CHAPTER

9

Bereavement and Posttraumatic Growth

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I have changed a lot since he died. For the first time I learned to accept help from others. . . . And I think that I became more open—as for myself I know better what I really want from life, what I am afraid of and also who I am. And I stay myself even in company with others. . . . And yes, I think I can really be proud of myself that I have managed everything so well. All these things have prevented me from going crazy: I had to be a mother for my children and I had to worry about all these financial things, otherwise we would be broke by now. . . . And sometimes I think of myself as a lucky person, being a single mother, even when everything has also a tragic aspect.

—Transcript, woman in her 30s, 14 months following the death of her spouse. Taken from the San Francisco Study on spousal bereavement

INTRODUCTION

Although the death of a close person is a devastating experience, sometimes people report a growing sense of themselves as becoming a better, more human, and more able persons. Only recently research has begun to systematically evaluate the positive aspects of the aftermath of trauma and only recently we have instruments to evaluate such personal growth (Park, Cohen, & Murch, 1997; Tedeschi & Calhoun, 1996). But even when people report positive changes, most people would—if they had the chance to change – choose a different course of things, especially when they had suffered human losses. Therefore, posttraumatic growth (PTG) will remain complicated, even "Janus" faced (Maercker & Zoellner, 2004), meaning that there are both adaptive and maladaptive aspects involved. In addition, it is unclear whether perceived PTG must be considered as a coping strategy

or as a result of a coping process. There is an ongoing discussion whether PTG has to be evaluated as an outcome or a coping strategy (e.g., Schaefer & Moos, 1992; Wurf and Hazel, 1991). The mentioned instruments suggest that PTG can be measured as an outcome but it may more strongly be related to coping as in making meaning or in accepting what cannot be changed. It has been argued that PTG is the result of coming to terms with adverse or conflicting cognitions and emotions. A better understanding of this process is still necessary.

Calhoun and Tedeschi (1998) emphasize that by rethinking the event over and over (rumination) people manage to cope with the emotional impact and start having new perspectives. They even may develop a completely new frame of reference or world view incorporating the traumatic event and, therefore, become a more fully developed person. However, according to Linville (1987), these changes do not come cheap: For being capable to integrate nonnormative events, the self has to adapt to a more complex representation of the world and the "old" feeling of security may vanish forever. Linville reported that in the sequence of life-threatening life crises, not only will people get stronger in the sense of a cognitively buffered self, they become more resistant to depression. On the other hand, their mood may become lower and more moderate (Janoff-Bulman, 1989). Linville explained this paradoxical effect through the mechanism of a lower self-esteem while representing a more complex world. A child represents the world in a simple way, but the sense of self is undisturbed and when a child wants something, it is not hampered by a self-consciousness of representing the world as one often frustrating one's needs. However, during the process of growing up, many frustrations have to be integrated, the needs have to be negotiated and, as a consequence, the sense of oneself becomes less narcissistic and more adapted to the environment's demands. On the other hand, there is evidence that people high in narcissism are more resistant to stress (Bonanno, 2004), although this might be only the case as long as the environment fits into the represented world. Those high in self-esteem would then be better protected from depression and they may be better able to rebuild their cognitive system without loosing a positive outlook. Taken together, the changes following the aftermath of a serious life-event suggest a nonlinearity of different possible outcomes that depend on many, up to now only rudimentarily understood variables.

EMOTION REGULATION

In focusing on emotion regulation, Znoj and coworkers (Znoj & Grawe, 2000; Znoj & Keller, 2002) found that bereaved parents and spouses reported better ability to cope with distressing emotions than controls. The effect was even more impressive considering that many bereaved parents and spouses still suffered from intense and often severely distressing emotions triggered by their grief. By excluding participants who showed high signs of distress, the effects were even stronger. Calhoun, Cann, Tedeschi, and McMillan (2000) have suggested that personal growth can be positively associated with symptoms. The ability to cope better with upsetting feelings may be directly related to the intensity of emotional feelings. The process of habituation offers a quite simple explanation. The pangs of various emotions, the often unbearable pain characterizing grief and the process of mourning may lead to a depression-like state where emotions are felt less. But it could also be the other way round: Toward a more tolerant and less controlling attitude for emotional states in general. As life with its daily chores and activities goes on, people might get used to their emotional states and could learn tolerating emotionally ambiguous situations better than without the experience of loss. We were not able to test this model

specifically, but it is plausible and parsimonious. But the question remains: Is there more to PTG than just adaptation?

EMOTION REGULATION—THE PHYSIOLOGICAL ARGUMENT

Why should the experience of overwhelming emotions trigger a learning process? It is unclear as to how and where such learning occurs. Physiological data suggest that the prefrontal cortex might be of importance for handling and modulating emotional response. To integrate the massive emotional pangs following a loss, the cortical control for emotion regulation could be stimulated and the capacity for emotion regulation enhanced. The work of Le Doux (1996) shows that such processes may occur. The consequences of an enhanced emotion regulation could be manifold. Situations that formerly have been avoided lose their fearful impact. The emotional quality might be the same, but by considering the emotional impact of the loss the anxiety seems manageable.

In line with this explanation is the repeated finding that so-called sensation seekers (Zuckerman, 1978) cope better following traumatizing events. In an investigation on Israeli war veterans, Neria, Solomon, Ginzburg, and Dekel (2000) found that high-sensation seekers suffered from lower levels of war-related intrusion and avoidance tendencies and posttraumatic stress disorder (PTSD) symptoms than low-sensation seekers. In an earlier study, high-sensation seekers were found to be better adjusted following the stresses of captivity. Low-sensation seeking ex-prisoners of war reported more PTSD symptoms, more severe psychiatric symptomatology, and more intense intrusive and avoidance tendencies. They differed also on subjective assessment of suffering in prison, ways of coping with prison, and emotional states during captivity (Neria, Solomon, Ginzburg, & Ohry, 1996). These studies suggest that sensation seeking is an important stress-buffering personal resource. Although high sensation seekers may put themselves in danger more often through activities, such as mountain climbing, motorcycle riding and the like, this finding should not be dismissed as an artifact or a lack of fear response of these persons. The challenging situations these individuals have to conquer may increase their ability to cope not only with the situations, but also with the anxiety involved. Sensation seeking can, therefore, be seen as a risky emotion-regulation strategy to cope with adverse emotions.

