

6. Discussion

The present study was designed to investigate the various possible forms of interplay between personality and coping in old age and how they contribute to the prediction of short- and longer-term adaptation to cataract surgery and its consequences.

A number of specific hypotheses were advanced concerning the nature of these forms of interplay and which of the predictors involved would contribute independently to the prediction of variance in different outcomes. Furthermore, an effort was made to explore more closely some often-neglected aspects of coping that are referred to as content-free or meta-characteristics of coping in this context. Specifically, it was examined how pronounced versus undifferentiated and wide versus narrow ranges of coping contributed to the prediction of various sorts of adaptational criteria at various time-points surrounding surgery. Of central interest was also whether or not persons of different ages (spanning a range from 43 to 89 years) would exhibit different approaches to habitual versus situation-specific forms of coping. Would age play a role in how patients deal with a stressful situation?

Findings concerning these questions are evaluated in the following sections. Beginning this chapter, the central question of whether or not cataract surgery was indeed perceived as an acute stressor by patients, along with findings on other short- and long-term outcomes, are discussed.

6.1. A Stressor Indeed?

Generally, the pattern of results obtained for the affect measures around surgery speak for cataract surgery as a mildly stressful situation.

As predicted, *Negative Affect (NA)* was on a higher level on both measurement occasions pre-surgery, and it dropped noticeably thereafter. Compared to a random-day, six-week post-measurement, *Negative Affect* upon discharge was even lower. However, mean *Negative Affect* levels before patients went into surgery were noticeably higher. The pattern of *NA* subfacets also point in the right direction. Before the operation and while already in the hospital, anxiety was on average the highest-ranking subfacet and subsequently showed the steepest decline after the operation. While *NA* as a whole did

not increase from day of admission to day of surgery, as was expected, the anxiety component at least exhibited a marginal increment. This points to a well-documented reaction to physical threat situations, which are usually dominated by anxiety rather than, e.g., sadness or guilt. Mathews and Ridgeway (1981) suggest that this component is associated with the perception and report of autonomous arousal most likely mediated by an increased production of catecholamines and corticosteroids. A similar pattern of affective anxiety components was reported by Slangen, Krohne, Stellrecht, and Kleemann (1993) in a study with middle-aged surgery patients. The authors found considerable increments in pre-surgery affective anxiety components, which peaked immediately prior to the administration of anesthesia and fell rapidly after surgery. Interestingly, in the present data, the anger facet also ranged fairly high among the *NA* components, but only prior to surgery. This might have to do with the somewhat strenuous and time-consuming hospital procedures upon admission. Patients have to be examined and receive various kinds of eyedrops several times on admission day. The preparatory procedures involve long waiting times on benches outside the consultation rooms, and thus require much patience. Anger reactions as a consequence of hospital routines are well-documented (e.g., Slangen, Richter, & Krohne, 1994).

Positive Affect (PA), on the other hand, remained fairly low just before surgery and showed a remarkable increase afterwards. Generally, *PA* was much higher on both post-surgical measurement occasions than pre-surgery. The subfacet that most closely resembled this general development in *PA* was joviality, which ranged lowest among all *PA* subfacets before the operation and increased strongly afterwards. Attentiveness was the strongest *PA* component before the operation, which makes sense in light of multiple demands of a hospital situation.

One indirect hint at the stressful nature of the situation can be gathered from the mild but negative correlation observed between *Positive* and *Negative Affect* which occurred solely on the day of surgery. As discussed in Section 4.2.9., this might point to a phenomenon described by Zautra and colleagues (2000), namely the increment of dependence of the affect scales in times of increasing stress. To reiterate, the authors explain this transient structural change with stress-related changes in information processing. They refer to stress as instances where an individual exhibits a high demand

for information, due to uncertainty of the situation. The payoff then comes in form of a failure to process and respond to differentiated aspects of affect, for instance.

A few differential results concerning state affect and its development throughout the stressful situation deserve further mention. One finding commonly reported in the stress and coping literature (e.g., Slangen et al., 1993; Vögele, 1992) is that women are more stressed than men. Generally, i.e., not only in particularly taxing situations, women report more negative feelings than men (Nolen-Hoeksema, 1990). However, in all sorts of stressful situations this general difference between the sexes seems further exacerbated. In the present study, women reported both, more negative and less positive emotions mainly before the operation. This commonly found discrepancy is usually explained in association with typical gender-role attributes that are acquired early in life (Helmreich, Spence, & Holahan, 1979). Gender and gender roles are socially construed variables that affect many aspects of the self, comprising aspirations, choices, self-concepts, etc. They describe the extent to which a person resembles one of two or both societal gender stereotypes (i.e., masculinity or instrumentality vs. femininity or expressivity; Helmreich et al., 1979). In terms of self-presentation, it is socially more accepted for women to express adverse feelings, especially involving anxiety, than it is for men.

Another outstanding differential effect were the affect discrepancies observed between 1st and 2nd Eye patients, respectively. First-eye patients were generally more stressed than second-eye patients, i.e., they reported lower positive and higher *Negative Affect* especially prior to surgery. This effect has recently been reported by Foggitt (2001). The author conducted a pilot study investigating anxiety prior to cataract surgery. He examined cross-sectionally independent samples upon two measurement occasions prior to surgery and one afterwards. The author found similar results to the ones obtained in the present study. Compared to 1st Eye patients, 2nd Eye patients exhibited fewer symptoms of anxiety at all points of the assessment. Familiarity with the hospital situation and routines, the intervention itself, and, thus, a heightened sense of predictability might account for this stress inoculation effect observed in both studies.

A third interesting differential result pointed to patients with better visual acuity pre-surgery reporting less *Positive Affect* upon admission to the hospital. Although this

cannot be tested directly with the data at hand, this finding might hint at the expectation of too little gain while having to accept the possible risks involved.

Interestingly, while looking at both bivariate and especially multivariate associations, age turned out a very weak if non-existent predictor of affect and affect change around surgery. On a bivariate level, a very weak association pointed to less *Positive Affect* in older persons before the intervention. While testing other predictors of *PA* pre-surgery, however, this weak association disappeared completely, suggesting that there was no remarkable difference regarding the affects between middle-aged, young-old, and old-old patients in this sample. The same was true for patients' coping reactions, which will be discussed in more detail below.

In sum, a number of findings point to cataract surgery as a mild, but still somewhat stressful experience.

6.2. Satisfaction with Coping Efforts as Another Situation-Specific Outcome

Six weeks post-surgery, patients reported a very high level of satisfaction concerning their own coping efforts prior to the operation. Moreover, there was a slight positive association with age, indicating more coping satisfaction in older participants. A number of associated findings point to a less than optimal assessment time frame for coping satisfaction. First of all, the measure was highly skewed, i.e., most patients were reporting high coping satisfaction. This might indicate a number of things: (a) Patients might have been very content with the way they handled the time before surgery; (b) a self-presentational bias led them to overstate their coping satisfaction; (c) the measurement occasion chosen was too far removed from the event, which led to biases due to memory problems, such as 'the dispositional shift' (Peterson, 1980). A fairly high negative correlation with depressive symptoms six weeks post-surgery as well as a strong trait affective component as revealed by the lacking association with net of affectivity versions of *Neuroticism* and *Extraversion* point to the latter argument. On the other hand, some evidence speaks for at least a fraction of valid coping satisfaction variance. Relations with the affects around surgery reveal highly significant negative associations with state *Negative Affect* measures prior to surgery, but not after surgery, and no relations with state *Positive Affect* at any time. Given that participants rated their

satisfaction with coping on the basis of how they felt while anticipating surgery, these associations are rather promising signs of validity.

6.3. Depressive Symptoms and Life Satisfaction

Since there was only one assessment of depressive symptoms six weeks post-surgery, nothing can be said about manner of pre- to post-surgical change. However, a number of differential findings already documented (Fagerstöm, 1994; Nolen-Hoeksema, 1990), were obtained in the present study. The most prominent of these differential results were relatively stable gender differences, pointing to more depressive symptoms in women than men. Gender differences in depressive symptoms are in close connection with those found for anxiety (see Section 6.1.). A number of theories have tried to explain this most robust epidemiological finding by gender differences in social status and power (Bandura, 1986; Seligman, 1975), or even biological factors (see e.g., Nolen-Hoeksema, 1990, for a review). More recent models have gained complexity, examining gender differences in different factors, such as chronic strain, a greater tendency to ruminate, a lower sense of mastery, and their interplay. Nolen-Hoeksema, Larson, and Grayson (1999) found that gender differences in these social and personality factors fully mediated the gender difference in depressive symptoms. Additionally, chronic strain, rumination, and mastery appeared to contribute to each other, in that rumination, for example, amplified the effects of mastery or strain on depressive symptoms. Their findings point to rumination as a central mechanism not only in the etiology of depressive symptoms, but also in their perpetuation, especially in women.

"When given the opportunity, women choose to ruminate upon their depressive mood, while men prefer to distract themselves. However, the pattern is reversed for more active negative states such as anger. Women want to think about sadness, but avoid thinking about anger."

(S. Nolen-Hoeksema; Panagopoulou, 1998)

Nolen-Hoeksema attributes these gender differences to socialization issues and power differences embedded in thousands of years of practice (Panagopoulou, 1998). Gender

differences in depressive symptoms appear to emerge in early adolescence and remain throughout the adult life-span (Nolen-Hoeksema & Girgus, 1994).

