Chapter 2
Exploring the Concept and Experience of Hope – Empirical Findings and the Virtuous Circle of Hope

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Introduction and Objectives

The purpose of this contribution is to give a first overview of the central results using the German speaking samples of the Hope-Barometer between 2011 and 2016. The main objective is to assess the character, the elements and levels of hope as reported by the German speaking population in Germany and Switzerland. Furthermore, we want to study the interrelations between the many different elements of hope and the general level of hope, satisfaction in life and happiness. Based on these results, many striking conclusions can be drawn about the characteristics and general nature of hope, at least from the perspective of the German speaking population. These conclusions will be interpreted in the light of the different definitions and conceptualizations of hope presented in Chap. 1 of this book.

Procedure and Samples

Data collection was done by internet, thanks to two of the largest and most popular German and Swiss newspapers drawing great attention to the survey every year and linking the questionnaires to their webpages every November (2011–2016) over a period of 2–3 weeks. The samples include a total of 37′913 participants of different age ranges, with different educational backgrounds and family status (see composition of the samples in Table 2.1). For data analysis we only used the fully answered

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Table 2.1 Demographic structure of the samples

	2011	2012	2013	2014	2015	2016
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Total	3134 (100)	10,633 (100)	4581 (100)	7997 (100)	7282 (100)	4286 (100)
Switzerland	3134 (100)	4185 (39.4)	2072 (45.2)	3836 (48.0)	6057 (83.2)	3272 (76.3)
Germany	–	6448 (60.6)	2509 (54.8)	4161 (52.0)	1225 (16.8)	1014 (23.7)
Gender						
Male	1474 (48.0)	6153 (57.9)	2212 (48.3)	3976 (49.7)	2847 (39.1)	1860 (43.4)
Female	1315 (52.0)	4479 (42.1)	2369 (51.7)	4021 (50.3)	4435 (60.9)	2426 (56.6)
Age						
18–29	1047 (33.4)	3979 (37.4)	1511 (33.0)	2647 (33.1)	2598 (35.7)	1150 (26.8)
30–39	547 (17.5	2097 (19.7)	854 (18.6)	1611 (20.1)	1458 (20.0)	914 (21.3)
40–49	1343 (42.9)	1830 (17.2)	810 (17.7)	1409 (17.6)	1175 (16.1)	723 (16.9)
50–59		1482 (13.9)	763 (16.7)	1277 (16.0)	1158 (15.9)	815 (19.0)
60–69	197 (6.3)	957 (9.0)	487 (10.6)	811 (10.1)	672 (9.2)	525 (12.2)
70–79		261 (2.5)	141 (3.1)	219 (2.7)	200 (2.7)	148 (3.5)
80+		27 (0.3	15 (0.3)	23 (0.3)	21 (0.3)	11 (0.3)
Highest levels of education						
Did not finish school	3 (0.1)	45 (0.4)	30 (0.7)	52 (0.7)	44 (0.6)	23 (0.5)
Primary school	117 (3.7)	629 (5.9)	214 (4.7)	556 (7.0)	419 (5.8)	217 (5.1)
Secondary school	188 (6.0)	616 (5.8)	277 (6.0)	711 (8.9)	368 (5.1)	230 (5.4)
College	1183 (37.7)	806 (7.6)	343 (7.5)	616 (7.7)	443 (6.1)	251 (5.9)
Professional education		2541 (23.9)	1964 (42.9)	3058 (38.2)	3148 (43.2)	1683 (39.3)
Higher professional education	790 (25.2)	3106 (29.2)	783 (17.1)	1348 (16.9)	1493 (20.5)	928 (21.7)
University	848 (27.1)	2890 (27.2)	970 (21.2)	1656 (20.7)	1367 (18.8)	954 (22.3)
Family status						
Living with parents	801 (25.6)	2836 (26.7)	452 (9.9)	700 (8.8)	894 (12.3)	352 (8.2)
Single			821 (17.9)	1485 (18.6)	1178 (16.2)	751 (17.5)
Living in a partnership	1168 (37.3)	4497 (42.3)	1244 (27.1)	2354 (29.5)	2082 (28.6)	1135 (26.5)

Table 2.1 (continued)

	2011 N (%)	2012 N (%)	2013 N (%)	2014 N (%)	2015 N (%)	2016 N (%)
Married	841 (26.8)	2770 (26.1)	1644 (35.9)	2788 (34.9)	2554 (35.1)	1634 (38.1)
Separated/divorced	93 (3.0)	297 (2.8)	292 (6.4)	457 (5.7)	476 (6.5)	360 (8.4)
Widowed	47 (1.5)	132 (1.2)	67 (1.5)	125 (1.6)	98 (1.3)	54 (1.3)
Something different	184 (5.9)	101 (1.0)	61 (1.3)	88 (1.1)	–	–

questionnaires of participants aged 18 and above, and removed all those files with obviously incorrect answers, i.e. when a large number of questions were rated with only one option (0 or 1). The percentage of removed cases was between 4.7% and 6.7%. For the analysis, threshold values of skewness <2 and kurtosis <3 (West, Finch, & Curran, 1995) were used to assess data distribution. Since from 2014 on all the questions were defined as compulsory, there are no missing values between 2014 and 2016. Missing values in the other samples were listwise excluded from the analysis. All the studies were performed using SPSS (IBM, 2014) and AMOS 23 (Arbuckle, 2014) as software.

Methods

The Hope-Barometer consists of a variety of measures that aim to capture the different elements of hope (e.g. the level of hope, targets of hope, sources of hope, future expectations, places of hope, hope experiences, hope providers, etc.) and a set of standardized scales to assess related aspects such as satisfaction with life, subjective happiness, meaning in life, positive relations, positive feelings, self-efficacy, harmony in life, etc. While many scales are used every year to allow comparisons over time, other measures were only used once or twice following a concrete research question (see also Krafft & Walker, 2018).

Measures of Hope

To be able to assess the different elements and aspects of hope that the act of hoping might entail, a variety of new scales and pools of items have been developed and were included in the Hope-Barometer in different years.

Perceived Hope Scale (PHS) To be able to measure hope as perceived by people, we adapted and reformulated the four items of hope and optimism from the English version of the WHOQOL-SRPB questionnaire (Skevington, Gunson, & O'connell, 2013) and added two additional items with aspects of hope not covered by the WHOQOL-SRPB. This resulted in a unidimensional scale with six items called the

Perceived Hope Scale (PHS) (Krafft, Martin-Krumm, & Fenouillet, 2017). Two examples of these items are: "In my life, hope outweighs anxiety" and "I am hopeful with regard to my life". The items are rated on a 6-point Likert-scale from 0 (strongly disagree) to 5 (strongly agree). In the validation study, the PHS revealed good internal consistency with Cronbach alphas between .87 and .89.

Adult Dispositional Hope Scale (DHS) To assess the cognitive-rational concept of hope and compare it to perceived hope, Snyder's Adult Dispositional Hope Scale (Snyder et al., 1991) has been included in the survey. This scale (displaying alpha-values from .74 to .84 in the validation article) consists of four items to assess the motivational dimension of Agency (alphas from .71 to .76) and four items to assess the cognitive dimension of Pathways (alphas from .63 to .80). The items are scored on a 6-point scale from 0 (strongly disagree) to 5 (strongly agree).

Satisfaction and Future Expectations in Different Fields In general, hope has been understood as a positive expectancy towards the future. However, hope and expectations are not always identical (Cristea et al., 2011; David, Montgomery, & DiLorenzo, 2006; David, Montgomery, Stan, DiLorenzo, & Erblich, 2004; Montgomery, David, DiLorenzo, & Erblich, 2003). At the beginning of the questionnaire, participants are asked about their level of satisfaction as well as about their future expectations in five different fields: (1) Their private life, (2) the national economy, (3) the national politics, (4) the climate and environment, and (5) social issues. The five items are rated from 1 (very unsatisfied) to 5 (very satisfied) and from 1 (very pessimistic) to 5 (very optimistic). It is not the intention here to calculate an overall value for satisfaction and for future expectations but to compare the values of the five indicators and relate them to the general level of hope.

Personal Hopes for the Coming Year and Satisfaction with Several Life Domains Every year participants are asked to rate the importance they attribute to 17 life domains in terms of their hopes for the coming year. The 17 life domains belong to six basic dimensions: (1) Personal well-being (e.g. "personal health", "harmony in life"), (2) social relations (e.g. "good and trusting relations to other people"), (3) hedonic experiences (e.g. "more sex", "more spare time"), (4) work and material goods (e.g. "success at the workplace", "more money"), (5) religiosity/spirituality (e.g. "religious and spiritual experiences") and (6) meaning and purpose (e.g. "meaningful and satisfying tasks", "helping other people"). The items are rated on a 4-point scale from 0 (not important) to 3 (very important). In accordance with our definition of hope, the participants are only asked to rate the importance but not the perceived probability of attainment of these life domains. Nor should an overall value composed of the sum of the 17 single ratings be calculated. The same 17 items were used to assess the level of satisfaction with the single life domains. The scoring scale goes from 0 (not at all satisfied) to 3 (very satisfied).

Hope Providers As stated in Chap. 1, having good relations to other people can be an important source of hope. Hence, the participants were asked every year to

evaluate a list of 16 people or categories of people to assess to what extent these individuals are hope providers for them. The 16 items cover six basic dimensions: (1) The self-centered category of oneself, (2) the inner circle of people in the closer social environment (e.g. "wife, husband, partner"), (3) a group of people in the work environment (e.g. "colleagues, business partners"), (4) people in the wider social environment that are usually known personally (e.g. "physicians, therapists, etc."), (5) people in the general social environment (e.g. "experts, scientists, etc.") and (6) the transcendent environment ("God"). The single items are rated on a Likert scale from 0 (not at all) to 3 (yes, definitely), and, again, the single scores are not added to obtain a total value.

Activities to Fulfil One's Own Hopes To hope has been characterized as a disposition to act. Thus, one further question evaluates the activities people perform in order to fulfil their own hopes. This pool of items includes 13 activities belonging to four dimensions: (1) The cognitive-rational dimension (e.g. "I think a lot and analyze circumstances"), (2) the social-relational dimension (e.g. "I motivate my friends"), (3) the spiritual-religious dimension (e.g. "I pray, meditate"), and (4) the motivational/agency dimension (e.g. "I take responsibility and engage myself"). The Likert scale for rating the single items goes from 0 (not at all) to 3 (very often).

Experiences that Promote Hope In 2011 the participants received a list of 25 items to score different experiences supposed to help improving their feeling of hope. The 25 experiences fit into 6 categories: (1) Religious (e.g. "I have felt God's closeness"), (2) social-relational (e.g. "good relations to friends", (3) coping "e.g. I came through an illness successfully", (4) hedonic-experiential (e.g. "I experienced great concerts and parties"), (5) personal mastery (e.g. "I am proud of my professional success and performance", and (6) material-financial (e.g. "I earned a lot of money"). The items were defined as dummy variables with the possibility either to agree or disagree with them.

Places of Hope Also in 2011 we presented to the participants a list of 17 contexts, asking which of them were related to a feeling of hope. The 15 items represent the following categories: (1) In nature (e.g. "at the top of a mountain"), (2) leisure (e.g. "on a sports field"), (3) intellectual (e.g. "in the library"), and (4) religious (e.g. "in a church or temple"). These items were also used as dummy variables to agree or disagree with.

Other Measures

In addition to the newly developed scales and sets of items, the Hope-Barometer yearly includes different standardized scales, in order to be able to perform a series of comparative analyses. Here is a brief description of selected measures that have been used for the studies presented in this paper.

Satisfaction with Life The Satisfaction with Life Scale (SLS) was designed to assess global life satisfaction, defined as the comparison of life circumstances to one's expectations. The SLS consists of 5 items scored on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree). Diener, Emmons, Larsen, and Griffin (1985) reported a coefficient alpha of .87.

Happiness The Subjective Happiness Scale (SHS) assesses happiness from the respondent's own perspective. The 4 items represent a subjective and global judgment about the extent to which people feel happy or unhappy (Lyubomirsky & Lepper, 1999). The possible scores go from 1 to 7. The reported Cronbach alphas ranged from .79 to .94.

