanities, and lifespan psychology.

The present study introduced this conceptualization of longing and a self-report questionnaire as a first methodological strategy for its operationalization. This questionnaire was used to explore general characteristics and age-related differences in longing, and the relationship between longing and subjective well-being as one indicator of successful development. Before discussing results in detail, the psychometric quality of the self-report questionnaire for the measurement of longing is evaluated.

5.1 Psychometric Quality of the Longing Questionnaire

The development of a psychometrically sound self-report inventory for the assessment of longing was the first necessary step to study the hypotheses of the present study. The questionnaire covered five aspects of longing that were identified a priori as central to the phenomenon. Accordingly, the questionnaire consisted of five parts. The first part operationalized a theory-guided family of six criteria that represented the *structural elaboration* of longing: (1) a sense of incompleteness of life, (2) the symbolic nature of longing representations, (3) the nonrealizability of personal utopias of life, (4) ambivalent emotions, (5) a “tritime” focus on the personal past, present, and future, and (6) reflective and evaluative processes dealing with the optimal course of life and one’s standing relative to ideals. These six characteristics constitute the core of the proposed conceptualization of longing. Two further parts addressed more descriptive aspects of longing. These were the *salience* of longing, defined as the intensity, frequency, duration, and ego-centrality of longing experiences, and the *contents* of longing, operationalized in terms of life domains relevant to the longing (e.g., partnership). Finally, two additional parts were included to explore the possible regulatory role of longing in adult

development: *longing-specific control beliefs* and the *functional consequences* of longing (in terms of directionality for development and the management of loss and nonrealizability).

The psychometric properties of the Longing Questionnaire were not only interesting from a methodological point of view. They also provided first information about the underlying phenomenon. It was assumed that satisfactory psychometric properties could only be obtained if there exist elaborate and stable interindividual differences in the construct measured.

5.1.1 *Comments on the Strategy of Scale Optimization*

Development of the questionnaire followed a top-down, theory-guided strategy. Based on the theoretical conceptualization, items were generated to cover the different aspects of longing. Confirmatory factor analyses were used to select items and establish the factor structure of the proposed constructs. The use of confirmatory rather than exploratory factor analyses for a new questionnaire that has not been tested previously may be somewhat unusual. It is often suggested to use confirmatory approaches in later stages of scale development to refine and improve instruments (e.g., Byrne, 2001; Floyd & Widaman, 1995; Noar, 2003). Nonetheless, in the present context, confirmatory factor analysis appeared to be more appropriate for three reasons. First, the focus was on validating a model that had been specified a priori, and a confirmatory approach provides a more direct test as to whether the items load on the factors in the way the theory suggested (Hertzog, 1989; Nesselroade & Baltes, 1984). Second, some constructs (e.g., the six structural characteristics of longing) were expected to intercorrelate. Exploratory factor analysis can lead to ambiguous results in such cases, because depending on the rotation algorithm, very different solutions are obtained (Hertzog, 1989). Third, the use of confirmatory factor analysis made it possible to directly check the consistency of measurement models across multiple longings of a person, across three age groups, and across baseline and retest assessments.

The four parts of the questionnaire (structural elaboration, salience, longing controllability, and longing function) were optimized independently of each other.¹⁵ This was done because they represent conceptually independent features of longing. There were also psychometric reasons. Simultaneous scale optimization might have led to deletion of items with cross-loadings, and this might have artificially reduced associations between longing subscales. Such a procedure naturally also incorporates disadvantages. If items of subscales from different parts of the questionnaire (e.g., salience and directionality) are in reality driven by the same underlying factor, associations between subscales may be inflated. There seems to be no simple

¹⁵ The fifth part of the questionnaire that assessed the content of longing was not optimized with confirmatory factor analyses because it contained only individual items for each life domain.

solution to this problem, as both strategies, simultaneous and separate scale optimization, have advantages and disadvantages. In this study, priority was given to first identify the items that best represented the different theoretical aspects of longing (structural elaboration, salience, controllability, and function), ensuring that each group of constructs was measured well by its set of items. Only subsequently, relationships between groups of constructs were investigated.

5.1.2 *Factor Structure*

In general, analyses provided support for the factor structure of the four different parts of the Longing Questionnaire. They confirmed the proposition that the structure of longing can be described in terms of six interrelated factors (Incompleteness, Symbolic Nature, Personal Utopia, Ambivalent Emotions, Tritime Focus, and Reflection). Interrelations ranged from nonsignificant (e.g., between Personal Utopia and Tritime Focus) to high (e.g., between Symbolic Nature and Reflection, $r_{\text{latent}} = .74$). Particularly the high correlation between Symbolic Nature and Reflection is noteworthy. It clearly exceeded the internal consistency of the Symbolic Nature scale (Cohen's $\alpha = .60$). Hence, the average correlation between the Symbolic Nature items was lower than the correlation of their compound with another scale. This result suggests that symbolic nature and reflection may represent the same underlying construct. It may be speculated that persons who engage in much reflection during longing more likely recognize the deeper meanings and symbolic linkages between different wishes, memories, and domains of their lives (or vice versa, that recognizing symbolic linkages initiates reflective and evaluative processes). However, although there was a strong empirical link between symbolic nature and reflection, they are distinct structural characteristics of longing from a theoretical point of view. Symbolic nature denotes a feature of longing representations, namely that they are rich in underlying meanings and linked with diverse values, needs, and motives. Reflection, in contrast, describes an accompanying process of longing. Therefore, a decision was made to keep the two facets separately until more evidence for their theoretical and empirical overlap would cumulate.

The proposed factor structures of the other three parts of the questionnaire (salience, longing control, and longing function) were also confirmed. Specifically, results confirmed the proposed unidimensionality of the salience of longing and the proposed bidimensionality of the control and function of longing. Regarding longing control, the perceived control over the experience of longing was unrelated to the perceived control over the realization of longing or facets thereof in objective reality. This suggests that these two aspects of longing-specific control beliefs represent two different phenomena that should be considered separately. This finding is consistent with the fact that different literatures exist for domain-general control beliefs (e.g., Skinner, 1996) and domain-general emotion regulation (e.g., Gross, 1998). Apparently, the

capacity to regulate emotions and the capacity to regulate actions are two distinct phenomena. Whereas emotion regulation targets the self, action regulation targets the environment (see also the distinction between primary and secondary control; J. Heckhausen & Schulz, 1995; Rothbaum, Weisz, & Snyder, 1982). In the case of longing, it is quite plausible that one may be able to influence the emotional expression and intensity of longing, independent of whether or not one feels able to fulfill longing in reality.

Similarly, analyses supported the two-component model of the function of longing. Longing may serve two independent functions, one of giving direction for future development, and one of compensating for lost or unrealizable developmental options. This result fits well into the literature on self-regulation strategies. For example, the model of selection, optimization, and compensation (SOC; P. B. Baltes & Smith, 1990; Freund & Baltes, 2000; Marsiske et al., 1995) distinguishes between strategies to choose and realize developmental goals (selection and optimization) and strategies to compensate for deficiencies and losses (compensation). The directionality function of longing entails the exploration and selection of ideal life trajectories and thus reflects the SOC-process of selection applied to the imaginary level. The managing nonrealizability function of longing refers to the compensation of unattainable life trajectories using fantasy and imagination. It can be regarded as a special form of the SOC-process of compensation, that is, compensation at the imaginary level. The managing nonrealizability function is also conceptually related to secondary control and accommodative coping strategies proposed in related models of self-regulation (Brandtstädter & Renner, 1990; J. Heckhausen & Schulz, 1995).

5.1.3 Applicability to Different Samples and Measurement Occasions

Results support the generality of the optimized questionnaire for different subsamples and measurement occasions. The factor structure of all four parts largely replicated across (1) the three longings of each person, (2) three age groups, and (3) baseline and retest assessments. Invariance of factor loadings and intercepts could be established with few exceptions, thus demonstrating that the questionnaire is well suited for the measurement of longing in these different contexts.

When applying the model for the subscales measuring the structural elaboration of longing to different longings, age groups, and to the re-assessment, some overall fit indices were somewhat lower than desirable (e.g., CFI-values between .84 and .90). It should be considered, however, that the factor model of the structural elaboration subscales was the most complex (19 indicators, 6 first-order factors), yet it was tightly constrained. Items were not allowed to cross-load on multiple factors, and no intercorrelations between residual terms of various sets of items

were allowed. Although the fit could have been improved by allowing such additional correlations in individual groups or at individual measurement occasions, there were no substantive reasons for such modifications. Doing so would have capitalized upon chance and compromised the model's generality across samples. Hence, considering both the complexity of the data and the degree to which the model was theoretically constrained, the final model appeared to be a reasonable representation of the factor structure of the structural elaboration subscales in different contexts.

Within the structural elaboration subscales, there were also four individual items with unique age trends not captured by age-related differences in their respective factors. Stated differently, the unique variance of these items evinced age differences, whereas the variance they shared with other items of their subscale did not. Such a pattern poses a potential problem in a study with a primary focus on age-related differences in longing, because it questions whether constructs were measured comparably in the three age groups. It also constitutes a dilemma, as it is impossible to decide whether the items with age associations or the ones without age associations are more representative of their underlying factor. It should be considered, however, that the magnitude of age effects was small (ranging from 3 % to 5 % of the variance in these items). Nevertheless, these age-sensitive items may be modified in future applications of the questionnaire.

Latent correlations suggested that longing characteristics were reasonably consistent across the three longings of a person. This is noteworthy because the three longings mostly referred to different life domains. For example, a 63-year old man reported as his three most important longings to finish writing an outstanding book, to have strong, dependable friendships, and to find the "ideal" partner. The consistency of longing characteristics across multiple longings of a person suggests that there are relatively stable individual differences in the manner in which longings are represented consciously by individuals. The way in which people think about and describe their longings could thus be viewed as a "characteristic adaptation" (McAdams, 1995; McCrae et al., 2000). The consistency of longing characteristics within persons is in agreement with theoretical ideas about longing (Bloch, 1959; Boesch, 1998; Fichte, 1794/1962). These consider longing as an indeterminate striving that provides the script for specific, object-directed wishes. Longing characteristics can be considered as constitutive of such a script that finds expression in specific, object-directed longings. Given the consistency of longing characteristics within persons, it appeared justified to aggregate data across the three longings of a person for further analyses.

5.1.4 Reliability

Following their optimization, all parts of the Longing Questionnaire revealed acceptable psychometric properties. The majority of subscales showed acceptable internal consistencies (Cronbach's $\alpha \geq .77$) and moderate to high stabilities over a 5-week period (which can be regarded as a form of reliability; $r_{tt} \geq .71$). Some subscales demonstrated internal consistencies that were somewhat lower than desirable, specifically Symbolic Nature, Personal Utopia, and Tritime Focus (between .60 and .66). Their lower reliabilities were also evident in somewhat lower retest-correlations (between .59 and .67). For Symbolic Nature and Personal Utopia, this was probably due to more abstractly formulated items that gave participants more liberty in interpretation. The lower reliability of the Tritime Focus scale was likely due to its composition of only two indicators. It should be considered, however, that internal consistencies underestimated the true number of items contributing to the scales. Internal consistency estimates were based on item parcels averaging across the three longings of each person. If internal consistencies were based on individual items, they would all be equal or greater than .74, which is generally considered acceptable. Given these considerations, reliabilities of all longing subscales can be considered satisfactory.