Problems in Coping for the Bereaved

The experience of loss may shake or even shatter one's assumptions (Janoff-Bulman, 1992, see also this book); the loss may feel unjust and cruel. Grief has the potential to test one's limits and sometimes, the outcome of grief can be devastating (e.g., Horowitz, Siegel, Holen, & Bonanno, 1997; Jacobs, 1999; Raphael, 1983). To come to terms with the emotions triggered by the loss is challenging. All kind of experiences and coping efforts are asked for. Sometimes, unhealthy behaviors become prominent, as the statement of one widower in the San Francisco bereavement study exemplifies: "I used to live in the future. No more of that. So that's one of the first things I did was drink all those Merlots and everything. I figured they'd aged long enough." As Aldwin, Sutton, and Lachman (1996) stated in their deviation-amplification model, the coping repertoire and coping resources following a critical life event are used more often. Depending on the quality of the repertoire, resources can be depleted and, therefore, the vulnerability for psychological problems is enhanced; more coping efforts, however, may lead to more experiences of self-efficacy (Bandura, 1977) and better self-esteem. I would like to argue that sometimes help from others has the paradoxical effect of hampering the process of personal growth. In

our own investigation of bereaved parents we found some evidence that indeed this may be the case. Bereaved parents who indicated that their friends and relatives have retreated from them scored higher on the stress-related growth scale (Plaschy, 1999). However, this finding must be contrasted with the significant association between PTG and having new friends. Help from others might only hinder the personal development following the death of one's child, when supporting persons are sometimes blind to the special needs that bereaved parents have.

THE EXPERIENCES OF THE BEREAVED

Let us turn to the various positive (or negative) effects the experience of loss can have on the self. The claims of statements concerning PTG are impressive and can be apparent in various areas of permanent change. However, the changes can also take a negative turn. The following taxonomy was developed in San Francisco together with Nigel Field (Znoj & Field, 1996) in an attempt to develop an observer tool for PTG. As we were not only interested in positive changes, we looked for indicators of change following the experience of loss of the life partner. We ended up with three categories: transformation, meaning, and manageability.

A first area of a changed outlook is the recognition of some kind of transformation. These changes in self are not be always consciously available, but they may occur in settings that can be observed. Significant change is reflected in statements regarding changes in values, goals, beliefs about self, and one's relation to others and the world. These changes may be positive or negative. They are reflected behaviorally in changes in work, social, or family life—such as changes in investment of time dedicated to these activities (e.g., spending more time with children), reordering of priorities (e.g., spending less time at work to have more free time with friends), or new commitments (e.g., beginning a new intimate relationship or shift in profession). The following statements illustrate such changes:

> "Things have changed in the sense that my outlook on life has changed dramatically."
>
> "I'm more tolerant of people, I'm more sympathetic toward the disadvantaged."
>
> "In a more positive way I've become more independent, but my independence that has been developing for a long time and now I'm thrust into it that there's no one to rely on."
>
> "I'm probably more concerned about the present and less about the future than I used to be."
>
> "The biggest thing that I had learned through that whole experience from him being ill and dying is the fact that you can't really count on things."
>
> "I always expected my wife to be there forever and now she's gone."
>
> "I've become more bitter about life since the loss." item "I was in an unhappy relationship; I must say I feel better being single."

Successful adaptation to a stressful life events entails not only appraising it as something one is capable of enduring, but as an opportunity for psychological development. Meaning can be shown across different domains including affiliation/intimacy, achievement/competence, autonomy, and self-actualization.

Growth themes identified by Schaefer and Moos (1992) provide clues as to whether transformation is meaningful. Striving for meaning may encompass emergence of new meaning or the exercise of preexisting meaning systems for assimilating the loss, such as

religious faith. It involves appraisal of the event in a way that upholds or promotes one's values, goals, and ideals. For example:

> "I got involved with very people-oriented things like public service which I felt more focused on in terms of enjoyment."
>
> "I tend to be more idealistic in terms of benefiting disadvantaged groups with my talents and experience."
>
> "I recognized that being able to receive people's love is also a gift to them and that you know it just deepens your relationship with people."
>
> "I'm more honest and open about who I am and trying to say more what I want and what I'm afraid of and who I am to people that I meet or people that I'm in a relationship with."
>
> "And probably in a lot of ways I have a stronger sense of what I really want and what I really need to happen in my life to be happy or to feel complete or fulfilled with what I am doing." item "I've developed a stronger liking for myself and don't have to try to be okay in someone else's eyes in order to feel good about myself."

Manageability addresses the extent to which the person experiences him or herself as able to successfully work through the loss. The event is seen as a challenge while fully recognizing the pain of the loss. Perceiving oneself as competent and as having the resources to confront the death and related problems are part of manageability. Also, being able to maintain a sense of self-esteem as opposed to avoiding reminders of the event and/or appraising him or herself as unable to cope would be included in manageability. For example:

> "And so if I want to be a decent human being I have to get about that and continue with my life. It is scary and I hope I can do it, but I feel I can because I have a positive attitude towards doing it."
>
> "Since deceased passed away it has been really hard but there hasn't been anything I couldn't handle."
>
> "Yesterday I had to appear in court over a situation that had developed in my store. I wouldn't have done that a year and a half ago. Deceased would have taken care of it but I did alright and I'll come out okay."
>
> "I've had to be both a father and a mother to my children since my spouse died and I think my children are doing well."

Other authors have stated different approaches to personal growth. Tedeschi and Calhoun (1996) formulated three main categories: changes in self-perception, changes in interpersonal relationships, and a changed philosophy of life. The preceding reports, however, were found repeatedly in statements of bereaved persons. In terms of adaptivity, it is not always clear whether the changed outlook will enhance health or long-term survival. Sometimes, the change in perspective takes even a clearly negative turn, such as in the saying:" I've become more bitter about life since the loss." Clearly, we would not label this statement as a sign of personal growth. Other accounts refer to the capacity to overcome serious life events. It is a capacity that people have not been aware of until after the blow. The capacity has obviously existed already; the growing recognition of this capacity could have the psychological effect to feel more complete as a person, to experience a

more complex self. In fact, it will be difficult to distinguish resilience—the capacity to withstand challenging life events—from this aspect of personal growth.