Another differential result concerning depressive symptoms has previously been reported by Fagerström (1994). Six weeks post-surgery, those patients with less positive change in visual acuity in the eye operated on reported more depressive symptoms than those with more change in visual acuity. For depressive symptoms, this effect was stronger than the negative relationship found initially with total level of post-surgical visual acuity. However, the unique effect was considerably lessened by the inclusion of multimorbidity as a rival predictor, which points to a relative predominance of the general health status concerning the prediction of depressive symptoms six weeks post-cataract-surgery.

Fagerström explains the connection between less visual acuity post-surgery and depressive symptoms with a renewed fear of impeding blindness when cataract surgery was less than successful in terms of visual outcome. On a more moderate level, this association might also be explained in terms of disappointed hopes for the consequences of surgery. If utilization of external resources (cataract surgery) to improve the personal situation (better vision) has led to limited success only and cannot be further enhanced by other means, this alone may explain a drop in well-being through a sense of resignation (Brandtstädter, 1992).

The lessening of importance of visual acuity in predicting depressive symptoms when multimorbidity was taken into consideration has previously been reported by Wahl and Oswald (1996). In Wahl and Oswald's study with irreversibly and severely visually impaired elderly people, the authors found that the degree of objective visual impairment as represented by participants' visual acuity did not play a role in predicting concurrent depressive symptoms when a number of other factors, including number of medical diagnoses, were controlled. In the present case, it is likely that the assessment six weeks post-surgery might have given participants enough time and space to start adapting to a less-than-satisfactory surgical outcome. Additionally, other chronic conditions may have been comparatively more salient at this point in time. The fact, however, that both multiple diagnoses and change in visual acuity shared predicted outcome variance in depressive symptoms (and life satisfaction) still points to some

influence of the ophthalmic predictor in cataract patients coming to terms with the outcome of the operation.

Turning to the second longer-term well-being indicator, i.e., life satisfaction, it generally increased with higher change in visual acuity post-surgery. Although predictions were small, they were stable nevertheless and resembled those obtained by ophthalmologic studies on outcomes of refractive surgery.

6.4. Long-Term Functional Outcomes

Contrary to expectations, patients en gros did not take up more heavily vision-dependent activities post-surgery. This unexpected finding might be most likely due to the nature of the activities assessed. Specifically, the list of vision-dependent activities was short, including only 11 different activities (see Table 14), of which on average 8 had already been carried out even before the operation (7.5 of 9 when driving items were excluded). Although the list did include everyday activities such as household activities, personal hygiene, etc., the wording or description of the activities remained on a very general level. Concerning just the number of activities pursued post-surgery, vision-related ophthalmic data did not contribute much to the prediction when other factors were controlled. In fact, while some of the ophthalmic data showed bivariate associations with both assessments of number of activities, when entered among other control variables (especially sex), they lost importance as predictors altogether.

Variables that remained important predictors, however, were age and sex. At both measurement occasions older participants pursued fewer activities when compared to younger (even when multimorbidity and ophthalmic data were controlled). However, age did not contribute to the change prediction in number of activities. This finding does not so much point to frailty or lower functional status as reasons for older persons pursuing fewer activities. Instead, some of the activities assessed might be somewhat susceptible to cohort bias (see Appendix E, Table E2 for item wording). On the other hand, while men pursued more activities prior to surgery and post-surgery, they also exhibited more activities than women while the pre-surgical assessment was controlled. In fact, number of activities pursued post-surgery decreased for women, whereas men's

scores remained stable. In terms of number of activities, thus, men seemed more daring, age, morbidity, and visual acuity being equal. Throughout analyses, the most important predictor while looking at post-surgical number of vision-dependent activities pursued was the pre-surgical level.

A different picture emerged when vision-related limitations were contemplated. First of all, number of activities were related only to a minor extent and non-significantly with limitations experienced, which came as a surprise and speaks for the fact that activities were generally carried out even with limitations present. Second, the degree of limitations experienced was dependent on the concurrent level of visual acuity. There was no indication of actual change in visual acuity predicting decrease in functional limitations. However, level of visual acuity at six weeks post-surgery did. It came as no surprise, that the better patients could see (with the eye operated on, which in many cases was the "best" eye), the fewer limitations they experienced at all points in time while carrying out heavily vision-dependent activities.

Before surgery, women reported more limitations than men, which, at six weeks post-surgery, was no longer the case. Concerning changes in limitation, no sex differences were observed, either. Age was not related to limitations at any point in time.

6.5. Coping and Age

The major hypotheses concerning the relations between coping and chronological age were proposed on the basis of a more context-dependent explanation of age trajectories found in coping with stress. This context-oriented explanation states that coping would not change as a result of inherent maturation processes (e.g., Erikson, 1963; Jung, 1959), but simply reflect the fact that older persons have to cope with different demands when compared to younger persons (e.g., Folkman & Lazarus, 1980; McCrae, 1982). Moreover, no great cross-sectional relations between coping and age were expected in the present study, due to the age range spanning only middle to old age. Somewhat ironically, with dispositional coping styles being most likely aggregates of reactions to different types of stressful situations, mild relations of *Active Coping* and *Focus on Positive* coping with age were predicted. On a situation-specific basis and according to the contextual explanation, no age relations were hypothesized.

No age relations with any form of coping or even content-free aspects of coping were found. Apart from the expected independence of age from situation-specific coping (content and content-free measures), not any significant relations with habitual coping were found, either. The latter might partly be explained by a lack of statistical power due to the small sample size, for there was at least some indication of a negative relation between age and habitual *Active Coping/D*.

Accordingly, similar to the results reported by different authors (Folkman & Lazarus, 1980; McCrae, 1982), the lack of age-related findings concerning situation-specific coping speaks for a more contextual explanation of possible age trajectories of coping and thus, ironically, points to a fair amount of stability. Consequently, the present results do not support an age-related "worsening" or regression of coping as suggested by Pfeiffer (1977). Instead, patients of all ages exhibited an average situation-specific coping profile, which in light of the situation they had to deal with, seemed more than adequate. Taking into account the limited degree of predictability and controllability of the hospital/surgery situation, the sharp contrast between low average *Active Coping* and fairly high average *Focus on Positive* coping in anticipation of the operation very likely renders a basis for a good person-situation fit. On the other hand, comparing situation-specific with habitual *Active Coping*, more of the same was reported on average when no situational limitation was present. In the same manner, participants admitted to very low levels of *Evasive Coping* while in the hospital situation. *Evasive Coping* would most likely include forms of "regressive defenses" as they are described by Pfeiffer (1977). *Denial*, *Self-Blame*, and *Venting* would not focus at the problem at hand nor on the potentially positive aspects of the situation. Compared to other forms of coping, *Evasive Coping*, both situation-specific and dispositional, remained the set of strategies reported least by study participants of all ages. Although there was a slight increase in dispositional *Evasive Coping* means as compared to situation-specific ones, it is again conceivable that even evasive forms of coping are at least more easily applied under less situationally limited circumstances. After all, denial of the impending operation while already in the hospital or while preparing for a hospital stay seems hard to follow through. On the other hand, a likely aggregate of reactions to stressful situations (as in habitual coping) might also yield instances in which *Denial/D*, *Venting/D*, or *Self-Blame/D*, if not very helpful, are at least "easier" to apply.

Concerning *Support Seeking*, in both instances, situation-specific and dispositional assessments, the mean reported level was comparable to the one for *Active Coping* and was relatively low. However, *Support Seeking* was still reported to a greater degree than evasive forms of coping. While *Support Seeking* did not exhibit associations with age either, there was some indication pointing to different emotional outcomes in connection with support coping in different age groups. These findings are discussed once again later in this chapter.

In both sets of coping responses, i.e., situation-specific and dispositional, the one most strongly endorsed was *Focus on Positive* coping, i.e., *Humor*, *Acceptance*, and *Positive Reframing*. While in the hospital and awaiting surgery, this set of coping responses seems to fit the non-changeable circumstances particularly well. On the other hand, the predominance of *Focus on Positive* coping within dispositional responses might point to a specific feature of the present sample which has not yet been discussed, and aside from the limited age range mentioned earlier, might contribute to the lack of age effects even in habitual coping found here.

McCrae (1982) suggests that age associations in coping styles are explained to a large extent by the different stressors that persons of different ages have to cope with. Moreover, Folkman and Lazarus (1980) found that in old age the predominant stressors encountered are related to health problems, and that these stressors in turn account for the way the elderly cope. Relating age to self-reported number of chronic illnesses in the present sample, however, did not yield the common moderate to high positive correlation. In terms of number of diagnoses, older persons were only marginally sicker than younger ones in this study (see also Section 4.1.6.). Looking at single different diagnoses led to only two fully significant age effects (see Appendix C, Table C18): more osteoporoses and slightly more arthritis or rheumatic illnesses in older persons. This unexpectedly low number of morbidity-age-relations could again be explained by a number of factors, the first of which being the already-mentioned restricted range of 43 to 89 years of age. A second possible explanation is that, in terms of morbidity, the younger cataract patients in this sample were not as different from the older ones as one might expect. Here, younger participants were about as "chronically ill" as the older ones. Given that the degree of multimorbidity is suspected by some to be the main explanatory factor in the coping-age relationship, one might argue that the lack of age

relations with coping in this study is indeed explained by this less-than-ordinary similarity in number of unweighted medical diagnoses. In this particular sample, the "contextual differences" between younger and older patients might not have been as pronounced as is usually the case, an assumption which is at least partly supported by recent results that point to a higher-than-expected mortality in middle-aged cataract patients (Hu et al., 2001).

