

2003

## The role of imagined interaction and self-efficacy in psychosocial adjustment to spousal bereavement: a communication perspective

Sherry Greenwood Ford

*Louisiana State University and Agricultural and Mechanical College*

Follow this and additional works at: [https://digitalcommons.lsu.edu/gradschool\\_dissertations](https://digitalcommons.lsu.edu/gradschool_dissertations)



Part of the [Speech and Rhetorical Studies Commons](#)

---

### Recommended Citation

Ford, Sherry Greenwood, "The role of imagined interaction and self-efficacy in psychosocial adjustment to spousal bereavement: a communication perspective" (2003). *LSU Doctoral Dissertations*. 110.  
[https://digitalcommons.lsu.edu/gradschool\\_dissertations/110](https://digitalcommons.lsu.edu/gradschool_dissertations/110)

This Dissertation is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Doctoral Dissertations by an authorized graduate school editor of LSU Digital Commons. For more information, please contact [gradetd@lsu.edu](mailto:gradetd@lsu.edu).

THE ROLE OF IMAGINED INTERACTION AND SELF-EFFICACY IN  
PSYCHOSOCIAL ADJUSTMENT TO SPOUSAL BEREAVEMENT:  
A COMMUNICATION PERSPECTIVE

A Dissertation

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

in

The Department of Communication Studies

by

Sherry Greenwood Ford  
B.A., Jacksonville State University, 1992  
M.A., University of Montevallo, 1994  
December, 2003

## Acknowledgements

Many wonderful individuals have contributed to this project and must be thanked for their part in its completion. To begin, I thank my committee members: Jim Honeycutt, Renee Edwards, Loretta Pecchioni, Betsy Garrison, and John Pizer. You demonstrated great patience as I traversed this path. Thank you all.

A special thank you to Andrea Towers Scott for her continuous encouragement. I feel blessed to have made such a good friend through this process. You have gone far beyond your duties as a friend, and you never let me give up on myself or on this project. I will owe you for many years to come.

I also must thank all who helped recruit participants including all the Communication Studies students at the University of Alabama at Birmingham and especially their professors, Mark Hickson, Jonathan Amsbary, April Boarman, Stacy Killingsworth, and Todd Hamilton, who allowed their students to assist me.

Thank you also to the members of my family and my lifelong friends who have supported and encouraged me beyond this one project. A special word of thanks to: Scottie, Karen, Elana, and Ariel Greenwood—for believing in me; Marian Ford—for your enthusiasm; George S. Ford—for your statistical genius; and Susan Hamilton—for always pushing me beyond what I thought were my limits.

My parents, Ronnie and Donna Kaye Greenwood, are deserving of my infinite gratitude. Thank you, Daddy, for making me believe I could do anything. I miss you. Thank you, Mom, for believing in everything I do. You inspire me.

Thanks, as well, to my husband, Doug. I will forever appreciate the many sacrifices you made in order for me to pursue this dream—and there were many. You

have proven yourself to be a loving, supportive, and giving husband as well as a true friend. You make life joyous.

Above all I must thank God for blessing my life, for filling it with such wonderful people and opportunities, and for seeing me through this and all of life's other challenges.

I am forever in His debt.

## Table of Contents

Acknowledgements.....	ii
Abstract.....	vii
Chapter 1.....	1
Literature Review and Rationale.....	1
Introduction.....	1
Effects of Spousal Bereavement on Identity.....	3
Social Psychological Variables.....	8
Social Support.....	8
Interaction with Other Widow(er)s.....	10
Demographic Variables.....	11
Income.....	12
Gender.....	12
Age.....	13
Ethnicity.....	14
Nature of Death.....	14
Time Elapsed Since Death.....	15
Education.....	16
Employment.....	16
Dependent Children.....	16
Communication’s Role in Grief Recovery.....	17
Imagined Interactions.....	19
Imagery Modes of Imagined Interactions.....	22
Characteristics and Functions of Imagined Interactions.....	23
Characteristics.....	23
Functions.....	27
Self-efficacy.....	34
Chapter 2.....	39
Rationale Summary and Hypotheses.....	39
Chapter 3.....	46
Methods and Procedures.....	46
Sample.....	46
Participants.....	46
Procedure.....	46
Demographics and Characteristics.....	47
Method.....	49
General Procedures.....	49
Survey Instrument.....	50
Design.....	50
Measurement of Variables.....	50
Statistical Analysis.....	58