RESILIENCE AND PERSONAL GROWTH

To grow, something must be either incomplete or damaged. It may be important to realize that personal growth and resilience are not the same. Following Dienstbier (1989), Meichenbaum (1985), and others, physical and psychological toughness is gained by adverse experiences. However, stress inoculation only works when there is enough capacity to cope with stressors. Coping can be trained and there is mounting evidence that specific training enhances the capacity to cope with various stressors, such as test anxiety, performance anxiety, or social phobia (Meichenbaum & Deffenbacher, 1988). It is debateable whether such an effect may occur without counseling. Life events are still today seen as unfavorable to psychological in addition to physical health. The current report of the Surgeon General on mental health states: "Stressful life events, even for those at the peak of mental health, erode quality of life and place people at risk for symptoms and signs of mental disorders." In fact, life events are seen as strong predictors of ill-being, labeled in terms such as *vulnerability-stress-model* where adverse life events trigger a hidden proneness for physical and mental disease (e.g., Holmes & Rahe, 1967; Lazarus & Folkman, 1984). Even in the mounting literature on personal growth it is clear that adverse life events produce vulnerability. In fact, personal growth is positively associated with indicators of stress, such as intrusions or hypervigilance and other psychological symptoms (Calhoun, Carr, Tedeschi, & McMillan, 2000; Maercker & Schützwohl, 1998; Park et al., 1997). The term *vulnerability* contradicts *resistance*: One would expect that resilient people are not affected by life events. In fact, this seems to be the case. Bonanno (2004) argues that resilient people are not affected following interpersonal loss or potential traumatic events. He further argues that resilient people maintain a stable (emotional) equilibrium and maintain a healthy level of psychological and physical functioning. He even goes one step further and claims that most people are in fact resilient to loss and trauma. And he might be right in stating that most people do in fact cope perfectly well with human losses of all kind. Meta-analytical studies on intervention for bereavement show little to no effect (Allumbaugh & Hoyt, 1999). On the contrary, psychological interventions may even harm an ongoing self-healing process at least for people in a normal bereavement. Additional data come from early interventions studies on trauma, such as debriefing (Mayou, Ehlers, & Hobbs, 2000). Although, in most cases, life events are adequately coped with, a minority of people are not resilient and may severely be affected by the loss or trauma. Here, I want to focus on an even more vexing finding: That many people are indeed traumatized, do indeed suffer from psychological problems, and still report that in many ways they have profited from the blow they had to suffer. What leads to PTG may be the need or necessity to change in some respect or transform as a human being. James (1936), in his important remarks on religious experiences states that crises are predictors of such personal transformations. In James' view, religious experience can be regarded as a cognitive schema or a state of mind. This schema works like a mysterious filter that turns bad into good or evil into blessings. It may evolve following extreme life events. He writes:

> In this state of mind, what we most dreaded has become the habitation of our safety, and the hour of our moral death has turned into our spiritual birthday. The time for tension in our soul is over, and that of happy relaxation, of calm deep breathing, of an eternal present, with

> no discordant future to be anxious about, has arrived. Fear is not held in abeyance as it is by mere morality, it is positively expunged and washed away. (W. James, lecture 2, 1902)

Spirituality has the power to overcome insurmountable obstacles that a more critical mind and "down to earth" stance would recognize as too gigantic a task. Human history is full of example where heroes and saints overcome single-handedly formidable enemies. For instance, the famous Joan d'Arc was reported to win an already lost battle against the British emperor. I don't want to go into too much detail—it is hard to tell facts from myths in theses cases. The important point here is that spiritual power—in more psychological terms the belief in supernatural powers—overcomes the most disturbing realities.

Following the death of a beloved child, many parents see themselves as mutilated and severely harmed. Still, they do not suffer for themselves, but see a promising life cut short. In many cases, spirituality may help to locate the dead child in heaven although grief remains. Obviously, should growth be experienced it must be different from the growth reported following severe bodily damage, such as spinal cord injury. Growth following bereavement—especially parental bereavement—is probably different both in process and outcome.

PERSONAL GROWTH MAY BE ILLUSORY

The benefice of positive illusions has been demonstrated by many investigators, but most prominently by Taylor and coworkers (e.g., Taylor & Brown, 1988). They showed that most healthy individuals lean toward the bright side of life. Most people are biased in their own judgments in favor of themselves, they perceive themselves as better lovers, car drivers, or healthier than average, in fact, most healthy adults are positively biased in their self-perceptions. Unrealistic optimism seems to be a good predictor of health: Following Scheier und Carver (1985), unrealistic optimism makes people feel better, it is associated with positive relationships and higher motivation. In addition, unrealistic optimism is associated with successful coping and better recovery from health-related stressors (Scheier et al., 1989). However, this perspective has gained widespread criticism (e.g., Colvin & Block 1994). Do positive illusions foster mental health? An examination of the Taylor and Brown (1988) formulation suggests that positive illusions are only beneficial when there is enough realism left enabling the individual to adapt to a specific environment. This truism may help to investigate personal growth more realistically. What we should not expect is that people who report personal growth are completely well and psychologically healthy. Znoj (1999) proposed a model of PTG where reported personal growth was dependent on psychological impact: Following this model, personal growth is both a coping strategy and an outcome following a major life event. It is related to symptoms, because following a life event, usually people get distressed and more symptomatic. But it is a nonlinear relation. Highly distressed participants should experience a low level of personal growth, and people who had experienced high distress following the event, but do not continue to do so, should report high levels of personal growth. On the other hand, people who had experienced a major life event without suffering from symptoms should report no stress-related growth. This was the case with spinal cord injured persons and, to a lower degree, also with bereaved parents. A cluster analysis with the bereaved parents of the Bern study on parental bereavement (Znoj & Keller, 2002) confirmed the earlier reported findings with spinal cord injured patients. Table 1.1 summarizes the results. The data show that the participants of the high depression group (the cluster center in this group was 21 on the Beck Depression Inventory [BDI]) did not report personal growth. But

TABLE 9.1
Three-cluster solution of depression and PTG. The three groups show a curvilinear relationship of PTG in relation to level of depression

Cluster centers (z-values)	*Cluster 1: high symptom level, low personal growth*	*Cluster 2: moderately low symptom level, high personal growth*	*Cluster 3: low symptom level, low personal growth*
Depression	1.82	−0.23	−0.36
Personal Growth	−0.45	0.85	−0.87
N	23	80	67

Note. Total $N = 170$ (missing = 6)

low symptoms are not indicative of PTG either. There are obviously many nondepressed parents who do not claim such a personal development. This finding is in line with the resilience hypothesis (Bonanno, 2004). Persons who were not affected by the loss to a "pathological" degree may continue life without further changes, even when they are badly hurt. But what predicts personal growth in bereaved parents? A systematic approach using hierarchical regression analysis revealed that the affective quality in the remaining family, being able to find new friends, a rather strong sense of coherence, especially being able to find meaning in adverse situations and stress related intrusions were predictors of personal growth. Together, these variables explained 20% of the variance of PTG measured with the Stress-Related Personal Growth scale (SRGS) (Park et al., 1997) in the mentioned Bernese study of bereavement.