6.6. Gender and Coping

Gender differences with two forms of coping were found, and they remained stable even after controlling for a number of covariates: Women reported more *Support Seeking* than men, and men admitted to more *Active Coping* than women. The latter was only true when situation-specific coping was examined, although with the dispositional version of *Active Coping*, once again a statistical power problem might have prevented the association to be significant. *Support Seeking*, however, was higher in women in both situation-specific and dispositional versions.

While more active coping in men is not well-documented in the literature, men have repeatedly been found to exhibit more avoidant coping strategies (Weidner & Collins, 1993). Higher support seeking in women is commonly found within the literature on social support.

Gender differences in social networks and social support (perception and utilization) have been discussed by various authors (Greenglass, 1982; Knoll & Schwarzer, in press; Verbrugge & Wingard, 1987). Throughout the life course, women have more close friends than men (Bell, 1981). Commencing in childhood, girls tend to develop more intimate interpersonal relationships than boys do, although boys tend to gang together in larger groups (e.g., Belle, 1989). Adult women still have a greater number of close relationships and also seemingly more extensive social networks than men (Laireiter & Baumann, 1992). Additionally, women provide more emotional support to both men and women, and they get more help in return (Kessler, McLeod, & Wethington, 1985). Explanations for these discrepancies have been found in gender differences in emotionality and emotional expressiveness. Women emphasize intimacy

and self-disclosure in their friendships. They are generally more empathetic, expressive, and disclosing than men (Bell, 1981).

6.7. Unique Effects of Coping Predicting Situation-Specific Outcomes

One set of the most stable unique effects of coping on level and change of outcomes in this study revolved around situation-specific *Focus on Positive* coping. In the hospital context, situational *Focus on Positive* coping, i.e., strategies such as *Positive Reframing*, *Humor*, and *Acceptance*, were highly positively related to *Positive Affect* and change thereof, pre- as well as post-surgery. While including the 'taking the situation with humor' subscale might lead to unease about artificially inflated relationships between *Positive Affect* and this set of coping strategies, suspicions can largely be dismissed due to the non-trivial part of incremental validity of *Focus on Positive* coping. Such incremental validity was represented by the prediction of residualized change in *Positive Affect* both pre- and pre- to post-surgery. Situation-specific *Focus on Positive* coping prospectively predicted not only higher emotional well-being, that is, higher *Positive Affect* and at times lower *Negative Affect* for patients undergoing surgery, it also contributed to higher *satisfaction with coping efforts* prior to surgery, as hypothesized. How can this thoroughly positive finding be explained? On the one hand, accepting and making the best of a taxing situation that may not easily be changed, seems a promising way to control negative feelings (Terry & Hynes, 1998). On the other hand, Folkman and Moskowitz (2000) go even a step further and suggest that this family of coping strategies, especially positive reframing, is part of a larger aim that seeks to attribute *meaning* to the occurrence of taxing situations.

Folkman and Moskowitz (2000) argue that the construal of meaning not only serves to estimate personal significance of a situation and choice of coping, but also plays a vital role for coping behavior itself, especially coping that supports positive emotions. In an effort to shed light on the "other side of coping," Folkman and Moskowitz (2000) criticize the underrepresentation of Positive Affect in most coping research to date. They contend that, conceptually, PA has been discussed in relation to appraisal processes in Lazarus' cognitive theory of psychological stress (1991), for instance, PA as part of a challenge appraisal that signals the possibility of mastery and control of a

situation or the appraisal of a resolution of an encounter as successful. Moreover, they underscore the existence of PA in coping processes and identify a number of coping strategies that serve to bring about and foster positive emotions in the context even of prolonged stress, among them positive reappraisal and infusing ordinary events with positive meaning. Folkman and Moskowitz suggest that appraisal or situational meaning shapes emotions and helps determine the subjectively best course of action (coping). Moreover, "in the case of coping processes that support positive affect, appraised meaning is also integral to the process of coping itself" (p. 651). In a longitudinal study of AIDS caregivers covering a period of eight months surrounding the death of their partners (Moskowitz, Folkman, Collette, & Vittinghoff, 1996), authors found positive reappraisal significantly and independently related with increases in PA, pointing to caregivers' reappraisal of an exhausting and painful experience as worthwhile. With the same data set, the authors emphasize that almost all caregivers were readily able to report positive events in the midst of their ongoing stress. Most of these were actually quite ordinary events, but nevertheless, they were reported as positive. The authors suggest that in the course of a chronically stressful situation (such as long-term caregiving), ordinary experiences are infused with positive meaning and serve as breathers that contribute to positive emotions (Folkman & Moskowitz, 2000), an interpretation that awaits further research.

In a qualitative study on AIDS caregivers, Stein, Folkman, Trabasso, and Richards (1997) found evidence for positive appraisals and plans formulated at the time immediately following a partner's death from AIDS being related to psychological well-being (i.e., heightened morale, positive states of mind, and less depression) at bereavement and 12 months post-loss. These positive appraisals by caregivers included beliefs about how things had been, were at the time, and would be, their goals, outcomes of goals, as well as goal-related emotions. Authors made a point in distinguishing appraisal-related emotions (situational, related to ongoing events) from underlying traits (positive and negative emotionality) by controlling for the latter. Additionally, positive appraisals were more common than negative appraisals, even during the partner's last days. The idea of maintaining positive meaning in stressful situations and especially efforts to foster PA has been described in earlier writings by Lazarus, Kanner, and Folkman (1980). Authors noted that positive emotions serve as

"breathers" that free a person from the negative impact of a situation at least temporarily, "sustainers" that foster the persistence of coping efforts, and "restorers" that replenish depleted resources.

The only other set of coping strategies contributing to *Positive Affect* prior to surgery was *Active Coping*. Contrary to expectations, *Active Coping* predicted both more *Negative* and more *Positive Affect*. The latter might largely be explained by a high arousal component of *Positive Affect*, which can be found throughout all of its subfacets (Egloff, 1998). Especially considering the limited controllability of the context and its outcome, this explanation appears most reasonable and is supported to a certain extent by a peripheral finding associated with the structure of the Brief COPE subscales. To reiterate, during initial exploratory principal components analyses with the situation-specific version of the Brief Cope, not only the subscales *Planning* and *Active Coping*, but also *Self-Distraction* loaded positively on the component later termed "*Active Coping*." *Self-Distraction*, however, turned out to be complex, contributing not only to active but also to support coping, and was thus subsequently excluded from further analyses. *Self-Distraction* as a subscale of the Brief COPE focuses heavily on activity (see Appendix E, Section 8.5.5. for item wording) and, by definition, not so much on the problem at hand. Despite the exclusion of *Self-Distraction*, it is still likely that what was termed *Active Coping* in the present study not only represented the problem-oriented approach, but also, to a limited degree, the "keep busy" approach to coping. This in turn might have built the narrow bridge to the arousal components inherent in *Positive Affect*.

On the other hand, evidence also speaks for a problem-oriented component in *Active Coping* that is at least hinted at by the observed positive relation with *Negative Affect*, especially on admission day as well as by the negative relation with coping satisfaction. This pattern of results was expected, and it likely demonstrates the lost effort of problem-oriented coping in low control situations.

Folkman and colleagues (Folkman, Lazarus, Gruen, & DeLongis, 1986) point out that the efficacy of problem-oriented versus emotion-focused types of coping should depend on situational characteristics at hand. In a low control situation, efforts to actively change the stressor or make plans on how to deal with it should lead to failure,

frustration, and higher distress. More recent work by Terry and Hynes (1998) has supported this idea. However, the authors further differentiate what is usually termed problem-oriented coping: Resembling Brandtstädter and Renner's (1990) assimilative and accommodative coping, Terry and Hynes distinguish between so-called problem-management strategies (i.e., *active* attempts to manage the problem, making a plan of action) and problem-appraisal strategies (i.e., trying to see the positive side of the situation). Both are problem-oriented, but they allow for differential predictions concerning outcomes of low-control situations. Terry and Hynes could show that in a low control situation, that is, coping with failed attempts of in-vitro fertilization, especially problem-management strategies were associated with higher distress. Their conceptualization of problem-management strategies resembles to a certain degree *Active Coping* in the present study. Both findings, *Active Coping* predicting more *Negative Affect* on admission day as well as less coping satisfaction, support Terry and Hynes' findings.

As predicted, situation-specific *Evasive Coping* was uniquely associated with more negative emotions, but only on the day of surgery and while predicting change in *Negative Affect* from admission to surgery. Moreover, more evasive copers were less satisfied with their coping efforts. This finding closely resembles a result by Bolger (1990), pointing to more anxiety in college students who prepared for taking a stressful exam, as well as findings by other authors (e.g., Felton, Revenson, & Hinrichsen, 1984; Terry & Hynes, 1998). The overt heterogeneity of this scale, including the Brief COPE subscales *Denial*, *Self-Blame*, and *Venting*, seems to make a clear-cut interpretation difficult. However, both McCrae and Costa (1986) and Carver (1997) encountered the same phenomena. Also, in case of the study by McCrae and Costa, at least at first glance, the family of what they termed "neurotic" coping strategies was related to a less favorable outcome. They point out that, remarkably, all coping subscales which had previously shown positive relations with *Neuroticism* formed one factor in exploratory factor analyses, hence they termed it "neurotic coping." The authors suggest that this finding provides further evidence for the close connection between coping and personality traits.