Optimism Optimism has been measured by using the revisited version of the Life Orientation Test (LOT-R) developed by Scheier, Carver, and Bridges (1994). With 6 items, the LOT-R assesses the generalized expectations for positive (3 items) and for negative (3 items) outcomes, using a 5-point response scale ranging from 1 (strongly disagree) to 6 (strongly agree). A total optimism score is achieved by reversing the negative items and calculating a total value for all items. Cronbach's alpha for the entire six items was .78.

Harmony in Life Kjell, Daukantaité, Hefferon, and Sikström (2016) have recently developed the Harmony in Life Scale to measure psychological experiences of inner balance, peace of mind, calm and unity. The five items ($\alpha = .89$) are scored on a 7-point scale from 1 (strongly disagree) to 7 (strongly agree). From a psychological perspective, the authors highlight the concept of harmony in life as being related to a holistic world-view that incorporates a more balanced and flexible approach to personal well-being.

Meaning in Life Meaning in Life was measured with two different scales in 2013 and 2015. In 2013 we used the meaningfulness sub-scale of the Sources of Meaning and Meaning in Life Questionnaire of Schnell (2009) with five items scored on a 6-point scale from 0 (strongly disagree) to 5 (strongly agree) ($\alpha = .74$) which measures the degree of subjectively experienced sense of meaning, based on an appraisal of one's life as coherent, significant, directed and with a sense of belonging. In 2015 the five items measuring the presence of meaning in life from the Meaning in Life Questionnaire (Steger, Frazier, Oishi, & Kaler, 2006) were used. The authors reported a good internal consistency of the subscale with Cronbach alphas between .82 and .86. The items were scored on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree).

Resilience We used the 6 items' Brief Resilience Scale (BRS) scored on a 5-point Likert scale from 1 to 5 (Smith et al., 2008). In past studies, the BRS showed good internal consistency with Cronbach alpha values ranging from .80 to .91. The BRS has been positively correlated with optimism, active coping, social support and

purpose in life, and negatively correlated with pessimism, anxiety, depression and negative interactions.

Self-Efficacy To measure self-efficacy, we utilized the German version of the General Self-Efficacy Scale (GSES) with 10 items developed by Schwarzer and Jerusalem (1999), using a 4-point Likert scale from 0 to 3. In past research projects, the GSES yielded internal consistency alpha-values between .75 and .91. Self-efficacy has shown moderate correlations to other constructs, such as optimism and proactive coping, as well as to Agency.

Positive Feelings To measure positive feelings the six items designed by Diener et al. (2010) to assess pleasant emotional experiences and feelings were applied ($\alpha = .87$ was reported). The participants were asked to think about what they have been doing and experiencing during the past 4 weeks and to score feelings such as "good", "pleasant" and "joyful" on a 5-point scale from 1 (very rarely or never) to 5 (very often or always).

Attachment The Attachment subscale of Scioli's Comprehensive Trait Hope Scale (Scioli, Ricci, Nyugen, & Scioli, 2011) measures the degree of interpersonal bonds, openness and basic trust towards other people. Individuals with high attachment scores are more likely to trust people and to disclose private thoughts and feelings. They also believe their friends and loved ones would, if need be, drop whatever they were doing to help them. In the validation paper the internal consistency was good ($\alpha = 84$). The possible scores go from 0 (not me) to 3 (exactly like me).

Positive Relations The Positive Relations sub-scale from Ryff and Keyes' (1995) Psychological Well-being Scale has shown very good internal consistency ($\alpha = 91$) with 9 items to be rated on a 6-point scale from 1 (strongly disagree) to 6 (strongly agree). Positive relations are characterized by warm, satisfying and trusting relationships with others and are based on strong empathy, affection and intimacy.

Spiritual Beliefs We employed the 4 items of the Importance of Spiritual Beliefs in Life, a subscale of the Spirituality Questionnaire (Parsian & Dunning, 2009) which is rated on a 4-point scale (1–4). The scale revealed a very good internal consistency of $\alpha = .91$.

Religious Faith The Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ) evidenced significant positive correlations to adaptive coping and to dispositional hope (Plante & Boccaccini, 1997). The short-form of the SCSRFQ (Storch, Roberti, Bravata, & Storch, 2004) reduced to 5 items and scored on a 4-point scale (1–4) has reached excellent internal consistency ($\alpha = .95$).

Gratitude Gratitude was measured with a 6-item questionnaire developed by McCullogh, Emmons and Tsang (2002), to be rated on a 7-point scale (1–7). The

authors reported a good reliability alpha-coefficient of .82 and positive correlations with Agency (r = .67) and Pathways (r = .42).

Helping Others Helping others is a pro-social attitude and behavior that positively correlates with empathy, social responsibility and altruism, and negatively correlates with selfishness. We measured this attitude with a short-form of the Helping Attitude Scale (Nickel, 1998), employing 7 items with a 5-point scale from 1 to 5. Cronbach alpha reliability was reported to be .86.

Compassion The Brief Santa Clara Compassion Scale with five items was developed by Hwang, Plante, and Lackey (2008) as a short version of the Compassionate Love Scale from Sprecher and Fehr (2005). Compassion has been defined as an attitude toward others, containing feelings, cognition, and behavior that are focused on caring, concern, tenderness, and a pro-social orientation toward supporting, helping, and understanding others. The five items, scored on a Likert scale from 1 (not at all true for me) to 7 (very true for me), revealed a very good internal consistency (α = .90).

Depression and Anxiety The ultra-brief Patient Health Questionnaire for Depression and Anxiety (PHQ–4) is a composite four-item scale for measuring both phenomena (Kroenke, Spitzer, Williams, & Löwe, 2009). Since the questionnaire asks the participants to assess how often they are bothered by certain negative feelings, responses are scored from 0 (not at all), 1 (several days), 2 (more than half the days) to 3 (nearly every day). The alpha-coefficient reported in the validation study was .85.

Physical and Psychological Health A subjective rating of physical and psychological health was obtained by asking "How would you assess the level of your physical / psychological or emotional health?", with responses on a 6-point scale ranging from 1 (I am seriously ill) to 6 (I am perfectly healthy) (Ferring et al., 2004).

Data Analyses

Relating to the theoretical and methodological foundations (see Chap. 1), selected results of 6 years of Hope-Barometer in German speaking Europe are presented in seven steps. A summary of the objectives and data analysis techniques is displayed in Table 2.2.

In a first step, we explored how general hope – perceived and dispositional – is related to demographic variables and to other hope related constructs of well-being, such as self-efficacy, resilience, spirituality, altruism and health. The second step focuses on the level of satisfaction and future expectations in different life and social domains – private life, the economy, politics, the environment and social issues – and evaluates these fields in relation to the generally perceived level of hope. In keeping with our definition of hope presented in Chap. 1, which differentiates between gen-

Table 2.2 Outline of our analyses

Steps	Objectives	Data analysis
1. Nature and levels of hope	Evaluate the level of hope in different demographic groups Explore the concepts of perceived and dispositional hope	Answer tree methodology Group comparisons Bivariate correlation and correlation comparisons
2. Satisfaction and future expectations	Evaluate the satisfaction and future expectations in central life and social domains Assess the relations of these five fields with the general perceived hope	Answer distributions Multiple regression analysis
3. Personal hopes and satisfaction	Assess the importance of personal hopes and satisfaction in different individual life domains Relate the importance of personal hopes with satisfaction Evaluate personal hopes and satisfaction in relation to perceived hope	Comparison of mean values Bivariate correlations Multiple regression analysis
4. Sources of hope	Evaluate the sources of hope such as hope experiences, places of hope, hope providers and hope related activities Explore the relation of specific sources of hope with general perceived hope	Comparison of mean values Multiple regression analysis
5. Positive relations, feelings and hope	Evaluate the relation between attachment, positive feelings and perceived hope Evaluate the relation between positive feelings, harmony in life and perceived hope	Partial mediation modelling
6. Hope and health	Evaluate the predictors of psychological health Evaluate the relation between resilience, hope and psychological health Evaluate the relation between hope and posttraumatic growth Explore the relation between physical health, perceived hope and depression/anxiety	Partial mediation modelling Univariate analysis of variance (ANOVA)
7. Hope, happiness and meaning in life	Assess the relation of satisfaction in different life domains and of hope related activities with happiness and meaning in life Evaluate the relation between meaning in life, positive relations, hope and happiness Explore the relation between physical health, perceived hope and happiness	Multiple regression analysis Partial mediation modelling Univariate analysis of variance (ANOVA)

eral hope and particular hopes, the third step contains results about the importance of specific personal hopes and the levels of satisfaction in a series of individual life domains and relates these results to the general level of perceived hope. The next step reports the roots and sources of hope as perceived by the population including personal experiences that foster hope, places of hope, hope providers and activities to fulfil one's own hopes and explores their relation to perceived hope. The further steps deal with different aspects of a good life and present several models to explore the role of hope. We start with the interaction of hope and positive relations, positive

feelings and harmony in life. The next analysis examines the role of hope in the context of psychological and physical health as well as posttraumatic growth. The last analysis is dedicated to the factors that might be related to the highest goods of happiness and meaning in life and the relationship to hope.

Results

Structure and Levels of Perceived and Dispositional Hope

Against the background of the many definitions of hope as presented in Chap. 1 and taking into account the serious concerns regarding the concept of dispositional hope, the purpose of this study is to explore the nature and level of hope, focusing on the two concepts of perceived and dispositional hope. This study encompasses two objectives: (1) Investigate the levels of hope in relation to different demographic groups and (2) explore the nature of hope based on the correlations with other constructs of well-being, personal mastery and coping, spirituality, altruism and health.

Perceived and Dispositional Hope Among Demographic Groups

The Hope-Barometer includes a series of demographic variables to be specified by the participants of the survey: Gender, age, education, family status, main activity (e.g. household, part or full time job, etc.) and professional status (e.g. staff member, middle management, upper management, etc.). To analyze the relation of these demographic variables and the level of perceived and dispositional hope, the answer tree classification technique was used. Answer trees are based on an exploratory technique to study the relationship between a dependent variable and a set of categorical predictor variables which themselves may interact. The mostly used approach is the Chi-square Automatic Interaction Detector (CHAID) (Hartigan, 1975; Kass, 1980). Following a step-by-step hierarchical regression analysis, the most important factors are identified (reduction of variables at $p < .001$). The resulting diagram should be understood as a classification tree with progressive splits into smaller and smaller groups that shows how major "types" formed from the independent (predictor or splitter) variables differentially predict the dependent variable. It is worth mentioning for those unfamiliar with the answer tree methodology that the basic technique is analogous to a "forward" step by step regression analysis, with similar high statistical standards.

For the first analysis, using the sample of 2015 (N = 7282), perceived hope was entered as the dependent variable and all the previously mentioned demographic variables as predictors. The most interesting result to be reported here is that the family status was the main predictor of perceived hope. The tree split the sample into three groups ($p < .001$): Married people achieved the highest mean value regarding perceived hope ($M = 3.59$, $SD = 0.82$), followed by a second group of

people with a partner, divorced, separated or widowed people ($M = 3.46$, $SD = 0.85$) and finally by singles and people still living with their parents ($M = 3.16$; $SD = 0.96$). When entering dispositional hope as the dependent variable, the main predictor was not the family status anymore, but the professional status. Again three groups were discerned by the tree ($p < .001$): The results of the respondents in upper management positions, board members, entrepreneurs and business owners had the highest mean values of dispositional hope ($M = 4.02$, $SD = 0.63$). The second group is composed of people in junior and middle management functions and freelancers ($M = 3.80$, $SD = 0.69$). Finally, the third group with the lowest dispositional hope values ($M = 3.46$, $SD = 0.78$) includes employees, people doing housekeeping, unemployed and those still in education or training. The conclusion of these two analyses reveals a first difference between the nature of perceived and dispositional hope. While perceived hope is much more related to a social (and emotional) dimension of life (family status), dispositional hope is primarily related to a cognitive dimension (professional status).