Final scales of the entire questionnaire consisted of two to four items, amounting to 35 items in total. During the process of scale development, a special effort had been made to include reversed items in each scale. The inclusion of reversed items is beneficial because it requires participants to pay attention to the items when answering them. Unfortunately, however, most reversed items were excluded during the scale optimization process because of their undesirable characteristics (e.g., low factor loadings, high cross-loadings on other factors). Apparently, participants found it confusing to rate the strength of their agreement with negatively worded statements. More unambiguously formulated reversed items may therefore be added in future applications of the questionnaire.

In sum, results presented here clearly demonstrate that the questionnaire designed to collect self-reported information about experiences of longing is a promising tool for assessing mental representations of longing. All parts of the Longing Questionnaire had acceptable preliminary psychometric properties, and the finding that results were replicated in multiple subsamples and at multiple measurement occasions increases the confidence in their generality. Additional studies are of course needed to fully determine its reliability and validity. Although the questionnaire can certainly be used in its current form, it may also benefit from minor scale refinements. For example, items with low factor loadings or age-sensitivity may be omitted or reformulated, and additional (favorably reversed) items may be constructed to better represent the different aspects of longing.

Notwithstanding these reservations, results demonstrate that despite its rather elusive and vague nature, longing can be measured empirically. Moreover, results suggest that there are elaborate individual differences in longing, and that longing is not a fleeting phenomenon. The theoretical considerations, which provided the basis for the proposed structural composition of longing, proved useful and were reasonably supported by the data. This suggests that longing can be regarded as part of the ensemble of properties and processes that characterize individuals.

5.2 The General Nature of Longing

From a general perspective, three important findings emerged: (1) Longing can be described in terms of its Intensity/Scope and Utopia/Ambivalence, (2) it was most often directed at physical well-being, social, and identity themes, and (3) three distinct subgroups were identified that differed in their longing profiles. The following subsections discuss these three issues in detail.

5.2.1 *The Structure of Longing Can Be Described in Terms of Six Characteristics and Their Organization into Two Higher-Order Factors: Intensity/Scope and Utopia/Ambivalence*

Applying theoretical propositions and research in lifespan psychology, the present conceptualization of longing identified six interrelated structural characteristics of the phenomenon: a sense of incompleteness of life, symbolically rich meanings, a personal utopia of the life course, ambivalent emotions, a conjoint focus on the personal past, present, and future, and reflections and evaluations of life. These six characteristics have appeared in various previous writings on longing (e.g., Belk et al., 2003; Boesch, 1998; Holm, 1999; Palaian, 1993; Ravicz, 1998; Schoch, 1994; Schurer, 2001; Tretter, 1994; Verres, 1999; Vogt, 1993). So far, however, they have not been integrated into a comprehensive psychological conceptualization of longing. If the proposed conceptualization were correct, one would expect that (1) the six characteristics would exhibit positive intercorrelations, (2) they would load on one higher-order factor representing the structural elaboration or complexity of longing, and (3) they would be positively related to the salience (intensity and centrality) of longing.

Results generally confirmed the proposed conceptualization of longing. The six structural characteristics were positively related, indicating that longing involves all six components. The correlational pattern of the six characteristics, however, did not support the assumption of a general factor. Not a single, but rather two higher-order factors represented interrelationships between the six characteristics best. These accounted for 35 % and 20 % of the variance in the six characteristics and were labeled Intensity/Scope and Utopia/Ambivalence. Each factor manifests a different structural aspect of longing.

Intensity/Scope describes the strength of feelings of incompleteness, the extension of longing across a wide range of life domains, symbolic meanings, and time periods (past, present, and future), and the extensiveness of reflection and evaluation that are elicited. For example, persons high on this factor indicated strong agreement with statements such as “My longing means that something essential is missing in my life” (Incompleteness), “What I am longing for is heavily filled with meaning” (Symbolic Nature), “My longing has to do with people, things, experiences, or events in my past, present, and future” (Tritime Focus), and “My longing often makes me start thinking extensively about myself and my life” (Reflection). This dimension thus includes the feeling that, in addition to being intense, the longing is broad and all-embracing, in terms of both the life domains (horizontal scope) and time periods (vertical scope) it encompasses. Such broad and all-embracing longing is accompanied by extensive reflections about oneself and one’s life. In support of this interpretation, the Intensity/Scope dimension was positively related to the salience as a more direct indicator of the intensity and centrality of longing and to the number of life domains that longing comprised.

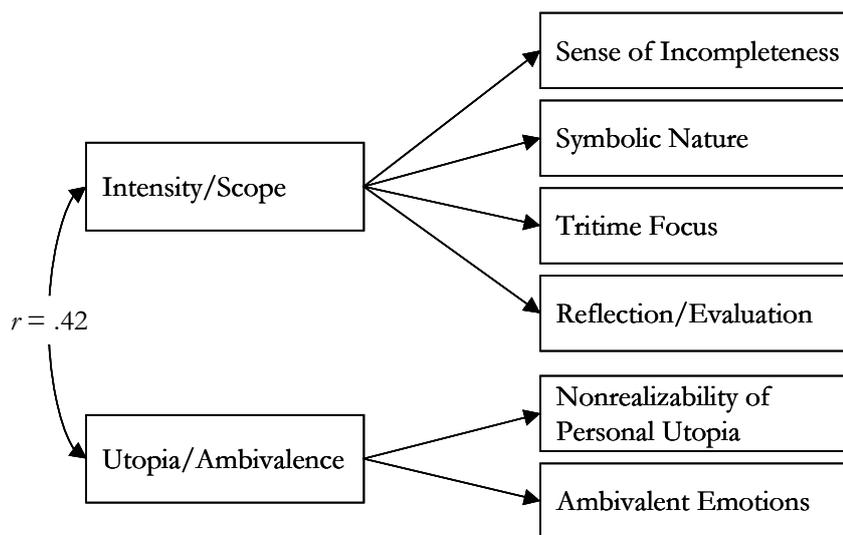


Figure 17. Empirically Identified Two-Factor Structure of Longing

Utopia/Ambivalence refers to the perception that the longing is directed at idealized images that are too perfect to become true, and that it involves feelings of an ambivalent, bittersweet quality. This dimension represents the cognitive-affective evaluations that make longing a unique experience from a conceptual point of view. Persons scoring high on this dimension reported strong agreement with statements such as “If my longing were fulfilled, it probably would not be as great as in my fantasy” (Personal Utopia) and “Experiencing my longing is pleasant and unpleasant at the same time” (Ambivalent Emotions). This suggests that the recognition of the

necessary imperfection of objective reality goes along with intermixed painful and pleasurable feelings, perhaps similar to the experience of enjoying sad music.

In support of its interpretation, Utopia/Ambivalence was negatively related to the attainability of longing. Interestingly and contrary to predictions, Utopia/Ambivalence was unrelated to the salience of longing. Hence, it appears that not all highly salient longings are perceived as very idealized and bittersweet, and vice versa, that not all utopian and bittersweet longings are perceived as very salient. It can be speculated that some (but not all) persons with highly idealized and ambivalent longings have down-regulated their longing experiences, in terms of their frequency, intensity, duration, and ego-centrality. It may not be very adaptive for everyday functioning to indulge in unrealizable longing for extensive amounts of time or let it become a central part of one's self-concept.

Both dimensions of longing, Intensity/Scope and Utopia/Ambivalence, were unrelated to positive emotions and positively related to negative emotions during longing. This finding can best be interpreted in light of the mean levels of positive and negative longing-accompanying emotions. All participants in this study reported more positive than negative feelings during longing. In this regard, the experience of longing does not appear to deviate from the "default-mode" of emotional experiences in everyday life. It is a well-established finding that on average, people experience more positive than negative emotions (Carstensen et al., 2000; Diener & Diener, 1996; Kunzmann, Little, & Smith, 2000; Mroczek & Kolarz, 1998). The finding of a nonsignificant correlation between the structural dimensions of longing and positive longing-accompanying emotions implies that the amount of positive emotions was comparably high in persons with highly and little structurally elaborated longings. The amount of negative longing-accompanying emotions, in contrast, was low in persons with little structurally elaborated longings, but high in persons with highly structurally elaborated longings (there was a positive association between the structural dimensions of longing and negative longing-accompanying emotions). Hence, persons with intense/broad and unrealizable/ambivalent longings reported experiencing stronger negative emotions *in addition to* positive emotions. This is consistent with the assumption that longing is an ambivalent and complex emotional experience.

The two structural dimensions of longing were differentially related to thoughts about the personal past, present, and future. By definition, longing involves a conjoint focus on all three life periods. This is, however, not in contrast to the claim that the relative importance of past, present, and future may vary among participants. Results indicate that persons with highly intense/broad longings are more concerned with their present and future life. Intense/broad longings involve a strong feeling of incompleteness or of missing something essential that would make life more complete. Results indicate that the incompleteness regards primarily the present

and future life. Conversely, persons with highly unrealizable/ambivalent longings reported a stronger past focus. It can be speculated that longings with a strong focus on the past more likely deal with losses, many of which may be irreversible (such as a lost person or the lightheartedness felt during childhood). Following this argument, it would not be surprising that longings with a stronger past focus were perceived as more utopian and unrealizable and thus elicited more bittersweet feelings.

5.2.2 Contents of Longing: Predominance of Physical Well-Being, Social, and Identity Themes

Participants of this study reported that their longings related to a broad spectrum of life domains, although life domains were not all rated as equally important. Findings are consistent with previous research on the contents of goals, wishes, concerns and fears, life regrets, and self-definitions (Freund & Smith, 1999; J. Heckhausen, 1997; King & Broyles, 1997; Nurmi, 1992; Riediger, 2001; Wrosch & Heckhausen, 2002).

Physical well-being and health proved to be among the most central themes. This is not surprising if one considers that physical well-being and health are important resources for the achievement of goals in a multitude of other life domains. Good physical and mental health is the precondition for an active, self-determined life at all ages. In their model of successful aging, Rowe and Kahn (1987; 1997) regard the absence of disease and disease-related disability as well as high physical functional capacity as major components to a successful life, particularly in late adulthood.

Social relationships were another frequent theme of longing, suggesting that adults of various ages reflect much about ideal forms of family, partnership, and friendships. For example, participants reported longing for the ideal partner to spend the rest of life with, for specific persons who were lost, or for the end of conflict in existing relationships. The present findings thus replicate results by Belk and colleagues (2003) who found longing for the love and admiration of other people to be the driving force behind more concrete desires, such as consumer desires. The predominance of social longings is consistent with proposals that human beings have a fundamental need to belong, that is, to form and maintain enduring interpersonal attachments (Bakan, 1966; Baumeister & Leary, 1995). The importance of intimacy and social integration for well-being and positive functioning is well-established (e.g., Antonucci & Akiyama, 1995; Ryff, 1989; Ryff & Singer, 1998). For instance, research has shown that married people are generally happier than unmarried people (Glenn & Weaver, 1988; Lee, Seccombe, & Shehan, 1991). Persons with positive social relationships are also healthier and even live longer (Schwarzer & Leppin, 1991; Tucker, Schwartz, & Friedman, 1999).

