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Optimism, Social Comparisons, and Coping with Vision Loss in Israel

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Abstract: This study of 90 adults (aged 55–80) who lost their vision assessed their dispositional optimism, social comparisons, coping strategies, and well-being. The findings suggest that optimism and positive social comparisons play an important role in stimulating the motivation to cope adaptively with vision loss and that enhancing optimism and social comparisons may facilitate the rehabilitation of persons who are legally blind.

The loss of sight is one of the most widespread chronic health conditions to develop with aging (Jackson, Taylor, Palmatier, Elliott, & Elliott, 1998; Wahl, Schilling, Oswald, & Heyl, 1999); it is the third most prevalent chronic condition among the elderly (Stevens-Ratchford & Krause, 2004). In Israel, persons who are legally blind are registered with the Office of the Blind at the Ministry of Labor and Welfare. In 2002, about 25% of the population (20,818 people) were registered as blind, and 55% of all legally blind persons were aged 65 or older. In Israel, the three main factors that are responsible for the loss of vision during aging are glaucoma, age-related macular degeneration, and diabetic retinopathy.

The loss of vision affects cognitive functions, such as learning, memory, information processing, and spacial representation, so that many everyday activities become difficult to perform. It leads to less spacial orientation and less control over the environment,

which often evoke feelings of anxiety and loss of confidence (Beggs, 1992; Steffens & Bergler, 1998). It also leads to a wide range of emotional reactions, from acceptance and a minimal feeling of impairment to dependence, a sense of inferiority, lack of hope, loneliness, denial, anxiety, and depression (Dodds et al., 1994; Upton, Bush, & Taylor, 1998). The loss of sight often leads to social problems, such as nonacceptance, difficulty in sustaining relationships, and attitudes of pity and overprotection from others (Steffens & Bergler, 1998), as well as difficulty in finding employment (Golub, 2003; Rimmerman & Morgenstern, 2003).

In sum, vision loss is a stressful situation, and adjustment to it is a long, dynamic process (Horowitz & Reinhardt, 1998). The more successful the adaptation to vision loss, the higher a person's functional ability, self-esteem, and satisfaction with life and the lower a person's depressive symptoms (Elliott & Kuyk, 1994; Horowitz & Reinhardt, 1998). The study presented here investigated how people cope with vision loss and what psychological mechanisms and resources enable them to use coping strategies to adapt successfully to this impairment.

Review of the literature

Coping strategies

Coping strategies represent behavioral and cognitive efforts to deal with stressful encounters (see, for example, Lazarus, 1999; Lazarus & Folkman, 1984) and are classified as either problem focused or emotion focused, thereby delineating the coping function as dealing with the problem or with its emotional and physiological outcomes. Coping strategies have been found to correlate with outcomes in various contexts. The increased use of emotion-focused coping is highly correlated with psychological distress in both clinical (Ben-Zur, Gilbar, & Lev, 2001; Ben-Zur, Rappaport, Amar, & Uretzky, 2000; Carver & Scheier, 1993;

Lowe, Norman, & Bennett, 2000) and nonclinical (Penley, Tomaka, & Wiebe, 2002; Zeidner, 1995; Zeidner & Ben-Zur, 1993) populations. In contrast, a high level of problem-focused strategies usually has a weak correlation with distress and is related to better performance (Baggett, Saab, & Carver, 1996; Zeidner, 1995) and positive affect (Ben-Zur, 2002b; Ntoumanis & Biddle, 1998).

Following Lazarus and Folkman's (1984) coping model, Upton et al. (1998) examined the coping styles and strategies of visually impaired adults (both those who were blind and those who had low vision) and found that the most frequent strategies for coping with the loss of vision were positive reappraisal, self-control, distancing, and problem solving. In contrast, coping by escape or avoidance, self-blame, the absence of planful problem solving, and confrontational coping were associated with functional difficulties, negative affect, a diminished sense of well-being, and more depressive symptoms.