THE POWER OF ILLUSIONS

Illusions can be extremely powerful and they can be extremely dangerous. Joan of Arc was burnt to death when she was 19 years old, condemned as a "relapsed heretic." People who believed their own reality more than the realities of society always lived in danger. At the same time, society needed them; in ancient history we hear from the Delphic Oracle where for more than 1,000 years emperors and peasants alike asked for advice from people who were in trance-like states. Many healers and magicians used drugs, narcotics, or extreme sleeping or eating habits to force themselves into these trance-like states were they looked for a higher, less materialistic reality. It is hard to tell whether a healing ceremony just let the self-healing occur or whether the spirituality was the healing power.

There are enough empirical findings to suggest that turning to religion may enhance health (e.g., Koenig, 1998). For Frankl (1997), a survivor of the Holocaust, finding meaning is the ultimate challenge in life. In his words, meaning is experiencing by responding to the demands of the situation at hand, discovering and committing oneself to one's own unique task in life, and by allowing oneself to experience or trust in an ultimate meaning—which one may or may not call God.

A religious belief may help to order life, but it may also hinder new experiences and challenges and that respect may even become maladaptive. Without doubt, the comfort of religion can be the discomfort of the out-group and nonbelievers, especially in fundamental societies. The powers of the mind, however, are not limited to the religious or spiritual experience. In a recent review, Rey (2004) gives many examples how the mind operates on the physical chemistry of our bodies (see also Kiecolt-Glaser & Glaser, 1987). Being able to turn the mind into a self-enhancing, more hopeful state of mind wherein we experience

more control (or self-efficacy) in our lives, we should stay healthier and psychologically stronger. Of course, other variables may be necessary to make this change of state of mind happen—for instance social support would be very important, not only because of the instrumental help of others, but because we as "social animals" need the emotional support and the social reinforcement to not feel depressed (see also Lewinsohn, 1974). As Lazarus stated: "It is not the situation we fear but the appraisal we make out of the situation" (Lazarus, 1991). The state of mind is a powerful "shaper" of our environment. Depending on it, we perceive others and ourselves and act toward others according to our state of mind (Horowitz, 1987). Psychologically, PTG can be regarded to be a stable state of mind, transforming disturbing past events into a milder light of hope. In Lewins' (1935) words, we perceive the world as a field of forces: In a state of hunger, possible foods and food occasions come into attention. The world is a continuing construct of our experiences, needs, and the encounter with the environments' demands. When in need for meaning, after the impact of a devastating event, we might—as a coping strategy—perceive the world (its parts and contingencies) in being meaningful or not. As the warrior in Lewins' (1917) "Kriegslandschaften" (landscapes of war) we might perceive more clearly what makes sense in terms of survival and what does not. The desperate need to construct a beneficial world we even might go so far as to construct our world into one that consists of meaningful events, even when—objectively seen—this is not the case.

Personal growth could be the expression of the necessity to adapt to a hard to integrate experience. Posttraumatic growth must not necessarily be adaptive in the sense of an optimal fit into a sociobiological environment and PTG must not necessarily be adaptive in terms of well-being or emotional stability.

RUMINATION, PSYCHOLOGICAL HEALTH, AND PERSONAL GROWTH

In the Bernese study, having low symptoms and experiencing low PTG predicted the lowest level of stress-related intrusions, the difference was highly significant against the high symptomatic group ($p < .001$, multiple comparisons, Bonferroni corrected). The high PTG group reported lower levels of stress-related intrusions than the high symptom group ($p < .001$) but there was a trend to have more intrusions than the low symptoms, low PTG group ($p < .10$). The finding is in line with the Calhoun and Tedeschi (1998) theory that rumination in the sense of rethinking and building a new frame of reference is a necessary condition for PTG. On the basis of these findings one may conclude that PTG is not necessarily a good predictor of health and well-being. Indeed, correlations with health indicators, such as depressive mood, did not reveal any statistically significant relationship for the bereaved parents. This brings us to the next question: What (if any) function has the experience of personal growth for the human being? Several allusions put PTG close to religious or spiritual experience. Our cognitive abilities not only enhance our sense of orientation, but it may give us a "virtual" life as in imagination. We may live a fantastic life outside of our daily routines. Many people use the fantasies of others, such as in romantic stories, to escape from daily routine; others daydream instead of actually doing something in the real world. The power of spirituality may not be the same as escapist fantasies—it may even enhance ourselves to manage challenges that otherwise would remain beyond possibilities. The example of Joan of Arc—a then 13-year-old girl with religious visions—was clearly not foreseen by any military and realistic forces and yet, she managed to convince people to stand up against a massive enemy—the British troupes that had invaded France in a cruel civil war. And, the French won this battle with Joan and were able to regain their homeland.

EMPIRICAL INVESTIGATIONS

A Model of Personal Growth Following the Death of a Child

There are several important questions concerning the relationship between PTG, the experience of grief symptoms, social support, and resiliency or a capacity to cope with the complex situation. The introductory remarks highlighted the difficulties involved. Structural equation modeling allows us to "test" even complex hypotheses and, by alternating different models, fit indices may help to decide which model fits the empirical data best. Here, I will present two alternative models—the first developed by Hogan and Schmidt (2002), the other resulted from the theoretical reflections that PTG is not directly related to psychological symptoms, but positively related to personal resources (and social support). Additionally we tested the resilience model, leaving PTG out of the equation. The resilience to personal growth model not only has resilience as a necessary additional variable, but differs from the Hogan and Schmidt (2002) model in the direction of some of the paths, indicating a different cause of influence. Figures 9.1 and 9.2 illustrate the similarities and differences of the two PTG models.

Hogan und Schmidt (2002) postulated a model of growth in bereavement, where grief symptoms were predictors of posttraumatic stress symptoms (intrusion and avoidance)—the stress response syndrome axis. The second important path involves social support being modulated by avoidance. Both social support and grief predicted PTG. Hogan and Schmidt (2002) operationalized symptoms of grief with feelings of despair and detachment. In their model, the experience of grief related negatively and social support related positively to PTG.