Personal characteristics were also a frequent content domain of reported longings. In these longings, adults described their imaginations about ideal ways of being. Examples included longings for greater self-acceptance, for greater autonomy and freedom from constraints, and for harmony of multiple social roles. All of these longings indicate the importance of identity themes for participants. This finding is consistent with the notion that developing a mature self-concept and holding positive attitudes towards oneself is a central characteristic of positive psychological functioning (Erikson, 1980; Loevinger, 1976; Ryff, 1989).

Although they were not directly assessed, an analysis of the content domains suggests that longings are driven by fundamental human motives relating to agency and communion (Bakan, 1966; McClelland, 1987). Themes of agency, the striving for independence, achievement, and mastery, can be recognized in longings pertaining to health (e.g., longing for a healthy, self-determined life), personal characteristics (e.g., being independent of time restrictions and social norms), work (e.g., become head of a company), and finances (e.g., live without financial worries). Themes of communion, the striving for forming friendly and warm connections with others, were prominent in longings relating to partnership, family, and friendship. The study of longing thus adds to the claim that human motivation evolves around the two opposing tendencies of existing as an autonomous individual and being part of a larger social group (Bakan, 1966).

There was evidence that participants in this study were selective with regard to the kinds of longings they reported. Consistent with the assumption that longing is sometimes directed at very intimate or socially undesirable aims, one third of the sample indicated additional longings in the anonymous follow-up checklist that they had not revealed previously under normal instructions. These longings were primarily directed at sexual experiences, own death, and infidelity, and, with a lower frequency, at revenge, the death of others, dominating others, possessions of others, or physically or mentally hurting others.¹⁶

This latter finding implies that research on longing may be particularly susceptible to issues of social desirability and impression management (Krosnick, 1999; Leary & Kowalski, 1990). Perhaps, when persons are asked about their longings, they tend to edit their responses before communicating them more than they would when asked about other, less intimate topics. Initial support for this argument comes from the study by Mayser (2004) on the differences

¹⁶ It should be noted that the kinds of more private longings that persons do not reveal under normal instructions may even be more diverse than the present follow-up checklist suggests. The format of the checklist was such that it offered different longing themes that are often regarded as intimate or socially undesirable. This may have restricted the responses of participants to the categories included in the checklist. It remains an open question whether persons have additional kinds of intimate desires.

between longing and goals. Employing the same anonymous follow-up checklist as used in the present study, Mayser found that persons tend to have more private longings (27 % of participants reported such) than private goals (12 % of participants reported such) that they did not report under normal instructions.

The method used in the present study, self-administered questionnaires, was chosen to diminish the selectivity of reported information on longing. Self-administered questionnaires are much less susceptible to impression management than other methods of inquiry, including face-to-face interviews (Sudman & Bradburn, 1982). The group setting of test sessions also served to increase participants' confidence in anonymity. Nevertheless, results are restricted to those longings that participants were willing to disclose in the specific setting of the present study.

5.2.3 Subgroups With Mild, Melancholic-Utopian, and Visionary Longing Profiles: Differences in Level/Quantity/Quality?

A supplementary cluster analysis indicated that the self-reported structural composition of longing might differ between groups of persons. Three reliable subgroups were found that were characterized by unique constellations of the six structural longing characteristics. Two of the subgroups differed in the *level* of the six characteristics (high or low levels of all six characteristics), whereas the third subgroup differed in *shape* (i.e., high levels of some characteristics, low levels of others). Subgroup membership was unrelated to age, sex, and education level. Thus far, it is an open question whether subgroup differences are quantitative or qualitative in nature.

Description of the Three Subgroups

The first subgroup had low scores on all six structural characteristics. This group did not report a strong sense of incompleteness and their longings had a limited scope in terms of the life domains, symbolic meanings, time periods, and reflections they encompassed. Persons in this group did not perceive their longings as very idealized and bittersweet. In addition, they reported a low intensity, frequency, duration, and ego-centrality (i.e., low salience) of longing experiences, and few negative emotions during longing. For example, a 71-year old woman in this group reported a longing to visit her hometown and re-experience the best period of her life when she did not yet have financial or family-related worries, had finished studying for exams, and felt loved by people. One interpretation would be that longings in this group resemble wistful reminiscences of the past (Webster & Cappeliez, 1993) or pleasant, although not very intense, fantasies about the future (Oettingen, 1996). Perhaps, these persons indulge in their longings for circumscribed periods of time, without letting them become too intense or central to themselves

and their lives. Based on its structural longing profile, this group was called the group with *mild longings*.

The second subgroup had high scores on all six structural characteristics. These longings most closely resembled the theoretically proposed conceptualization of longing. Longings in this group were reported to be intense and broad in scope, and to have a unique utopian-bittersweet quality. This group perceived their longings as central to themselves (i.e., as highly salient) and extended across a large number of life domains. Negative emotions during longing were rated as stronger than in the other two subgroups, but not as stronger than positive emotions. Accordingly, longings in this group appeared truly emotionally ambivalent. For example, a 45-year old man in this group reported longing for a happy family, which he did not have during his youth, and wondered if he would ever be able to provide it to his own children. This description suggests that the longing taps a central theme in this man's life and extends across his personal past, present, and future. One might thus regard this group as having longings in their "full-blown" expression. Because of the high negative emotionality and utopian/ambivalent quality of longings, this group was labeled the group with *melancholic-utopian longings*.

The third subgroup had a mixed profile; thus, it differed from the other two subgroups in terms of the *shape* of the structural longing profile. Longings in this group were reported to be highly intense and broad, but *not* as having a utopian-bittersweet quality. A longing example in this group was to have a job that is deeply satisfying, useful, and truly helpful for other people (reported by a 29-year old man). One could interpret these longings as a form of goals, albeit on a very high level of abstraction. They may be regarded as meta-level goals or visions of ideal life courses that individuals regard as realizable. Because this group rated their longings as intense and broad, but *not* unrealizable, it was termed the group with *visionary longings*.

Relation to Existing Taxonomies of Longings

Related types of longing have been suggested in literature coming from the humanities, although this was the first study that derived longing subgroups empirically. Table 32 gives an overview of the present and related taxonomies. In her qualitative analysis of novels by contemporary young German authors (Judith Hermann, Karen Duve, and Tanja Dückers), Hennebach (2004) found two different forms of longing. The first form, which Hennebach labeled *utopian-idealistic* longing, predominated in the writings of Judith Herrmann and Karen Duve. This kind of longing appears like an end in itself. The characters in the novels constructed pleasant fantasies as alternatives to the imperfect and frustrating present life. These fantasies were, however, too perfect to be obtainable in real life. In this form of longing, negative emotions like suffering and sadness predominated, and the longing symbolized a lack of

orientation, indecisiveness, and a search for identity. Although this form of longing is portrayed as very negative and dysfunctional, it does share characteristics with the melancholic-utopian longing profile found in the present study, such as the utopian nature of longings and the high level of negative longing-accompanying emotions. The second form Hennebach identified was called *productive-visionary* longing. It predominated in a novel by Tanja Dücker. This form of longing elicited a positive motivation for the pursuit of concrete goals. It provided a vision and initiated personal maturation and further development of identity. Thus, it resembles the visionary longing profile found in this study.

Table 32
Taxonomies of Longing Profiles and Forms (Ordered According to Conceptual Similarity)

Subgroups with distinct longing profiles identified in this study	Longing forms in contemporary German literature (Hennebach, 2004)	Longing types proposed by Genazino (2001)
Mild (Low Profile)	--	Partial
Melancholic-utopian (High Profile)	Utopian-idealistic	Reflective
Visionary (Mixed Profile)	Productive-visionary	--
--	--	Pathological

Another contemporary German writer, Wilhelm Genazino (2001), proposed three types of longing. *Partial* longings are restricted to single objects, can be fulfilled, and subsequently subside. They resemble the mild longing profile found in the present study. Persons with *reflective* longings recognize that material fulfillment cannot diminish longing, which elicits a kind of permanent reflection and leads to the development of consciousness and identity. The recognition of the unattainability of personal utopias makes this type similar to the melancholic-utopian longing profile found in the present study. Finally, in *pathological* longings, objective reality is completely substituted for an alternative, fantasized reality, and attainment of material objects is never accepted as their fulfillment. No counterpart of this type was found in the present study, although it may be found in clinical samples.

It should be noted that both authors, Hennebach (2004) and Genazino (2001), did not attempt to confirm their proposed longing taxonomies by empirical evidence. Nevertheless, the proposals made by these humanist authors converge with the empirically identified subgroups in the present study, thus supporting the generality of the present findings.

5.3 The Nature of Longing Across Adulthood

From the perspective of lifespan psychology, longings should reflect age-graded tasks, abilities, and opportunities for development. This implies the expectation that longing differs in some aspects depending on the life period of individuals. It was *not* expected that adult age groups would differ in the structural elaboration of longing. Similar to wisdom-related knowledge (Pasupathi et al., 2001), longing in the complex form as conceptualized here was assumed to emerge in adolescence. This implies that the basic structure of longing should already be established and elaborated when entering adulthood. Age invariance was also expected for the salience of longing, because it is interrelated with the structural elaboration of longing. In contrast, considerations of the different developmental contexts and themes of young, middle-aged, and old adults (e.g., developmental tasks, ratio of gains and losses, lifetime left to live and shape, availability of resources, richness of life experience) suggests that there should be age-related differences in the contents, control beliefs, and functions of longing. Findings regarding the different longing characteristics are discussed in turn. Figure 18 depicts results in terms of the general patterns of age-related differences found in the present study.