Thus, the greater use of problem-focused coping is expected to lead to better adaptation to health problems, including vision loss, whereas the greater use of emotion-focused coping is expected to result in lesser adaptation. Furthermore, coping successfully with stressful encounters, such as the loss of vision, is a process that thrives on cognitive mechanisms, as well as personal resources (Lazarus & Folkman, 1984; Moos & Schaefer, 1993). This study focused on two cognitive processes: social comparisons and optimism.

Social comparisons

In recent years, social comparisons have become a major explanatory mechanism for understanding how people cope with threats to their health and chronic or disabling conditions. The premise is that comparisons with others become the basis for self-

evaluation, so that by choosing a reference value and comparing oneself to it, one can evaluate one's own situation, abilities, and feelings (Buunk, Gibbons, & Reis-Bergan, 1997; Carver & Scheier, 2000; DeVellis et al., 1990; Gibbons & Buunk, 1999). Two main types of comparison are differentiated by direction: An upward social comparison is made when a person compares himself or herself with others who are in a more-favorable situation, and a downward comparison is made when a person compares himself or herself with others who are in a less favorable situation. The identification-contrast model (Buunk, Collins, Taylor, Vanyperen, & Dakof, 1990) suggests that the direction of the comparison (upward or downward) is not intrinsically linked to a specific affective reaction. Rather, the resulting affect depends on which interpretation is emphasized in each comparison. Thus, when an upward comparison is made, it may result in the conclusion that one's personal state is not as good as others' (contrast) but that it can improve (identification). Likewise, in a downward comparison, one's personal state may be viewed as not as bad as others (contrast) but as having the potential to get worse (identification).

Negative interpretations of social comparisons may be followed by passive coping (Van der Zee, Buunk, Sanderman, Botke, & Bergh, 2000; Wills, 1997), whereas positive interpretations may be adaptive because they can help maintain positive self-perceptions and self-esteem and may lead to active coping (Buunk et al., 1997; Van der Zee et al., 2000; Wills, 1997). Van der Zee et al. (2000) reported that the use of positive interpretations of social comparisons was associated with a basic tendency to engage in active coping, reinterpretation or growth, and social support coping styles among women who were dealing with cancer.

Social comparisons are particularly common among people who are facing a medical problem (Tennen, McKee, & Affleck, 2000),

and the two types of comparisons may be beneficial in two different ways: Downward comparisons are usually associated with positive adjustment, whereas upward comparisons inspire people to seek self-improvement. It is conceivable, then, that the well-being of persons who have lost their vision will be better when these persons make social comparisons that result in positive interpretations. One factor that may lead to a positive interpretation of social comparisons is optimism.

Optimism

Dispositional optimism is often assessed as the generalized expectation that good outcomes will occur when one confronts major problems (Scheier & Carver, 1985). This personal quality is considered to be a determinant of sustained efforts to deal with problems, in contrast with turning away from problems and giving up. Optimism has been found to enhance adaptation following stressful encounters, exemplified in the literature by a sense of well-being following amputation (Dunn, 1996), low anxiety and depression among women with breast cancer (Epping-Jordan et al., 1999) and men with prostate cancer (Bjorck, Hopp, & Jones, 1999), and low levels of moodiness and anxiety among persons after heart surgery (see, for example, Ben-Zur et al., 2000; Scheier et al., 2001).

Research has found that pessimism is related negatively to problem-focused coping and positively to emotion-focused coping (see, for example, Ben-Zur et al., 2000). In a study of persons who are blind, Jackson et al. (1998) showed that hope, a related concept, was associated with better functional ability and sociable and confident coping, as well as a less inhibited coping style. Coping was found to mediate the effect of optimism on functional ability. Aspinwall (1997) and Diener and Fujita (1997) suggested that optimists are generally inclined to choose the positive information and interpretations that emanate from each of

the social-comparison directions and to use this information in a positive and effective manner. Thus, optimism may contribute to the well-being of persons who have lost their vision both directly and by promoting problem-focused coping and engagement in positive social comparisons.