Looking at the other demographic variables, the following interesting findings can be reported: Women are slightly but significantly higher in perceived hope than men ($M = 3.50$, $SD = 0.88$ for women and $M = 3.40$, $SD = 0.99$ for men, $p < .001$), an effect, which still remains after controlling for the professional status. The opposite is the case for dispositional hope ($M = 3.72$, $SD = 0.76$ for men and $M = 3.67$, $SD = .73$ for women, $p < .05$), but in this case the reason is the professional status of the person (in higher positions there are more men than women). The level of both perceived and dispositional hope rises with the degree of education. Regarding age, the level of perceived hope continually increases until the eighties and older, but the level of dispositional hope rises until the age of 60 to 69 and decreases then during the seventies and later (Fig. 2.1).
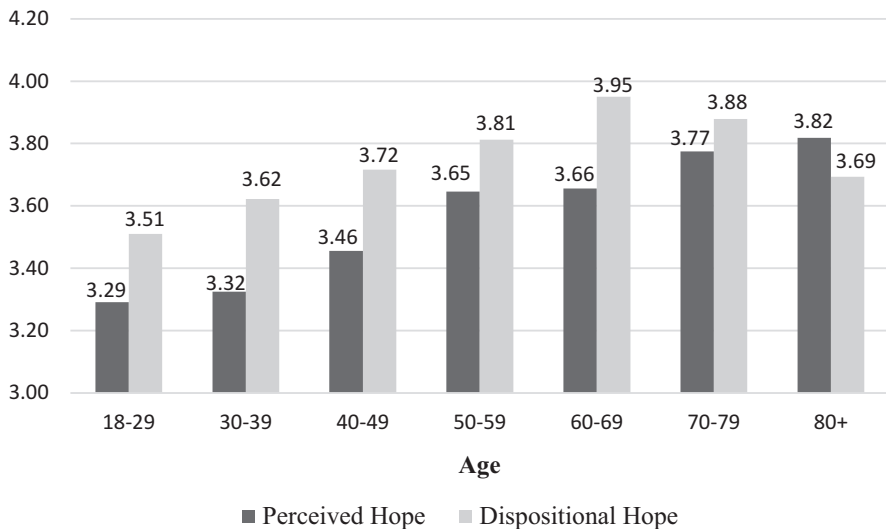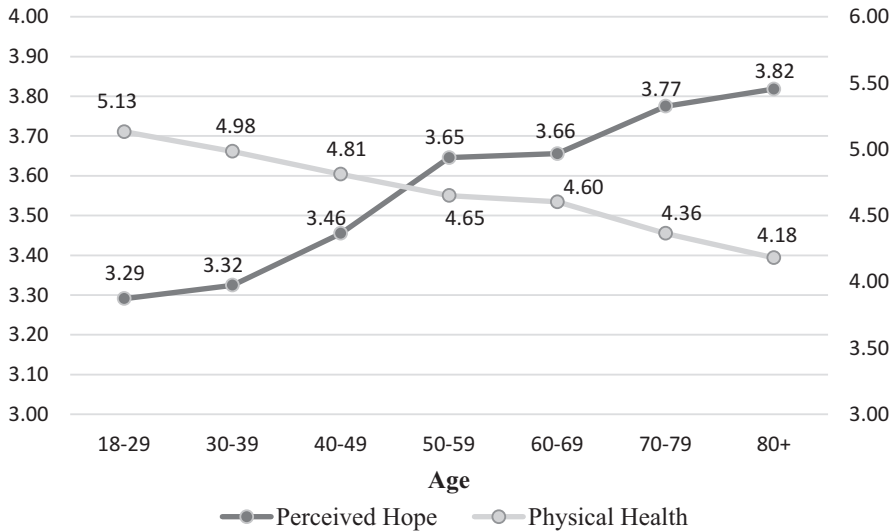

Fig. 2.1 Mean values of perceived hope and dispositional hope by age (year 2016)

Fig. 2.2 Mean values of perceived hope and subjective physical health by age (year 2016)

Figure 2.2 exhibits the mean values of perceived hope as well as of the self-reported level of subjective physical health for different age groups. Interestingly, while the health level tends to decrease with the years, the level of hope continually goes up. These results are in line with the findings reported by Baltes, Staudinger, and Lindenberger (1999) and by Carstensen et al. (2011), who demonstrated that with the years the emotional well-being of people rises, despite the decline of body functions and the increase of health problems.

The Relation of Perceived and Dispositional Hope to Other Variables

The objectives of the next analysis are to investigate the relation of hope with other related psychological constructs described in Chap. 1 and to compare correlation values in order to assess the main commonalities and differences between perceived and dispositional hope. To examine the significance of the difference between correlation coefficients, we used Fischer's correlation comparison procedure. As explained in Chap. 1, many authors have started to question if the Dispositional Hope Scale, based on Snyder's cognitive conceptualization of hope, really measures what it intends to measure, and that hope as perceived by the general public is something different to just the estimation of one's own will- and way-power.

Table 2.3 shows the reliability Cronbach alpha coefficients, the mean values and the standard deviations of the constructs. Looking at the correlation values, the following findings become evident: All correlation values are highly significant. Strong correlation values could be partly an effect of the large size of the sample. The highest correlation coefficient is that between dispositional hope and self-effi-

Table 2.3 Central constructs: Cronbach alphas, Mean values, Standard deviations, Pearson correlations, and Correlation comparisons

	α-value	M	SD	PHS, r	DHS, r	z	p
Self-efficacy	.89	2.04	0.49	.49	.74	−17.94	.000
Resilience	.85	3.45	0.80	.41	.49	−4.59	.000
Optimism (LOT-R)	.79	4.17	0.88	.69	.62	7.42	.000
Satisfaction with life	.89	5.01	1.25	.60	.59	.93	.352
Happiness	.82	4.95	1.29	.63	.58	4.76	.000
Meaning in life	.90	5.07	1.38	.56	.57	−.89	.374
Harmony in life	.90	4.92	1.22	.63	.62	.76	.447
Positive relations	.82	4.53	0.87	.46	.45	.58	.562
Attachment	.79	2.20	0.57	.47	.47	0	1.00
Positive feelings	.92	3.72	0.78	.61	.49	8.00	.000
Spiritual beliefs	.97	1.91	0.98	.24	.13	6.44	.000
Religious faith	.92	1.76	0.85	.21	.07	8.08	.000
Gratitude	.76	5.51	1.02	.51	.42	5.26	.000
Helping others	.89	4.05	0.70	.22	.15	4.09	.000
Compassion	.89	4.67	1.39	.20	.08	5.67	.000
Depression/anxiety	.85	0.58	0.64	−.51	−.47	2.97	.003
Physical health	–	4.83	1.02	.21	.19	1.32	.187
Psychological health	–	4.89	1.08	.47	.43	3.17	.001
Perceived hope	.91	3.46	0.93	–	.64	–	–
Dispositional hope	.88	3.69	0.74	–	–	–	–

Note. *PHS* Perceived Hope Scale, *DHS* Dispositional Hope Scale, *LOT-R* Life Orientation Test Revised. All correlations significant at p < .001

cacy, which is significantly higher than the correlation value between self-efficacy and perceived hope. The DHS exhibits also a significantly higher correlation value with resilience than the PHS. The PHS correlated the most with optimism, happiness, harmony in life and positive feelings. With optimism, happiness and positive feelings, the PHS displayed a significantly higher correlation value compared to the DHS. Although on a lower level, the PHS also revealed significantly higher correlation values with gratitude, spiritual beliefs, helping others, religious faith, compassion, depression/anxiety (with negative sign), and psychological health. Similar moderate correlation coefficients with the PHS and the DHS resulted from the analysis with satisfaction with life, meaning in life, harmony in life, positive relations, attachment and physical health.

Firstly, these results underline the self-centered and cognitive nature of the dispositional hope concept, based on its similarity to self-efficacy. Compared with the DHS, the significantly lower correlation value of perceived hope with resilience, gives support to the argument that hope becomes especially relevant in situations where people feel less able to cope by means of their own resources alone. On the other hand, perceived hope is more clearly associated than dispositional hope to constructs related to a sense of transcendence and altruism, such as spiritual beliefs, religious faith, helping others and compassion. However, for the German speaking
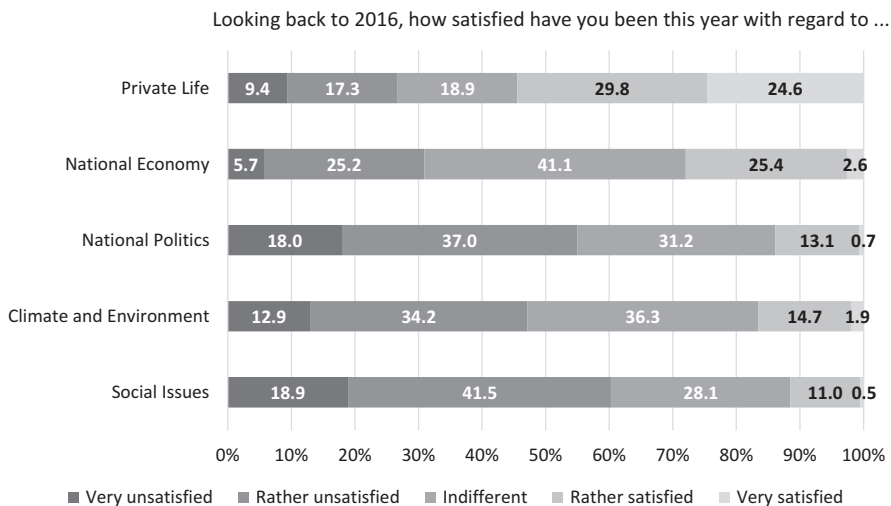
population, hope is still more closely related to the cognitive dimension in comparison to spiritual, religious, and altruistic factors. Nevertheless, perceived hope reveals a stronger connection to positive feelings and subjective happiness compared with the DHS, emphasizing the emotional nature of hope. The relational dimension, however, has a similar moderate relationship to both, perceived and dispositional hope, suggesting that good social relations are relevant for the cognitive-rational as well as for the emotional component of hope.

Satisfaction and Future Expectations

In this study, a broad evaluation of the satisfaction and the future expectations of the public in five general fields takes place. The objective is to assess the importance of the levels of satisfaction and future expectations in these fields with regard to their relation to the overall level of hope of the population.

Satisfaction with Central Life and Social Domains

The first question of the Hope-Barometer is to what extent people are satisfied with respect to their private life, the national economy, national politics, the climate and environment and the major social issues in their country. The distribution of answers illustrated in Fig. 2.3 indicates that 54.4% of the respondents are satisfied with their private life, but only 28% are satisfied with the national economy and less than 15% are satisfied with the national politics and the situation concerning social issues.

Looking back to 2016, how satisfied have you been this year with regard to …

	Very unsatisfied	Rather unsatisfied	Indifferent	Rather satisfied	Very satisfied
Private Life	9.4	17.3	18.9	29.8	24.6
National Economy	5.7	25.2	41.1	25.4	2.6
National Politics	18.0	37.0	31.2	13.1	0.7
Climate and Environment	12.9	34.2	36.3	14.7	1.9
Social Issues	18.9	41.5	28.1	11.0	0.5

Fig. 2.3 Satisfaction during 2016 – distribution of values in percentage
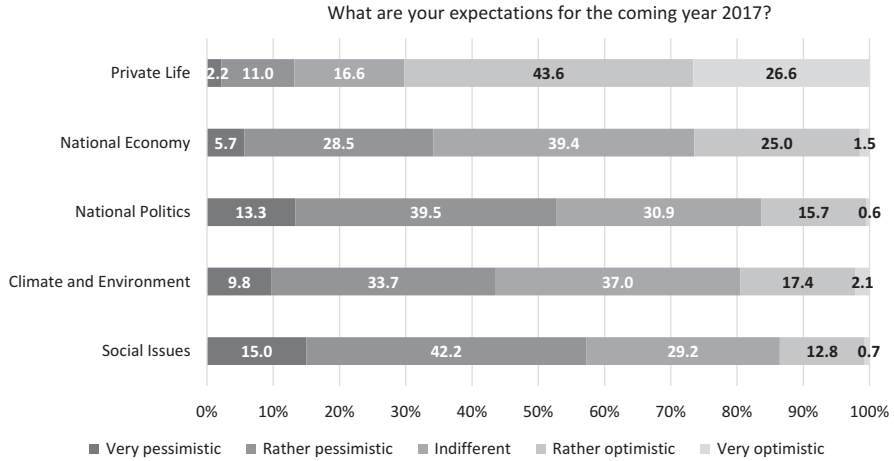
Fig. 2.4 Expectations for 2017 in five areas – distribution of values in percentage

This means that for many people satisfaction with their private life seems to have a different character from the satisfaction in the other areas. Over recent years, these results have been almost identical.