Chapter 4.....	60
Results.....	60
Preliminary Analyses.....	60
Theory-Related Hypotheses.....	64
Hypotheses 1, 2, & 3.....	64
Hypothesis 4.....	65
Research Questions 1, 2, & 3.....	65
Research Question 4.....	68
Summary.....	68
Chapter 5.....	73
Study 2.....	73
Rationale & Research Question.....	73
Methods & Procedures.....	74
Sample.....	75
Participants.....	75
Demographics and Characteristics.....	76
Method.....	78
General Procedures.....	78
Instrumentation.....	78
Statistical Analysis.....	82
Results.....	82
Preliminary Analysis.....	83
Research Question.....	85
Summary.....	88
Chapter 6.....	92
Discussion.....	92
Study 1.....	92
Hypotheses and Research Questions—Study 1.....	93
Study 2.....	98
Research Question—Study 2.....	98
Synthesis.....	100
Limitations.....	101
Study 1.....	101
Study 2.....	102
General Limitations.....	103
Future Directions.....	105
References.....	107
Appendix A: Survey Questionnaire.....	118
Appendix B: Revised Survey Questionnaire.....	130

Appendix C: Hypotheses and Research Questions Results (Study 1).....	141
Vita.....	142

## **Abstract**

This study explored imagined interaction (IIs) and bereavement coping self-efficacy in psychosocial adjustment to spousal bereavement. II characteristics and functions explored include discrepancy, activity, proactivity, specificity, retroactivity, variety, valence, catharsis, self-understanding, rehearsal, compensation and use of IIs with the deceased spouse. The current study's primary contribution is the introduction of bereavement phenomena into the framework of intrapersonal communication.

The present investigation includes results of two studies. The first included a sample of 232 individuals at varying lengths of widowhood who completed the Adjustment Survey, a 15-page survey instrument consisting of II factors, IIs with deceased spouse, bereavement coping self-efficacy, social support, interaction with other widow(er)s, pre-death communication for survivorship, as well as demographic characteristics. The second study, a follow-up to the initial study, included a sample of 75 widows/widowers who completed a revised version of the Adjustment Survey. Revisions to the survey consisted of contextualizing the II measurement tool to reflect more direct association with spousal bereavement.

Findings of the first study unearthed an indirect relationship between psychosocial adjustment to spousal bereavement and reports of IIs with the deceased spouse. Participants reporting more frequent occurrence of IIs with the deceased spouse reported lower levels of adjustment. Findings confirmed a direct relationship between bereavement coping self-efficacy and psychosocial adjustment to spousal bereavement. These findings indicate that internal phenomena, namely imagined interaction and self-efficacy, make significant contributions to processing spousal bereavement. The nature of

the association between IIs and the adjustment process was further explored in a follow-up investigation.

The second study was conducted to explore the strength of the relationship between global psychosocial adjustment and II factors more specifically reflecting the nature of spousal bereavement. Study 2 results support the first study in that IIs with the deceased spouse again were found to share an indirect relationship with global adjustment. II valence also emerged as a significant, negatively-related factor in global adjustment. II self-understanding, which also shared an indirect relationship with adjustment, began to approach traditional significance as well. Overall findings confirm that intrapersonal phenomena contribute to the adjustment process in spousal bereavement.