Furthermore, Carver (1997) observes a similar constellation with the English version of the Brief COPE as the one found in the present study: Employing exploratory factor analyses, he also finds Self-Blame and Denial loading on the same factor, whereas Venting in his study co-loaded on the same factor as Self-Distraction. He noted that in each case there is a "suggestion of a dialectical tension between opposing forces" (p. 98), i.e., avoidant and vigilant strategies occurring together, but he does not provide any explanation for this. Bolger (1990) finds Self-Blame and Wishful Thinking highly associated, once again examples of both vigilant (self-blame) and avoidant coping (wishful thinking) in close positive connection with each other.

Krohne (1993, 1996) conceptualizes persons who employ both vigilant and cognitive avoidant strategies as 'unsuccessful copers' or 'highly anxious individuals' (see Section 2.2.6.). Krohne proposes that unsuccessful copers should end up exhibiting higher distress levels because they fail to follow through with one strategy, instead switching back and forth. This explanation might also present a connection to the present study's findings on *total range of coping* reported later (Section 6.13.2.).

Increasing evidence for what Carver (1997) alluded to as the "dialectical tension of opposing forces" and their close connection with negative outcomes, above and beyond "negative personality antecedents" (Bolger, 1990) as it were, clearly warrants further investigation into this phenomenon. Pointing to Krohne's (1996) theory, the co-occurrence of these heterogeneous coping efforts might indeed represent some sort of desperate and uncoordinated attempt at coming to terms with taxing circumstances.

As for unique effects of situation-specific *Support Seeking*, it was associated with more *Negative Affect* upon day of admission to the hospital, especially in men, with higher levels of *Negative Affect* six weeks post-surgery (even when the previous *NA* assessment was controlled), and for older participants only, with a decrease in *Positive Affect* prior to surgery. As Monroe and Steiner (1986) pointed out, support utilization is not always connected with better outcome in stressful situations. Although mere speculation, in light of the moderating effects of gender and age found in the present study, likely "the having to ask for help aspect" of *Support Seeking* might account for its association with negative outcomes. Since, as reported before, there is evidence of differential choice of *Support Seeking* in this study, i.e., the more emotionally labile

persons reported more *Support Seeking*, Monroe and Steiner's (1986) suggestion that personality may play a role in explaining the *Support Seeking*-negative outcome relationship seems likely.

6.8. Unique Relations of Dispositional Coping with Long-Term Outcomes

In terms of dispositional coping predicting longer-term emotional and functional outcomes, a number of interesting patterns emerged, pointing to both the specificity of the situation in the aftermath of cataract surgery as well as to often-reported features of coping (especially dispositional concepts thereof) in old age.

Concerning hypothesized relations between *Evasive Coping/D* and the different indicators of longer-term well-being, for some, evidence emerged in the present data. At first glance, the expected positive relation between *Evasive Coping/D* and depressive symptoms six weeks post-surgery was found. As will be discussed below, however, this finding did not withstand the control for *Neuroticism*. Instead, *Evasive Coping/D*, while testing possible mediation, lost its independent predictor status concerning depressive symptoms. However, habitual *Evasive Coping/D* was related to less life satisfaction prior to surgery, but not significantly so at the six-week post-measurement point. Thus, in general, similar findings were reported for both situation-specific and dispositional versions of this coping reaction, in all cases being related to less favorable outcome.

Dispositional *Focus on Positive/D* coping, on the other hand, was predicted to be related to more favorable outcome at all measurement points in time. Indeed, it predicted less depressive symptoms six weeks after the operation, its independent prediction not lessened by the control for *Neuroticism* (see Section 5.6.4.). Moreover, there was a tendency for habitual *Focus on Positive/D* copers to report more life satisfaction, especially six weeks post-surgery once again. While there was also some indication of a positive relationship of this coping style with life satisfaction prior to surgery, it did not reach a satisfactory level of significance. The prediction that dispositional *Focus on Positive/D* coping might act to lighten the burden of impaired vision prior to surgery and be associated with higher life satisfaction, was thus not entirely confirmed.

A further set of interesting findings pertains to the predictive quality of dispositional *Active Coping/D*. Again, most likely due to problems of statistical power in a small

sample, most of the positive unique relations barely missed an acceptable level of significance, however, they all pointed in the same direction: Dispositional *Active Coping/D* was associated with worse long-term emotional outcome - significantly and negatively so with life satisfaction six weeks post-operation and while predicting change in life satisfaction from pre- to post-surgery. Only non-significant and fairly low associations were found, predicting depressive symptoms six weeks post-surgery, the direction indicated more symptoms and less life satisfaction prior to the operation with higher *Active Coping/D*. In the case of dispositional *Active Coping/D* predicting worse emotional outcome, similar explanations as for the situation-specific version of this coping scale must be considered (Brandtstädter, 1992).

While with the situation-specific version it was expected that *Active Coping* should be associated with worse adaptation mainly because of the limited controllability of the hospital-/surgery-situation, endorsements of the dispositional version most likely represent aggregates of coping reactions to a number of different stressful situations (as was explicitly instructed). Hence, one might claim that such instances likely encompass varying levels of possible control. But is this really the case? While the present study cannot explicitly test this proposition, literature on coping in old age yields some evidence pointing to an accumulation of hard-to-control aversive developments in the later part of the life-span. Wentura and Greve (2000) assert that 'coping in old age' can be viewed from two different perspectives: (a) coping with old age, and (b) more literally, coping in old age. *Coping with old age* can be seen as a proxy for coping with age-specific stressors. The authors suggest that a number of findings point to an increasing number of aversive developments in the later part of the life-span, such as a decline in physical and mental performance, multimorbidity, loss of professional careers due to retirement, loss of same-age peers, and a decreasing life-expectation. The fact that most of these aversive developments themselves are hard to control leads directly to the second more literal perspective, *coping in old age*. Brandtstädter and Renner (1990) could show that with increasing age, active, problem-oriented forms of coping that tenaciously aim at pursuing a goal (assimilative coping) decline, whereas coping forms that flexibly adjust aims and goals (accomodative coping) increase. The latter are seen as protective and stabilizing means of coming to terms with especially age-associated crises (Brandtstädter & Wentura, 1995). The former, however, are expected to be rather

maladaptive in uncontrollable contexts (e.g., Brandtstädter, 1992). If low controllability and possibly even declining resources are met by active attempts to change the circumstances, efforts are likely to fail. The present data suggest less well-being for more habitually active copers *mainly post-surgery*. But even with one limitation significantly improved, better visual acuity is not likely to have a long-lasting impact on the controllability of other domains of one's life. While there is only a weak and non-significant indication of a negative association between age and dispositional *Active Coping/D* in the present data (see Section 5.4.2.), these findings support the prediction of Brandtstädter's model.

Habitual *Support Seeking/D* exhibited only spurious relations to depressive symptoms six weeks post-surgery, and solely for patients with better surgical outcome (i.e., more visual acuity). In this group a positive association between dispositional *Support Seeking/D* and depressive symptoms emerged. This relation disappeared, however, once *Neuroticism* was accounted for. While not significant, the relation was *negative* in the group with *lower* post-surgical vision, thus pointing in the other direction. The discussion of this emerging "negative frame" of *Support Seeking* that has been pointed out before (Monroe & Steiner, 1986), will be taken up again later in this chapter.

6.9. Dispositional Coping and Functional Limitations

The predictive quality of dispositional coping in terms of functional adaptation pre- to post-surgery was rather limited, and called into question the proposed direction of prediction many times.

Hypotheses for this set of analyses focused on dispositional *Active Coping/D*. It was reasoned that a tendency to tackle problems actively and to plan the dissolution of the same might co-occur with the pursuit of more heavily vision-dependent activities pre- as well as post-surgery. However, only the latter was supported by the present data. There was no indication that while visual limitations were still pronounced (i.e., pre-surgery), habitual active copers would nevertheless pursue activities to a greater extent than their counterparts would. On the other hand, data supported predictions concerning the post-surgical part of the hypothesis. Six weeks after the operation, more active copers tended to report more pursued activities. At first glance, more dispositional

Active Coping/D even seemed to predict positive change variance in number of activities. However, this effect was further qualified by *Openness to Experience*, as discussed in Section 6.11.

A second hypothesis pertained to the level of reported vision-related limitations prior to surgery. It was reasoned that while still pursuing more activities prior to surgery, habitual active copers would also complain about more limitations. While the first prediction was not supported by the data (see above), the second one was. More active copers indeed tended to report more vision-related limitations prior to surgery (indicators of visual acuity being equal). Presumably, although not performing more of them prior to surgery, habitual active copers still pursued these activities more "tenaciously" and thus encountered more problems. Note that post-surgery this positive association between dispositional *Active Coping/D* and limitations was no longer present. Thus, with respect to dispositional *Active Coping/D*, findings point to an interesting divergence of experience and behavior: While habitual active copers' emotional adaptation points to worse outcomes when compared to their counterparts (see section above), their functional achievements seem to be somewhat better. This indicates a pay-off situation where more activity goes hand in hand with more frustration and ultimately worse emotional adaptation and calls into question the often-claimed all-round-adaptivity of active forms of coping, especially for older individuals (Wahl & Oswald, 1996).

Another finding on the number of activities pursued post-surgery concerned habitual *Support Seeking/D*. Here, however, the direction of prediction must be seriously questioned. Multimorbidity and indicators of visual acuity controlled, habitual support seekers had only a slight tendency to report fewer pursued activities. Since there is no evidence of incremental validity through a change prediction with additional control for previous measurement, a number of alternative explanations come to mind, the most obvious being that there are reasons other than the ones controlled for that limited support seekers more than their counterparts and thus kept them from pursuing more activities. In this case, the *Support Seeking/D* variable is just a proxy for unknown third variables that actually are responsible for this finding. Another interpretation might be that persons who tend to ask for help when they encounter difficulties could be more

likely to give up personal projects (such as pursuing certain activities) faster and hesitate to resume them again, even when it is easier to do so. In this case, however, a pronounced negative relationship between dispositional *Support Seeking/D* and number of vision-dependent activities prior to surgery should be expected, but was not found in the present data. While a number of other possible explanations exist, they remain speculative and are not further elaborated here.