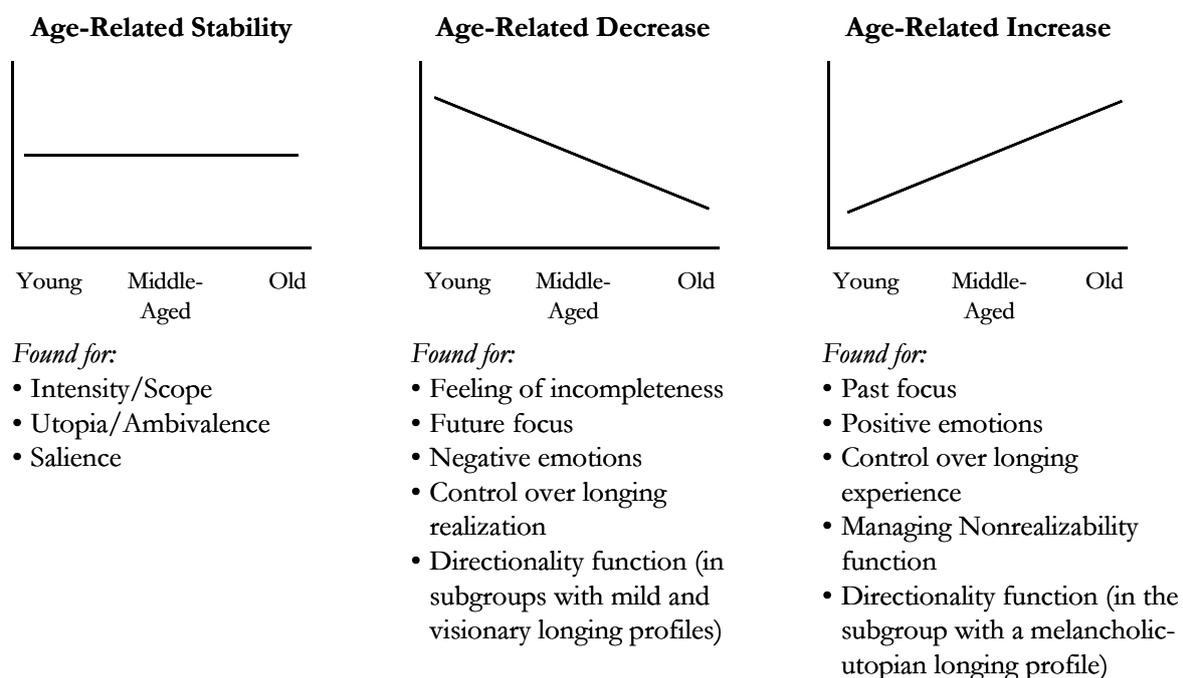


Figure 18. General Patterns of Cross-Sectional Age Differences in Longing Characteristics (Other Than Content) Found in the Present Study

5.3.1 The Structural Elaboration and Salience of Longing Are Largely Stable Across Adulthood

As predicted, no age-related differences were obtained for the structural elaboration and salience of longing. All age groups perceived their longings as comparably intense and broad,

unrealizable and ambivalent, and salient. Some age-related differences were evident, however, when considering additional characteristics of longing. First, younger adults reported a stronger feeling of incompleteness than older adults. Second, although the overall tritime focus did not differ across age groups, there was evidence that longing was less future-directed and more past-directed with higher age. These findings raise the question whether there are qualitative differences in the longing experience, and whether longing has different antecedents and correlates across adulthood.

One could speculate that young adults experience intense and broad longing when they reflect on their past, present, and future in order to find out who they are and what course they want their lives to take. Their future seems infinite and full of unlimited possibilities. Accordingly, their life plans are more future-oriented. Young adults may have great visions for the time ahead and a strong desire and commitment to attain them.

Middle-aged adults may have intense longing because of a shift in their sense of time, which fosters a reexamination and possibly reprioritization of their goals. At some point in midlife, the time left to live will become shorter than the time since birth (Neugarten, 1968). Middle-aged adults tend to look back to evaluate their accomplishments and may question their meaningfulness in terms of the life lived and the life left to live (Lachman, 2004; Staudinger & Bluck, 2001). It is quite possible that a negative outcome of such evaluations is accompanied by intense longing and may result in changes of life plans and priorities.

In old adulthood, intense longing may have antecedents and correlates even different from the ones in young and middle adulthood. Old adults tend to look back on a long life lived and are confronted with impending endings and increasing numbers of losses in terms of their social network, social roles, and health. They experience firsthand the “incomplete architecture” of human life (P. B. Baltes, 1997) and must realize that life had to remain incomplete, ideals could not be fully attained, and not all desirable life paths could be realized. At the same time, findings indicate that the experience of incompleteness is less strong in older adults. Previous research suggests that older adults are more realistic in their self-perceptions and hence, achieve a closer fit between their actual and their ideal view on themselves (Ryff, 1991). At the same time, the evaluation of the past is more positive than in earlier life periods (Ryff, 1991; Staudinger et al., 2003), which might further contribute to a lesser sense of incompleteness.

In sum, in all age groups, findings are consistent with the notion that longing proceeds from the experience of life’s incompleteness and imperfection and involves reflections on and evaluations of the personal past, present, and future in relation to personal utopias of life. The relative importance of past and future appears to differ across age groups. In older adults, who

look back at a longer life lived and thus, a larger summative whole, longing is less directed at the future and more directed at the past.

5.3.2 *Differences in Longing Contents Across Adulthood: From Self and Work to Health, Family, and Political Themes*

Findings of age-related differences in the contents of longing indicated that the domains of incompleteness and self-critical reflection also differed across adult age groups. These differences are in accordance with age-graded developmental tasks and themes (Erikson, 1980; Havighurst, 1948; Levinson, 1986; Peck, 1956). They are very similar to age-related differences found in other motivational constructs, such as goals (e.g., J. Heckhausen, 1997; Nurmi, 1992), possible selves (Cross & Markus, 1991; Hooker, 1992), and self-definitions (Freund & Smith, 1999). Results are also consistent with age-related findings about domains of life investment, that is, the domains or topics that adults of various ages think about or take action in (Staudinger, 1996). Table 33 gives an overview of life domains of longing that evinced age-related differences. Age effects amounted to 1 % to 9 % of the variance in life domain ratings.

Table 33
Life Domains of Longing With Age-Related Differences

Young adults (19 to 39 years)	Middle-aged adults (40 to 59 years)	Old adults (60 to 81 years)
Personal characteristics	Partnership	Family
Work/education	Health	Health
	Work/education	Politics/world situation
	Finances	

Note. The table lists life domains of longing that were more relevant in a given age group than in at least one other age group.

Young adults reported that their longings related more to personal characteristics (e.g., self-acceptance, independence from social norms) and less to health, family, and politics/world situation than was the case for middle-aged and old adults. They also reported more work- and education-related longings than older adults, but not more than middle-aged adults. This is consistent with the view that young adulthood is the main life period to construct and review personal utopias about oneself and one's occupational development. It is also in agreement with the argument that identity formation is a central developmental theme in young adulthood (Erikson, 1980; Marcia, 1980). According to this argument, young adults need to review their beliefs and views of themselves and explore a variety of possible identities in order to form a mature identity (Bluck & Habermas, 2001). Young adulthood is also the time to position oneself

in the society and to decide on the professional career one wants to pursue. Once a profession is chosen, specialization will lead to ever-increasing levels of expertise in the particular field and make crossovers to alternative professional tracks more and more difficult (Wrosch et al., 2003a). Hence, work-related longings might reflect young adults' developmental task of exploring and finally selecting occupational tracks.

Work was also a frequent theme of longing in middle-aged adults. This supports claims that work is central in midlife and in large part defines the identity of middle-aged adults (Lachman, 2004). Middle-aged adults have usually progressed in position and earnings as compared to young adults, and control over the work domain is relatively high in this period of life (Lachman & Weaver, 1998). This may give middle-aged adults the opportunity to critically self-reflect about their occupational level achieved and the consequences of these achievements for their sense of happiness and meaning. The higher relevance of finances in the longings of middle-aged adults is likely related to the high importance of the work domain.

Partnership was most salient in the longings of middle-aged adults, and less salient in the longings of young adults (contrary to predictions). Middle-aged adults are under the pressure of balancing the demands of work and family (Staudinger & Bluck, 2001) and may have little time left for nourishing their partnerships. In addition, marital satisfaction decreases as a function of partnership duration (Berscheid & Reis, 1998; Heaton, 1991). In retrospect, marital satisfaction reaches its lowest point at approximately 20 years after marriage (Vaillant & Vaillant, 1993), which is often in midlife. At midlife, people may also become increasingly aware of their decreasing opportunities to establish new or alternative partnerships. In this age period, most people are involved in long-term relationships and are therefore not available for those who want to form new partnerships (cf. Bierhoff & Schmohr, 2004). Because of these factors, middle-aged adults may be particularly prone to engage in fantasies of alternative partners. In a U.S. survey (Atkins, Baucom, & Jacobson, 2001), men towards the end of midlife and women at the beginning of midlife reported the highest rates of having engaged in extramarital sex as compared to their counterparts at other ages.

With increasing age, longing was more often directed at family members and family relationships. On the one hand, this finding may reflect an increasing generative concern for own children and grandchildren, including their health, occupational success, and marriage relationships (McAdams & de St. Aubin, 1998). Middle-aged adults may also have concerns for their own parents who increasingly face the challenges of aging (e.g., declining health and loss of social network partners). On the other hand, the higher salience of family themes in longings may reflect strong wishes to resolve existing conflicts with family members. Socioemotional selectivity theory poses that in the face of a reduced time left to live, persons tend to emphasize important,

close relationships over less important relationships (Carstensen et al., 1999), and family members make up a substantial part of older persons social networks (Antonucci, 2001). This increasing emphasis on close social partners also includes attempts to resolve existing conflicts and find meaning in these relationships (Carstensen et al., 2000).

The importance of health was low in young adulthood and steadily increased in middle and old adulthood. Midlife is often the time when chronic illnesses or diseases such as high blood pressure or cholesterol start to surface (Lachman, 2004). These physical problems may not be as severe as in older adults. However, they often take middle-aged adults by surprise. They may also be distressful as they signal aging, which is not regarded as desirable in our culture. In old adulthood, the human body progressively undergoes physiological decline and the number of health problems increases (Sehl & Yates, 2001; Whitbourne, 1985). Hence, health is an important and salient issue for old adults.

The number of longings pertaining to politics and the situation of the world in general was highest in old adults. This finding adds to Nurmi's (1992) study, which found older adults to report more world- and war-related topics in their goals and concerns than younger age groups. It is compatible with the notion that old adults have strong generative concerns for the state of the world and the future of subsequent generations (McAdams & de St. Aubin, 1998). In addition to generativity, historical or cohort effects might have played a prominent role in eliciting these longings. Post hoc screening of the specific longing contents indicated that most politics-related longings referred to the prevention or ending of war, and that references were made to personal war-related experiences. Many old participants in this study were born in the 20s and 30s of the 20th century and lived through World War II. Because data collection took place during the preparation and actual pursuit of the U.S. invasion in Iraq, war-related issues were likely salient and combined with negative personal memories to produce a powerful longing for peace in old adults.

In sum, results are consistent with the notion that for each age group, contents of longing reflect the domains in which incompleteness and imperfection are most salient. Adults likely reflect on these domains (in terms of their past experiences and future wishes and expectations), construct and reconstruct personal utopias, and evaluate their standing relative to their ideals. The contents of longing can be linked to the developmental tasks of a given age group. In young adults, longings reflect the tasks of establishing a mature psychosocial identity and getting started with an occupation. In middle-aged adults, longings particularly reflect the task of nurturing marriage relationships, which is probably most difficult during this age period given the high involvement in multiple social roles. Longings of middle-aged adults also reflect the task of accepting the physiological changes of the body. In old adults, longings relate to the

developmental tasks of adjusting to decreasing physical strength and health, nurturing family relationships, and integrating the personal life with a wider historical and societal context.

5.3.3 *Multidirectionality of Longing Control Across Adulthood*

Results supported the prediction of opposite age trends in the two dimensions of longing control (multidirectionality). First, results showed that the perceived ability to control the experience of longing (i.e., control at the level of imagination) increased with age. For example, older adults agreed more with statements such as “I can always control my feelings of longing very well.” This was also reflected in the finding that although the overall rating of ambivalent emotions was comparable across adult age groups, the ratio of positive to negative emotions was more favorable in older adults if positive and negative emotions were rated independently of each other. These results are well in line with past work on general emotion regulation (e.g., Gross et al., 1997; Lawton et al., 1992). One interpretation would be that over a lifetime of experiences, older adults have learned to regulate effectively the inner experience of their emotions (Gross et al., 1997), including their feelings of longing.

