Beyond the Broken Heart: Mental and Physical Health Consequences of Losing a Loved One

Margaret S. Stroebe

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Universiteit Utrecht

"In the absence of science, opinion prevails"
(Nathan & Gorman, 2004)

Mijnheer de Rector Magnificus,
Ladies and Gentlemen,

Looking back through history, one finds frequent reference to the notion of "a broken heart". In earlier times, grief was even recognized as a cause of death. In the 17th Century, "griefe" was actually listed in Dr. Heberden's Bill, an early epidemiological classification of the causes of death in London for the year 1657 (Parkes, 1986).

Dr. Heberden's Bill
Causes of Death in London, 1657

Flox and Small Pox	835
Found dead in the streets, etc.	9
French Pox	25
Gout	8
Griefe	**10**
Griping & Plague in the Guts	446
Hang'd & made away 'emselves	24

The " broken heart" can either be understood in a broad metaphorical, or in a narrow medical sense. Metaphorically, it denotes extreme suffering and pain that is felt on the death of a loved one. There is historical record of this. In the 8th Century BC we find reference in the writings of the legendary epic poet Homer:

"[It was not that I was] attacked by any of the malignant diseases that so often make the body waste away and die. No, it was my heartache for you, my glorious Odysseus, and for your wise and gentle ways that brought my life and all its sweetness to an end"
(The Odyssey, Book XI, " The Book of the Dead").

Likewise, the following epitaph written in the 17th Century by Sir Henry Wotton on the death of the wife of a gentleman named Albert Morton: This lady's death – apparently from grief – occurred shortly after that of her husband:

He first deceased;
She for a little tried
To live without him;
Liked it not, and died.
[Sir Henry Wotton, 1568-1639]

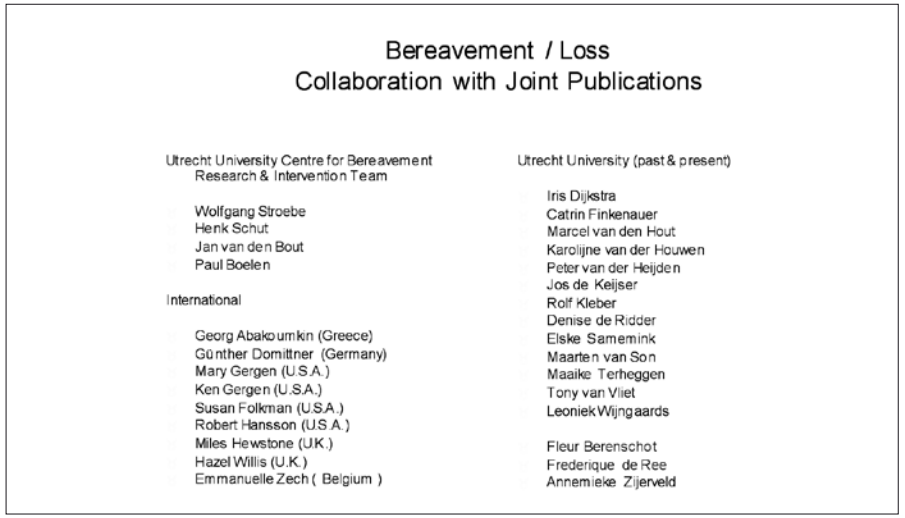
In the narrow medical sense, the broken heart notion refers to dying as a result of heart disease (one wonders whether this was what Dr Herberden had in mind in his Bill listing grief as a cause of death). The American physician and first Surgeon General, Benjamin Rush, even gave a description of organ malfunctions which he assumed to be responsible for death from grief. According to him, autopsies of bereaved people showed "congestion in, and inflammation of the heart, with rupture of its auricles and ventricles" (Parkes, 1986). While it may be tempting to dismiss such early claims, physicians have recently described a physical condition, acclaimed in the press as the "broken heart syndrome", in which a traumatizing incident such as bereavement triggers the brain to distribute chemicals that weaken heart tissue, producing heart attack-like symptoms (Wittstein et al., 2005).

Be this as it may: Today, a broken heart would not be formally listed as a cause of death. We have grown too medically-wise to tolerate such an ill-defined diagnosis (Lynch, 1977; Parkes, 1996). However, we *are* in a position to examine the validity of the broken heart notion in a scientifically-acceptable manner, to establish whether loss really does cause illnesses that lead to death. We can start by examining whether people who have recently lost a loved one through death do in fact die relatively more frequently than others who have not suffered such a loss. We can also look into causes of death in relationship to loss experiences, to establish whether the impact is limited to heart disease or whether other illness processes are involved too.

But why should this be a topic of scientific investigation? After all, bereavement – the loss of a loved one through death – is a normal part of life, one that all of us must expect to endure sooner or later. For me, the fascination derived from the idea that death is due to an external event – the loss of a loved one – which is neither a disease nor an accident, it does not impinge directly on the physical body. Rather, it is due to something in one's life that can apparently have such a devastating *psychological* impact as to cause one's own *physical* demise.