The study

Aims and hypotheses

The aim of the study reported here was to test the direct associations of optimism, social comparisons, and coping strategies with the well-being of persons who are legally blind, as well as the indirect associations of optimism with well-being through social comparisons and coping strategies. Psychological well-being is composed of cognitive and affective components and is defined as a subjective global state of satisfaction and positive mental health (Lawton, 1984). The affective component, which was tested in this study, is based on two dimensions of emotional experience, termed positive affect (PA) and negative affect (NA) (Tellegen, 1985; Watson & Clark, 1992). PA reflects the concurrence of positive emotional states, such as joy, interest, excitement, confidence, and alertness, whereas NA describes subjective distress and dissatisfaction and is composed of negative emotional states, such as anger, fear, sadness, guilt, contempt, and disgust. Watson, Clark, and Tellegen (1988) reported that NA is related to stress and health complaints and that PA is related to social activity and satisfaction.

This study also used functional ability as a behavioral outcome that depends on an optimistic tendency, coping strategies, and social comparison processes. Functional ability refers to the ability to perform various everyday activities, such as shopping or using the telephone, independently. The study was based on a model that showed that optimism, social comparisons, and coping

strategies were intercorrelated and affected well-being both directly and indirectly (see Figure 1).

The following hypotheses were tested:

- *Hypothesis 1a.* A high degree of optimism will be related to more PA, a high level of functional ability, and less NA.
- *1b.* A high degree of optimism will be related to positive social comparisons and an increased use of problem-focused coping and will be negatively related to negative social comparisons and an increased use of emotion-focused coping.
- *2a.* Positive social comparisons will be related to more PA, a high level of functional ability, and less NA, whereas negative social comparisons will show the opposite pattern.
- *2b.* Positive social comparisons will be related to a greater use of problem-focused coping and a lesser use of emotion-focused coping, whereas negative social comparisons will show the opposite pattern.
- *3.* An increased use of problem-focused coping will be related to a more PA and less NA and to a higher level of functional ability, whereas an increased use of emotion-focused coping will show the opposite pattern and will be related to more NA and less PA or functional ability.

Method

Sample

The sample consisted of 90 participants aged 55–80 with no major health problems who became legally blind (defined in Israel according to the World Health Organization's criteria) during adulthood. Of the 90 participants, 49% were men and 51%

were women, with an average age of 67.1 (*SD* = 7.67, range = 55–80). The participants all spoke Hebrew and had an average of 12.2 years of education (*SD* = 4.8). Most (41%) were born in Europe or the United States, followed by Israel (27%) and Asia or Africa (22%). Of the 90 participants, 61% were married or living with a partner, and 29% were single, divorced, or widowed; 91% reported having children; and 92% managed their own household (alone or with a partner). The majority (78%) reported residual vision, and 22% reported being completely blind, with an average of 12.2 (*SD* = 12.9) years of vision loss. The average score on the self-assessment of economic situation was 3.1 (*SD* = 0.7, range 1–5—from 1 = not at all good to 5 = very good). Most (over 90%) lived on a pension and, in the past, had worked at a variety of jobs (such as secretaries, pilots, and managers).

Instruments

Life Orientation Test (LOT).

We used the Hebrew version (Zeidner & Ben-Zur, 1994) of the LOT, constructed by Scheier and Carver (1985). The LOT includes eight items that are rated on a 5-point scale (from 1 = strongly agree to 5 = strongly disagree), with a high score indicating an optimistic tendency (*M* = 3.57, *SD* = 0.71, alpha = .76).

Social Comparisons.