6.10. Unique Predictions of Coping Generally

Many of the unique predictions the diverse coping variables produced with respect to both situation-specific and longer-term emotional and functional outcomes in the present study were fairly straightforward and in many instances in line with expectations and findings from earlier studies.

One set of findings, i.e., those related to both versions of *Support Seeking* were especially intriguing and clearly deserve more attention in the future. Contrary to a number of studies attesting *Support Seeking* a more than positive function in the stress and coping process (Schröder & Schwarzer, 2001; Schröder, Schwarzer, & Konertz, 1998), the present data suggested negative outcomes and antecedents from a situation-specific as well as a longer-term perspective. Keeping in mind that seeking support resulted in different pre-operative changes in *Positive Affect* for younger versus older patients, a straightforward comparison between younger and older persons in terms of meaning and consequences of support utilization should be useful.

Generally, situation-specific coping seemed a stronger predictor of short-term adaptation to an acute stressor than dispositional coping. On the other hand, dispositional coping was a better predictor for longer-term adaptation (see also Carver & Scheier, 1994). Also, with situation-specific coping predicting affect and coping satisfaction around surgery, results remained stable, even when personality traits were considered. Whereas many of the dispositional coping long-term-outcome relations turned out to be spurious when personality traits were controlled (see below).

6.11. Mediation and Unique Effects of Personality: Coping as a Personality Process?

One central aim of the present study was to test the hypothesis whether or not coping can indeed be seen as a 'personality process,' that is, whether personality predicts coping to a certain extent. A second aim, on the other hand, was to find out more about under which circumstances coping would predict independent outcome variance above and beyond personality characteristics. Conflicting evidence has previously been presented by Bolger (1990) and McCrae and Costa (1986). Among others, Bolger found coping to be highly related to *Neuroticism* as one "superfactor" of personality. Prospectively looking at future medical students about to undertake an important entrance exam, Bolger found coping strategies still explaining unique parts of outcome variance, that is, increases in anxiety prior to the exam. McCrae and Costa (1986), on the other hand, failed to find such independent predictor status of coping while controlling for personality traits *Neuroticism* and *Extraversion*. Instead, prior relations between coping and outcome in their study were spurious, meaning that they disappeared when personality characteristics were controlled. The authors somewhat provocatively concluded that coping was but an "epiphenomenon" of personality and not particularly helpful in predicting adaptation. Their methodological approach, however, differed in many important aspects from the one adapted by Bolger and others investigating similar questions (e.g., Carver et al., 1993; Schröder et al., 1998).

The most central difference was pointed out by Bolger as well as Aldwin and Yancura (in press). While Bolger and other authors took a prospective approach, investigating situation-specific coping reactions and finding convincing indirect effects of coping between personality and outcomes, McCrae and Costa and others (e.g., Benn, 1999) adapted retrospective techniques and failed to find appreciable indirect effects of coping. Bolger (1990) suggested that this retrospective approach, due to a long interval between the occurrence of the stressor and the assessment, led to inaccurate recollections of coping efforts in that participants most likely reported their habitual coping efforts instead of those employed during the (long-past) stressful situation. Bolger as well as Aldwin and Yancura assert that this likely assessment of dispositional coping styles might have led to the failure to find appreciable indirect effects of coping because Extraversion and Neuroticism as superordinate factors probably encompass

habitual coping. However, the proposition that dispositional coping fails to predict independent outcome variance above and beyond higher-order personality traits (in this case *Neuroticism*, *Extraversion*, and *Openness*), while situation-specific forms of coping do predict it, has not yet been addressed explicitly. The present study, among other aims, was designed to contribute some evidence to this debate.

According to findings presented by Bolger (1990) or Carver and others (1993), it was hypothesized that situation-specific coping would be predicted by higher-order personality traits, and would in turn predict independent parts of the outcome variance for situation-specific indicators of well-being, namely affect, affect change, and coping satisfaction. On the other hand, trying to mimick the study by McCrae and Costa (1986) only explicitly using dispositional coping instructions, longer-term outcomes of both emotional and functional well-being were predicted, while NEO-personality traits were accounted for. In this case, mediation by dispositional coping was not expected to occur. Instead, it was predicted that dispositional coping would lose its independent predictor status while higher-order personality characteristics were controlled. Ideally, a “cross-validation” with situation-specific coping predicting long-term outcomes and in turn dispositional coping predicting situation-specific outcomes should have been carried out. However, since situation-specific coping in most cases failed to predict longer-term outcomes, and vice versa, this additional line of evidence could not be presented here (see also Carver & Scheier, 1994).

A substantial part of the findings obtained in the present study, however, speaks for the above-discussed line of reasoning, and thus for propositions by both Bolger (1990) and Aldwin and Yancura (in press). While in most of the situation-specific models coping obtained a mediator status between higher-order personality traits (*Neuroticism*, *Extraversion*, and *Openness*) and outcomes yielding in part impressive indirect effects, it almost always failed to do so when applied in its dispositional version predicting longer-term emotional and functional outcomes. Instead, with dispositional coping predicting longer-term outcomes, associations were mostly spurious and disappeared when higher-order personality traits (i.e., *N* and *O*) were controlled for. The present findings concerning the predictive value of dispositional coping above and beyond the Big Three, thus impressively resemble the ones reported by McCrae and Costa (1986) as well as Benn (1999).

Another explanation for these results might be that post-surgically assessed dispositional coping was not so important because the level of stress experienced upon assessment was relatively low. Findings by Holahan and Moos (1991) point to this explanation. They studied the role of situation-specific coping as a mediator between a number of personality characteristics and depressive symptoms over a four-year time frame. The authors compared two groups of participants reporting high versus low levels of stress. Holahan and Moos (1991) found that, while in the high-stress group evidence of indirect effects was found, the same was not true for the low-stress group. There was one crucial difference to McCrae and Costa's (1986) and the present findings, however. While here the effects of dispositional coping on longer-term outcomes only disappeared when personality traits were controlled for, in Holahan and Moos' low stress-group, these effects, at least judging from bivariate associations reported, did not exist to begin with. On the other hand, this alternative explanation for the "disappearance of the dispositional coping effects" cannot be fully ruled out.

Aside from mediational effects of coping (or the lack thereof), some, albeit little, evidence was found, also suggesting differential effectiveness of coping in connection with different levels of personality traits, as suggested by Bolger and Zuckerman (1995). As both authors assert, mediation and moderation effects need not necessarily be seen in direct competition with each other, but may occur at the same time, as in "differential choice-differential effectiveness models" (Bolger & Zuckerman, 1995). In these cases, certain personality dispositions may make high-scoring individuals opt for certain preferred coping modes which in turn are especially effective for them. They may be effective for other persons also, but more so for high-scorers on said personality trait.

An example of this differential choice-differential effectiveness constellation can be seen in Figure 24, showing both levels and change of *Positive Affect* immediately prior to surgery. Extraverts focusing highly on positive aspects of the situation prior to the operation, which also seems to be their preferred situation-specific coping mode, exhibit the highest and most stable *Positive Affect* for both pre-surgical measurement points in time. More introverted individuals also profit considerably from employing this strategy, although not so many actually do employ it. However, in terms of absolute

levels, Extraverts with high situation-specific *Focus on Positive* coping still remain highest in *Positive Affect* prior to surgery.

One other instance of moderation was found looking at long-term indicators of vision-related functional status. Initially both *Openness to Experience* and habitual *Active Coping/D* had predicted change in number of vision-dependent activities. As expected, testing mediation indicated that *Active Coping/D* lost its independent predictor status when *Openness* was controlled for. Testing possible moderation, however, revealed a significant interaction between *Openness* and *Active Coping/D* with respect to change in number of activities from pre- to post-surgery. It was solely among the group of low dispositional active copers that *Openness* had a positive effect on change in number of activities: While persons low in *Openness* exhibited a decrease in pursued activities, open persons stayed at their pre-surgical level (see Figure 30).

For the remainder of the models computed, no evidence of differential effectiveness was found. The following sections elaborate on mediation effects found and remaining unique effects of personality traits first predicting situational outcomes via situation-specific coping and then predicting longer-term outcomes via habitual forms of coping.

6.12. Personality Predicts Coping Predicts Outcome?

6.12.1 Emotionally Labile Versus Emotionally Stable Patients

As expected, *Neuroticism* predicted the largest part of outcome variance in *Negative Affect* around surgery, both directly as well as in part through situation-specific coping. The coping strategies that took over some of the direct effects from *Neuroticism* as the independent variable to *Negative Affect* before surgery, were, as hypothesized, *Evasive Coping* and *Focus on Positive* coping. While emotionally labile persons tended to report more *Evasive Coping* and less *Focus on Positive* coping, which has already been reported by numerous authors (e.g., Bolger, 1990; Costa et al., 1996; David & Suls, 1999), one surprising result pertained to labile persons also reporting more situation-specific *Support Seeking*. *Neuroticism*, being positively related to *Support Seeking*, rounds off the largely negative predictor and outcome frame of this coping strategy in the present study. Although relations between *Neuroticism* and support seeking have

been reported by some (Bolger & Zuckerman, 1995; Mayes, Johnson, & Sadri, 2000) and add evidence to Monroe and Steiner's (1986) proposition that support seeking seems connected with indicators of troubled psychological health, the majority of literature on the subject found support utilization mainly associated with *Extraversion* (e.g., David & Suls, 1999; Watson & Hubbard, 1996). This result may speak for the possibility that seeking help in older age takes on a special meaning that might not so much have to do with the search for affiliation and consolation, but more literally with a "having to ask for help" or "being a bother" aspect that, in turn, contributes to worse adaptation.