The second domain of longing control, that is, beliefs that one is able to fulfill longings or facets thereof (i.e., control at the level of active behavior; e.g., “I am sure I can fulfill my longing sometime”), showed an opposite age trajectory. Here, control beliefs decreased with age. Older adults’ lower perceived ability to realize longings may be a function of their reduced capacity to influence their external environment, the nature of their longings, or both. Subjectively, individuals’ perceived general capacity to master their environment does not seem to diminish with age. Lachman and Weaver (1998) found that older adults reported a greater general sense of mastery than did younger and middle-aged adults, although they also reported more environmental constraints. However, control over the realization of longing is better conceived of as a specific domain of control, and domain-specific control beliefs may well vary with age (Lachman & Weaver, 1998). Longings are directed at utopian visions of alternative life trajectories. They are usually long-term and contingent on the flexibility and time resources of individuals. Aging is coupled with a reduced reserve capacity (P. B. Baltes & Kliegl, 1992; Kliegl, Smith, & Baltes, 1989), an increased commitment to biographical tracks, and a reduced time left to live and shape (Neugarten, 1968). The possibility to approximate long-term visions thus objectively diminishes in older adulthood, and perceptions of control seem to reflect this trajectory.

Age may also be associated with lower control over the realization of longing because longing is directed at things that are generally less attainable. Older adults’ longings were found to be less future-oriented and more past-oriented than younger adults’ longings. Events in the past

cannot be changed, as is the case for events in the future. Longing with a primary past focus may also more often concern irreversible losses. In addition, older adults reported that their longings pertained to health and politics (e.g., a peaceful world) more than did younger adults. There is consensus among adults of various ages that health cannot be as easily controlled as other life domains, such as family and education (Nurmi, Pulliainen, & Salmela-Aro, 1992). The same is probably true for politics.

5.3.4 *Differences in Functions of Longing Across Adulthood: Partly Specific to Longing Subgroups*

Overall and contrary to predictions, there was no evidence that younger adults derived more directionality from their longings than older adults. There were, however, age-associated differences in the directionality function when longing subgroups were taken into account. Directionality decreased with age in the subgroups with *mild* and *visionary* longings, whereas it increased in the subgroup with *melancholic-utopian* longings ($|r|$ s between .20 and .24). The fact that the age correlations did not reach statistical significance was likely due to low power as subgroups only included about one sixth of the total sample. Nonetheless, interpretations must be tentative.

With this restriction in mind, one may conclude that younger adults derive somewhat more directionality from their longings than older adults if they do *not* perceive them as highly utopian and unattainable (i.e., in the mild and visionary longing groups). In the groups with mild and visionary longings, younger adults agreed more than older adults with statements such as “My longing is like a vision towards which I orient my life” and “My longing shows me clearly what really matters in my life.” One could interpret this finding as an expression of younger adults’ perception of a longer life ahead, accompanied by a higher necessity and more opportunities to approximate their visions and personal utopias about the ideal life course.

In contrast, younger adults derived somewhat less directionality from their longings than older adults if longings were perceived as highly utopian and unattainable (i.e., in the melancholic-utopian longing subgroup). One could assume that melancholic-utopian longings are more likely concerned with irreversible losses. In such instances, directionality may have a somewhat different quality. For example, the longing for a deceased person may give direction in the sense that one continues to pursue projects that had been developed together, upholds mutual rituals and traditions, or keeps following the lost person’s (imagined) advice (e.g., Boerner & Heckhausen, 2003; Noppe, 2000; Stroebe & Schut, 1999). Therefore, such a longing can give directionality even if the actual longing (to be with the lost person) is not attainable. In this sense, the finding of an age-related increase in directionality in the group with melancholic-utopian

longings is consistent with the notion that the regulation of losses becomes an important task in older adulthood (Freund & Ebner, in press; J. Heckhausen, 1999; Staudinger et al., 1995).

Findings did support an age-related increase in the managing nonrealizability function of longing. This effect was also rather small, but consistent across the three longing subgroups (r s between .15 and .29). Older adults agreed more than younger adults with statements like “Experiencing my longing partially compensates for something I cannot have in reality” and “Through my longing, I keep my memories of something past alive.” This supports the assumption that longing is important in dealing with closed opportunities and losses, particularly in older adults.

In sum, results of the present study indicate that a part of interindividual differences in longing characteristics is related to chronological age. Although age-related effects were rather small, they were mostly in accordance with predictions, and thus, consistent with theoretical predictions and prior research in the tradition of lifespan psychology. Due to the correlational nature of the data, findings can only be descriptive. Future studies should explore underlying mechanisms and driving factors of the found age-related differences in longing.

5.4 The Regulatory Function of Longing in Adult Development: An Unresolved Paradox

In principle, the proposed conceptualization assumed that the emotional composition of longing is ambivalent and that longing involves a feeling of incompleteness and self-critical evaluations of one’s developmental progress. Thus, there is reason to expect that higher levels of reported longing are associated with attributes that characterize vulnerabilities and a lack of adaptation. Theoretical arguments also included the notion, however, that the activation and management of longing could be associated with the effective use of longing for self-regulation. On the basis of these considerations, it was proposed that longing has positive developmental consequences. On a proximal, specific level, it was expected that longing has immediate functions for development in terms of directionality and the management of loss and unattainability. On a distal, general level, the positive functionality of longing should be evident in positive associations with subjective well-being.

Findings regarding these predictions were mixed. As expected, highly elaborated longing was positively associated with the directionality and managing nonrealizability functions of longing. This suggests that persons who have intense/broad and utopian/ambivalent longings perceive them as functional in the sense that they give them direction for development and substitute for losses and incompleteness. The positive functionality of longing was not evident, however, in associations with subjective well-being. On the contrary, persons who reported

highly intense/broad and utopian/ambivalent longing also reported *lower* levels of positive affect and life satisfaction and *poorer* psychological functioning. There seems to be a paradox that requires explanation. The present section starts with a discussion of the proximal, specific consequences of longing (its immediate functionality for development) and proceeds to a discussion of its distal, general consequences (subjective well-being), including possible explanations to reconcile the disparate results.

5.4.1 Longing Gives Direction for Development and Helps Manage Nonrealizability

In line with the theoretical model, longing was reported to have an immediate developmental function in directing the future course of development and managing unrealizable life paths. The magnitude of associations between the two structural dimensions of longing (Intensity/Scope and Utopia/Ambivalence) and the two functions differed, however. In a multiple regression analysis, directionality was highly positively associated with the intensity and scope of longings, but was independent of their utopian and ambivalent nature. Likewise, managing nonrealizability was positively associated with the utopian and ambivalent nature of longings, but was largely independent of their intensity and scope. The two facets of self-reported control over longing also emerged as differential positive predictors of the reported functionality of longing. Control over the realization of longing emerged as positive predictor for directionality, and control over the experience of longing emerged as positive predictor for managing nonrealizability. The following paragraphs offer possible explanations for these findings.

Intense and broad longing provides directionality probably because it indicates to the person what is missing and let him or her anticipate the benefits of obtaining it. If one has a strong longing for the sea and recognizes the underlying wish for inner peace, one knows the “missing piece” that would close the gap and lead to a more complete and happy life. As expected, the positive association between intense/broad longing and the directionality function was even higher when persons reported high control over the experience of longing. This supports the view that the longing experience should be regulated and temporally restricted in order to be functional. Having intense/broad longing does not guarantee, of course, that one knows the concrete steps to take towards its fulfillment; nor does it guarantee that one feels able to actually take the necessary steps. Instead, beliefs of being able to realize longings emerged as additional predictor of their directionality. In brief, findings may be interpreted in the sense that if longings are intense and broad, and if one knows the means and steps towards their realization, they signal to persons what really matters in their lives and provide a vision towards which they can orient their future development.

The second function of longing, managing nonrealizability, was higher in persons who rated their longings as highly utopian and emotionally bittersweet. It appears plausible that utopian and ambivalent longings indicate that there is much to compensate for. They are probably more often concerned with unattainable life paths or irreversible losses. In this case, it is unimportant whether one knows the steps towards their realization. For example, one may believe that moving to the sea would alleviate the longing for inner peace, but at the same time realize that work and family obligations render this plan impossible, at least at the present point in time. Here, fantasy can be a strategy of imaginary compensation. Indulging in longing might partially substitute for goals that are unobtainable in reality (although see escape theory; Baumeister, 1990; Heatherton & Baumeister, 1991). Results are also compatible with the view that the longing experience is more functional if it is temporarily restricted and regulated. The perceived ability to influence the onset, course, and ending of longing episodes emerged as another positive predictor of the managing nonrealizability function. Probably, control over the longing experience is important because if longing prevails despite attempts to down-regulate the experience, it likely devaluates everything real life can offer and hinders persons to turn towards alternative, more attainable goals.

These considerations suggest that in the future, it might be fruitful to extend the focus of attention from inter-person to intra-person processes and investigate the temporal and contextual dynamics of longing experiences. An interesting speculation would be that directionality and managing nonrealizability are distinct functions of longing that differ in the context in which they are activated as well as in their time frame. Probably, managing nonrealizability is often activated when persons are aware of irreversible losses or unrealizable life paths and concerns the short-term regulation of affect. Everybody has a set of alternative lives he or she could have lived if circumstances would have been different or particular life decisions would not have been made. These “alternative lives” remain part of identity. One may be reminded of them if things go wrong in actual life and respond with feelings of longing. Visualizing and elaborating these idealized alternative lives can be a strategy to temporarily escape from the imperfect present, connect to lost persons, places, and times, and momentarily overcome the permanent incompleteness of human life (Boesch, 1998; Ravicz, 1998). This strategy possibly has immediate positive effects on well-being; thus, it is directed at the short-term regulation of affect. However, as mentioned above, the dwelling on idealized fantasies to compensate for nonrealizability might only be a “healthy escape” if temporally restricted.

In contrast, directionality might be activated if longing is intense and broad and one feels able to take steps towards its realization. Perhaps, this strategy primarily concerns the long-term regulation of development. Because longings are abstract and located at the high end of the goal

hierarchy (Carver & Scheier, 1990, 1998), their pursuit is a long-term project. Aligning one's more immediate goals with longings will ensure that one acts according to underlying motives. This may imply short-term turmoil and the necessity to delay gratification, but in the long run should ensure self-congruent development.

5.4.2 Longing Is Negatively Associated With Subjective Well-Being

Opposite to expectations and for the average case, longing was not associated with higher levels of subjective well-being. On the contrary (and more in line with the phenotypic characterization of longing), high Intensity/Scope and Utopia/Ambivalence were negatively linked with happiness and psychological functioning. The negative association was, however, lower in persons who reported a high ability to regulate the experience of longing and take steps towards its fulfillment, which is compatible with the view that the positive functionality of longing is intrinsically linked with the sense of control over longing.