## **Chapter 1**

### **Literature Review and Rationale**

#### **Introduction**

An old adage suggests the only certainty in life is change. As an inherent part of the ebb and flow of existence, change forces human beings to make various types and magnitudes of adjustments to a wide range of life-altering events. Some of the more dramatic events, or significant life stressors, include divorce, loss of job, marital instability, terminal disease diagnosis, psychological problems, and death of a loved one (Pearson, 1993). But few changes necessitate higher levels of adjustment than the death of one's spouse (Gallegher, Thompson, & Peterson, 1981; Holmes & Rahe, 1967; Lowenstein, Landau, & Rosen, 1993; Stroebe, Stroebe, & Hansson, 1988b). For most, the death of a spouse is likely to be "the most disruptive, threatening, and challenging experience" to be faced in a lifetime (Shuchter & Zisook, 1986, p. 301). With 800,000 widow(er)s each year adding to the 12 million widowed individuals already existing in the United States (Jenike, 1997), understanding the process involved in adjusting to spousal death is paramount.

When considering the impact of varying types of loss, comparisons have been made to loss suffered due to divorce and loss suffered due to death. But analysis of those who experience loss due to divorce as opposed to loss due to death reveals that there are significant differences between the two (Kitson, 2000; Natchez, 1990; Schwartz & Kaslow, 1985). Reportedly, widows exhibit more grief than do divorcees (Kitson & Zyzanski, 1987) and widowhood is more distressing and disruptive than divorce (DeGarmo & Kitson, 1996). And though much bereavement research focuses primarily on widows, studies suggest a significant level of distress for widowers as well (Allen & Hayslip, 2001; Windholz, Marmar & Horowitz, 1985).

One explanation for the high levels of distress produced by spousal death lies in the challenge of disbanding the spousal role (Farnsworth, Pett, & Lund, 1989). Couched within Mead's (1934) theory of symbolic interaction is the notion of identity, which McCall and Simmons (1978) have purported to be a compilation of individual role-identities. The spousal role-identity, which is disrupted by the death of one's husband or wife, must be reconciled in order for the widow or widower to adjust to life without the spouse (Farnsworth, Pett, & Lund, 1989). Parkes (1996) has proposed this process of reconciliation to be a psychosocial transition, or PST.

In suggesting that dealing with the loss of a spouse should be viewed as a psychosocial transition, Parkes (1996) has indicated that a change in the widow's or widower's identity is inherent in the bereavement process. As Shuchter and Zisook (1986) state, "Some of the most profound changes that occur in the bereaved are those that reflect their personal identity" (p. 301). Transitions are necessary any time an individual is faced with making changes to the assumptions through which she/he views the world. When these changes occur slowly, such as those associated with maturation, there is time for gradual processing and adjusting (Parkes, 1993). When these changes are sudden, unexpected and/or significant, involving major restructuring of one's assumptive world, enormous effort must be exerted to adjust. This kind of major change in one's reality is not readily accepted—these types of changes are usually resisted (Parkes, 1993). The death of one's spouse, whether it occurs suddenly or over the course of an illness, qualifies as a significant loss requiring such major restructuring. Such loss inevitably creates numerous discrepancies between one's internal world and the reality that exists postmortem. Thus, the surviving spouse must re-negotiate his/her identity minus the spousal role-identity.

The types of change necessitated by the death of one's spouse do not come easily—more often these changes are painful (Parkes, 1993). As an individual experiences the pain of loss, the very person he/she would most likely turn at such moments is no longer available. Parkes (1993) references the process of reviewing the internal world that Freud called “the work of mourning” stating the following:

[I]n many ways each PST is a job of work that must be done if a person is to adapt to the requirements of the real world. But the mind that is doing the reviewing is also the object that is being reviewed. A person is literally lost in his or her own grief, and the more disorganized one's thinking the more difficult it is to step aside from the disorganization and to see clearly what is lost and what remains. (p. 95)

When a spouse dies, and the survivor is faced with the inevitable transition, the question becomes how one can accomplish this re-negotiation—that is, what occurs cognitively to permit this re-ordering of identity to take place? Along with the need for emotional support and protection through the helpless period of adjustment, an individual also needs assistance discovering new models of the world appropriate for the emergent situation. Parkes (1993) suggests that an individual's refusal to accept change during life-altering experiences may allow for time to begin mentally preparing for the implications of the change. Nonetheless, PSTs are a “complex interweaving of psychological and social processes” (Parkes, 1993, p. 96).