Negative Affect upon admission to the hospital, was predicted directly by *Neuroticism* and indirectly via coping strategies *Focus on Positive* and *Support Seeking*, that made up the larger part of the joint indirect effect. As for *Negative Affect* on the day of surgery, in this instance, situation-specific *Evasive Coping* carried the largest share of the indirect effect, while the direct effect of *Neuroticism* was considerably lessened, but still marginally significant. On the day of discharge, emotionally labile persons still reported higher levels of *Negative Affect* when compared to emotionally stable persons. However, this effect remained with *Neuroticism* only and was not mediated by coping efforts. Hence, regarding levels of NA, as expected, emotionally labile persons reported worse adaptation. It was only prior to surgery, though, that this worse affect status was partly explained through the specific coping strategies used in anticipation of the event. Coping did not play a role in the prediction of *Negative Affect* upon discharge, i.e., it was not related to it at all. Instead, at this point the degree of *Neuroticism* reported seemed to be the central predictor.

With regard to change predictions and in accord with predictions from state-trait anxiety theory (Spielberger, 1985), it was hypothesized that emotionally labile persons would also show a steeper increase in *Negative Affect* prior to the operation (i.e., from admission to day of surgery), which could not be confirmed by the data. Instead, emotionally labile persons remained on a relatively high level prior to the operation and, compared with stable persons, even at a higher level post-surgery.

Aside from worse *Negative Affect*, emotionally labile persons also reported less *Positive Affect* upon discharge from the hospital, both with and without control of prior level. For level of *PA* at discharge, this effect was mediated through less *Focus on Positive*

copied mainly, but not entirely. Regarding change of *Positive Affect* from day of surgery to discharge, *Neuroticism* remained the weak, but sole direct predictor.

Even in terms of satisfaction with pre-surgical coping efforts, emotionally labile persons appeared to be disadvantaged. Although after coping was controlled, the direct negative effect from *Neuroticism* to coping satisfaction was strongly diminished, at least a marginal independent prediction was still evident. As for the major indirect effects, results once again pointed to the lack of use of situation-specific *Focus on Positive* coping that contributed to higher dissatisfaction with the own coping efforts.

To sum up findings in relation to *Neuroticism* so far, except for one change prediction of *Positive Affect* post-surgery, the fact that emotionally labile persons reported worse situation-specific outcomes was to a considerable degree due to the fact that they tended to cope poorly.

But what about longer-term indicators of emotional and functional adaptation? Would they still be predicted by both *Neuroticism* and habitual coping efforts? Or would *Neuroticism* "take over" and predict how cataract patients adapted to the situation following the operation? Predictions were clear-cut regarding these questions. It was expected that *Neuroticism* would predict a considerable amount of variance in depressive symptoms post-surgery. It was also expected that emotionally labile persons complain of more vision-related limitations, especially prior to surgery, that is, when the problem of impaired vision was still relatively pronounced.

Neuroticism was highly positively related to depressive symptoms six weeks post-surgery. While in separate analyses the same seemed to be true for more habitual *Evasive Coping/D* and *Support Seeking/D* (at least in patients with high post-surgery visual acuity), these effects disappeared as soon as *Neuroticism* was entered as a rival predictor.

Prior to surgery, emotionally labile persons tended to report more vision-related functional limitations; however, they did not report fewer activities than their stable counterparts. It is noteworthy that this effect remained stable after controlling for relevant ophthalmic data and multimorbidity. It may point to a proposition made by Costa and McCrae (1987) that with emotionally labile persons in terms of limitation by illness, the "bark may be worse than the bite." The authors explain this phenomenon, which was also found in relation to reported multimorbidity, by pointing out that

emotionally labile persons may devote more attention to bodily sensations and related limitations. This proposition is also indirectly supported by the finding that among patients with lower levels of visual acuity post-surgery, the relationship between *Neuroticism* and depressive symptoms is somewhat higher than in the better-vision group, where it is still significant, nonetheless. This attentional phenomenon is also found regarding aversive stimuli in general. It is also believed to be the cause for labile persons' higher degree of sensitivity toward potential stressors. While, except for *Active Coping/D*, none of the other dispositional coping scales predicted intensity of limitations before surgery, a mediator model was not tested here.

In sum, much of the evidence speaks for emotionally labile persons being generally more troubled, both regarding their situation-specific and more long-term reactions to cataract surgery, and also to visual impairment in general. The findings suggest, however, that some part of these unkind emotional experiences *during* a stressful situation might be due to the way *Neuroticism* high-scorers cope with the stressor.

6.12.2. Extraverts Versus Introverts

Hypotheses concerning *Extraversion*, related coping strategies, and outcomes, were generally rosier than those concerning *Neuroticism*. It was predicted that extraverts would exhibit higher levels of *Positive Affect* even before surgery, somewhat resembling Caspi and Moffitt's (1993) proposal that ambiguous and threatening life transitions accenuate rather than overpower preexisting traits.

Although not as consistent as for *Neuroticism*, evidence partly supported this assumption. Looking at *Positive Affect* prior to surgery, *Extraversion* at first glance seemed to predict positively both level and change of *PA* on the day of surgery and change from admission to surgery, respectively. The change prediction was already elaborated upon in earlier parts of this chapter when differential effectiveness was discussed (Section 6.11.). However, extraverts also seemed to report a higher level of *Positive Affect* on the day of surgery, but only while situation-specific coping was not accounted for. Aside from a tendency to feel relatively better when compared to their counterparts, extraverts also reported using situation-specific *Focus on Positive* coping,

which in turn accounted for much of the level and change variance in *Positive Affect*, both pre- to post-surgery as was already pointed out. This resulted in almost full mediation of the direct effect from *Extraversion* to *PA* on the day of surgery when all predictors were considered. Since *Extraversion* was unrelated to other forms of situation-specific coping, like *Support Seeking* or *Active Coping*, this large indirect effect was carried by *Focus on Positive* strategies only. Once again, the fact that *Support Seeking* has repeatedly been found in association with *Extraversion*, predominantly in younger samples (e.g., David & Suls, 1999; Watson & Hubbard, 1996), but seems to have an utterly different nature in the present sample, might be worth a closer look in future work.

In sum, extraverts' tendency to report positive mood while awaiting a potential threat to their physical well-being (surgery) was in this case almost fully explained by their tendency to take the situation with humor, accept it, and highlight the likely positive sides of it. While pointing in a positive direction, the association between *Extraversion* and coping satisfaction did not reach the desired level of significance and is thus not further discussed here.

One other aspect that indirectly speaks for Caspi and Moffit's (1993) argument on traits being attenuated by ambiguous and potentially threatening life transitions, is that with respect to longer-term more general outcomes, be they emotional or functional, *Extraversion* did not turn out to be a dominant predictor anymore. Similarly, neither *Neuroticism* nor *Extraversion* predicted state *Negative* or *Positive Affect*, respectively, on a random day, at least six weeks post-surgery. Furthermore, *Extraversion* was not related to any of the dispositional coping scales while it had exhibited rather strong relations with situation-specific *Focus on Positive* coping as reported above. The sole longer-term indicator of well-being that was positively and independently predicted by *Extraversion* was post-surgical level and pre- to post-surgical change of life satisfaction. As expected, extraverts in both instances had a tendency to report more life satisfaction and change thereof than their counterparts, although not very strongly so. Unlike predictions from Clark and Watson's (1991) tripartite model of depression and anxiety, *Extraversion* failed to be independently negatively related with depressive symptoms post-surgery while *Neuroticism* was controlled for. This finding is probably due to the

interrelatedness of *Neuroticism* and *Extraversion*. In the present study, *Neuroticism* seemed to exhibit not only high negative affectivity, but also low positive affectivity-variance shares, as could be seen in the negative correlation with *Extraversion* and in *Neuroticism*, predicting less *Positive Affect* during the hospital situation (see Section 5.5.2.). This overlap in *PA* variance in both personality traits has likely caused *Extraversion* to lose its independent predictor status regarding depressive symptoms when *Neuroticism* was controlled.

6.12.3. High Versus Low Openness to Experience

With regard to *Openness to Experience*, not many hypotheses about outcome relations were proposed. Due to conflicting prior evidence with regard to *Openness* and adaptation under stress, relations with situation-specific and longer-term emotional outcomes were examined exploratively. Concerning associations with coping on the other side, and in accord with findings by Watson and Hubbard (1996), Costa and co-workers (1996), and Ebeling (2000), it was assumed that *Openness to Experience* would be positively related with both situation-specific and dispositional *Active Coping*, assumptions that were supported by the data. Moreover, *Openness* was found to be negatively related to evasive forms of coping (also situation-specific and dispositional), which might speak for the notion that *Self-Blame*, *Venting*, and *Denial* as coping strategies are not compatible with the aims of individuals who approach a problem by viewing it from different perspectives, seeking new information, and trying novel solutions as Costa et al. (1996) suggested.