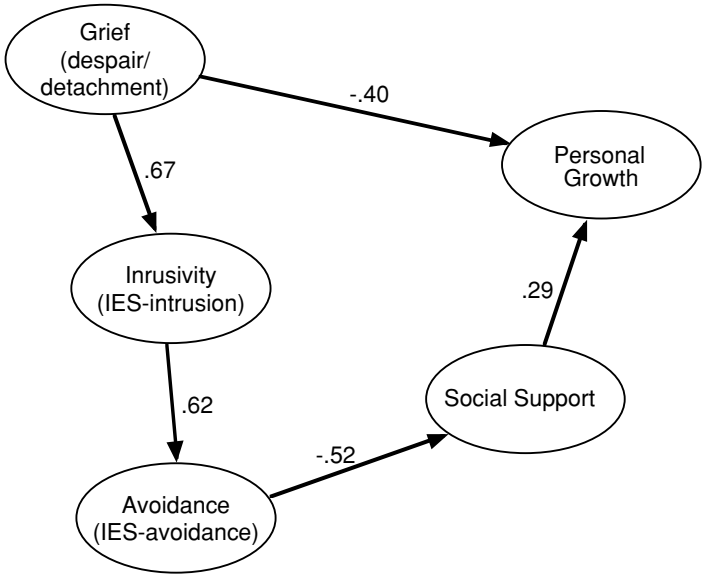

FIG. 9.1. Grief in the Hogan and Schmidt (2002) model of "grief to personal growth model" includes two main components: (a) the "stress syndrome axis"with intrusion and avoidance being the consequences of grief symptoms and (b) the "resolved grief axis" where social support plays a major role. In the figure, the numbers represent the standardized weights as given in the original report. Grief to Personal Growth Model (Hogan & Schmidt, 2002).

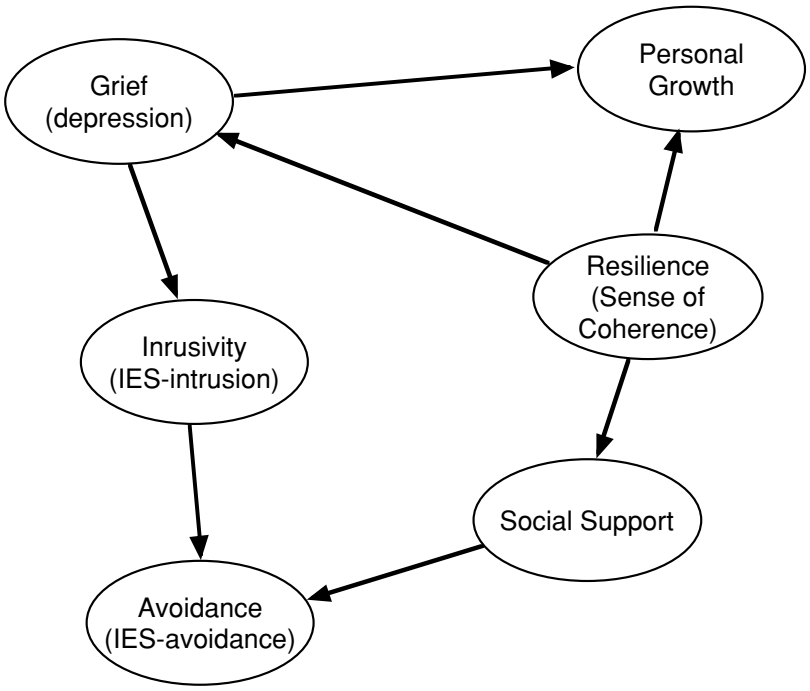

FIG. 9.2. In the resilience to personal growth model the important variable for psychological growth is resilience. In contrast to the Hogan and Schmidt (2002) model, the paths from and to social support and grief have inverted directions. Resilience to Personal Growth Model (Znoj, Kruit, & Wüthrich, 2004).

The authors concluded that their finding contradicted the traditional grief theory position where grief work is the antidote to grief and, hence, resolving grief is necessary "returning to normal." The main argument for their position was that "returning to normal" is impossible following the death of a child. Instead, people have to go beyond their former state of being and turn grief into personal growth. This "Grief to Personal Growth Model" contradicts the traditional views of grief in a highly important perspective, namely that a return to the "former self" is not possible. It does not, however, contradict the pain of grief, and it does not contradict the necessity to detach oneself of the deceived person. The process of detachment often leads also to detachment of intimate others, to interpersonal and personal crises. Grief, therefore, will not be "resolved," but transformed. The shattered personal life provides the opportunity to make a transition toward personal growth. Empirically, two pathways have been found: the first represented a direct, but inverse relationship between grief symptoms and personal growth. It was concluded by the authors that this inverse relationship—because this was a cross-sectional design—signified that grief and personal growth does not exist simultaneously. The second pathway leads from grief symptoms to intrusive thoughts and feelings and consequently to avoidance of reminders (Horowitz, 1976). A negative pathway leads to social support, indicating that people in an avoidant state of mind rejected emotional in addition to instrumental support from others. For supporting friends or family the bereaved are a challenge to support because of the avoidant, even hostile manner they are acting toward others. One may conclude that complicate grief may be a grief "stuck" in the process of intrusion and avoidance, as suggested by the stress response syndrome theory (Horowitz, 1976). A positive

relation was found between social support and personal growth, indicating that social support is an important variable for personal growth, perhaps especially so for people in distress.

As this proposed Hogan and Schmidt model also fits into a recent theory of coping with bereavement (Stroebe & Schut, 1999), we used this approach to test the proposed pathways with the data of the Bern study of parental bereavement. In fact, the Hogan and Schmidt (2002) study resembled in many ways the Bernese study: Participants were parents who lost a child. In contrast to the Bernese study, the children were (a) mainly male gender and (b) were young adolescents whose cause of death was mainly accidental. A further difference was that the parents in the Hogan and Schmidt (2002) study reported having no notice that their child would die. Mean time since death was comparable (about 4 years).

Method

The complete data of $N = 169$ bereaved parents (male 55, female 114), mean age was 42 years, time since child loss averaged 5 years and mean age of the dead child was around 3 years (0 to 48 years). The cause of death varied, 47% died either from chronic or acute disease; accident (15%) and suicide (14%); newborn or early deliverance (17%); and sudden infant death (7%) were the other causes. As measures we used symptom scales, a measure of social support, the sense of coherence as a measure of resilience, and stress-related growth. The BDI was developed by Beck (1978). We used a German translation (Hautzinger, 1995). The IES (Horowitz, Wilner & Alvarez, 1979) was used in its revised German translation (Maercker & Schützwohl, 1998); social support was measured with singular questions about persons who helped to cope with the event and developed by the author. The Sense of Coherence (Antonovsky, 1987; Noack, Bachmann, Oliveri, Kopp, & Udris, 1993), and a German translation of the SRGS (Park et al., 1997) were given to the participants and in this study served as the database for our modeling approach.