In this context, I would like to explain that I was introduced to Henry Wotton's epitaph at the tender age of 17, just after the ending of a romantic relationship: the idea that I personally could die of this grief experience was incredibly disturbing: was I actually going to decline and pass away so young? Apparently not, but it seemingly had a powerful impact in directing the course of my future career. More particularly, just over a decade after this teenage trauma, investigation of the broken heart phenomenon was to mark my entry into the bereavement research field, and I doubt that I will leave this absorbing scientific area before I die. In fact, the results we found with respect to the broken heart phenomenon deeply influenced the subsequent thinking of my colleagues and myself, and guided the planning of our research. The early fascination with this topic quickly turned into an appreciation of the theoretical, clinical and societal value of studying bereavement, all of which are aspects that feature strongly in our research, past and present.

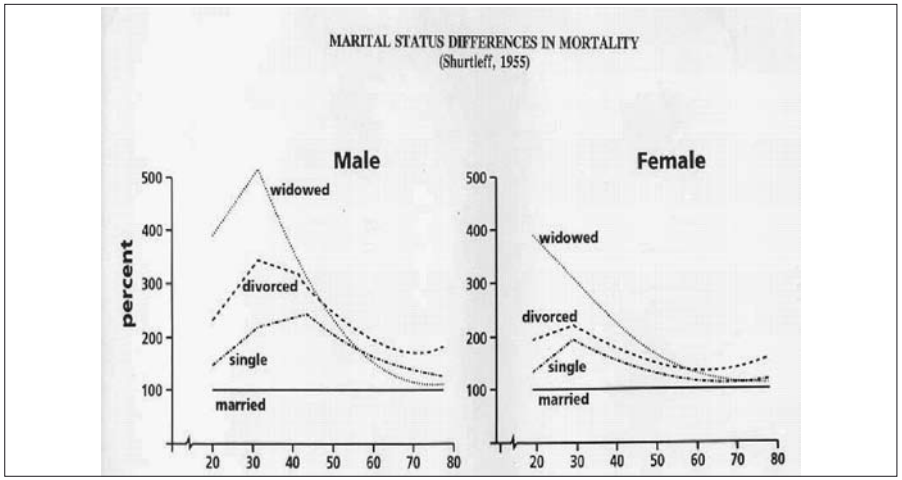
So the mortality of bereavement was the starting point for the research program that my colleagues and I have been working on over the past three decades and this is where I will begin my scientific account of our work. I am not a solo player, I could not have done any of this work without my colleagues' collaboration:



I will give an overview of our research program, placing this within the framework of general scientific knowledge about grief and grieving, and indicating my ideas for where the field should go in the future. As will become evident, this research has incorporated (1) theoretical contributions, (2) reviews of the state of knowledge in the bereavement field, both generally and on specific topics (e.g. Hansson & Stroebe, 2007; Stroebe, Hansson, Schut & Stroebe, 2008), (3) empirical research on loss of a partner, child or other significant person, and (4) applied practice-directed research on a variety of issues, ranging from the efficacy of psychotherapeutic intervention programs to evaluation of complicated grief as a potential diagnostic category of mental disorder. As will also become evident, the link between research and practice is fundamental to our work, as manifested in my professorial appointment by the Landelijke Stichting Rouwbegeleiding (The Dutch National Association for Bereavement Care), which brings us here today.

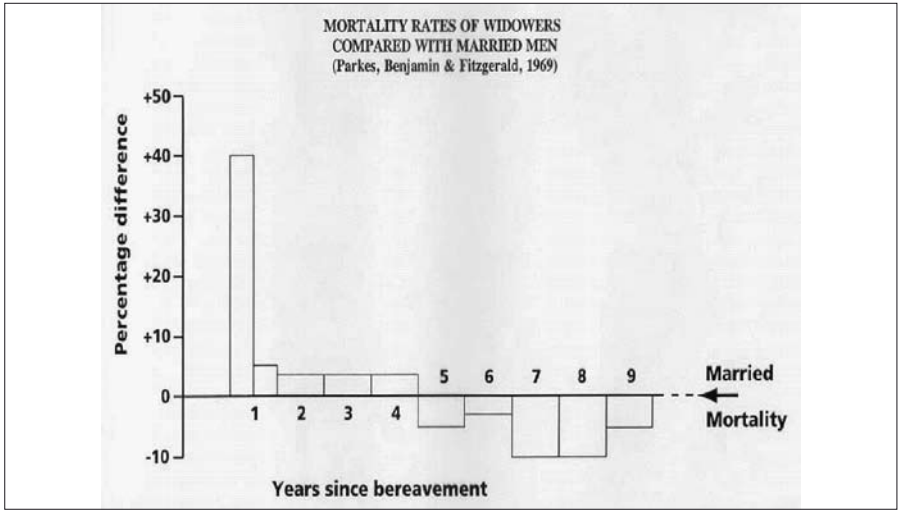
Scientific Investigation of the Mortality of Bereavement