Rather unexpectedly, *Openness* at first glance predicted, although only to a small extent, change in *Negative Affect* between the two pre-surgical time points. *Negative Affect* upon admission to the hospital being controlled, more open individuals tend to decrease in *NA* prior to surgery. Controlling for situation-specific coping, however, this direct effect was taken over by an indirect path leading through situation-specific *Evasive Coping*. The fact that open patients tended not to use these forms of coping appeared to yield some protection against *NA* increases before surgery. Likewise, open individuals also reported more state *Positive Affect* upon admission to the hospital, which again was largely explained by the way they had reported to cope with the

situation. Situation-specific *Active Coping* in this case carried most of the indirect effect that eventually was connected with higher state *PA* on admission day (see also Section 6.7. on unique effects of coping). *Openness* remained a marginal predictor, and thus some of the direct effect was still observable and in accordance with findings reported by McCrae and Costa (1991). Aside from these effects, *Openness to Experience* was not related to any other emotional outcome variable, be it situation-specific or longer-term. *Openness* and its associated forms of coping thus seemed to have a protective effect in terms of affect and affect change prior to surgery. As McCrae and Costa (1997) suggest, this might have to do with an increased tolerance for ambiguity in open individuals. Being able to tolerate ambiguous aspects of the hospital situation, such as accepting a low (statistical) risk of post-surgical complications while being informed of the same and being led through a number of consent procedures, might act protectively with regard to level and change of affect. With regard to longer-term emotional outcomes, however, *Openness* did not seem to be uniquely related.

On the other hand, *Openness* predicted longer-term vision-related functional outcomes of cataract surgery. While *Openness to Experience* was not associated with number of activities either pre- or post-surgery, it positively predicted change in number of activities, especially in patients who tended not to habitually employ active coping strategies (see Section 6.11.). With respect to change in intensity of limitations reported by the group of patients with higher change in visual acuity, open individuals also showed a more marked drop of experienced vision-related limitations.

It was hypothesized that on a functional level, open individuals would profit more from cataract surgery than their less open counterparts. This was assumed mainly because of open individuals' great need for experience and sensation (McCrae & Costa, 1997). An individual inclined to seek novel contexts and exhibit a keen interest in the arts will rely heavily on perception and senses. The suggestion was that open individuals would thus benefit more intensely from a restoration of eyesight, which was at least in part supported by the present data.

6.12.4. Neuroticism and Extraversion Lacking Explicit Affectivity Items

Except for one set of findings concerning satisfaction with coping as well as life satisfaction as outcomes, the net of affectivity versions of *Neuroticism* and *Extraversion* yielded similar results to the ones obtained with the full-scale versions. The exception pertaining to coping- and life satisfaction might be due mainly to a high trait-affectivity component that became evident in many different analyses including these indicators. Other than that, not much evidence of the presumed inflation of associations between personality and outcome variables caused by similar item wording was observed.

6.13. Two Approaches to More Content-Free Aspects of Coping

Generally, the expectation that the more content-free aspects of coping would predict a meaningful portion of outcome variance above and beyond the coping content scales was mostly not met by the data. There were instances when total range of coping predicted the affects even while content scales were controlled, but those instances were rare and concerned only the prediction of short-term outcomes in the hospital situation. Aside from the marginal prediction above and beyond content scales, many of the observed findings nevertheless corresponded to prior expectations.

6.13.1. Selective Coping: The Better Way to Cope?

In terms of situation-specific selective coping, i.e., the tendency to report a fairly pronounced situation-specific coping pattern, hypotheses about associations with outcome measures were largely supported by the data. Staudinger and Fleeson (1996) asserted that having a number of ways of coping generally available, but selecting only a few (and largely disregarding the others) while coping with particular problems, should yield a better person-situation fit than using a larger number of heterogeneous coping strategies at once. This seemed to be true for cataract patients participating in the present study. In general, that is, at all times around surgery (t1 through t3) patients with more pronounced coping patterns reported both more *Positive Affect* and a greater degree of *Affect Balance* (surplus PA) than patients exhibiting low variance in situation-

specific coping strategies. Furthermore, at first glance more selectively coping patients tended to have greater increases in *Positive Affect* and *Affect Balance* from day of surgery to discharge. However, these very limited effects did not withstand the control for *Neuroticism*.

Regarding long-term measures of well-being predicted by dispositional *selective coping*, the assumption that higher selective coping would be associated with higher well-being (i.e., less depressive symptoms and higher life satisfaction) was not supported by the data. No stable, significant results were found here. With respect to outcomes concerning functional status, initially no predictions were made, and also no associations emerged with dispositional selective coping.

6.13.2. Total Range of Coping: Troubled Souls Overreact and Make it Worse Instead of Better?

Concerning total range of coping, a different picture emerged. According to assumptions advanced by Staudinger and Fleeson (1996) and in accord with Krohne's theory (1993, 1996), it was expected that higher values on *total range of coping* strategies employed would co-occur with worse adaptation. Much in the same manner as already discussed for the seemingly heterogeneous *Evasive Coping* subscale, it was expected that persons endorsing a larger number of very different coping strategies at once, or rather within a somewhat limited time frame, would not be able to establish a functioning person-situation fit, and hence would suffer more from the stressful situation. Indeed, data for situation-specific *range of coping* were associated with higher *Negative Affect* at all measurement points in time, pre- as well as post-surgery. In addition, *range of coping* also accounted positively for residualized change in *Negative Affect* from day of surgery to discharge, as well as spanning the time between discharge and the last assessment, six weeks after the operation. *Total range* predicting residualized change in the afore mentioned manner indicates that using a high number of strategies at once while being in a stressful situation, might indeed contribute to even more intense stress. On the other hand, as with all coping outcome relationships in this study, the present design does not permit to rule out the prediction of *total range of coping* (or change thereof) by prior affect states. At least one repeated measurement of situation-specific coping throughout the first two days of the inpatient status, i.e., pre-

surgery, and subsequent cross-lagged analyses, would have been necessary to test this suggestion, but this could not be realized due to severe time constraints imposed by hospital routines.

A similar though less consistent picture as with the situation-specific measures emerged when longer-term aspects of well-being were predicted by *total range/D* of employed coping (dispositional). In this case, the *more* habitual coping styles were endorsed, the less life satisfaction patients reported at t1 (admission day). Neither life satisfaction at six weeks post-surgery nor depressive symptoms were associated with range of coping/D.

The one functional status indicator that was predicted by dispositional *range of coping/D* even while *Neuroticism* was taken into account, was intensity of limitations before surgery (see Section 6.14., below). In this case, where a wider range of coping efforts co-occurred with a greater amount of functional limitations, repeated measurements of limitations prior to surgery would have been useful in deciding whether or not *total range of employed coping* actually contributes to a greater amount of limitations experienced or, whether it was just the result of it. On the basis of the present data, this question cannot be answered. On the other hand, the association at least points to the close alliance between *range of coping* and worse adaptation, even in functional domains.

Surprisingly, situation-specific *total range of coping* was not only positively related to negative emotions, but also to *Positive Affect*, also at nearly all measurement points in time. On the other hand, *range of coping* was not associated with *Affect Balance* or *surplus Positive Affect*, except for marginal predictions concerning *Affect Balance* on a random day six weeks post-surgery, and change in *Affect Balance* from discharge to six weeks post-surgery.

While this association between *total range* of situation-specific coping and positive emotions was not expected and cannot readily be explained by the theoretical background that guided hypotheses development, it might represent affective developments in high-range copers that resemble their way of coping. These individuals may experience affect, and both dimensions of the same, with some intensity. From an observer's perspective, unfortunately, this intensity is not lessened by the way they cope, but might most likely still be exacerbated by it, that is, in instances where high *total*

range predicts residualized change. One indication that high-range copers themselves might not be as happy with the way they cope was yielded by the negative association between *total range* of situation-specific coping and coping satisfaction.

Before turning to a more elaborate account of the present study's limitations, the following section discusses differential predictors (i.e., *Neuroticism* and *Openness to Experience*) of the more content-free aspects of coping and explores their status as possible mediators between higher-order personality traits and outcomes.

6.14. Indirect Effects of NEO-Personality Traits on Outcomes via 'Content-Free' Coping

Neuroticism. While emotionally labile persons tended to exhibit less situation-specific *selective coping* than their stable counterparts, the same was not true for the dispositional assessment of *selective coping/D*. Nevertheless, *Neuroticism* was positively associated with dispositional *total range of coping/D*. Many of the findings discussed thus far point to emotionally labile patients' less successful handling of the situation. These associations once again relate *Neuroticism* to rather unfortunate aspects of coping behavior. Models testing indirect effects between *Neuroticism* and state as well as longer-term outcomes very much resemble the general pattern of associations found while content scales of coping were tested as mediators. Although there was evidence of mediation between *Neuroticism* and level of state *Positive Affect* at discharge, the same was not true when change of *Positive Affect* from pre- to post-surgery was predicted (see Section 6.12.1.). Moreover, on a more functional level, there was some evidence pointing to a mediational effect of *total range of coping/D* (dispositional) taking over portions of a direct effect from *Neuroticism* to vision-related intensity of limitations prior to surgery. This indirect effect, which was not in accord with expectations, involved habitual forms of coping and pointed to higher intensity of limitations in emotionally labile persons partly because of their undifferentiated approach to habitual coping efforts.

Openness. Patients open to new experiences, on the other hand, tended to exhibit a rather pronounced situation-specific coping pattern. At first glance, this pronounced

situation-specific coping pattern seemed to explain partly the direct effect of *Openness* on state *Positive Affect* upon admission to the hospital, yielding a rather substantial positive indirect effect.