Future Expectations in Central Life and Social Domains

A similar picture emerges when people are asked about their pessimistic or optimistic expectations for the next year (Fig. 2.4). More than 70% of the respondents are rather or very optimistic regarding their private life and only 13.2% are pessimistic, even though only 26.5% are optimistic in relation to the economy and less than 20% with the political, environmental and social developments. The results over the last years have always been very similar. This could have two basic explanations: On the one hand, it could be an effect of the so-called optimistic bias described by Weinstein (1980, 1989). According to this author, most people tend to believe that their own future will be brighter than the future of other people and that more good instead of bad things will happen to them in comparison to the average population. On the other hand, these results suggest that the expectations concerning a person's own private life depend on aspects other than the vicissitudes of the economy and the society at large.

Future Expectations as Predictors of Hope

Based on these results, we wanted to know to what extent expectations about the future in different fields are related to the general level of hope of the people. In a multiple hierarchical regression analysis, the expectations in the five fields
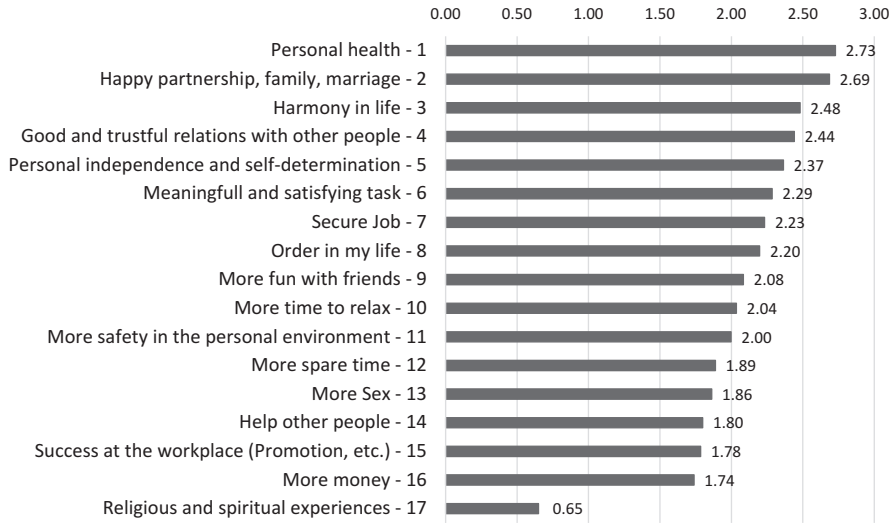
Future expectancies
in the following areas
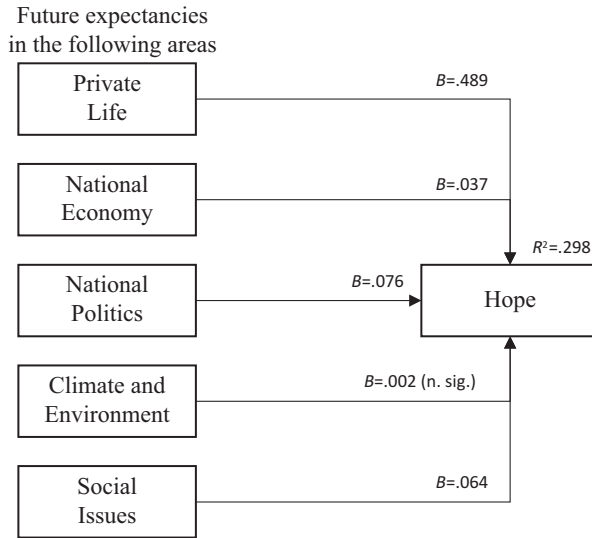
Fig. 2.5 Future expectations as predictors of Perceived Hope (all standardized coefficients sig. at
p < .01) (year 2016)

presented above were defined as independent and perceived hope as dependent vari-
able, entering gender, age and education as control variables. The resulting model
was significant at $F(7, 4278) = 315.81; p < .001$. Two striking results arise from the
analysis (Fig. 2.5): (1) The major predictor of perceived hope is the level of expecta-
tion about one's private life. The economic, political, environmental and social
issues are of much lower relevance. (2) The future expectations about one's private
life explain only 24% of the variance of perceived hope (and the bivariate correla-
tion between both was moderate $r = .53; p < .001$). This means that the rest of the
variance might be explained by other factors rather than future expectations, sup-
porting the hypothesis that people often distinguish between hopes and expectations
(Cristea et al., 2011; David, Montgomery, & DiLorenzo, 2004; David, Montgomery,
Stan et al., 2006; Montgomery et al., 2003).

Personal Hopes and Satisfaction in Different Life Domains

The next question in the Hope-Barometer is directed to finding out the principle
hope targets of the population. Averill and his colleagues (Averill, Catlin, & Chon,
1990; Averill & Sundararajan, 2005) have distinguished different kinds of events
and objects for which a person may hope, e.g. materialistic hope outcomes (material
goods, money, etc.), personal achievements (performance, success, career, etc.),
hedonistic pursuits (fun, sexuality, spare time, etc.), interpersonal relationships
(romantic relations, friends, etc.), altruistic motives (to help other people), etc.

	0.00	0.50	1.00	1.50	2.00	2.50	3.00

Personal health - 1 — 2.73
Happy partnership, family, marriage - 2 — 2.69
Harmony in life - 3 — 2.48
Good and trustful relations with other people - 4 — 2.44
Personal independence and self-determination - 5 — 2.37
Meaningfull and satisfying task - 6 — 2.29
Secure Job - 7 — 2.23
Order in my life - 8 — 2.20
More fun with friends - 9 — 2.08
More time to relax - 10 — 2.04
More safety in the personal environment - 11 — 2.00
More spare time - 12 — 1.89
More Sex - 13 — 1.86
Help other people - 14 — 1.80
Success at the workplace (Promotion, etc.) - 15 — 1.78
More money - 16 — 1.74
Religious and spiritual experiences - 17 — 0.65

Fig. 2.6 Personal hopes in terms of their importance – mean values (year 2014)

The objectives of study three are to assess the importance of personal hopes and the level of satisfaction in different life domains, to correlate the importance of personal hopes and the level of satisfaction with each other and to evaluate the personal hopes and satisfaction in relation to perceived hope.

Personal Hopes in Different Life Domains

The Hope-Barometer includes every year 17 items representing possible personal hope targets. In accordance with our working definition of hope presented in Chap. 1 and in contrast to the similar Hope Index of Staats (1989), only the importance (but not the probability) of fulfilment of the several hope domains have to be scored. Figure 2.6 presents the mean values of the 17 items in a decreasing rank order. The top six personal hopes refer to central domains of people's well-being (personal health, family bonds, harmony in life, good social relations, personal independence and a meaningful task) that have been denominated as eudaimonic in the happiness literature (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011). These domains stay in contrast to the much lower scored hedonic aspects such as more time to relax, more spare time, more sex and more money, emphasizing the greater importance for most people of eudaimonic life domains in comparison to hedonic experiences.

Satisfaction in Different Life Domains and Its Relation to Hope

In 2014, participants were additionally asked to rate their satisfaction in these 17 life domains. We then correlated the mean ratings with their specific hope values. The purpose was to explore to what extent the personal value of individual hopes is related to a sense of deficit and a lack of satisfaction or vice-versa if higher satisfaction corresponds with higher levels of hope. Results from bivariate correlation analyses reveal for all 17 domains significant relations between hope values and satisfaction ($p < .01$). Two findings shall be noted: Firstly, the correlation coefficients of the eudaimonic domains such as a happy partnership, family, marriage ($r = .28$), good and trusting relations to other people ($r = .20$) and meaningful and satisfying tasks ($r = .18$) are positive, whereas those of the materialistic and hedonic items, for instance more money ($r = -.36$), more time to relax ($r = -.18$) and more sex ($r = -.05$), are negative. This means, that the higher the satisfaction with eudaimonic life domains, the higher are also the levels of hope, whereas the lower the satisfaction with the hedonic life domains, the higher is the importance of the related hopes.

The second finding relates to the magnitude of the correlation coefficients. In some cases, e.g. personal health ($r = .02$) and success at the workplace ($r = .01$), the correlation coefficient is close to zero, suggesting that the degree of hope is almost independent from the level of satisfaction. Regardless of whether somebody feels healthy or ill, the hope for personal health is important for nearly everyone. In other cases, the correlation coefficient is significant and of moderate magnitude, for example for religious and spiritual experiences ($r = .37$), a happy partnership, family, marriage ($r = .28$) and helping other people ($r = .26$). This means that an increase in satisfaction is related to an increase in hope.

The two highest correlation values underscore the two extreme poles of different life domains, the religious (with positive sign; $r = .37$) and the materialistic 'more money' (with negative sign; $r = -.36$), which at the same time are the two domains with the lowest importance in terms of hope (see Fig. 2.6). In particular, a majority of participants has scored the item religious and spiritual experiences very low, regarding both, its importance and satisfaction. However, those people with higher levels of satisfaction with religious and spiritual experiences also evaluate these experiences as more important in terms of personal hope. The opposite happens in the case of more money. The higher the satisfaction with it, the lower the importance of the related hope and the lower the satisfaction, the higher its importance.

Life Domains as Predictors of Hope

The next analyses have the purpose of identifying which life domains predict the level of general perceived hope more strongly than others do. Two multiple linear regression analyses were performed defining perceived hope as dependent variable and the 17 items (once in terms of satisfaction and once in terms of importance) as predictors. Starting with the 17 items of satisfaction, 32.3% of the variance of perceived hope was explained ($p < .001$). The general model was significant at $F(11$,

7380) = 320.96 ($p < .001$). The main predictors at a significance level of $p < .001$ are (1) harmony in life ($\beta = .142$), (2) meaningful and satisfying task ($\beta = .138$), (3) good and trustful relations to other people ($\beta = .100$), (4) happy partnership, family, marriage ($\beta = .116$), (5) personal health ($\beta = .098$), and (6) religious and spiritual experiences ($\beta = .08$), all items belonging to the eudaimonic dimension of well-being.

When entering the 17 hope importance items, the adjusted R^2 was .19 ($p < .001$) [$F(14, 7668) = 93.57; p < .001$] and the best predictors at $p < .001$ turned out again to be related to the eudaimonic dimension, i.e. (1) helping other people ($\beta = .16$), (2) religious and spiritual experiences ($\beta = .15$), (3) a happy partnership, family and marriage ($\beta = .13$), (4) meaningful and satisfying tasks ($\beta = .13$), and (5) personal health ($\beta = .11$). Hedonic oriented hopes like more time to relax, more spare time, more sex, and more fun with friends were not significant. These analyses suggest that there are certain life domains, namely those belonging to the edaimonic dimension (social relations, spirituality, altruism, meaning), which both, in terms of satisfaction and importance, can nurture the general level of hope, and that other life domains, specifically those related to hedonic experiences, seem to have a much lower or no relation at all with the perception of hope.

These findings are congruent with the classification of goals and motivations in two categories as proposed by Ryan and Deci (2000) following the philosophical foundations of Aristotle: (1) First-order or intrinsic goals and values are those pursued for their own sake, linked to personal growth, a sense of community and health, which are oriented to satisfy the basic psychological needs of feeling autonomous, competent and related to others. Ryan and Deci connect this category to the eudaimonic concept of living well (Ryan, Huta, & Deci, 2013). (2) Second-order or extrinsic goals and values, such as wealth and hedonic entertainments, create good feelings but are not connected to what is intrinsically worthwhile to human beings. In the same manner, the results of the Hope-Barometer suggest that there are two kinds of hope targets: (1) First-order targets of hope have an intrinsic value to pursue a good (eudaimonic) life. These hopes are connected to family bonds, personal health, a sense of purpose and meaning, a prosocial attitude, as well as psychological and social well-being. (2) Second-order hope targets are of subordinate value and are related to domains resulting in momentary good feelings, but contribute only little to long-lasting flourishing and personal development.