Back in the early 1980's, Ken and Mary Gergen, Wolfgang Stroebe and I discovered a common interest in examining the broken heart phenomenon, which I claim – they disagree – derived from my reciting the Henry Wotton epitaph as we explored a beautiful, ancient, rural graveyard in southern Germany. We proceeded to spend most of a shared vacation collecting data from this graveyard, which



provided the mortality dates of bereaved couples who were buried alongside one another. We optimistically thought that establishing the proximity of death dates of spouses, and comparing these with randomly-coupled individuals, would yield an answer to our question about the validity of the broken heart phenomenon. Try as we did, though, we were unable to solve certain problems relating to the comparison with the non-bereaved control group. So these first efforts to establish whether bereaved people have an excessive mortality risk were a total failure. We thus abandoned empirical investigation and took the more conventional step of consulting the literature first, for existing studies on this topic. We discovered a number of relevant articles. For example, analyses of cross-sectional, national data sets on mortality by marital status were available. To illustrate, patterns reported by Shurtleff (1955) were based on the death rates of adults in the United States from 1949-1951. Shurtleff (1955) recorded high excesses in mortality among widowed persons compared with those of other marital statuses, relatively higher excesses at earlier ages, and relatively higher excesses for widowers than for widows.

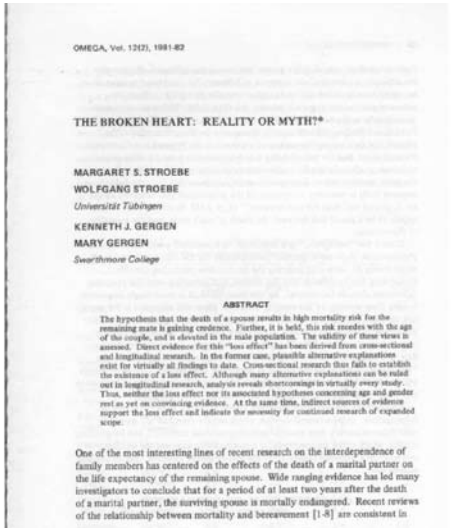
Such patterns have frequently been replicated. Unfortunately, we quickly learned that one cannot assume that such excesses are caused by the psychological impact of loss. Selection and statistical artefacts could account at least for part of the increase in mortality rates; and other explanations such as homogamy and joint



unfavourable environment of the couples could challenge the conclusion that the increase is due to a broken heart (Kraus & Lilienfeld, 1959).

Fortunately, we found other types of investigations too, including longitudinal ones, which managed to control for such factors, and which typically confirmed the age and gender patterns found by Shurtleff (1955). One longitudinal study, which has since become a classic, was conducted by Parkes, Benjamin and Fitzgerald (1969).

As can be seen, there was a higher risk of dying among these older widowed men, compared with married counterparts, in the first six months of bereavement. Review of these studies led to our first article in the bereavement field, in which we came to the conclusion that the broken heart phenomenon was indeed reality, not a poetic or literary myth (Stroebe, Gergen, Gergen, & Stroebe, 1981).



OMEGA, Vol. 12(2), 1981-82

THE BROKEN HEART: REALITY OR MYTH?*

MARGARET S. STROEBE
WOLFGANG STROEBE
Universität Tübingen
KENNETH J. GERGEN
MARY GERGEN
Swarthmore College

ABSTRACT

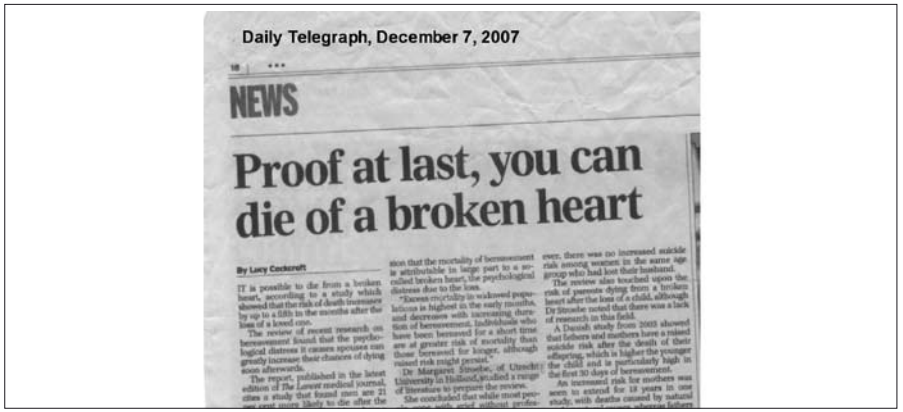
The hypothesis that the death of a spouse results in high mortality risk for the remaining mate is gaining credence. Further, it is held, this risk recedes with the age of the couple, and is elevated in the male population. The validity of these views is assessed. Direct evidence for this "loss effect" has been derived from cross-sectional and longitudinal research. In the former case, plausible alternative explanations exist for virtually all findings to date. Cross-sectional research thus fails to establish the existence of a loss effect. Although many alternative explanations can be ruled out in longitudinal research, analysis reveals shortcomings in virtually every study. Thus, neither the loss effect nor its associated hypotheses concerning age and gender rest as yet on convincing evidence. At the same time, indirect sources of evidence support the loss effect and indicate the necessity for continued research of expanded scope.