At second glance, however, as can be gathered from findings discussed in Section 6.13., none of these indirect effects of both more content-free aspects of coping withstood the control for (coping-) content scales or explained appreciable amounts of outcome variance above and beyond content scales, thus calling into question the usefulness of these forms of meta-characteristics as predictors of adaptation above and beyond content coping. As was pointed out before, not only as part of indirect effects, but also while looking at unique relations, the amount of outcome variance explained by what are called here "content-free measures" *beyond content coping* is negligible. This is not so much true for total *range of coping efforts*, since it did contribute to the prediction, especially concerning affect during the hospital situation. *Selective coping*, however, did not. Even while looking at Staudinger and Fleeson's (1996) additional 1% explained outcome variance (while content scales of coping were controlled for), which were, although non-significant, also recovered in the present study, the question of whether this is enough remains unanswered.

On the other hand, the specificity with which the more content-free aspects of coping predicted different affective and long-term outcomes is still intriguing and hence warrants additional effort. For instance, with regard to future research, it might be interesting to explore further the independence of both more content-free coping indicators (i.e., *selective coping* and *total range of coping*) encountered here. Subgroups of different constellations on the two dimensions may be likely and could possibly shed more light on the unexpected findings on positive associations between situation-specific *total range of coping* and *Positive Affect*.

6.15. Limitations of the Present Study and Perspectives for Future Research

A central limitation of the present study concerns the measurement of coping, specifically two of its aspects. First of all, the Brief COPE, although regarded as one of the best inventories of coping, still exhibits many of the often reported flaws of coping measures in general. For instance, suspicious evidence pointed to the lack of variance

on the subscale *Substance Use*, which was discarded fully from present analyses. Obviously, the formulation of items (see Appendix E) was too strong and deterred participants from endorsing it positively, a finding which, although not as pronounced, has also been reported for the English version of the instrument (Carver, 1997). Moreover, the fact that both items of the subscale *Behavioral Disengagement*, that was also excluded from analyses at a very early stage, correlated negatively, points to a less than optimal operationalization. Obviously, the reversal of one of the items in an effort to avoid negative formulations did not fulfill its intended purpose.

This phenomenon, however, also pointed to another more general problem that might, at least in part, have been associated with characteristics of the sample. Generally, that is, in all instruments and at all measurement points in time, there was a tendency for reversed items to lack adequate item-total correlations. Some of the less-than acceptable internal consistencies of scales such as *Openness to Experience* were likely due to the fact that these scales contained a high number of reversed formulations. The exact nature of the problem could not be clearly determined; however, there were indications that participants, for instance, less strongly negated reversed items than they consented with positive ones. While this phenomenon is also reported for younger samples (e.g., Ibrahim, 2001; Matschinger & Angermeyer, 1993), age- and/or cohort-characteristics might even exacerbate the problem (Calsyn & Winter, 1999).

An indication for this assumption is represented by internal consistencies commonly reported for the NEO-FFI (Borkenau & Ostendorf, 1993), an instrument that features a high number of reversed items. Compared to Cronbach's alphas that were computed from data of much younger samples (e.g., Borkenau & Ostendorf, 1993), internal consistencies reported in the present study (especially for *Openness*) were much lower.

An age-association with the above-described phenomenon might reflect difficulties in finding appropriate endorsements for reversed-worded items. Such difficulties in turn might be due to limited working-memory capacity (Baddeley, 1986). Working memory has been shown to decline in old age (Morris, Gick, & Craik, 1988). Prominent symptoms of this decline seem to be age-associated losses in the manipulation of information within working memory (Dobbs & Rule, 1989). Many reversed items, however, require such manipulation of information for appropriate endorsement.

Also, a generally brief educational history might account for the reversed-item phenomenon (Krosnick, 1999). On the other hand, participants might have refrained from strongly negating an item because they fancied it inappropriate to do so (Eisen, Winograd, & Qin, 2002). While the underlying causes of the reversed-item problem could not be determined with the data at hand, further investigation into this phenomenon is called for.

In an effort to be able to compare the scales with their original versions as much as possible, minor adjustments were undertaken only in the case of *Openness to Experience* to improve at least partly the homogeneity of the measure.

Coming back to limitations of the measurement of coping, a number of problems common to coping literature in general were also discovered here, some of which were low reliabilities of the original two-item subscales, especially in the situation-specific assessment and high subscale intercorrelations which led to further aggregation of the same. All these limitations have been reported before and are shared by a number of different coping scales, that are also considerably more time-consuming and redundant than the Brief COPE (e.g., Bolger, 1990; Carver et al., 1993; McCrae & Costa, 1986). These more general problems nevertheless again trigger questions about both the usefulness of checklists in coping literature (for a review of common problems in the measurement of coping see Schwarzer, 1993; Schwarzer & Schwarzer, 1996; Tesch-Römer, Salewski, & Schwarz, 1997) and the application of standards of Classical Test Theory to measurements of coping, especially when coping is conceptualized as a process (e.g., Carver, 1997).

'Coping as a process' leads directly to the second block of limitations of the present study. Mainly for test-economical reasons due to tight hospital routines, it was not possible to conduct several assessments of situation-specific coping in anticipation of the acute stressor. Instead, situation-specific coping was measured only once, and it was used to predict all concurrent and prospective situation-specific outcomes. While this single measurement of coping was still adequate to address the central questions posed in this study, multiple measurements would have yielded a number of additional possibilities, namely studying coping as a process, indeed.

Furthermore, the proposed direction of coping causing outcome or being a *mediator* (instead of an outcome), cannot be fully proven here as the present study cannot

examine in detail the so-called *feedback problem* (Baron & Kenny, 1986). The fact that different aspects of coping predicted residualized change of outcomes points to some validity of statements concerning predictional direction. On the other hand, as additional reversed direction of the coping-outcome effects may not be ruled out, future studies incorporating more than one measurement point of situation-specific coping strategies are more than called for. One might argue that what has been shown here to be hardly adaptive forms of coping, such as a high *total range* of coping strategies, might in turn represent an overall enhanced coping reaction to a-priori high levels of stress, meaning, that it is caused by stress in addition to causing stress. Likewise, *selective coping* might simply represent a less expressed need to cope due to an a-priori higher level of positive emotions. This influence of prior affect levels on ways of coping is indeed more than likely, as has been shown in many studies concerned with the predictive value of content scales of coping when it comes to various adaptational criteria and vice versa (e.g., Carver & Scheier, 1994). In many of these studies, however, the "reversed prediction" from adaptational criteria to coping was rather limited.

6.16. Conclusions

Returning to Skinner and Edge's (1998; see Introduction) proposition that coping must be viewed as more than just a strategy, but instead as a "mode of adaptation which is embedded in the organization of an individual's action" (p. 363), and that it reflects a history of thousands of interactions with the social and material environment, thus being extremely resistant to intervention attempts, the present study was designed to contribute to research on this proposedly more stable side of coping. Different general personality traits were examined as possible organizing forces of coping in a group of elderly persons facing a potentially stressful situation and having to come to terms with its consequences. Given that these higher-order personality traits that have been shown to be relatively stable over the greater part of the human life-span are indeed meaningful predictors of the way individuals approach a taxing situation, deal with it, and adapt to its consequences, already a little more can be said about this history of thousands of interactions that coping represents.

The degree to which the findings of the present study resemble earlier work on this subject gives testimony to the proposedly stable side of coping. In the past, research on the interplay between higher-order personality traits and coping has looked at individuals of different ages (e.g., Benn, 1999; Watson & Hubbard, 1996) facing widely different kinds of taxing situations, ranging from important exams (Bolger, 1990), interpersonal conflicts (Bolger & Zuckerman, 1995), and daily hassles (David & Suls, 1999) to a number of very different life events (McCrae & Costa, 1986). All of these findings bear striking resemblance to what has been reported in this paper which is, once again, best summarized by Costa and co-workers (1996; p. 53):

"Individuals high in N[euroticism] react badly to stress, blaming themselves, and taking it out on others. They indulge in wishful thinking and become passive and withdrawn. Extraverts respond like extraverts, talking, joking, and relating to others. People open to experience rethink the problem from different perspectives, seeking new information and trying novel solutions."

Aside from minor discrepancies, this statement sums up nicely what has been observed here in German cataract patients anticipating surgery and dealing with its consequences. On the other hand, the proposal that coping should be but an "epiphenomenon of personality" (McCrae & Costa, 1986) was found to be highly related to the methodological approaches to its assessment in the present research. The fact that relations between dispositional coping and adaptational criteria turned out spurious once higher-order personality traits were controlled, sheds doubt on the usefulness of this particular approach, despite its being heavily recommended by Costa and colleagues (1996).

The most puzzling finding, however, pertained to the striking lack of age differences in coping, both "content" and "content-free" aspects of it. While the age-range of the present study was somewhat limited, none of the now often-replicated coping-age associations that were recovered in studies with comparably limited age-ranges could be observed here (e.g., Folkman et al., 1987). The lack of age differences among situation-specific coping efforts would speak for a non-intrinsic explanation to age-related

changes in coping. The lack of age associations in dispositionally assessed coping styles, however, more likely points to particular characteristics of the present setting. It is likely that in many respects younger and older cataract patients share a higher number of similar features than one might expect, poor health and an increased mortality risk being just two of them (Hu et al., 2001; Weale, 1998). This 'coincidence' alone may make the cataract setting worthwhile for future research on coping across the life-span.