Longing-specific control beliefs did not only moderate the negative association between longing and subjective well-being, they were also identified as positive predictors of well-being in and of themselves. This suggests that the importance of general control beliefs and emotion regulation abilities for mental health and well-being (e.g., Gross & Munoz, 1995; Lachman & Burack, 1993; Skinner, 1996) includes the domain of longing. As hypothesized, there was also evidence that age moderates the relationship between longing control and well-being. Specifically, the reported ability to realize longing was more strongly associated with well-being in young adults than it was in older age groups. This finding is consistent with the view that in face of a long life still ahead, feeling able to approximate personal utopias of life can be a strong promoter of a sense of happiness and meaning.

Notwithstanding the moderating role of longing control, the unexpected negative associations between the structural elaboration (i.e., intensity/scope and utopia/ambivalence) of longing and subjective well-being require explanation. In the following, four alternative interpretations are suggested. The first possible explanation is that longing is in fact detrimental for well-being because it indicates that persons are unable to disengage from unattainable high-order goals. Second, longing may be confounded with the amount and severity of loss experiences. Within groups with comparable histories of loss experiences, longing may promote recovery and readjustment. Third, positive consequences of longing might only be found if a longer time frame is considered. Longing may act as a feedback mechanism fostering the long-term alignment of implicit motives and explicit goals. Fourth, longing may be a multifunctional phenomenon with negative effects on aspects of environmental mastery, but positive effects on

facets of personal growth. These four interpretations cannot be tested on the basis of the present data. Instead, they represent speculations to be investigated in future studies.

Interpretation 1: Unsuccessful Disengagement From Unattainable High-Order Goals

Note at the outset that this interpretation proceeds from the assumption that expressions of longing vary in intensity/scope and utopia/ambivalence. *Higher levels* of such expressions may be detrimental for well-being because they represent a failure to disengage from unattainable higher-order goals (Wrosch et al., 2003a). By remaining committed to unattainable dreams of a better life, persons may fail to invest their resources into pursuing alternative, more attainable goals or life paths. Disengagement from goals involves two aspects, the giving up of effort and the giving up of commitment (Wrosch et al., 2003a). Whereas reducing effort will likely be a relatively automatic response in the face of repeated failure to attain a goal, decommitment is often more difficult because it requires the reduction of importance that is attached to a central goal and always involves some re-organization of the self-concept (Wrosch et al., 2003a). Accordingly, persons with intense, unattainable longing may stop effort altogether but remain preoccupied with their utopian dreams that will never come to pass. This is in fact the argument that has been made by many psychoanalytical writers who have dismissed longing as a dysfunctional, passive dwelling on unattainable utopias (see Danzer, 1998).

A failure to disengage from unattainable goals should have negative consequences for development. According to the theory of selective optimization and compensation (P. B. Baltes & Baltes, 1990), selection is adaptive only if individuals focus on those domains, for which environmental demands and support systems converge with individual motivations, skills, and biological capacity. A number of studies support this argument by showing that misguided commitment is associated with lower levels of well-being. Wrosch and Heckhausen (1999) and Heckhausen, Wrosch, and Fleeson (2001) studied disengagement from central goals (e.g., establishing a new partnership after separation, having a child) before and after developmental deadlines. Developmental deadlines represent “upper boundaries” for the realization of developmental tasks. Because biology and culture create age-graded norms and opportunity structures, passing a developmental deadline sharply reduces opportunities for goal attainment. Wrosch and Heckhausen (1999) showed that older adults who remained committed to the goal of finding a new partner after separation longitudinally experienced lower levels of well-being. In contrast, older adults who managed to disengage from this relatively unattainable goal had increased levels of well-being over time. The opposite pattern was evident in the group of young adults who still have ample opportunities to form new intimate relationships. Similar results were obtained with regard to women’s wish to have a child before and after the developmental

deadline for childbearing (around the age of 40 years; J. Heckhausen et al., 2001). Among women whose biological clock had run out, those who failed to disengage from the goal of having a child reported particularly high levels of depressive symptoms.

In another set of studies, Wrosch, Scheier, Miller, Schulz, and Carver (2003b) directly asked university students and parents of children with cancer how difficult it was for them to disengage from goals that they perceived as unattainable. In both studies, the tendency of goal disengagement was positively related to self-mastery and purpose in life and negatively related to perceived stress, intrusive thoughts, and depressive symptoms.

The interpretation that high levels of longing, in terms of intensity/scope and utopia/ambivalence, represent a failure to disengage from unattainable high-order goals implies that longing is detrimental for successful development. Before firm conclusions can be made, however, it is useful to consider alternative interpretations. The following three arguments are built on the assumption that certain expressions of longing may at times be adaptive for development and adaptation. As mentioned before, the design of the present study does not allow to fully test these arguments. Rather, they provide fruitful questions for further research.

Interpretation 2: Loss Experiences as a Third Factor Causing Both Intense Longing and Low Subjective Well-Being

Loss experiences may act as a third factor causal for both intense longing and low subjective well-being. Loss experiences such as disruptive life events or blocked developmental pathways are usually accompanied by negative affect, and the proportion of low mood is proportional to the number of disruptive events experienced and the magnitude of the loss (Billings & Moos, 1982; Nesse, 2000). Loss experiences may not only diminish people's life satisfaction and well-being, they may also elicit more frequent and intense longing because they make people aware of the imperfection of their lives and elicit strong wishes to undo the loss or remove the overwhelming obstacles that block life plans.

Within groups with a comparable amount and severity of loss experiences, however, longing may have a positive function and contribute to recovery and adjustment (i.e., the relationship between longing and subjective well-being may be positive). Major losses are usually difficult to replace. They often concern domains into which persons have invested considerable amounts of time and effort over the course of their lives. Losses often involve threats to a person's identity, reputation, and sense of a secure place in a social network and the world in general (Nesse, 2000). Hence, complete disengagement would leave large gaps and result in emptiness and meaninglessness of life. Under these circumstances, unrealizable goals may be transformed into longings. This transformation would allow disengaging at the level of actual

goal pursuit, while at the same time continuing engagement at the level of imagination and fantasy. It would permit persons to keep a continuing bond with alternative lives that they could have pursued if circumstances had been different. At the same time, it might help to find meaning in the loss and thus promote a positive reconstruction of the past and future.

Similar arguments have been made in recent models of adaptive bereavement (e.g., Boerner & Heckhausen, 2003; Noppe, 2000; Stroebe & Schut, 1999). Adaptive bereavement involves the dual task of disengaging from goals that require the loved one's physical presence, while at the same time keeping a continuing connection with the lost person by constructing new mental representations that can serve as a substitute. Longing can be seen as a way to form such adaptive ties that do not require the loved one's physical presence. Imagination can be used to uphold memories of the deceased, keep up values or goals that had been developed together, or mentally talk to the deceased and get their advice. To hold the lost person in one's mind can illuminate ways of finding joy, meaning, and approaches to dealing with adversity (Attig, 2000). One study participant who had lost a son directly referred to this process of transformation. He noted that over the years, his grief had diminished; yet, his longing remained. It appears that for this man, longing is a way to keep a continuing bond to his lost son that compensates for the impossibility to be with him physically.

To be an adaptive response, transformation of unattainable goals into longings alone is probably not sufficient. Wrosch et al. (2003a) argue that successful disengagement must go hand in hand with the taking up of alternative goals or increased investment of resources into remaining goals. Disengagement without reengagement with other goals leads to emptiness and meaninglessness of life. Applied to longing, engaging in fantasies of ideal, alternative lives must not hinder persons in pursuing other attainable goals. For example, longing for an irreversibly lost person should not serve as a substitute for relationships with persons who are still available (Rubin, 1999, cf. Boerner & Heckhausen, 2003). Thus, when dealing with severe losses, the task is to keep a balance between disengagement from and continuing a connection to alternative, ideal lives.

Two findings in the present study are consistent with the interpretation that a history of loss experiences may cause both low subjective well-being and intense longing, but that longing may nevertheless be an adaptive response in the face of irreversible losses. A first support comes from the finding that the two functions of longing were unrelated to subjective well-being on a zero-order level, but associations were positive after statistically controlling for individual differences in the intensity/scope and utopia/ambivalence of longing. Based on the assumption that the intensity/scope and utopia/ambivalence of longing are confounded with a history of losses, their statistical control should reduce this confound. The beneficial effects of the

directionality and managing nonrealizability functions of longing could then become apparent. A second finding is that in the subgroup with melancholic-utopian longings, the managing nonrealizability function was positively related to well-being. This subgroup was more homogeneous with regard to the nonrealizability of their longings, and possibly, more comparable in their history of loss experiences and blocked life plans. Clearly, the intensity of longing can only be a proxy for a history of loss experiences. Future studies are needed that disentangle the effects of stressful life events and high levels of longing on well-being.

Interpretation 3: Sequential Relationship Between Longing and Positive Outcomes – Longing as a Feedback Mechanism

Another possible explanation for the negative association between longing and well-being relates to the longer time frame of the directionality function of longing as suggested by a process view on longing. There may be a sequential relationship between longing and positive developmental outcomes. Intense feelings of longing may signal a conflict between implicit motives and explicit goals (Brunstein et al., 1998), or a large discrepancy between present and ideal realities of one's past, present, and future (expected) life. Thus, the concurrent relationship between intense longing and satisfaction with life can be negative. Due to its self-reflective and self-evaluative component, however, longing can motivate a reassessment of priorities, planning, and adjustment of explicit goals, which, in the long run, might lead to positive outcomes. For example, longing for the sea may imply that the need for nature has been neglected in favor of career. Scaling down working hours and spending more time at the sea may gradually enhance well-being and lead to more satisfaction in life. In this perspective, longing is an affective reaction arising from the appraisal of a large discrepancy between actual and ideal realities of life and gives directionality for reducing this discrepancy.

This view is compatible with Carver and Scheier's (1990; 1998) control theory of self-regulation. According to this theory, intentional behavior reflects a process of feedback control. Persons usually try to diminish the distance to their goals. Behavior proceeds smoothly (and positive emotions predominate) unless people encounter obstacles. In this case, they assess the likelihood of eventual success. Positive outcome expectancies will motivate people to increase effort, whereas negative outcome expectancies will motivate people to disengage from attempts to attain their goal. The model also assumes a meta-monitoring function that observes the rate of discrepancy reduction in the behavioral system over time. The outcome of this meta-monitoring function is paralleled by differences in affective experiences. Affect is expected to be neutral if progress towards the goal is at a rate equal to expectations, negative if progress is at a rate lower than expectations, and positive if progress is at a rate higher than expectations.

People typically have multiple goals at a time, which are monitored simultaneously and vary in their level of abstraction. Not all of these goals will receive equal levels of attention. Negative emotions can occur if the actual behavior leads to an increasing discrepancy from the goal that is *not* in the focus of attention (Simon, 1967, cf. Carver & Scheier, 1990). These emotions cause interruption of ongoing behavior and call for a reconsideration and reprioritization of goals. Carver and Scheier (1990) note that most human behavior is probably self-regulated at an intermediate level of the goal hierarchy, that is, at the level of concrete activities (e.g., going to work, but see Vallacher & Wegner, 1987). Usually, little attention is given to higher-order goals and idealized representations of life, such as longings. These may often be monitored outside of awareness until the discrepancy becomes too large to remain undetected and negative affect intensifies. Similarly, Staudinger (2001) argued that life reflection, the remembering, explanation, and evaluation of past memories and future goals, does not constitute an everyday-mode of processing. Rather, life reflection is triggered by the hindrance of life plans and routines. Its basic function is to provide persons with insight into their lives that subsequently helps to regulate their development.