This questionnaire, developed by Van der Zee et al. (2000), includes 12 items that are rated on a scale of 1 to 5. The items are divided equally into four subscales: a downward positive comparison (such as “When I see others experience more difficulties than I do, I realize how well I am”), together with a comparable downward negative comparison; and an upward positive comparison, together with a comparable upward negative

comparison (such as “When I think about others, I feel frustrated about my own situation”). The questionnaire was translated into Hebrew using the back-translation method. A pretest of 10 participants showed good internal reliabilities. A factor analysis with Varimax rotation revealed two factors, as reported by Van der Zee et al. (2000), that were in accordance with the positive and negative interpretation—positive social comparisons (*M* = 3.06, *SD* = 1.01) and negative social comparisons (*M* = 1.98, *SD* = 0.89)—with reliabilities of .88 and .84, respectively, and no significant intercorrelation (*r* = –0.02).

Short COPE scale.

The 30-item Coping Orientations to Problems Experienced (COPE) scale, a Hebrew version based on the scale developed by Carver, Scheier, and Weintraub (1989), is divided into 15 coping strategies, with 2 items per strategy. The Hebrew version of the scale has been used in several studies in Israel (Ben-Zur et al., 2001; Ben-Zur & Zeidner, 1995, 1996; Zeidner & Ben-Zur, 1993). The participants were asked to rate the extent to which they used each coping option in dealing with the difficulties of their vision loss. A 0–3 rating scale was used, from 0 = not at all to 3 = a great deal (the data were transformed into a 1–4 scale). A factor analysis with Varimax rotation showed a structure of two factors that was similar to the one found in previous research (Zeidner & Ben-Zur, 1994). This analysis was then used to create a problem-focused scale consisting of the following strategies: active coping, positive reinterpretation and growth, planning, seeking emotional support, seeking instrumental support, suppression, and humor (*M* = 5.24, *SD* = 1.21, alpha = .82). The emotion-focused scale included the remaining strategies: acceptance (with a negative sign), mental disengagement, ventilation, behavioral disengagement, denial, restraint, religion, and alcohol or drug use (*M* = 2.16, *SD* = 1.03, alpha = .72). The two scales were weakly correlated (*r* = –0.12).

The Positive and Negative Affect Schedule (PANAS).

Created by Watson et al. (1988), PANAS was used in its state format, which refers to feeling and affect in relation to difficulty with vision loss. It consists of 20 adjectives that depict various mood and affective states (such as enthusiastic and hostile), with 10 positive items and 10 negative items. All the items are rated on a 5-point scale, from 1 = not at all to 5 = a lot. The two subscales —PA and NA—showed high internal reliabilities (.84–.90) and were validated through their correlations with anxiety and depression (Watson et al., 1988). The translation of the PANAS into Hebrew and the validation procedures were described by Ben-Zur (2002a). The psychometric properties of the two 10-item subscales are satisfactory (for PA, M = 3.75, SD = 0.67, alpha = .84; for NA, M = 2.20, SD = 0.68, alpha = .82), and their total scores are negatively correlated (r = –.45).

Functional Ability.

Functional Ability, a short version of a subscale of the Self-Evaluation of Life Function scale (Linn & Linn, 1984), which was translated into Hebrew (Prisent, 2000), measures cognitive and motor function. It includes nine items (such as “Are you able to go out for shopping?”). Seven items are rated on a 1–3 scale (from 1 = does not need help at all to 3 = not able to do it at all), and two items are rated on a 1–4 scale (M = 1.64, SD = 0.41, alpha = . 84). The scoring was reversed, so that a high level of the total score represents high functional ability. A high level of functional ability was negatively correlated with NA and positively correlated with PA (r = –.38 and .46, p < .001).

In addition, the participants were asked to indicate their gender; age (in years); place of birth; level of education (number of years); marital status; number of children; assessment of their

economic state (validated by Ben-Zur, Duvdevany, & Luri, in press), which was correlated in our study with educational level ($r = 0.36$, $p < .001$); number of years of vision loss; and severity of vision loss. They were also asked about their participation in rehabilitation programs and about additional health problems.