One of the most interesting lines of recent research on the interdependence of family members has centered on the effects of the death of a marital partner on the life expectancy of the remaining spouse. Wide ranging evidence has led many investigators to conclude that for a period of at least two years after the death of a marital partner, the surviving spouse is mortally endangered. Recent reviews of the relationship between mortality and bereavement [1-8] are consistent in

We recently re-reviewed studies on this topic, finding that a considerable body of evidence had accumulated in the meantime (Stroebe, Schut, & Stroebe, 2007). Most findings indicate an early excess risk of mortality, although excesses have indeed been shown to persist for longer than six months after bereavement. It is noteworthy that sex difference patterns vary across types of loss (e.g. spousal, child, parent). Whereas partner loss appears to affect men relatively more than women, the death of a child seems to have an even greater excessive mortality risk for mothers than for fathers, with relatively more bereaved mothers dying compared with non-bereaved controls than was the case for fathers (Li, Precht, Mortensen, & Olsen, 2003). A study in Denmark showed that excess risk of dying for mothers extended across the 18 years of the study, with deaths attributable to both natural and unnatural causes, whereas for fathers, greater risk was noted early on in bereavement, particularly from unnatural causes.

Studies have reported excesses from a variety of causes of death. In one large-scale study in Finland of bereaved spouses (compared with married counterparts), mortality was very highly excessive for accidental and violent causes and alcohol-related diseases, moderate for chronic ischaemic heart disease and lung cancer, and small for other causes of death (Martikainen & Valkonen, 1996, 1998). Several studies have focused specifically on the risk that bereaved people will take their own lives. Most investigations find high excesses from suicide among bereaved samples. For example, Kaprio and colleagues (Kaprio, Koskenvuo & Rita, 1987) reported a 66-fold increase in suicidal death for widowers and 9.6-fold for widows in the first week of bereavement.

As echoed by the press, we concluded that there is such a thing as a broken heart phenomenon, either taken in the narrow sense of causing heart trouble, or in the broader, more metaphorical sense of resulting from enormous heartache, reflected in a variety of physical troubles leading to death:



Daily Telegraph, December 7, 2007

NEWS

Proof at last, you can die of a broken heart

By Lucy Cockcroft

IT is possible to die from a broken heart, according to a study which showed that the risk of death increases by up to a fifth in the months after the loss of a loved one.

The review of recent research on bereavement found that the psychological distress it causes spouses can greatly increase their chances of dying soon afterwards.

The report, published in the latest edition of *The Lancet* medical journal, cites a study that found men are 21 per cent more likely to die after the

sion that the mortality of bereavement is attributable in large part to a so-called broken heart, the psychological distress due to the loss.

"Excess mortality in widowed populations is highest in the early months, and decreases with increasing duration of bereavement. Individuals who have been bereaved for a short time are at greater risk of mortality than those bereaved for longer, although raised risk might persist."

Dr Margaret Stroebe, of Utrecht University in Holland, studied a range of literature to prepare the review.

She concluded that while most peo-

ever, there was no increased suicide risk among women in the same age group who had lost their husband.

The review also touched upon the risk of parents dying from a broken heart after the loss of a child, although Dr Stroebe noted that there was a lack of research in this field.

A Danish study from 2003 showed that fathers and mothers have a raised suicide risk after the death of their offspring, which is higher the younger the child and is particularly high in the first 30 days of bereavement.

An increased risk for mothers was seen to extend for 18 years in one study, with deaths caused by natural

It is remarkable how stable this phenomenon seems to have been over decades and even centuries, despite societal changes. Given the range of causes of death too, it seems likely that it is not restricted to one aspect of human biology. A direction for future research will undoubtedly be to examine specific mechanisms of the broken heart effect and identify possibilities for health interventions.

Finally, and this leads to the next focus of our research, although mortality is a drastic outcome of losing a loved person, it affects only a very small proportion of bereaved people (Stroebe, Stroebe & Schut, 2001). Nevertheless, we reasoned that if small numbers of persons actually die from their grief, and from a variety of causes, many more are likely to suffer from diverse mental and physical health consequences. By investigating these "lesser" consequences, it should be possible to gain insight into the causes and mediators of the psychological distress that can lead – in extreme cases – to mortality. Thus, we turned our attention to the mental and physical health consequences of bereavement.

Mental and Physical Health Consequences: Prevalence

There is considerable evidence that bereaved people suffer more from a variety of mental and physical health problems than do the non-bereaved (Middleton, Raphael, Martinek & Misso, 1993; Schut, de Keijser, Van den Bout, & Dijkhuis, 1991; Siegel, Hayes, Vanderwerker, Loseth, & Prigerson, 2008; Stroebe & Stroebe, 1993; Zisook & Shuchter, 2001).

For example, as can be seen, in our own so-called Tübingen Longitudinal Study of young widowed compared with matched married persons, 20% of the widowed (compared with three per cent of the married) suffered from severe physical symptoms at four to six months post-loss. After two years, the rate among the widowed declined to 12% (Stroebe & Stroebe, 1993).