In line with this reasoning, longing may be most salient during times of summative evaluations of the (past, present, and future) life course, but promote subsequent positive development. Turning points or developmental crises represent examples of such times of summative evaluation. Turning points imply a significant change in the trajectory of a person's life (Clausen, 1995; McAdams, 2001). They may be triggered by major life events, life difficulties, normatively expected life transitions, and internal, subjective changes such as self-realizations or reinterpretations of past experiences (Clausen, 1995; Wetherington, Kessler, & Pixley, 2004). Turning points commonly involve fundamental shifts in the meaning, purpose, or direction of a person's life. They are the points in the lifetime at which the plasticity of human development (P. B. Baltes & Kliegl, 1992; J. Heckhausen & Singer, 2001; Kliegl et al., 1989; Lerner, 1984) is most obvious. Crises, such as the identity crisis in adolescence (Marcia, 1980) or the midlife crisis (e.g., Wetherington et al., 2004) represent special cases of turning points. They are marked by highly intense personal turmoil and sudden changes in personal goals and lifestyles (Wetherington et al., 2004). According to Erikson (1980), crises are recurring phenomena during different phases of the life cycle and must be successfully solved in order for positive development to occur.

It is quite plausible that the successful resolution of crises and turning points is linked to longing. By outlining different possible paths of development, giving direction, and motivating persistent goal pursuit towards the approximation of personal utopias of life, longing may positively affect the subsequent course of development. In addition, by helping to regulate loss and nonrealizability, longing may promote the finding of meaning and a positive re-interpretation

of the past. This assumption can of course only be tested with a longitudinal design that allows for the examination of time-lagged relationships between longing and indicators of successful development.

Interpretation 4: Longing Is Multifunctional With Both Positive and Negative Outcomes

A final possible explanation for the negative relation between high-level expressions of longing and subjective well-being is that longing is a multifunctional phenomenon with both positive and negative consequences for development (Belk et al., 2003; Boesch, 1998; Verres, 1999; Vogt, 1993). An exclusive focus on happiness and psychological adjustment as developmental outcomes of longing would not do justice to the phenomenon. It may well be that high levels of longing enhance negative affect and emotional turmoil, while at the same time (or at a later point in time) promoting positive developmental outcomes like self-knowledge (e.g., Labouvie-Vief, Chiodo, Goguen, Diehl, & Orwoll, 1995; Markus, 1983), wisdom (e.g., P. B. Baltes & Smith, 1990; P. B. Baltes & Staudinger, 2000; Kunzmann & Baltes, 2003), and creativity (e.g., Runco, 2004). Stated differently, there may be multiple routes to a life that one would consider “successful,” and happiness is but one among many criteria. History is rich with examples of heroic individuals or creative geniuses who sacrificed personal happiness for other goods (King & Napa, 1998; Ludwig, 1995). Probably, many of them were driven by strong passions and longings for utopian conditions. Despite their suffering, most people would agree that they have led “good lives” as long as their lives’ work was meaningful (King & Napa, 1998).

The question of what it is that makes “a good life” has been a long-standing subject of philosophical debate (Becker, 1992). As Becker (p. 15) noted “... while a life of contemplation, or epicurean contentment, or stoic indifference, or religious ecstasy, or creative rebellion, or self-actualization, or many another thing may count as *a* good life, none of them can plausibly be identified with *the* good life.” Similarly, developmental researchers have emphasized the existence of multiple routes to attaining a good life, with each having its unique strengths and costs (Helson & Srivastava, 2001; King & Napa, 1998; Levinson, 1986).

In the psychological literature, two general conceptions of maturity can be identified (Helson & Wink, 1987), which at times may be incompatible with each other. In analogy to Ryff (1989), the first may be called *environmental mastery* and emphasizes mastery and smooth functioning within society. The second may be termed *personal growth* and involves intrapsychic differentiation, self-actualization, and independence of social norms (Helson & Srivastava, 2001). In Levinson’s (1986) developmental theory, environmental mastery would refer to a close fit of a person’s life structure (defined as the totality of his or her relationships with persons, collective entities, nature, and objects or places) with the external environment. Personal growth, in

contrast, would refer to the suitability of a person's life structure to the internal self. Because these two criteria may dissociate, it is not sufficient to know a person's sense of well-being (Levinson, 1986). Some people feel quite satisfied with a life that is reasonably comfortable and orderly but in which they have minimal engagement. Likewise, some people may be passionately engaged with life, yet experience great turmoil and suffering. They may ask more of life than it can readily provide.

Empirical support for this position comes from a study on identity styles in women from the Mills Longitudinal Study (Helson & Srivastava, 2001). This study also demonstrated the multifunctionality of different paths of adult development, incorporating both benefits and costs. Using Ryff's scales for environmental mastery and personal growth, four identity styles were identified. *Conservers* (who favored environmental mastery over personal growth) managed to build themselves a secure world, but there was evidence that they shut out too much, leading to low levels of both positive and negative emotions. *Seekers* (who preferred personal growth to environmental mastery) pursued the most creative occupations but they achieved less than they would have liked, often lacked the sense of living with others comfortably, and experienced high levels of both negative and positive emotions. *Achievers* (who valued both environmental mastery and personal growth) were the most adjusted and attained high levels of professional achievements. In attaining their goals, however, some of these women made sacrifices in the area of intimacy and, due to their limited time for life reflection, achieved lower levels of ego development and wisdom.

One could speculate that individuals with highly complex and intense longing are strongly engaged with life and ask a lot of it. They may be highly self-critical, have high ideals, and tenaciously attempt to attain their ideals. In this regard, they might resemble the seekers in Helson and Srivastava's (2001) study. Lower levels of environmental mastery may be one of the costs. The negative association of longing with happiness and psychological adjustment supports this claim. It remains an open question, however, whether longing has benefits in terms of personal growth. Because longing surpasses the limits of reality and elicits processes of self-critical reflection about oneself and the human condition, it may promote self-knowledge, wisdom, and creativity. Such links have been suggested in previous writings on longing (Boesch, 1998; Hoguebe, 1994; Schurer, 2001; Vogt, 1993).

Longing and self-knowledge. The importance of self-knowledge is reflected in a quote by Socrates (469 – 399 B.C.) who noted, "An unexamined life is not worth living." Self-knowledge includes knowledge about personal preferences and values, goals and motives, abilities and achievements, and rules and strategies for regulating behavior (Markus, 1983). It is reflected in the complexity and differentiation of self-representations (Labouvie-Vief et al., 1995). In complex

self-representations, the self is described as dynamic, historical, and complex. Complex self-representations comprise knowledge about underlying, often unconscious, motivations, about the continual revision of activities and goals in oneself and others, and about the role of life history in shaping and transforming individual biographies. Highest possible levels of self-differentiation are seldom reached (Labouvie-Vief et al., 1995). Longing may promote self-knowledge because it directs attention to neglected needs and motives and makes people reflect about their present and ideal realities of life (Hogrebe, 1994; Schurer, 2001).

Longing and wisdom. Longing may not only enhance knowledge about the self and personal life, but also about the general nature of the human condition, which is considered wisdom (P. B. Baltes & Smith, 1990; P. B. Baltes & Staudinger, 2000). Wisdom uniquely joins factual and procedural knowledge about important, difficult, and uncertain aspects of life meaning and conduct, knowledge about lifespan contextualism, value relativism and tolerance, and awareness and management of uncertainty. Previous research has shown that wisdom involves affective modulation and complexity rather than the predominant seeking of pleasure (Kunzmann & Baltes, 2003). Wisdom includes insight into the gain-loss dynamic of development and the necessary incompleteness and imperfection of human life courses.

Longing and creativity. Creativity refers to both the ability and the process of producing new ideas, objects, or processes (Csikszentmihalyi, 1992). Like longing, creativity is viewed as a double-sided phenomenon with both benefits and costs. Creativity facilitates problem solving, adaptability, self-expression, and health; yet, it has also been associated with mental illness and deviant behavior (Ludwig, 1995; Runco, 2004). Research has shown links between creativity and associative thinking, childlike curiosity, intrinsic interest, and perseverance bordering on obsession (Nakamura & Csikszentmihalyi, 2003). Longing may facilitate creativity because it extends the frame of thinking beyond what is realistically possible and induces the passion and motivation to persist in the creative process enduringly and against all odds. In line with this argument, a recent study by Förster, Friedman, and Liberman (2004) demonstrated the beneficial effect of global thinking and a distant time perspective, which are characteristic of longing, for creative cognition.

In sum, future studies will benefit from expanding longing research to include more diverse measures of optimal human functioning that cover aspects of environmental mastery as well as facets of personal growth. This research will greatly enhance the understanding of longing and shed light on the complexity, multidimensionality, and possible multifunctionality of longing for development. Of particular importance is also the question of whether the experience of longing can be decomposed into different stages or processes, with each having different

developmental consequences. Finally, the question of whether there are optimal or dysfunctional levels of longing is critical, as is the association of longing with a sense of personal control. The present data suggest that such dynamic approaches might be fruitful as we begin to understand the functional role of longing in the process of adult development.

5.5 Limitations

Several limitations of this study need to be acknowledged. First, the study primarily relied on self-report. Thus, findings are limited to those aspects of longing and subjective well-being that can be brought to conscious awareness and that participants were willing to disclose (Nisbett & Wilson, 1977; Wilson, 2002). As such, there are important aspects of longing that were not measured in the present study. For example, the study did not cover very diffuse or unnamable longings, nor unconscious longings. The study was also limited in examining more private longings that participants felt they did not want to disclose in the setting of the present study. The anonymous checklist of more private longings was added in an attempt to ameliorate or at least assess the extent of this problem. It suggests that in some individuals, longing may indeed be directed at very intimate and socially undesirable aims. However, the anonymous procedure did not allow these longing contents to be linked to other variables (such as age, sex, education, or other longing characteristics). Given the subjective nature of the longing experience, however, self-report seems to be an appropriate and valid method for the assessment of longing. Individuals are in the unique position to inform us about their own subjective experiences. Thus, the Longing Questionnaire provides a stable, dependable measure of reported internal experiences of longing.

Further, the study relied exclusively on subjective indicators of successful development (e.g., positive affect, life satisfaction) in evaluating the regulatory role of longing. This was done for pragmatic reasons and because longing is a subjective experience and should thus have its strongest relation to subjective indicators of psychological functioning. Subjective criteria are usually not considered sufficient to characterize successful development, however (P. B. Baltes & Baltes, 1990; Freund & Riediger, 2003; Lawton, 1983; Schulz & Heckhausen, 1996). Because persons tend to emotionally adapt quickly to both positive and negative changes in their lives (e.g., Brickman et al., 1978), subjective indicators are limited in their ability to signal objective living conditions and psychological functioning. Future research will benefit from including more objective indicators of successful development, such as physical and mental health, cognitive functioning, productivity, social competence, and longevity.