Results

In a first step, we tried to fit our data into the original Hogan and Schmidt (2002) model. Unfortunately, the fit indices showed only poor values (comparative fit index [CFI] was .75, root mean square error of approximation [RMSEA] = .11), indicating that the model did not fit the data of the bereaved parents of the Bernese study well. Although many characteristics of the two studies were similar or differed only slightly—in the Miami sample most respondents were female and reported the loss of a son—it could be that the different measures used in the two studies also may have caused the misfit. One reason might be that PTG as defined by Hogan, Greenfield, and Schmidt (2001) was more clearly related to the experience of grief because it was developed as one instrument. We used the Park et al. (1997) questionnaire, which is a stand-alone instrument directed to measure a universal feeling of personal growth.

In our model (Znoj et al., 2004) PTG is mediated by resiliency and a global sense of coherence. Following Antonovsky (1979) a sense of coherence (SOC) is a global coping capacity acquired within the first 30 years of life. The sense of coherence is shaped by experience and grounded in the overall belief that life is meaningful, comprehensible, and manageable. We used the SOC as the source variable for PTG, assuming that PTG is the consequence of a well-built capacity to cope with adverse life events. The "resilience to PTG model" clearly is different from the "grief to PTG model." Here, resiliency—the capacity to cope with serious life events—not only influences personal growth, but moderates grief symptoms and social support.

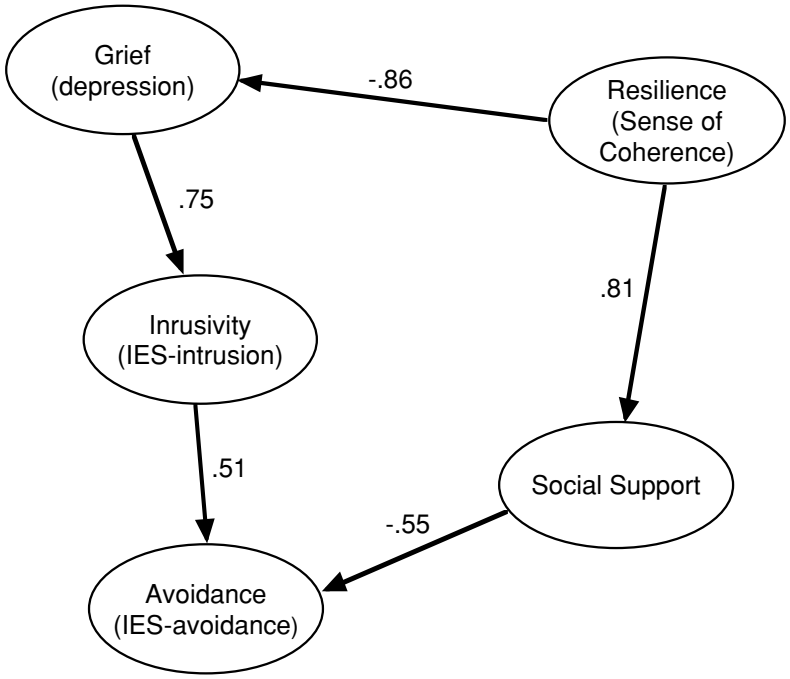

FIG. 9.3. The final model of the bereavement process fitted to the data of the Bernese study on parental bereavement. The numbers indicate the standardized weights. For simplification, the observed variables are left out. The fit indices are CFI = .934 and RMSEA = .067, *N* = 169. Resource Model of Grief (Znoj et al., 2004).

In the Bern sample, the "resilience to PTG model" showed acceptable fit indices (CFI = .87, RMSEA = .08). In contrast to the Hogan and Schmidt model, PTG was practically independent from grief-related symptoms. The only path leading to PTG came from personal resources as measured with the sense of coherence. However, the weight of the path from personal resources to PTG was relatively small (standardized $\beta = .17$). Personal resources were highly related to social support, and social support was, as in the Hogan and Schmidt model, inversely related to avoidance. Thus, the stress response syndrome model was replicated, but we were not able to replicate Hogan and Schmidt's (2002) "grief to PTG theory." Interestingly, when PTG was left out as an outcome, the fit indices got better. Figure 9.3 depicts the final model with its relative β-weights on the paths between the latent variables. This model had good fit indices (CFI = .93, RMSEA = .07) and could be labeled as "resource model of grief."

Discussion of the Replication

Considering the discussion of PTG being a necessary construction, similar to Taylor and Brown's concept of positive illusions (1988), I do not want to dismiss the concept at all. In the Bernese study, the participants might have had difficulties distinguishing between a global sense of coherence and the current state of having experienced PTG. Still, the direction of the path was clearly the inverse of the Hogan and Schmidt (2002) model, indicating that resilience or the capacity to cope with adverse life events influenced the grief reaction and not vice-versa.

In the next section of this chapter I want to discuss predictors of PTG using a different study on parental stress and bereavement. Here, the focus is on coping, especially emotion regulation.

PERSONAL GROWTH—THE RESULT OF ADAPTIVE COPING WITH EMOTIONS

In a recent, still unpublished study I, together with Patricia Lannen and Diana Zwahlen, investigated parents whose children had been in intensive hospital care because of cancer. Unfortunately, not all children survive such a treatment. Medical treatment for children with cancer is highly aggressive and all parents suffer, starting from diagnosis through various stages of healing and falling back to the hopeful end of treatment. As we were mainly interested in the coping process and how we could possibly help these parents cope better with the whole process, we used measures of coping in addition to measures of distress to investigate factors that might be malleable with professional help. Here, I will present the results with the Tedeschi and Calhoun (1996) Posttraumatic Growth Inventory (PTGI).

Method

This natural experimental design with parents whose children suffered from cancer and had to undergo severe medical treatment. $N = 125$ completed the battery of standardized questionnaires and open questions, 45% were male, 55% female parents. Twenty-five parents experienced the death of their child; thus 80% of the parents experienced the distress of having a child diagnosed with cancer and its medical and social consequences, but in the end were lucky their child had survived the illness. In terms of gender distribution and other demographic variables there was no difference between the two groups. Mean age was 42.7 years, the male participants being somewhat older than the female participants reflecting the marriage pattern in Switzerland. Mean time since the death of the child was 3.5 years in the bereaved group, time since diagnosis averaged 7.6 years for the bereaved group and 4 years for the group with the surviving children. Response rate was higher for parents whose child survived the treatment (39% vs. 21%). The given reason for not completing the questionnaires was mostly the fear of stirring up negative feelings, keeping feelings private, or, in some cases, the sense that our questions did not match the feelings and experiences of the participants. As standardized instruments we used measures of distress (SCL-90R, Derogatis, 1977), emotion regulation (Znoj & Keller, 2002), coping (COPE, Carver, Scheier, & Weintraub, 1989), resilience (SOC, Antonovsky, 1987), and PTGI (Tedeschi & Calhoun, 1996).