#### Effects of Spousal Bereavement on Identity

Investigating grief recovery is an important endeavor in that one's ability to adjust to a potentially devastating experience such as the loss of a spouse is greatly dependent on one's adeptness at reconciling the loss and rearranging life without the partner (Farnsworth, Pett, & Lund, 1989). Reentry into the social sphere when one has experienced a significant life-altering event can be a daunting task, especially when prompted by conjugal bereavement. The fundamental change from being part of a couple to being a single person promotes changes in

self-perception (Shuchter & Zisook, 1993). As suggested by the perspective of role-identity theory, the experience of spousal bereavement induces unavoidable changes to the survivor's overall identity because of changes in his/her spousal role-identity (McCall & Simmons, 1978).

Role-identity theory, a particular vein of identity theory, attempts to explain individuals' role-related behaviors (Hogg, Terry, & White, 1995). Role-identity theory explains social behavior in terms of the reciprocal relations between the self and society. An individual's identity, or the self, is a composite of the several role-identities (husband/wife, son/daughter, sister/brother, friend, co-worker, student, teacher, etc.) one possesses. For example, the spousal role of "husband" or "wife" is one among the various possible role-identities that may make up an individual's composite identity. Thus, one person's identity may include role-identities of student, teacher, friend, wife, mother, sister, daughter, co-worker, etc.

McCall and Simmons (1978) suggest that role-identities are organized hierarchically, from the most important, at the top of the identity hierarchy, to the least important, at the bottom of the hierarchy. This ranking of role-identities leads to the concept of salience (McCall & Simmons, 1978; Stryker, 1980). Salience reflects the likelihood that a given role-identity will be enacted across a variety of situations. The more salient a role-identity is, the more often it will be enacted.

McCall and Simmons (1978) note that each role-identity can exist only if there is a counter-role. By this they mean that an individual can have within his repertoire the role-identity of "husband" only if he is coupled with an individual who is countering his role with her role as "wife" (Burke & Tully, 1977). The "mother" role-identity can only exist for a woman who has a "child." McCall and Simmons (1978) address counter-roles in the following statement:

Certain persons in counter-roles may figure so prominently in ego's imagery of self in role that they are built into the very content of the role-identity as well as constituting

most crucial audiences. This pattern is evident for instance, among long-married couples...The loss of such an alter then greatly changes the role-identity, often to such an extent that the ego actually gives up the role; the widow cannot even imagine being remarried. (p. 215)

Thus, if a woman's husband dies, her role-identity as "wife" ceases to exist. She must then reorganize her identity to compensate for the loss of what for her may be a highly regarded role-identity. The reorganization process for this individual would likely involve the incorporation of a new role-identity of "widow" and would include enacting the role according to personal and societal expectations. Along with incorporating the new role-identity along with its expected duties into her repertoire, she must also oversee those tasks formerly managed by the "husband." In order to compensate for the roles once filled by the deceased spouse, the surviving spouse may take on those roles as his or her own (Shuchter, 1986). Hence, a wife, or husband, who experiences the death of a spouse, will automatically undergo identity adjustment.

An individual's identity is comprised of several role-identities that are ranked based on importance within the overall identity hierarchy (McCall & Simmons, 1978). These role-identities are socially prescribed and are created and learned through repeated social interaction. Marital role-identities are created through repeated interaction with a significant other and incorporated into the individual's overall identity when one marries (Berger & Kellner, 1970). As individuals enter into a marital relationship, spouses develop specific role identities that serve to influence the marriage (DeGarmo & Kitson, 1996). According to Stryker (1980), a collection of identities, and the roles enacted while taking on such identities, formulates the self. Each identity, or more specifically—role-identity, is experienced directly or indirectly through interacting with others. Each identity is associated with a particular interactional context and manifests when called upon by interactional circumstances (Burke & Tully, 1977). When a life event, such as the death of one's spouse, changes the state of that married relationship, a change

in one's identity becomes necessary. Losing the marital identity requires identity reconstruction (Lopata, 1973, 1975).