The percentages in this table evidently vary considerably, and this is due not only to type of debility and its precise measurement but also to sample characteristics (e.g. type and nature of loss). But the overall picture is clear: each line of research confirms that substantial minorities of bereaved individuals do suffer from severe and lasting consequences following the loss of a loved one, with a very rough but possibly conservative estimate of around 20-30% prevalence emerging from the different health vulnerability areas. Given the actual numbers of people who are bereaved, we are still talking about large numbers of persons at risk: according to

Prevalences: Selected Results

Health problems / disorder	Subgroup	Prevalence
Physical health difficulties (severe) (Stroebe & Stroebe, 1993)	Young widow/ers	20% (4-6 mths.) 12% (after 2 jr.) cf. 3% married
Psychiatric disorders 1. PTSD (Schut et al., 1991)	Partners	1st 2 yrs.: 50% at 1 of 4 times 9% all 4 times
Psychiatric disorders 2. Clinical depression (Zisook & Shuchter, 2001)	Widow/ers	2 mths. after the death: 24-30% After 1 yr.: 16%
Complicated grief (Middleton et al., 1993)	Widow/ers	5-33% acute grief period

one estimate, approximately 130,000 persons die each year in the Netherlands, leaving 4 persons (on average) bereaved, indicating that at any one time 500,000 persons will be coming to terms with the death of a significant person in their lives (Van den Bout, Boelen, & De Keijser, 1998).

Risk Factors

Given these emergent patterns, much of our research has been directed toward identifying risk factors, that is, the situational, intrapersonal and interpersonal characteristics associated with increased vulnerability to the range of bereavement outcomes (Stroebe, Folkman, Hansson & Schut, 2006; W. Stroebe & Schut, 2001). A lot of this research has been theory-driven. For example, we tested the buffering hypothesis which derives from social support theory. According to this perspective, one would expect the presence of others to protect the bereaved from the impact of loss. We failed to find this: persons with high levels of support adjusted no more quickly (with respect to depression levels) than those with low levels of support (W. Stroebe, Schut & Stroebe, 2005). Our results did demonstrate that other persons serve a number of useful functions for the bereaved, but these results

(pertaining specifically to the course of adjustment) indicated that other persons cannot easily replace the deceased person.

Further probing suggested a reason for this, namely, that it has to do with emotional loneliness (Stroebe, Stroebe, Abakoumkin & Schut, 1996). Emotional loneliness is the feeling of being utterly alone and isolated, even in the presence of others. Emotional loneliness emerged as a causal factor in adjustment over time. This confirms what a lot of our bereaved participants have shared with us in interviews: though friends are a great help, they say that they simply cannot make up for the deceased loved one. In further analyses, we found that it was emotional loneliness which led to bereaved persons developing suicidal thoughts (Stroebe, Stroebe, & Abakoumkin, 2005).

The findings on emotional loneliness are in line with attachment theory predictions (cf. Weiss, 1975), a perspective that I have come to regard as a critically important framework for understanding phenomena and manifestations of bereavement. Further confirmation for the relevance of this theory came from our research on bereaved parental couples, in two PhD projects conducted by Iris Dijkstra and Leoniek Wijngaards. Styles of attachment, which have to do with the security of ones' emotional connection to significant persons (cf. Bowlby, 1969, 1973, 1980) played a major role in determining adjustment among these parents. Persons who were insecure in their relationships with significant persons were less able to adjust to the loss of a loved one than those who were more securely attached (e.g. Wijngaards-De Meij et al., 2007). Quite uniquely, since both parents participated in the latter study, we were also able to show the impact that one person's grieving had on another (Wijngaards-De Meij et al., 2008) illustrating the relevance of including interpersonal perspectives for understanding grief and grieving.

As the PhD theses of Wijngaards-De Meij (2005) and Van der Houwen (in preparation) have shown, risk factors affect bereavement outcome in complex ways and there are interactions between factors (e.g. between personality and circumstances of death) that operate to affect outcome too. Many risk factors have been under-researched. This makes it very difficult for scientists to come up with screening instruments for use by practitioners, something we are frequently asked to do. Indeed, given the complex interactions – among other things – there may never be one single, generally-applicable screening instrument. The precise ways in which risk factors relate to the different health outcomes discussed earlier also remain to be established: for example, why one person should succumb to a mental health disorder while another might die prematurely after bereavement.

The effectiveness of intervention

Who among the bereaved needs professional help? A crucial task for bereavement researchers is not only to find the answer to this question, but also to work toward rigorous assessment of the effectiveness of psychotherapeutic intervention programs, as has been advocated in other mental health domains (Freeman & Powers, 2007). Key questions that one has to ask, then, are: (For whom) is intervention after loss necessary? Is intervention effective? Again, to address such matters, we conducted a comprehensive literature review (Schut, Stroebe, Van den Bout, & Terheggen, 2001; Schut & Stroebe, 2005) as well as our own empirical research (Schut, Van den Bout, De Keijser, & Stroebe, 1996; Schut, Stroebe, De Keijser, & Van den Bout,1997). For example, we have just completed an Internet study of the efficacy of cognitive behavioural writing tasks, conducted by Karolijne van der Houwen for her PhD (e.g. Van der Houwen et al., submitted manuscripts).