Sources of Hope

The next set of questions from study four pertain to the roots and sources of hope, i.e. the personal experiences, places, people and activities that foster hope as subjectively reported by the respondents. Considering that the appraisal of certain people as hope providers and the expressed hope related activities are supposed to be connected to higher levels of general perceived hope, additional analyses were performed in order to identify the main hope providers and activities that predict hope.
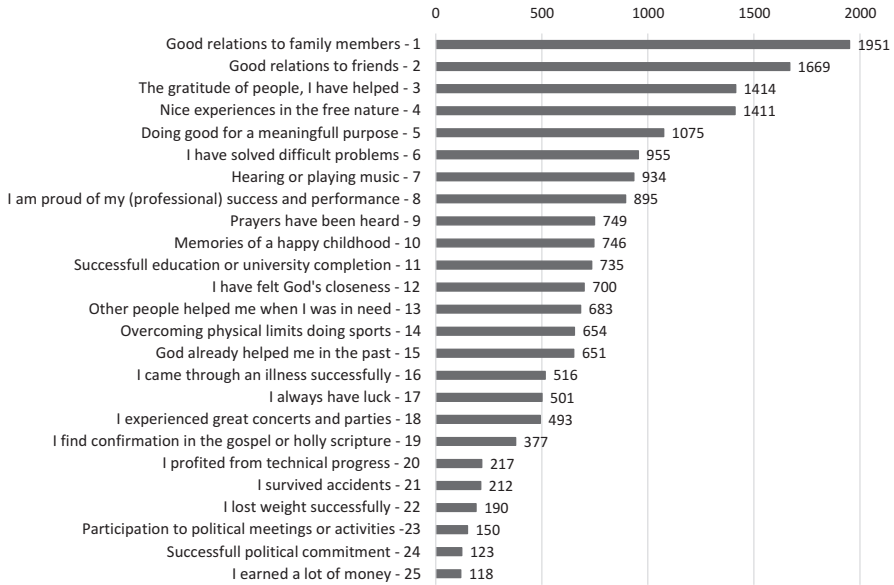
Fig. 2.7 Experiences that enhance hope – number of positive answers (year 2011)

Experiences that Foster Hope

In 2011, the Hope-Barometer included a set of 25 items representing experiences supposed to strengthen people's level of hope. Figure 2.7 shows the number of answers for each experience, listing the items in decreasing order. The five most agreed items concern social (family relations), experiential (experiences in nature) and altruistic issues (helping others), followed by several instances of mastery (solving problems) and next by religious and spiritual occurrences (prayers that have been heard). Least relevant are coping, materialistic and hedonic matters such as having earned a lot of money, profiting from technical progress, recovering from illness or having experienced great concerts and parties.

Places of Hope

In the same year, 2011, the participants of the Hope-Barometer were asked to select from a list of 17 places those in which they believe to feel more hopeful (Fig. 2.8). At top of the list are three items related to the connection with nature (besides at home). Peterson and Seligman (2004) included hope in their catalogue of character strengths common across cultures as belonging to the virtue of transcendence, which implies feeling oneself connected to a bigger whole. Hope is linked to other character strengths of transcendence such as appreciation of beauty and excellence as well as spirituality. Less relevant as places of hope seem to be one's own
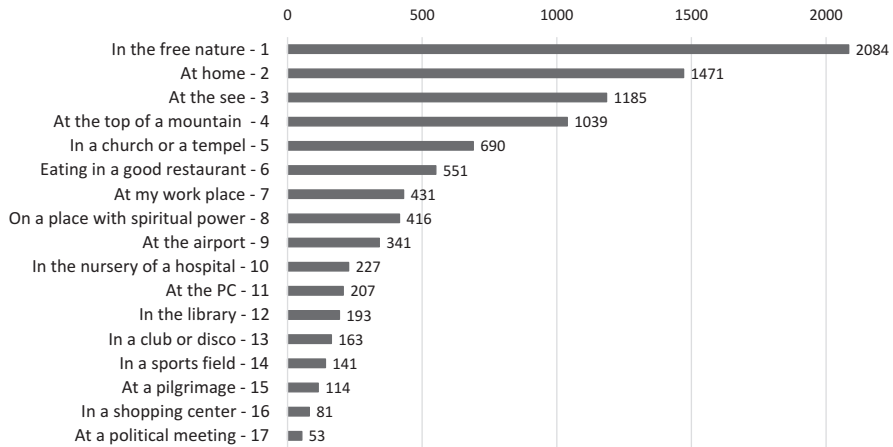
Fig. 2.8 Places of hope – number of positive answers (year 2011)

workplace, at the PC and the libraries, all places with a more cognitive character. Religious places like churches and spiritual places are of intermediate relevance. Of little value are clubs, discos and shopping centers, commonly known as places for consumption and recreation.

Hope Providers

According to Erikson (1963) hope is the first human virtue acquired during the early stages of childhood, which comes with the resolution of the fundamental conflict between basic trust and basic anxiety and mistrust. Hope is related to a feeling of familiarity and inner goodness in association with people (principally family members) the person feels connected to. Thus, hope is based on feelings of trust, confidence, faith, love and care within a robust social network. Nowadays, several authors have also highlighted the importance of the social dimension of hope. Other people can influence a person's hope through their encouragement, support or by simply being present (Farran, Herth, & Popovich, 1995). Scioli and Biller (2009) refer to the existence of hope providers, such as parents, friends but also a larger spiritual force, who offer availability, presence and contact to the person who is hoping and inspire trust, safety and openness.

To be able to investigate the social bonding dimension of hope, the Hope-Barometer includes a list of 16 potential hope providers, asking the participants to score to what extent they expect from them the transmission and spread of hope. The first six outstanding items of the ranking in Fig. 2.9 represent two clearly delineated categories. On the one hand, family members and closer friends are seen as very strong hope providers. On the other hand, many people believe that every person must rely on him- or herself and that hope is one's own responsibility in mastering one's own fate. An exploratory factor analysis supported the existence of these
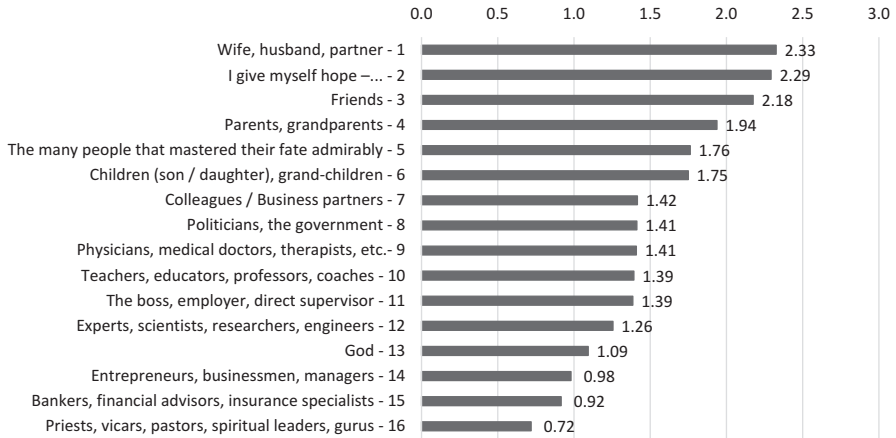
Fig. 2.9 Hope providers – mean values (year 2016)

two categories. A third group of hope providers with moderate scores consists of people in the direct social and professional environment (colleagues, physicians, teachers, and the boss). Even though politicians generally do not belong to the direct personal social environment, most people are regularly in touch with them via the mass media. The last group of hope providers from whom the average population barely expects the transmission and reinforcement of hope, is composed of people in the wider social environment such as experts, scientists, entrepreneurs, bankers, etc. For many people, also God and especially religious leaders seem to be very far from their daily lives.

These results of the Hope-Barometer confirm the idea of Feudtner (2005) about the existence of a social and cultural ecology of hope, consisting of a social network of relationships, hierarchically structured in different layers according to their relevance and closeness to the person with hope.

The level of trust and connection to other people should result in a higher level of general hope. In a multiple linear regression analysis, we tested which categories of people best predict the level of perceived hope. Using the 16 hope providers as predictors, 21% of the variance of perceived hope could be explained ($p < .001$). The general model was significant at $F(11, 4274) = 106.02$; $p < .001$. The four most predictive (p < .001) items are: (1) I give myself hope, it's the responsibility of the person him−/herself ($\beta = .28$); (2) God ($\beta = .18$); (3) Wife, husband, partner ($\beta = .11$); and (4) Teachers, educators, professors, coaches ($\beta = .10$). These four items represent different dimensions of hope, which could be demonstrated by an exploratory factor analysis: The self-centered, the transcendent, the inner family circle and the direct social environment. All other items were of little or no significance (including friends). These findings underline the fact that individuals place their trust in different people in order to enhance their level of hope. Furthermore, that relying on oneself is a strong booster of hope, but that faith in God, although scarcely valued by most participants, also has a significant connection to hope.
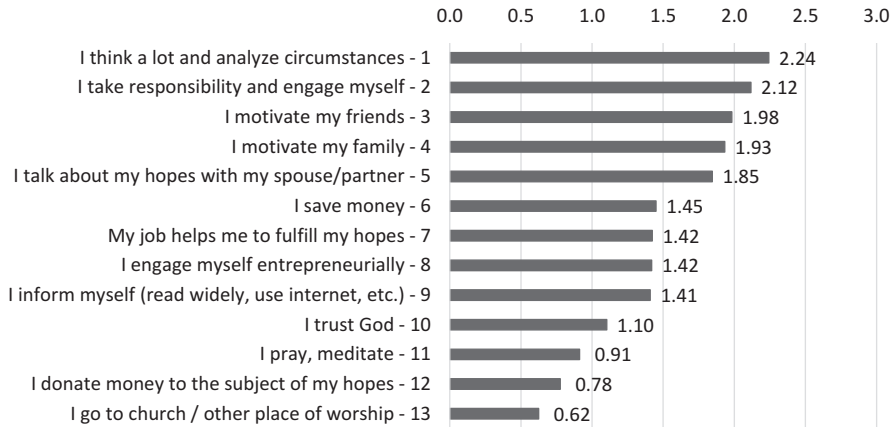
Fig. 2.10 Activities to fulfil one's own hopes – mean values (year 2016)

Activities to Fulfil One's Own Hopes

The structure and quality of hope of different people do not only differ with regard to the kind of the desired outcomes hoped-for, but also regarding the actions performed to achieve these outcomes. Averill and Sundararajan (2005) distinguish between two categories of hope: (1) A primary kind of hope focuses on mastery and the act of coping to overcome difficulties and obstacles. In this cognitive understanding of hope, the emphasis is put on personal control, on ambition, effort and pursuit, and consequently, on actions to achieve the outcome hoped-for, e.g. working harder, thinking more creatively, assessing the situation accurately, planning actions or taking risks. (2) Another type of hope is characterized by a sense of deep personal desire but with little personal control over the outcome. In this case, to hope is to rely on other people or a spiritual higher power, believing that things will turn out well, despite negative facts. Typical actions are to seek support from other people, to pray or to meditate, or just to trust. Faith comes particularly into play when people keep hoping in adverse conditions and in seemingly hopeless situations.

Figure 2.10 presents a list of 13 activities people perform to a greater or lesser extent in order to attain their personal hopes. Two self-centered items, a cognitive (to think and analyze) and a motivational one (personal engagement), are at the top of the list, followed by three items representing the relational dimension of hoping (friends, family and partner). On the other hand, religious and spiritual activities are situated at the end of the list.