Results for posttraumatic growth

The best predictors for PTG were adaptive emotion regulation, spiritual coping, and denial. In sum, 25% of the variance could be explained by these variables. Denial as a coping strategy related positively to PTG ($\beta = .07$, $p < .05$). As in the Znoj & Keller (2002) study, the parents reported higher levels of adaptive emotion regulation than the general population ($t = 5.11$, $p < .01$) and lower levels of maladaptive emotion regulation (avoidance $t = -4.99$, $p < .01$; distortion $t = -5.61$, $p < .01$). There was no difference between the parents whose child survived the treatment versus the bereaved group on PTG in any of the subscales or the total score. However, the bereaved parents had higher levels of symptoms, especially depression on the symptom checklist ($z = -2.86$, $p < .05$). Additionally, the parents with the surviving children had higher levels of acceptance and

TABLE 9.2
Product-moment correlations between personal growth and the three subscales of the SOC. In the bereaved sample the correlations were more pronounced

Personal growth	*Meaningfulness* r	*Comprehensibility* r	*Manageability* r
Bereaved parents ($N = 25$)	.42*	.27	.12
Parents whose children survived ($N = 100$)	.24*	.04	−.06

Note. $N = 125$; the group difference between the correlations was calculated using a z-transformation.
* = $p < .05$

active coping, experienced more hope, had higher levels of religious coping, and generally had a more positive stance toward life (all significant in the 5% probability range). When looking at the two groups separately, we found the cohesion between PTG and the sense of coherence, our measure for resilience, being significantly higher in the bereaved group. Table 9.2 gives the exact results.

There was also a significant difference between psychological symptoms and the SOC in the two groups: Parents whose children survived did not indicate any cohesion between the two measures ($r = -.15$, $p > .10$). In the bereaved sample, the correlation between symptoms and SOC was $r = -.62$, $p < .01$. The same pattern was repeated with coping and emotion regulation, indicating some kind of interaction between the two groups: PTG and coping.

Interaction effects

Two-way multivariate analyses were performed to assess the mentioned interaction effect between group affiliation, level of PTG (total score, dichotomized), and three variables of coping, namely maladaptive emotion regulation, venting of emotion, and acceptance. We used emotion-focused coping because of the results from earlier studies indicating emotion regulation as being a key concept of the experience of PTG (Znoj & Grawe, 2000; Znoj & Keller, 2002). In the former studies we repeatedly found that people who experienced disruptive life events reported better ability to cope with their own emotions following this experience: They reported to react calmer and with more clarity in stressful situations without much effort. When confronted with extreme challenges where there is no possibility to change the situation, the emotional system may be overwhelmed and psychological symptoms could be the result of it (e.g., Hayes, Wilson, Gifford, Follette, & Strohsal, 1996; Kring & Bachorowsky, 1999; Van der Kolk et al., 1996). Adaptive ways of emotion regulation could be a necessary, relatively immediate response to foster not only psychological health, but even a sense of mastery and personal growth (Horowitz, Znoj, & Stinson, 1996). In the presented study, the bereaved parents confronted this taxing experience to a much higher degree than parents whose child survived. Bereaved parents reported significant ($p < .01$) changes in their lives and organization (Lannen-Meier & Zwahlen, 2004). We can take this as a further hint that these parents were more stressed and had fewer alternatives to cope with, the importance of the emotion-focused coping being more important than for the other group of parents.

For emotion regulation this hypothesis could be confirmed only for maladaptive ways of emotion regulation. For avoidance ($F(1,118) = 4.14$, $p < .05$) and for distortion ($F(1,118) = 7.06$, $p < .05$) there was a clear negative relationship with PTG in the

bereaved group. Parents who reported high scores in avoiding situations linked with negative emotions and distorted thoughts and perceptions to protect themselves from negative feelings had lower levels of PTG.

For venting of emotion, an often as maladaptive labeled coping strategy, the results were replicated ($F(1,118) = 4.92$, $p < .05$). Accepting showed an inversed relationship ($F(1,118) = 7.38$, $p < .05$), but again it was only the bereaved group where this coping strategy influenced PTG. Figure 9.4 depicts these interactions more clearly.

GENERAL DISCUSSION

In many ways, people who managed to cope with a devastating life event, experience themselves as being stronger psychologically, even when realizing the sad fact that their lives have turned into a more miserable state. Others, such as medical personal, notice these changes. In our investigations we asked nurses what they thought the important variables for PTG were. These people repeatedly told us that the letting go of parents helped them the most. To accept the illness and even the death are the necessary condition for such a development to occur. But they also mentioned the capacity to focus on new situations, a positive stance, a changed and more pronounced appreciation of life, and new communication patterns. The nurses and medical persons also mentioned "good" parents and very difficult ones. The difficult parents occupy a lot of resources—time and energy. These parents do not accept the situation as it is, they ask for too many services, and they direct their frustration toward those who desperately try to help. In addition, tensions between the parents often are "projected" toward others. The medical system may require passive and cooperative parents (Barbarin & Chesler, 1986), but the difficulties of the "bad" parents may becaused by their inability to cope emotionally with the fact that their child's life is endangered. Again, these observations stress the importance of an adaptive way of emotion regulation. Resilient parents seem to have fewer difficulties to find support from others, to cope with difficult states and feelings, and to find meaning in even desperate situations. Problematic interactional behavior may be an important cause that people do not get the help and support they need. In their research on resilient children, Radke-Yarrow and Sherman (1990) stated that children who survived in bad conditions had in many cases extraordinary capacities to connect to people and commit foreigners to help them in important domains.