So what is known about the effectiveness of intervention for the bereaved? Our review of the literature showed that intervention which is open to all bereaved persons (the criterion for participation being simply that one has experienced a loss through death) is generally not very effective (Schut et al., 2001; Schut & Stroebe, 2005). Interventions which are confined to high-risk groups – those who can be regarded as more vulnerable to the health risks of bereavement (e.g. high levels of distress, traumatic loss, concurrent life events, loss of a child) – are more promising, although not equivocal. Finally, interventions which are designed for those who suffer from complicated grief have mostly been found to be helpful. Our general conclusion – which has been supported by other reviews in the meantime, including a recent meta-analysis of the effects of bereavement intervention (Currier, Neimeyer, & Berman, 2008) – is that it is not appropriate to offer intervention to people simply based on the fact that they have suffered the loss of a loved one. Intervention should rather be planned for high risk groups and those who have complicated grief manifestations. However, I would like to stress: This does not mean that persons who ask for help should not be helped: where appropriate, they should receive assessment and the possibility of intervention.

Unfortunately, the press does not always get the nuances of scientific analyses

right. The following write-up of the above review did not make us any new friends among counsellors and therapists:

Grief counselling a waste of time, say psychologists

Daily Telegraph 4/6/05

By Raj Persaud

BEREAVEMENT counselling – long considered by psychologists to be vital to recovering from the death of a loved one – may be a waste of time, according to a new study.

The research challenges a belief that has been firmly held by psychoanalysts since Sigmund Freud proposed in 1917 that confronting feelings is the healthiest way to cope with bereavement.

Many psychoanalysts have even argued that failure to express grief indicates – or may lead to – deep psychological problems.

These days, bereavement counsellors often urge people to express their sadness in order to release "suppressed emotions". Now, however, a group of psychologists from Utrecht University in the Netherlands, who carried out their own research and reviewed that of others, has found no link between emotional expression of grief and a lessening of subsequent distress.

They assessed 128 recently bereaved people four times over two years and found no significant statistical difference between the continued distress in those who shared their emotions and those who did not.

The authors, Wolfgang Stroebe, Henk Schut and Margaret Stroebe, whose research is published this week in the *Clinical Psychology Review*, also challenged the view that it is beneficial for those who have suffered loss to "write about their very deepest thoughts and feelings".

They reviewed previous trials in which bereaved people had been asked to write for 15 to 20 minutes either about a recent traumatic loss or a trivial topic, and found little evidence that writing about emotions was beneficial.

The authors said: "The findings challenge beliefs about grief work, emotional disclosure and beneficial interventions that were considered as self-evident by bereavement researchers only a decade ago."

They claimed that counselling was more likely to benefit those with "complicated" grief – such as those whose loved ones suffered a particularly traumatic death.

Why, the researchers then asked, do bereaved people with "uncomplicated" grief fail to benefit from "grief work"?

They concluded that the most common difficulty suffered by bereaved people is emotional loneliness: the feeling of being utterly alone, even when in the company of friends and family. This type of loneliness, they say, only abates with time and nothing can be done to aid recovery.

The findings are supported by Dr Colin Murray Parkes, a consultant psychiatrist and the president of the charity Cruse Bereavement Care.

He said: "There is no evidence that all bereaved people will benefit from counselling, and research has shown no benefit to arise from the routine referral of people to counselling for no other reason than that they have suffered bereavement."

Dr Raj Persaud is the Graduate Professor for Public Understanding of Psychiatry.

Evaluating the efficacy of bereavement intervention programs remains a major thrust of our research plans for the future here at Utrecht, with Henk Schut being the driving force in this area.

Coping with Loss

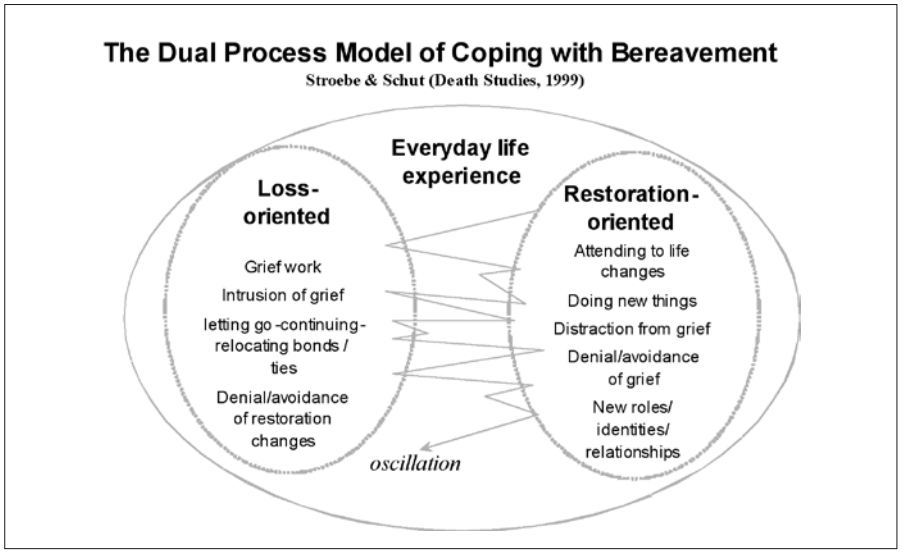
I have shown that there are individual differences in adaptation to bereavement, with some persons experiencing greater mental and or physical health consequences than others. It stands to reason that these differences will relate to ways of going about dealing with loss, in other words, with how they cope. The question arises as to what precisely adaptive coping is. Throughout most of the 20th century, theoretical understanding (notably the psychoanalytic and attachment perspectives) assumed that *grief work* was the key element in adaptive coping (Stroebe, 1992). In short, it was believed that one had to confront the reality of loss, to go over events occurring before and at the time of death, and to focus on memories and work toward a detachment from the deceased. This concept was basic to the major models in our field:

Grief Work Models

Phase Model *(Bowlby, 1980)*	Task Model *(Worden, 1991)*
Shock	**Accept reality of loss**
Yearning/protest	**Experience pain of grief**
Despair	**Adjust to life without deceased**
Restitution	**Withdraw emotional energy from the deceased & reinvest it in another relationship**

As discussed with my colleagues when I first came to Utrecht in the early 1990's, this was not what the results of our previous studies had indicated. Independently of each other, we had examined the usefulness of grief work and found that it just did not work: people who "worked through" their grief were no better adjusted over time than those who did not (Stroebe & Stroebe, 1991; Stroebe, Schut, & Stroebe, 2005). Neither did it fit other cultural prescriptions: grief work does not seem to be evident in some cultures, yet adaptation takes place (cf. Wikan, 1988; 1990). Importantly too, such a model fails to take account of other sources of stress that need to be coped with during bereavement (e.g. dealing with the finances, learning how to cook, sorting out legal affairs, and so on). All in all, although there are good reasons to assume that grief work may be an important part of adaptive coping, we queried the adequacy of this concept as an explanation of healthy coping with bereavement. The question was, how to improve on this model? Henk Schut and I spent a glorious day some 15 years ago, with no other

meetings or commitments, puzzling through this question, at the end of which we came up with our so-called Dual Process Model (DPM). The DPM is a taxonomy for describing how people cope with bereavement, one which we think addresses the limitations of previous models that I just mentioned.



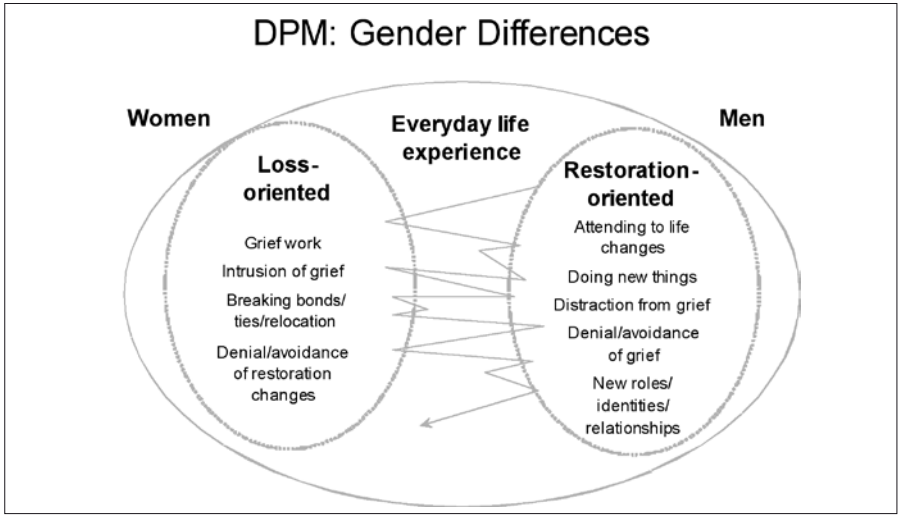
As can be seen, we postulated two types of stressor, namely, loss- and restoration-oriented ones. Loss-oriented coping involves dealing with those stressors to do with the deceased person, and grief work is incorporated here. Restoration-oriented coping has to do with secondary stressors that come about as a result of loss, things which also cause anxiety and distress, for example, in partner loss, learning the skills that the deceased had taken care of, or the need to develop a new identity without the deceased. The model places the coping process within everyday life experience (one is not coping all the time). Fundamental is the idea of oscillation, an emotion regulatory process, which we needed to postulate, since one cannot deal with loss and restoration stressors at the same time. This dynamic process distinguishes our model perhaps most significantly from the other coping models, as does the addition of the restoration dimension[1]:

[1] *More recently Worden (2009) has adapted his tasks to include more consideration of ongoing relationships and restoration tasks.*

Comparison of Models

Phase Model (Bowlby, 1980)	Task Model (Worden, 1991)	DPM (Stroebe & Schut, 1999)
Shock	Accept reality of loss…	*…and accept reality of changed world.*
Yearning/protest	Experience pain of grief…	*…and take time off from pain of grief.*
Despair	Adjust to life without deceased…	*… and master the changed (subjective) environment.*
Restitution	Withdraw emotional energy from the deceased & reinvest it in another relationship…	*…and develop new roles, identities, relationships.*

Complicated grief can be understood within this framework, for example, chronic grief (see Van den Bout et al., 1998) would be associated with a relentless focus on loss-orientation. And traditional Western gender differences can be