It can be assumed, that the activities pursued to fulfil one's own hopes, might have an impact on the general level of hope. Whatever a person does to attain a certain goal, this activity will in general be accompanied by the expectation of a positive effect. By performing a multiple linear regression analysis, our purpose was to explore the connection between the hope related activities (entered as predictors)

and the general level of perceived hope (entered as dependent variable). The 13 items helped to explain 28% of the variance of perceived hope. The general model was significant at $F(9, 4276) = 187.14$; p < .001. Five activities had the strongest predictive power regarding hope (at $p < .001$): (1) I take responsibility and engage myself ($\beta = .19$); (2) I talk about my hopes with my spouse/partner ($\beta = .14$); (3) I motivate my family ($\beta = .14$); (4) I trust God ($\beta = .12$); and (5) I motivate my friends ($\beta = .09$). These activities represent the motivational, relational and religious/spiritual dimensions of hope. Not significant at all are the cognitive activities (I inform myself, I think a lot and analyze circumstances, and I save money), as well as the religious activity of going to church. Of less predictive capacity but still significant, is the activity of praying or meditating ($\beta = .04$; $p = .05$).

This analysis allows to highlight the following three findings: (1) Activities which stand for the motivational and relational dimensions of hope are highly valued by people and also resulted to have a strong predictive power in relation to a higher level of hope. (2) Religious and spiritual activities have the least priority in the consciousness of people, however, to trust God (and to a lesser extent to pray or meditate), has a comparable predictive value regarding hope compared to the social activities. (3) The cognitive activities, although they are very attractive to many people, did not have any predictive effect on the level of hope. These findings tell us, that thinking a lot, analyzing circumstances and informing oneself about how to attain one's own personal hopes, is less effective than we generally consider it to be. On the other hand, to believe in and to trust God seems to be much more helpful than usually deemed.

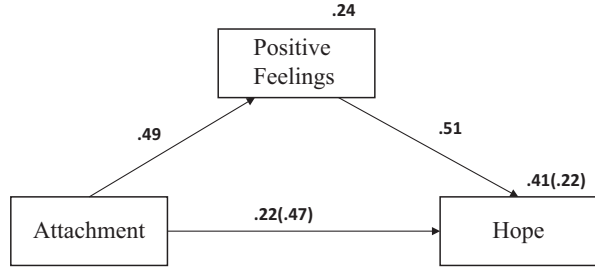## Positive Relations, Feelings, Harmony in Life and Hope

In this and the next sections, a series of analyses will be presented, with the objective of deepening the understanding of the most salient topics resulting from the former analyses and findings. Following the results presented until now, good family and social relations are an important factor, both in terms of personal hopes as well as of sources of sustaining hope. Additionally, harmony in life belongs to the very dominant personal hopes and is furthermore the most relevant predictor of perceived hope. Against this background, we analyzed the relationship between attachment, positive feelings and hope as well as between positive feelings, harmony in life and hope by partial mediation modelling, arriving at the following results.

Attachment, Positive Feelings and Hope

The model in Fig. 2.11 demonstrates the role of good and positive feelings, such as joy and happiness, as partial mediator between attachment and perceived hope. This means, that to have family members and good friends, to whom one feels close, is a

Fig. 2.11 Positive
Feelings as partial
mediator between
Attachment and Perceived
Hope (all standardized
coefficients sig. at
p < .001) (year 2016)

Fig. 2.12 Harmony in Life
as partial mediator between
Positive Feelings and
Perceived Hope (all
standardized coefficients
sig. at *p* < .001) (year
2016)
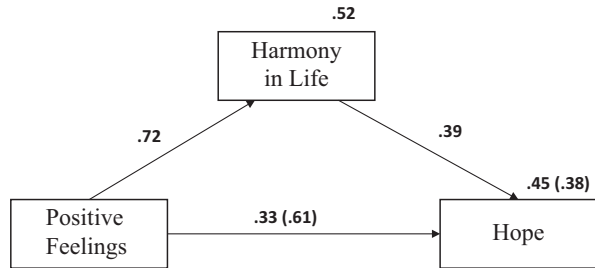
good predictor of the level of hope, but largely, because these good and trustful relations are related to good and positive feelings, which in turn show a strong connection to hope.

Positive Feelings, Harmony in Life and Hope

Going one step further, the next question is how positive feelings relate to harmony in life. The Greek philosopher Aristotle, as well as differentiating between the eudaimonic and hedonic ways of life, also distinguished between two kinds of pleasures: The sensual pleasure and the pleasure arising from performing activities in accordance with human virtues. Eudaimonia is the result of a virtuous life, which the person perceives as joyful and pleasant. People can achieve eudaimonia, authentic happiness as Seligman (2004) put it, because behaving in agreement with non-egoistic and self-transcendent human values such as generosity, gentleness, friendliness and temperance, generates positive feelings. In psychology, while satisfaction with life only represents the cognitive side of well-being based on the fulfilment of self-centered expectations, harmony in life takes into account a more holistic view of well-being that also acknowledges the social and environmental life domains (Kjell et al., 2016).

Figure 2.12 exhibits the partial mediation model in which positive feelings predict hope, but largely via the partial effect of harmony in life. This reveals that not all types of positive feelings (e.g. sensual pleasures) are related to hope, but mainly those feelings, which relate to a sense of harmony in our lives, essentially to be found in harmonious social relations, in the performance of a meaningful and satis-

fying task (e.g. helping others) and/or in the perception of spiritual union with a larger whole.

Hope and Health

The immense value of hope in preserving and restoring health and well-being has been the focus of psychological and nursing research for decades (Eliott, 2005; Farran et al., 1995). Personal health turned out to be the mostly valued personal hope in our Hope-Barometer survey (Fig. 2.6) as well as one of the main predictors of perceived hope. In recent years, new studies have demonstrated the positive mechanisms of resilience and posttraumatic growth to reestablish and increase optimal functioning, besides the already known aspects of self-efficacy, meaning in life and positive relations. The focus of this analysis is to evaluate the role of hope with regard to subjective psychological health, especially in relation to the afore mentioned phenomena.

Predictors of Psychological Health

Instead of focusing only on positive feelings as an indicator of subjective well-being, several authors started to study the experience of flourishing, including in their conceptualization of psychological well-being dimensions such as self-competence, optimism, meaning and positive relations, amongst others (Huppert & So, 2013; Ryff & Keyes, 1995). In 2014, the Hope-Barometer besides asking the participants about their general level of perceived hope also collected people's self-evaluation regarding their degree of self-efficacy, meaning in life, positive relations and psychological health. In a multiple linear regression analysis defining psychological health as dependent variable, perceived hope was the main predictor of psychological health, followed by self-efficacy, meaning in life and positive relations (Fig. 2.13) [$F(4, 7993) = 977.64$; $p < .001$]. This means that psychological health is strongly related to a positive and confident view of one's own future.
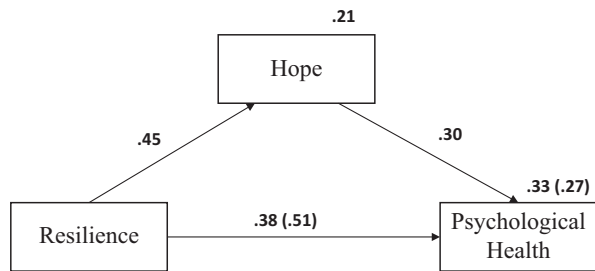
Hope, Resilience and Psychological Health

The remarkable role of hope in maintaining or regaining psychological health can be assumed by relating it to resilience, the capacity to recover after setbacks and difficult times in life. Masten, Cutuli, Herbers, and Reed (2009) counted a positive view towards the future as an important factor of resilience. Being aware that measuring resilience in a cross-sectional study with a self-reported method without a concrete challenging life situation is of limited value, we nevertheless included a scale in the Hope-Barometer of 2014 to evaluate the resilience capacity as perceived by the participants. Figure 2.14 exposes the role of perceived hope as partial

Fig. 2.13 Predictors of Psychological Health (all standardized coefficients sig. at $p < .001$) (year 2014)
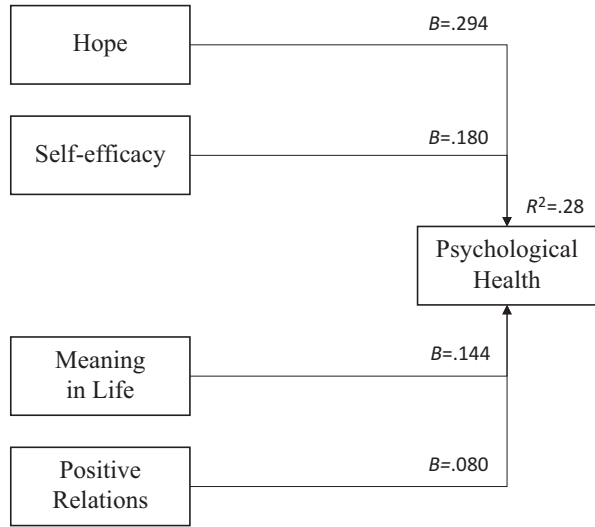
Fig. 2.14 Perceived Hope as partial mediator between Resilience and Psychological Health (all standardized coefficients sig. at $p < .001$) (year 2014)


Fig. 2.15 Perceived Hope as partial mediator between Resilience and Depression/Anxiety (all standardized coefficients sig. at $p < .001$) (year 2014)
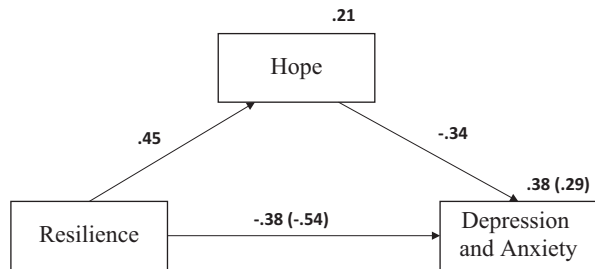
mediator between resilience and psychological health. The model suggests that the positive effect of resilience on psychological health takes place partly because of its strong connection to hope. Individuals that rated themselves as resilient feel more hopeful and enjoy a better psychological health.

A similar effect can be observed between resilience, depression/anxiety and perceived hope (Fig. 2.15). The compelling (negative) effect of resilience on symptoms of depression and anxiety can partly be explained by the mediation role of perceived hope.
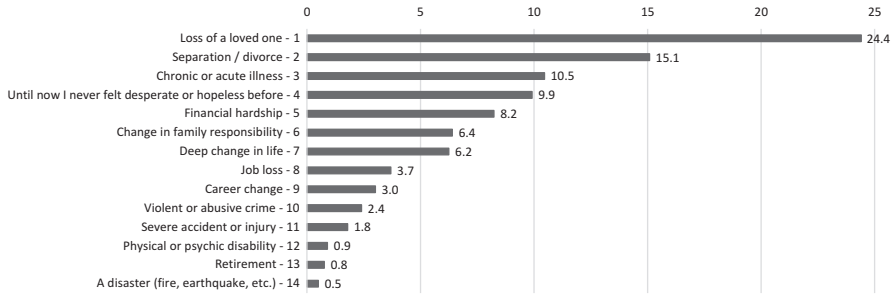
Fig. 2.16 Situations of Hopelessness in % of the total Sample (year 2013)

Situations of Hopelessness and Posttraumatic Growth

In 2013, one major focus of the Hope-Barometer was on the topic of posttraumatic growth. Several authors demonstrated that after critical life situations many people report not only a recovery to normal levels of functioning, but, furthermore, also positive changes for the better, such as closer relationships, a more positive view on life and enhanced self-esteem, reducing also the symptoms of depression and anxiety (Linley, Joseph, & Goodfellow, 2008; Tedeschi & Calhoun, 2004). Linley and Joseph (2011) revealed that finding meaning in a new life situation after a traumatic event is consistently associated with greater positive psychological changes. Using the short form of the Changes in Outlook questionnaire (Joseph, Linley, Shevlin, Goodfellow, & Butler, 2006), participants of the Hope-Barometer could choose one major experience among a list of 14 distressing events when they felt particularly hopeless. Based on that experience, the respondents could assess 10 items from which five reflect a positive posttraumatic growth (e.g. "I value my relationships much more now") and the other five express a negative impact (e.g. "I have very little trust in myself now"). Joseph et al. (2006) explained that posttraumatic growth and posttraumatic distress are not just the two poles of a continuum but, rather, represent separate dimensions of experience. Thus, the reduction of posttraumatic stress will not automatically lead to enhanced posttraumatic growth.

The distressing events causing a feeling of hopelessness more often reported, were the loss of a loved one, the experience of separation or divorce from one's partner and a chronic or acute illness (Fig. 2.16). These results, underline again the central role of intimate relationships and of personal health in relation with the phenomenon of hope.