Tedeschi and Calhoun (1995) quoted a man with a spinal cord injury, saying that the injury was the best thing to happen in his life. Obviously this man had envisioned a life course leading into disaster; the accident seemed to stop this course and to give him a new chance. Sometimes, an interruption of the expected course of life is needed to come to terms with real important questions and "to wake up." But, and this is my main point, to achieve personal growth, the ground must have been laid before. The role of coping, especially with focus on emotions, cannot be overestimated in our discussion. To have personal resources, such as the ability to find support from others, to be open minded, to be forgiving and hopeful, is important, even necessary conditions for PTG to occur. In our own investigations we repeatedly found that PTG could not be predicted well. The explained variance being only in the range of 25%. Usually, in social sciences, assuming one has chosen the "right" predictor variables, the amount of explained variance is much higher. The possible nonlinearity of PTG could be better explained with a bifurcational model. The deviation-amplification model of Aldwin, Sutton, and Lachman (1996) illustrates this model in psychological terms. In three studies, the authors found evidence that individuals who were able to perceive advantages from the low points of life were more

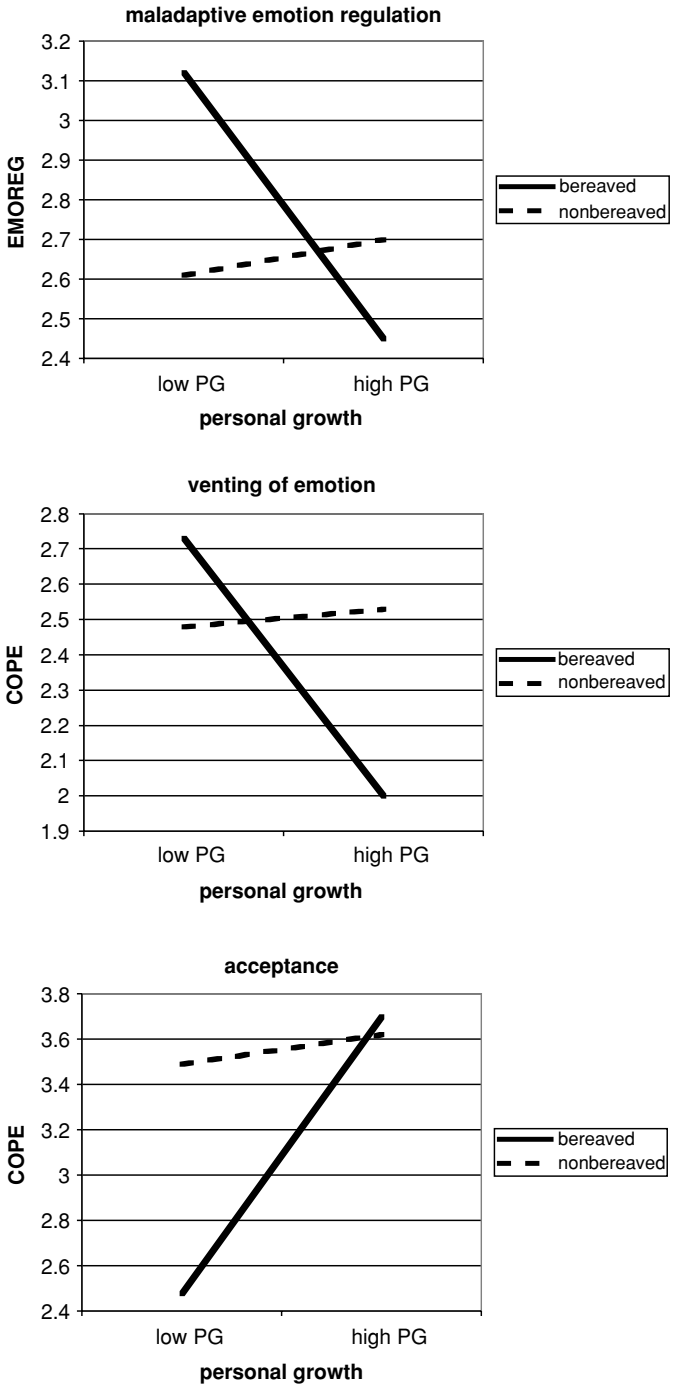

FIG. 9.4. This figure depicts the interaction effect between the two parent groups—the bereaved parents and the parents whose children survived. The dependent variable is psychological growth and the moderating variable is coping in three different perspectives. The first two perspectives involve maladaptive emotion-focused coping (avoidance and distortion in the EMOREG and venting of emotion in the COPE). The third perspective is acceptance. These coping strategies have a significant effect on psychological growth only for the bereaved parents.

likely to report long-term effects. They stressed the role of coping in saying that coping strategies differentially predicted positive or negative outcomes. Such a bifurcation or "spiraling" is typical for developmental processes (Carver & Scheier, 1998; Kegan, 1982; Waddington, 1974). In critical life events the sensitivities to react to circumstances are extremely elevated and—depending on resources and coping traits—a developmental process may occur. This process is triggered by inconsistencies in one's representation of the self and between the perceived world. Znoj and Grawe (2000) stated that such inconsistencies can provoke psychological symptoms. More adaptively, inconsistencies can be reduced through personal development. For a negative development, low initial levels of resources lead to further depletion as in Hobfoll's (1989) conservation of resources model. High levels of initial resources then may lead to gain further resources that increase resilience to future stress. In our reanalysis of the Bernese bereaved study we found support for the resource model. In contrast to Hogan and Schmidt (2002) we were not able to find evidence that grief caused PTG in a direct way. Hogan and Schmidt (2002) stated that grief is not "resolved" to the former state of being, but necessarily must lead to a different state of being where the loss is integrated and changes accepted. Although I agree with this view, resolved grief must not be the same as PTG. Following Wortman and Cohen Silver (2001) it is a "myth" or wishful thinking that grief leads to complete restitution in well-being or the loss to a meaningful event. In the Hogan and Schmidt (2002) model, grief is negatively related to PTG, suggesting that for PTG to occur, grief must be resolved. The parents in the Bernese study, however, often stated that they still feel shaken, reported symptoms, and, at the same time, said that they have, in some almost unexplainable way, found that their lives have become more meaningful, that their outlook has changed, and that in many ways they take things differently. But, and this is my strongest point, these changes are not always adaptive. And there were other people who told us that they were not able to see anything good come out of their experience and felt bitter about the loss. But they reported no symptoms and had resolved their personal grief to a degree that they functioned well.

In our model, the role of resilience and coping is central for PTG. More importantly, our model allows PTG to be nonlinearly related to grief and symptoms of distress. As already said in the introduction, PTG may be illusionary to a certain degree. But these illusions are powerful and life enhancing. In our darkest times, the experience of personal growth may turn out as the beginning of a spiritual birthday that may, or may not, turn into a total different outlook of how we perceive the world.

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