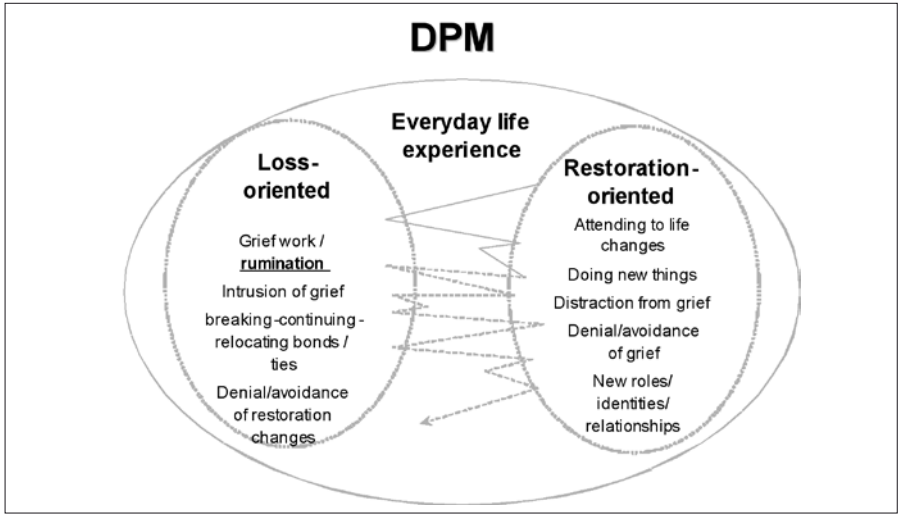
represented, with women typically being more loss-, men more restoration-oriented, and there is some evidence of this (e.g., Schut et al., 1997; Wijngaards de Meij et al., 2008):

Fortunately, other research teams have taken up the challenge of testing this model (see e.g. Omega, Special Issue on the DPM, in preparation). For example, in one investigation of the efficacy of an intervention program based on the DPM, compared with an interpersonal behaviour therapy, Kathie Shear and her colleagues found that clients assigned to the DPM program recovered better than those in the other program (Shear, Frank, Houck, & Reynolds, 2005).

Cognitive Processes

In closing, I would like to look toward the future and briefly describe a new line of our research, for I think that this reflects a general direction that research needs to take, and it shows again the link between research and practice in our area. This has to do with the investigation of maladaptive cognitive processes in bereavement, specifically, rumination, a concept which is close to grief work.

Rumination denotes persistent and repetitive focus on negative grief-related emotions and symptoms (Nolen-Hoeksema, 2001). While grief work is said to be related to adaptation, research has shown that rumination is a major cause of



maladaptation (Bonanno, 2006; Nolen-Hoeksema et al., 1997; Michael & Snyder, 2005). For both theoretical and clinical purposes it is essential to understand whether rumination is a process of confrontation or avoidance of loss and death, because different therapeutic strategies would be indicated accordingly. Most researchers in the bereavement area had described rumination as continual confrontation of loss (Bonanno, 2006; Michael & Snyder, 2005; Nolen-Hoeksema, 2001; Tait & Silver, 1989). However, my colleagues here at Utrecht, particularly Jan van den Bout, Paul Boelen, and Marcel van den Hout, were of a different opinion, based on their clinical experience and knowledge of the anxiety and PTSD literatures (cf. Borkovec, Ray, & Stober, 1998; Ehlers & Steil, 1995). They interpreted rumination as the cognitive avoidance of threat, the failure to process it. In a recent theoretical paper my colleagues, Paul Boelen, Marcel van den Hout, Wolfgang Stroebe, Elske Salemink, Jan van den Bout and myself (Stroebe et al., 2007) drew out the implications for bereavement. For a bereaved person, avoidance would have to do with evading the very reality that the loved person is dead and has gone forever. So the bereaved ruminator (being unable to ignore such a monumental change) focuses on less threatening aspects, such as, "if only I had done such and such, he would still be here". Such thoughts help to distract from even more emotion-laden loss-related topics, those relating to the disaster of permanent separation. But of course, focus on these negative emotions fails to lead toward acceptance of the reality of the loss, there is little or no processing or reappraisal of the experience, which is crucial to adaptation: for example, those suffering from chronic grief ruminate extremely.

As I indicated, implications for the design of intervention are completely different, depending on whether one conceives rumination as an avoidance or confrontation process. If it is an avoidance strategy, as we think, then processing the loss would be indicated, cognitive restructuring would be necessary. If it is a confrontation strategy as previously thought, avoidance and distraction would be called for. The great thing is that we now have the tools to put these ideas to the test, which were not available in earlier decades: social cognition techniques, involving the implicit measurement of confrontation versus avoidance (e.g. priming and recall), enable us to investigate these cognitive processes and to examine underlying mechanisms associated with rumination.

We are about to embark on this new research project, thus taking the study of bereavement into the laboratory, a long way from our first steps studying the

mortality of bereavement in the graveyard. Having reached this point, I would like to finish by acknowledging those who have been indispensable throughout the years of this research program. As I elaborated in my speech on the day of this inaugural lecture:

I thank the Landelijke Stichting voor Rouwbegeleiding for creating this special professorship in collaboration with Utrecht University, and whose goals I happily endorse.

I thank the College van Bestuur of Utrecht University, the Faculty, and the Deans of Social Sciences for making my appointment possible and for supporting me throughout the years of my work at this university.

I thank my colleagues, friends and family members for their crucial roles in my academic and private life.

Ik heb gezegd.

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