Procedure

The sample was drawn from lists of persons who were formally defined as legally blind and registered in the Haifa Municipality, Rehabilitation Section, or the Society for the Blind and Prevention of Blindness. The Rehabilitation Section of the Haifa Municipality provides diagnostic services and monetary benefits for persons with vision loss, and the Society for the Blind and Prevention of Blindness provides support groups and social activities. In addition, the National Social Security Institute has a rehabilitation department and, together with the Lighthouse agency, provides persons who are legally blind with courses on coordination, mobility, and the use of various everyday and computerized aids.

Of 900 people who experienced vision loss, 150 fit the research criteria of having become legally blind during adulthood and of being relatively free of major health problems. Of these 150, 90 agreed to be interviewed in their homes. The rest were either unavailable or inaccessible because of erroneous addresses or unwillingness to participate in the study. The inventories were read to the participants by the second author, and their answers were registered by her. All the data were coded anonymously and were computerized by code numbers.

Results

Correlations

Table 1 presents the Pearson and partial correlations between the main research variables and outcomes, partialing out the main demographic variables of age, education, gender, having children (1 = yes and 2 = no), country of birth (1 = Israel, Europe, or the United States; and 2 = Asia or Africa), self-assessed economic situation, number of years of vision loss, and additional health problems. As the table indicates, optimism is positively correlated with PA and functioning and negatively correlated with NA, as hypothesized (Hypothesis 1a). Optimism is positively correlated with positive social comparisons and with high problem-focused coping and negatively correlated with negative social comparisons and high emotion-focused coping, as hypothesized (Hypothesis 1b). Thus, the first hypothesis was confirmed.

With regard to the second hypothesis, Hypothesis 2a was confirmed. That is, positive social comparisons showed a positive correlation with PA and functioning but not with NA, and negative social comparisons showed a negative association with PA and functioning and a positive association with NA, as hypothesized. Regarding Hypothesis 2b, the test suggests that social comparisons and coping are differentially related; positive social comparisons showed a positive association with high problem-focused coping but no association with emotion-focused coping, whereas negative social comparisons showed a positive association with high emotion-focused coping but no association with high problem-focused coping. Thus, Hypothesis 2b was partially confirmed.

Hypothesis 3 was also mostly confirmed: Increased problem-focused coping was positively correlated with PA and functioning, and increased emotion-focused coping was negatively correlated with PA and functioning and positively correlated with NA, as hypothesized. However, problem-focused coping was not negatively correlated with NA, as hypothesized. As can be seen in Table 1, the partial correlations are similar to

the results of the Pearson correlations in most of the tests.

In the overall analysis, we tested the associations between background variables and outcome variables using Pearson correlations and multiple regressions. Number of years of education, number of years of vision loss, having children, and country of birth contributed significantly to either PA, NA, or functioning, so these variables were used in the regression analyses.

Regression analyses

The three outcome variables were first regressed on the demographic variables to assess their contribution. The contributions of the demographic variables to the outcomes of PA, NA, and functioning were R^2 =.30, .15, and .16, respectively ($p < .01$). Table 2 presents the regressions of the three outcomes on demographic indicators, optimism, social comparisons, and coping. As can be seen, the research variables added a substantial amount of variance over the demographic data, with the R^2 of PA, NA, and functioning being .58, .58, and .38, respectively ($p < .0001$), and with highly significant changes in R^2 (.28, .43, and .22, respectively, $p < .001$). Table 2 shows that when all the variables are included, optimism is related directly to NA and PA, negative comparisons and increased emotion-focused coping are related to NA, and high emotion-focused coping alone is related to low functional ability.