Another limitation of the present study was its cross-sectional design, which has implications for the interpretation of causal relationships and age effects. Obviously, causal

relationships such as the proposed effect of longing on subjective well-being, cannot be firmly established. It is not permissible to interpret the findings in a sense that intense, broad, and unattainable longing “causes” low subjective well-being, or that high control over the longing experience and realization “cause” high subjective well-being. It is equally likely that causal influences work in the opposite direction, or that a common third variable causes both intense longing and low well-being. The amount of loss experiences was already discussed as one potential third factor. Longitudinal studies are needed to more fully investigate the long-term consequences of longing and establish causal relationships between longing and other variables as they unfold over time.

The cross-sectional design of this study also confounded age with cohort effects (P. B. Baltes et al., 1980). It was not possible to determine the extent to which the found age associations were indeed due to the influence of cohort. Longitudinal and cohort-sequential studies (P. B. Baltes et al., 1977; Schaie & Hertzog, 1985) are needed to examine whether historical influences affect the content and characteristics of longing. The possible influence of personal war experiences on longings for peace was already discussed as a potential historical influence.

5.6 Directions for Future Research

The study of longing is very much at its beginning, and results of this study suggest a number of opportunities for further research. In the preceding sections, several ways to follow up on the questions arising from the present findings were already suggested. This section briefly sketches several further lines of inquiry that may help to deepen the understanding of the nature of this important phenomenon.

Construct Validity of the Longing Questionnaire

The present study was limited in its ability to test the construct validity of the Longing Questionnaire. This is not surprising given that construct validity usually cannot be demonstrated to the fullest extent within one study (Noar, 2003). In future research, it would be desirable to further examine the convergent and discriminant validity, as well as the predictive uniqueness of the Longing Questionnaire. As noted in the theoretical section, longing shares several characteristics with other concepts, including goals, possible selves, the ideal self, wishes, life regrets, hope, daydreams, and future fantasies (see Section 2.3). To empirically test the relations between these constructs and longing, as well as their unique and shared effects in predicting developmental outcomes, would be a logical next step. More broadly, convergent and divergent associations with measures of personality, life management strategies, and intellectual functioning

should be investigated. This would help to locate the concept of longing within standard taxonomies of human behavior and experience.

Alternative Methodological Strategies to Measure Longing and Its Outcomes

In the future, it would be desirable to assess longing and/or its outcomes with alternative methodological strategies. For example, a state form of the Longing Questionnaire may be created with minor rewording of items and modification of the instructions. Such a questionnaire would allow an on-line assessment of longing episodes, thereby reducing retrospective response biases (e.g., Sudman, Bradburn, & Schwarz, 1996). The state form of the questionnaire could be used in experimental induction studies or experience-sampling designs. For example, such designs could more directly test the emotional ambivalence (simultaneous presence of positive and negative emotions) or tritime focus (simultaneous focus on personal past, present, and future) of longings as they are experienced at the moment of responding. Other important questions could be investigated by modifying the instruction of the questionnaire. Study participants may be asked to rate their past or future (i.e., anticipated) longings, their pleasant or unpleasant longings, or their longings in specific life domains (e.g., partnership-related longings).

Another fruitful approach for the assessment of longing may be the coding of text material or narratives. Study participants may write accounts of longing episodes, autobiographical records, or their own obituary, which may be coded for contents and characteristics of longing, or other variables of interest. Such methods are well suited for gaining a more concrete sense of individuals' longings and may help to generate new concepts and to find new links between longing and other variables.

Longing or facets thereof may also be measured by indirect rather than self-report methods. Indirect methods are less susceptible to socially desirable responding because persons are not consciously reporting on their own experience and behavior. For example, a picture-story test similar to Murray's (1943) Thematic Apperception Test (TAT) may be administered and stories coded for the number of longing-related thoughts (as indicated by the number of longing-related words used, such as *fantasy*, *dream*, *imagination*, and so forth)¹⁷. Alternatively, an Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998) may be developed to assess the strength of associations between the concepts of self and longing. This task typically includes two bipolar word sets for each of the two concepts (self and longing). The concept of self could be represented by self-related words (*I*, *me*, etc.) and non-self-related words (*they*, *them*, etc.). The concept of longing could be represented by longing-related words (*fantasy*, *dream*, *imagination*, etc.)

¹⁷I thank Joachim Brunstein for this suggestion (personal communication, July 2002).

and reality-related words (*realistic, present, here-and-now*, etc.). The IAT assumes that strongly associated concept pairs (e.g., self and longing) are easier to classify together than are opposing pairs (e.g., self and reality). Faster classifications (measured by response times) of self and longing as compared to self and reality would be indicative of a strong salience of longing within the implicit self-concept.

Finally, experimental designs may help to further investigate the relationship between longing and its outcomes. Film clips, pictures, pieces of music, or mental imagery may be used to experimentally induce longing and examine subsequent behavior in comparison to control conditions. For example, in support of the proposed managing nonrealizability function, one would expect longing activation effects on state well-being. The proposed directionality function, in contrast, would predict that longing activation increases individuals' persistency in pursuing goals that they regard as instrumental for longing, or their willingness to delay immediate gratification in favor of their longing. Such strategies could also be used to examine longing effects on the construction and reconstruction of autobiographical narratives, which was suggested as a potential, more distal outcome of longing besides subjective well-being (see Section 2.4.1).

Exploring Developmental Antecedents of Longing

The present study represents an initial test of the proposed links between longing and subjective well-being as a potential general consequence of longing. No attention was paid to possible antecedents of longing. The developmental model outlined in the theoretical section (see Section 2.4.1) suggested that longing may derive from an awareness of the permanent incompleteness of human development, unrealized life paths, age-related and non-normative losses, and the irreversibility of time. A closer look at these potential developmental antecedents of longing has important implications for understanding development in adulthood.

Experimentally enhancing persons' awareness of the incompleteness of life (e.g., by using mental imagery, vignettes, or film clips dealing with loss and closed opportunities) can be a fruitful approach to examine the first proposed antecedent of longing. The present theory would predict that longing would be more intense, broad, and elaborated if awareness of life's incompleteness is enhanced as compared to a neutral control condition. A subgroup approach seems useful for illuminating the role of loss experiences. In persons who were confronted with a comparable loss, longing should be intensified. Losses may originate from a recent diagnosis of a terminal illness, the death of a loved one, rejection at university, or the passing of a developmental deadline (e.g., childless women beyond the deadline of childbearing). Losses may also occur because of personal decisions that close alternative options for development. For

example, the decision to become a homemaker instead of pursuing a career, or the decision to live in another country and leave one's family of origin behind, may give rise to longings for the non-selected life paths.

Investigating Longing as a Process

Throughout the discussion, the usefulness of adopting a process-oriented view on longing was emphasized. The present research found reliable individual differences in longing; yet, it remains open how longings naturally develop and which psychological and social conditions foster and impede their state level, or momentary expression. Future research may therefore investigate the longitudinal course or stages of longing experiences. Belk and colleagues (2003) suggested a circle of concrete desires, in which attainment or realization is followed by a reformulation of desire, because attainable objects cannot fulfill the underlying longing for higher-order aims. It seems likely that this cycle differs between persons who are aware of the symbolic and utopian nature of longings (those with a melancholic-utopian longing profile) and those who are not (those with a visionary longing profile).

The course of longing-related emotions may also be of interest and may have important implications for the functionality of longing. Positive and negative emotions may occur either simultaneously or sequentially over the course of longing episodes. Proceeding from a feeling of incompleteness (negative emotions) towards idealistic fantasies (positive emotions) may have different consequences than the opposite sequence. Because negative emotions foster a reassessment of goals and priorities (Carver & Scheier, 1990; Simon, 1967; Staudinger, 2001), a sequence of positive followed by negative emotions may be more closely linked with the directionality function of longing. In contrast, a sequence of negative followed by positive emotions is probably more characteristic of longing episodes that help to manage nonrealizability and restore subjective well-being. These are exciting possibilities awaiting further research.

From the Individual to Dyads and Social Groups

Finally, future research may extend the focus from individuals to dyads and social groups. Human development is embedded in social contexts (Reis, Collins, & Berscheid, 2000). This implies that individual's longings likely have influences on social relationships. Within dyads or social groups, longings could have a "social value." Because they are emotionally involving and likely have story-type features (with beginning, middle, and ending), they may be pleasurable to talk about. Longings are also often regarded as intimate, and the sharing of intimate thoughts and fantasies has been shown to enhance feelings of sympathy (Collins & Miller, 1994). Future research may explore the effect of conversing about personal longings on relationship quality,

both in the short-term (e.g., in the laboratory) and in the long-term (as assessed by questionnaires).

Adopting a social perspective has another implication. Longing may not only exist at the level of individuals; there may be *collective* longings, or utopias shared by social partners (e.g., partners, friends) or larger social groups (e.g., political organizations, nations). Collective longings perhaps have unique antecedents and consequences, and their investigation may provide additional insights into how longings influence human development. Collective longings may be more strongly rooted in cultural traditions, historical developments, media images, and press reports. They may give group members a shared direction for their future development and provide a strategy to regulate collective losses and dreams that will never come to pass. In addition, collective longings may provide social groups with a sense of identity and influence behaviors with societal and cultural implications, including health behavior, material consumption, and the treatment of minority groups.

5.7 Conclusion

The intent of this study was to introduce longing, or personal utopias of alternative realities of life, as a lifespan concept capturing a previously neglected facet of adulthood functioning. Lifespan theory and research was used as a general framework to integrate and extend common-sense and humanist views on longing. It was proposed that as they go through life, adults carry with them a set of personal utopias of alternative or past life realities that impact the current and future course of their development. The study demonstrated that longing is a phenomenon that renders itself to reliable empirical investigation by self-report measures. Contingent on additional evidence for its reliability and validity, the Longing Questionnaire can be used to examine a manifold of questions, some of which were outlined in the preceding sections.

Results supported the proposition that longing involves a family of six structural characteristics (incompleteness, symbolic nature, personal utopia, ambivalent emotions, tritime focus, and reflection/evaluation). On a higher level of abstraction, these could be organized into two higher-order factors – Intensity/Scope and Utopia/Ambivalence. Findings also imply, however, that people may not all have the same structural expression of longing. Reliable subgroups could be identified that differed in several relationships between longing characteristics, age, and well-being. Age-related findings suggest that across adulthood, longing focuses on changing themes and serves two important functions for development: It may provide directionality for the course of development (including the continuing reconstruction of the past), and it may help to compensate for lost or unrealizable developmental pathways using fantasy and

imagination. The most important result of this study was perhaps that although high-level expressions of longing were perceived as functional for development, they were associated with low subjective well-being. This raises the question of whether there are optimal and dysfunctional levels of longing, and whether cognitive and emotional correlates of longing differ across different stages of the longing experience. It may also well be that longing is a multifunctional phenomenon that incorporates both gains and losses. Future research is needed to explore the link between longing and well-being over a longer time frame, as well as research including alternative indicators of successful development like self-knowledge, wisdom, and creativity. Overall, the lifespan framework proved useful for articulating a conceptualization of longing. In the spirit of understanding the complex processes that characterize adult development, longing is certainly worth further exploration.