Defining meaning in life as the predictor of both, positive and negative growth and entering later perceived hope as mediator variable, revealed following (Fig. 2.17): Meaning in life displayed a medium predictive effect on positive growth ($\beta = .30$; $R^2 = .09$; $p < .001$) and a higher effect on negative growth ($\beta = -.38$; $R^2 = .14$; $p < .001$). When entering perceived hope in the model, the partial mediation effect in relation to positive growth was significant ($p < .001$) but rather modest ($\Delta R^2 = .01$). On the other hand, the partial mediation result with respect to negative
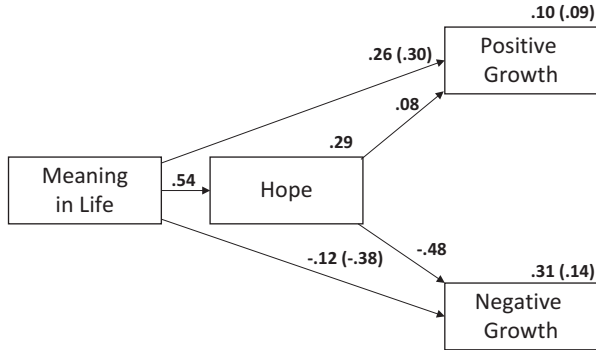
Fig. 2.17 Perceived Hope as partial mediator between Meaning in Life and Positive and Negative Posttraumatic Growth (all standardized coefficients sig. at $p < .001$) (year 2013)

growth was significant and considerably higher ($\Delta R^2 = .17$). These results suggest that meaning in life in association with perceived hope could be considered an important protective factor in alleviating the negative effects of distressing events. Regarding the development of positive outcomes, the role of perceived hope seems to be less apparent. For a more conclusive analysis, a longitudinal study to measure hope before and during the distressing experience would be of great value.

Hope, Physical Health and Depression/Anxiety

Since a chronic and acute illness was one of the major distressing experiences for more than 10% of the sample (Fig. 2.16), and taking into account that a physical illness can lead to symptoms of depression and anxiety, a further analysis was performed in 2014. Using univariate analysis of variance (ANOVA), the sample was divided into nine groups with regard to physical health and perceived hope (factors) and depression and anxiety as dependent variables. The sample was categorized into three health related groups, one group of healthy people (n = 5797), one with moderate health problems (n = 1882), and one containing people with a serious physical illness (n = 318). Also three groups of people with high (n = 1155), moderate (n = 5753) and low (n = 1089) levels of hope were created, calculating one standard deviation above and below the mean value of the whole sample.

The profile plot exhibited in Fig. 2.18 contains a group A with healthy and highly hopeful people that enjoys the lowest level of depression and anxiety ($M = 0.22$, $SD = 0.35$) and another group B of healthy people with low levels of hope and with moderate values of Depression and Anxiety ($M = 1.04$, $SD = 0.78$). The highest values of depression and anxiety ($M = 1.88$, $SD = 0.91$) are displayed by group C, seriously ill people with low levels of hope. Especially remarkable are the results of group D, people with a serious illness but with high levels of hope, who possess the second lowest value of depression and anxiety ($M = .40$, $SD = 0.53$). Although, there
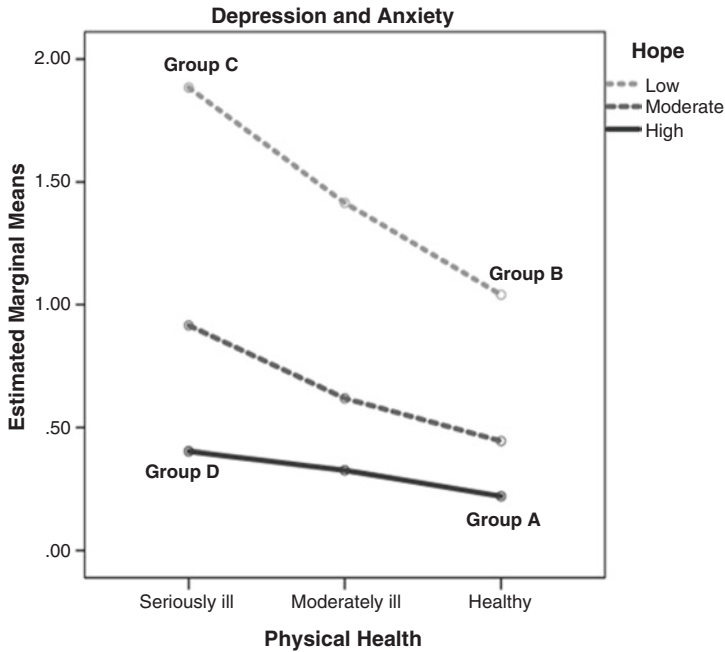
Fig. 2.18 ANOVA with the dependent variable Depression/Anxiety and the factors Physical Health and Perceived Hope (year 2014)

could be differences in how painful and how severe the prognosis of an illness could be, it is nevertheless noteworthy, that people who could retain a high sense of hope despite a serious physical illness display relatively low symptoms of depression and anxiety, nearly comparable to both groups of people with moderate and no health burdens.

Hope, Happiness and Meaning in Life

The last analysis is dedicated to explore the relation between hope and happiness. While satisfaction with life tends to represent the cognitive dimension of well-being, happiness has often been conceptualized as the affective side that is also nourished by hope (Lyubomirsky, Sheldon, & Schkade, 2005). The Subjective Happiness Scale describes a global judgment about the extent to which people feel happy (or unhappy) and enjoy life regardless of what is going on, getting the most out of everything (as one item formulates it).

Predictors of Happiness and Meaning in Life

Reverting to the life domains which people estimate as more or less important in terms of their personal hopes (see Fig. 2.6) and taking the level of satisfaction reported with these domains as predictors, two multiple linear regression analyses were performed defining subjective happiness and meaning in life as dependent variables. The 17 items explain 49% of the variance of happiness [$F(14, 7377) = 481.47$; $p < .001$] and 32% of meaning in life [$F(12, 7379) = 292.71$; $p < .001$]. The four main predictors of happiness with β-values >.10 ($p < .001$) are represented by the satisfaction with (1) harmony in life ($\beta = .21$), (2) partnership, family, marriage ($\beta = .16$), (3) meaningful and satisfying task ($\beta = .11$), and (4) personal health ($\beta = .11$). These four (eudaimonic) life domains are among the most valued personal hopes (see Fig. 2.6), belong to the most relevant predictors of perceived hope and additionally to the principle experiences connected to a happy life. Moreover, a meaningful and satisfying task ($\beta = .21$), partnership, family marriage ($\beta = .14$), harmony in life ($\beta = .11$) in addition to religious experiences ($\beta = .08$) are the main predictors of meaning in life ($p < .001$).

Further multiple regression analyses were run with the 13 predictor variables describing the activities people accomplish to fulfil their personal hopes (see Fig. 2.10) and happiness [adj. $R^2 = .16$; $F(11, 7270) = 128.08$; $p < .001$] as well as meaning in life [adj. $R^2 = .23$; $F(11, 7270) = 196.98$; $p < .001$] as dependent variables. The three striking activities predicting both, happiness and meaning in life are (1) talking with the spouse or partner ($\beta = .17$ and $\beta = .17$), (2) motivating the family ($\beta = .14$ and $\beta = .15$) and (3) taking responsibility and engaging oneself ($\beta = .13$ and $\beta = .15$) (all at $p < .001$). These results suggest that activities sustaining and promoting good relations to one's own partner and family members along with a personal sense of responsibility have the strongest connection to the highest goods of happiness and meaningfulness.

Meaning in Life, Positive Relations, Hope and Happiness

Based on these findings we tested a model where meaning in life (Steger et al., 2006) and positive relations (Ryff & Keyes, 1995) are partially mediated by perceived hope to predict happiness. As can be observed in Fig. 2.19, meaning in life and positive relations are moderately correlated and together explain 41% of the variance of happiness. Both variables also explain 37% of the variance of perceived hope, which functions as partial mediator, raising the variance explained of happiness to 51% (by reducing the effects of the other two variables). These findings suggest that people who report having a meaning and purpose in life and maintain positive relations to other people experience happiness in their life, not only because they experience pleasant thoughts and emotions in the present, but also because they hold a positive and confident view of the future.
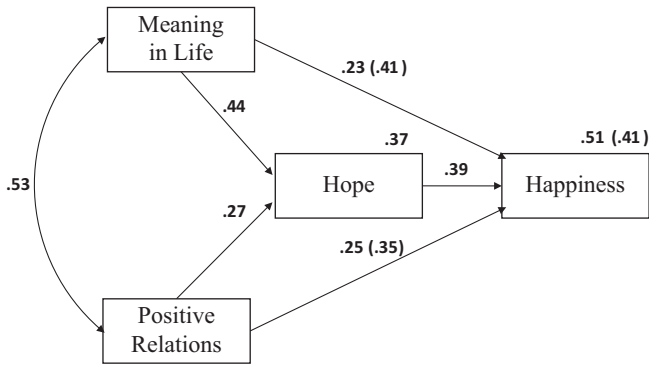
Fig. 2.19 Perceived Hope as partial mediator between Meaning in Life, Positive Relations and Subjective Happiness (all standardized coefficients sig. at $p < .001$) (year 2015)
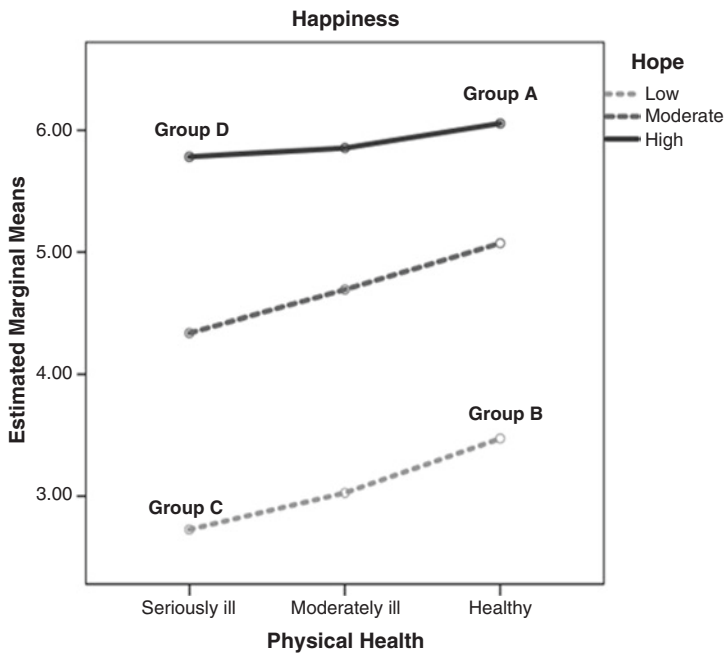
Fig. 2.20 ANOVA with the dependent variable Subjective Happiness and the factors Physical Health and Perceived Hope (year 2014)

Hope, Physical Health and Happiness

That hope cannot only serve to foster happiness in good times and to mitigate negative consequences such as depression and anxiety in bad times, can be confirmed by the results shown in Fig. 2.20. The profile plot exhibited is the result of a similar

analysis of variance as presented in Fig. 2.18, but defining happiness as dependent variable instead of depression and anxiety. Again, the noticeable finding is the existence of a group of people (group D), who reported being seriously ill but at the same time highly hopeful, and declaring to be very happy ($M = 5.78$, $SD = 1.08$), close to the levels of happiness reported by completely healthy people (group A; $M = 6.06$, $SD = 0.81$). This means that in painful situations, hope cannot only lead people to feel less sad and depressed, but it also can foster happiness and permit people to flourish, despite the adversities and sufferings of life.

General Findings

The purpose of this chapter is to present the results of the Hope-Barometer between 2011 and 2016 among the German speaking population, in order to give an overview of the variety of topics and findings, which will be addressed more in detail in the following contributions to this book. The concrete objectives are threefold: (1) to assess the characteristics of hope by comparing the two concepts of perceived and dispositional hope with regard to demographic variables and related constructs such as self-efficacy, spirituality, social relations, altruism, and health; (2) to explore the different aspects and elements of hope as perceived by the German speaking sample, in terms of e.g. targets hoped-for, hope enhancing experiences and activities, hope sources; and (3) to assess the predictive value of hope in relation to various dimensions for a good life such as life satisfaction, positive relations, positive feelings, personal health and well-being, meaning in life and happiness.