Additional multiple regressions were conducted to assess coping regressed on social comparisons and optimism and social comparisons regressed on optimism, together with the demographic variables (see Table 3). As can be seen, social comparisons are differentially related to coping strategies, with positive comparisons related to high problem-focused coping and negative comparisons related to high emotion-focused coping. A

high degree of optimism is positively related to positive social comparisons and is negatively related to negative social comparisons. Figure 2 is a graphic representation of these relationships, suggesting that most of the associations depicted in the research model (Figure 1) were substantiated by the data, apart from problem-focused coping, which was not correlated with outcomes in the regression analyses.

Discussion

The aim of this study was to assess the well-being and functioning of adults who had lost their vision in terms of their level of optimism, the type of social comparisons they made, and the mode of coping strategies they used. The results suggest that the well-being and functioning of these adults are related to optimism, social comparisons, and coping strategies. Perhaps the most interesting results we obtained were the associations between optimism and social comparisons. While optimism was associated with PA and NA, it was also related to social comparisons, which were related to coping, NA, and functioning. Thus, as has been found for other aversive situations, such as amputation (Dunn, 1996), cancer (Epping-Jordan et al., 1999), or heart disease (Ben-Zur et al., 2000), optimism was found to be a highly potent factor in its contribution to a broad range of variables that can lead to better adaptation by persons who have lost their vision. The associations we found between optimism and social comparisons are in accord with the self-regulation model (see, for example, Carver & Scheier, 2000), which suggests that optimism may help by leading to an assessment that the goal can be reached if the positive information obtained from each type of comparison is chosen (downward/contrast or upward/identification; Buunk et al., 1990).

Social comparisons were differentially related to problem- and emotion-focused strategies and to well-being and functional

ability. In the context of coping theory, social comparisons have sometimes been viewed as a coping mechanism (DeVellis et al., 1990). However, as Tennen et al. (2000) pointed out, various mechanisms that aid adaptation, including coping and social comparisons, differ in how they are implemented. Whereas coping is described as an effortful strategic process, social comparisons are sometimes made automatically and sometimes without an actual reference point. The different interpretations that may stem from each type of comparison (Buunk et al., 1990; Van der Zee et al., 2000), therefore, may create the basis for the motivation to use different coping strategies. When the social comparison is negative and the individual assesses his or her situation as inferior to that of others (upward/contrast) or as liable to deteriorate to that of others whose situation is worse (downward/identification), these cognitions may lead the individual to surrender to or disengage from the situation. Thus, negative social comparisons create the basis for emotion-focused coping, which is characterized by disengagement, denial, and ventilation, rather than actively coping with the situation, as predicted by positive comparisons. Such results thus underscore the importance of social comparisons in prompting the use of differential coping strategies that are important for better adaptation to vision loss.

Implications

Visual impairment in old age is a chronic condition that demands that persons rally their coping efforts at a time when cognitive and physical abilities begin to decline, sometimes in the context of other health impairments and major life events. Moreover, the realization that blindness cannot be corrected and will be chronic can lead to despair and clinical depression. The results of this study suggest that a nonadaptive, negative interpretation of social comparisons can lead to relatively high levels of NA and

nonfunctioning, whereas a positive interpretation of social comparisons with either real or imagined others can help achieve vital goals and improve the well-being of persons who are blind.

The findings suggest that the nonacceptance of vision loss, using avoidance or ventilation coping, and not facing reality with a positive outlook may lead to negative feelings and low adaptation. Rehabilitation programs can make beneficial use of the idea of positive comparison processes by inviting a person who lost his or her vision during adulthood and succeeded in coping and adapting to this loss who can serve as a model. Such a person can provide information on what to expect, as well as provide living proof that one can adapt to blindness and continue to live a fruitful life. In addition, rehabilitation programs may encourage the development of capabilities for successful coping and everyday functioning. Finally, dispositional optimism appears to be an important factor in affecting well-being, both directly and through social comparisons and coping. Cognitive and behavioral techniques can be implemented to alter the individual's outlook on life in general, which can help the individual who is blind cope and adapt.

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