The first findings are associated with the characteristics of hope. The main demographic predictor of perceived hope is the family status, which evidences the social and emotional character of hope. Married individuals express higher levels of hope than separated, divorced and widowed people, as well as people living with a partner. Singles exhibit the lowest levels of hope. On the other hand, the strongest demographic predictor of dispositional hope is the professional status. People in higher professional positions possess greater levels of hope. Furthermore, while in general terms women demonstrate slightly but significantly higher values of perceived hope than men do, the opposite is the case with regard to dispositional hope. Perceived hope rises continuously with age, almost until very old age, despite one's health condition worsening with time. Dispositional hope, instead, reaches its peak in a person's 60s and then declines, probably together with physical and cognitive capabilities in older age. Finally, perceived hope is closely related to well-being, emotional, altruistic and (on a lower scale) the spiritual-religious dimensions of life, more than dispositional hope, which is very closely connected to self-centered and cognitive domains such as self-efficacy and resilience. However, among the German speaking population, the spiritual-religious dimension is in general terms less pronounced than the cognitive domain.

With regard to the level of satisfaction and hope in five major domains of general concern, the majority of the sample stated they were rather or very satisfied with

their private life and even more people declared they were optimistic with regard to their own future for the coming year. This despite the fact that only few people are satisfied with and hardly optimistic about the state and progress of the national economy, the national politics, the climate and environment and the current social issues in their country. Moreover, the level of general perceived hope is mainly connected to the experiences in one's own private life and largely independent from the realities of the economy, the politics, the environment and the social issues. These results suggest that the worries regarding the general economic, political and social developments have a much smaller impact on the life and well-being of people than frequently believed.

These findings invite us to explore which life domains are especially important to people in terms of their personal hopes and their feelings of satisfaction. The principal personal hopes refer to central life domains of people's eudaimonic well-being, namely family bonds, harmony in life, good social relations, personal independence and a meaningful task. Hedonic aspects such as more time to relax, more spare time, more sex and more money are of much smaller importance, as well as religious and spiritual experiences. It is also worth noting, that higher levels of satisfaction with the eudaimonic oriented life domains are associated with higher scores of hope (in terms of the significance of the respective life domain). On the contrary, the lower the level of satisfaction with hedonic life domains, the higher the importance of the related hope, or, to put it the other way round, the higher the satisfaction with a hedonic domain, the lower the relevance of the respective hope. Particularly striking extremes are the spiritual-religious dimension on the one hand and the materialistic dimension on the other. Higher satisfaction with religious experiences correspond to a decidedly higher importance of the corresponding hope, whereas higher satisfaction with material possessions is associated negatively with the respective hope. This would mean that the levels of satisfaction and hope of the eudaimonic domains seem to have a mutually reinforcing character, whereas the hedonic and materialistic domains seem to be of importance especially when people experience a deficit or feeling of lack, losing their importance when the respective desires or wishes have been satisfied.

These conclusions could be substantiated by observing that eudaimonic life domains, such as good social relations, altruism (helping other people), meaning and also religious beliefs, turn out to be strong predictors of the general perception of hope, whereas the hedonic domains almost not at all. In analogy to Ryan and Deci's (2000) first- and second-order goals, we suggest differentiating between first- and second-order targets of hope. First-order targets of hope, such as good family relations, personal health, a sense of purpose and meaning, an altruistic attitude and religious experiences, have an intrinsic value for a good life. Second-order targets of hope are of subordinate value and relate to domains that display a momentary good feeling, with less importance for long-lasting personal development.

These findings have been complemented by exploring the sources of individuals' perceived hope. The mostly agreed on experiences that foster a sense of hope are good family relations, nice experiences out in nature and instances of having helped other people, followed by the mastery of difficult problems, personal success and to

a lesser extent religious-spiritual experiences. Of considerably less relevance are coping, materialistic and hedonic affairs (e.g. "I earned a lot of money"). Besides one's own home, several places out in nature were rated as the most prominent places of hope, suggesting that the appreciation of beauty and the transcendent or spiritual feeling of connection to a bigger whole are precious sources that nourish hope. Less valued are places of consumption and recreation.

When reflecting on the people considered as hope providers, the key role of trust in another loved or valued person as a vital source of hope becomes evident. In principle, one's own relatives and closer friends are the most valued hope providers. However, many people choose the self-centered approach to give oneself hope, i.e. the belief that hope is an individual's own responsibility. God and religious leaders (likewise businesspeople and bankers) are considered the least hope providers by a majority of people. However, an interesting finding is that God, together with one-self and one's own partner, is one of the main hope providers in terms of a significant predictor of generally perceived hope.

A similar picture emerges when looking at the activities people declare to perform in order to fulfil their own hopes. The mostly reported activities are of a rational (thinking and analyzing), a motivational (engaging oneself) and a relational (motivating friends and talking to family members) nature. Religiously motivated activities such as trusting God, praying or going to church, are considered the least performed by a majority of people. In spite of these preferences, the motivational, relational and religious activities are the most likely to predict the general level of perceived hope. In conclusion, three categories of activities could be identified when considering people's preferences and their effect on hope: (1) motivational and relational activities are highly valued by people and show a strong predictive effect on general hope; (2) religious activities (particularly trusting in God) are barely considered but demonstrate a significant effect on hope; (3) rational-cognitive activities (analyzing, informing oneself) are highly preferred but show a lower or even no effect on the degree of hope as generally perceived.

Based on these findings, a series of further analyses were performed so as to better understand the role and the value of hope for a healthy, fulfilling and happy life. Considering the importance of positive relations, good feelings and harmony in life as targets and sources of hope, and looking at the relation between them, the following conclusions can be drawn: People that experience positive relations in terms of close attachments to others, possess remarkably higher levels of hope, particularly because positive relations are connected to positive emotions, which in turn are tightly linked to hope. It is worth observing, that especially those emotions associated with a feeling of harmony in life – i.e. in harmony with oneself, with others and with a larger whole – are relevant in terms of hope.

With regard to the relation of hope to psychological health and personal growth after traumatic events, perceived hope turned out to be the main predictor of psychological health followed by other central aspects of psychological well-being, such as self-efficacy, meaning in life and positive relations. Furthermore, hope displayed an important partial mediation role between resilience and psychological health, revealing that people who feel resilient, enjoy better psychological health partly

because they hold a more positive and confident view about their future. Similarly, hope seems to be an important protective factor together with the phenomenon of sense making in cases of distressing events, such as the loss of a loved one, separation, divorce or an acute illness, being associated with significantly less negative effects. Another remarkable result refers to the fact, that some people with a serious physical illness can retain high levels of hope and that these people state they have very few symptoms of depression and anxiety, comparable with healthy people and in contrast to seriously ill people with moderate or low levels of hope.

Happiness and meaning in life are among the highest goods to be achieved for most people. In a last series of analyses, we aimed at exploring the relationship between general hope as well as the particular targets of hope and reported happiness and meaning. Results reveal that the level of satisfaction with the aspects in life mostly hoped-for, namely a harmonious life, a happy partnership, family, marriage, a meaningful and satisfying task as well as personal health, turned out to be the main predictors of happiness and meaning as well as of perceived hope. Satisfaction with these (eudaimonic) life domains explains 45% of the variance of happiness, 32% of meaning in life and 29% of perceived hope. Especially talking with one's spouse or partner about one's own hopes has, above all other activities, the strongest relation to happiness and meaning in life. Furthermore, meaning in life together with positive relations in the present have a strong connection to happiness, but largely because both experiences are related to a hopeful outlook for the future. The crucial role of hope with regard to happiness becomes evident when observing the results of seriously ill people, who participated to the Hope-Barometer. Those who retained high levels of hope stated they enjoyed as high levels of happiness as completely healthy people, whereas those with low levels of hope were the most unhappy of the sample.

Conclusion: The Virtuous Circle of Hope

Our findings so far converge into one common overall conclusion: The existence of a general phenomenon we would like to describe as the virtuous circle of hope (Fig. 2.21). The fundamental conclusion to be drawn out from the results of the Hope-Barometer in German speaking Europe is that the main eudaimonic aspects in life – namely a happy partnership, family and marriage, harmony in life, good relations to other people, a meaningful task and an attitude of helpfulness – together with personal health are the main sources of hope and at the same time the life domains on which people focus their most important hopes. These dimensions in life are intrinsically and mutually reinforcing, whereas other aspects such as personal success, more money and sensual pleasures are neither central sources nor important targets of hope.

A particular finding is related to the spiritual-religious dimension. On the one hand, for a majority of people the spiritual and religious domains of life – e.g. trusting in God, praying or meditating, visiting a church – are neither important targets
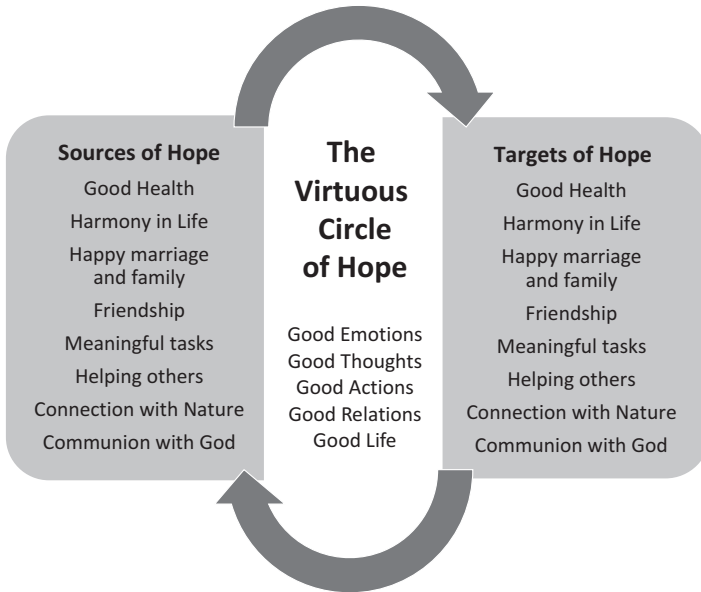
Fig. 2.21 The virtuous circle of hope

nor valued sources of hope. On the other hand, when looking more closely, there is a group of people, for whom spiritual and religious experiences are both important targets as well as valuable sources of hope. Moreover, to believe in and trust in God proved to be one of the major significant factors for a hopeful and meaningful life. If to believe in God proves to be as important as other sources for a harmonious, meaningful and happy life together with our loved ones and other people, then it is worthwhile including this self-transcendent component in the virtuous circle of hope.

To sum up, hope needs personal involvement and commitment, it is centered on a meaningful task or experience in life, and what is more, it requires harmonious and caring relations to other people, especially to one's own family and to a transcendent higher power to be found in nature and in God. The virtuous circle of hope is finally characterized by good feelings and emotions, positive thoughts, well meant actions, loving relations, and, overall, by a good and fulfilling life.

Limitations

The first limitation relates to the fact that the Hope-Barometer is a cross-sectional survey, making it impossible to derive causal explanations. In future research, it would be of value to include the Perceived Hope Scale in longitudinal studies in order to evaluate reciprocal effects with variables such as happiness, posttraumatic

growth, resilience, health, spirituality and meaning in life. Another limitation is the self-report character of the questionnaire. For example, phenomena such as physical and psychological health should be assessed using medical data to be able to have standardized criteria allowing better comparisons. A further limitation is that, although our analyses are based on large and differentiated samples, these are not strictly representative of the German and the German-speaking Swiss population, in terms of gender, age, familial status, occupation, etc., but they are rather focused on people with Internet literacy and access. However, web-based research possesses clear advantages, since the size and the heterogeneous composition of the samples are better than other convenience samples often obtained by researchers. Finally, the findings and conclusions gained from our analyses are restricted to the German-speaking participants, making it necessary to explore and evaluate the generalizability of our results to other nations and cultures. Several chapters in this book have the purpose to compare results from different countries.

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