One of the more challenging aspects of recovery for the surviving spouse is the disbanding of the spousal role (Farnsworth et al., 1989). Using symbolic interactionism as a conceptual framework, Farnsworth et al. (1989) acknowledge that widowhood represents major loss that requires an individual to define appropriate new roles consistent with his/her altered reality. This interactionist perspective emphasizes how individuals subjectively define situations and act in accordance, such as in the case of realigning spousal roles after the death of a spouse. Prior to a spouse's death, the couple exists as a unit, with each member performing certain designated tasks as the "husband" or the "wife." Once one member of a couple is deceased, the remaining member is left to reorganize a life operated by a single individual rather than by a couple.

Whereas research has made note of the identity reconstruction process a surviving spouse experiences after the death of a husband or wife (Lopata, 1973, 1975; Parkes, 1993), and role-identity theory (McCall & Simmons, 1978) and Parkes's (1993) notion of psychosocial transition recognize that adjustments to identity do occur after a life-changing event, little has been offered to articulate the process which takes place to allow for such identity reconstruction. As a symbolic process, communication reflects the nature of presenting and validating of the self (Rolloff & Anastasiou, 2001). By merging role-identity theory (McCall & Simmons, 1978) and the communication construct of imagined interactions (Edwards, Honeycutt, & Zagacki, 1988; Honeycutt, Zagacki, & Edwards, 1988; Honeycutt, Zagacki, & Edwards, 1992; Zagacki, Edwards, & Honeycutt, 1992), a means for operationalizing the process that makes it possible for a bereaved spouse to psychosocially transition from being a "wife" or "husband" to being a

“widow” or “widower” is possible. Understanding the process of identity reformulation by investigating the role of imagined interactions can shed light on the role of communication and intrapersonal processes in the process of spousal bereavement. In order to advance such an idea, it is next necessary to discuss in detail the construct of imagined interactions and to describe their functions and characteristics as they apply to the current study.

Because of the gravity of such an event as a spouse’s death, much of the research on the topic of bereavement and adjustment has focused on identifying factors that serve to aid in the recovery process (Stillion, 1985). Although the experience of grief is unique for each individual, research suggests that negative changes in physical and mental health experienced by the widowed can be attenuated (Gallager, Thompson, & Peterson, 1981-82).

The present work sought to expand the understanding of spousal bereavement by investigating it from a communication perspective, employing the intrapersonal communication construct of imagined interaction (Edwards et al., 1988; Honeycutt et al., 1988; Honeycutt et al., 1992; Zagacki et al., 1992) as it works with bereavement coping self-efficacy (Benight, Flores, & Tashiro, 2001) to aid in the bereavement process. The support for a connection between a widow’s/widower’s experience of imagined interactions and her/his ability to successfully adjust to the loss, the purpose of this work is to test empirically this connection. Examining the effect of imagined interactions on adjustment to widow(er)hood is of primary importance, but a second construct, referred to as self-efficacy, is of significance to the process as well. This study proposed to investigate empirically the impact of imagined interaction and self-efficacy on psychosocial adjustment to spousal bereavement.

Before offering a delineation of the specific hypotheses and research questions to be evaluated in the present study, a review of the literature is presented that supports such a

proposal. This chapter includes a discussion of the past research on adjusting during bereavement, beginning with an articulation of the mediating factors identified as relevant in past research. Among those factors that prior research suggests impact bereavement processing are social psychological and demographic factors. The following section focuses on the research that has investigated social psychological factors such as social support and interaction with other widows, as well as demographic elements such as sex, age, race, income, time elapsed since the spouse's death, years married, number of dependent children and employment. A discussion of the role communication serves in adjusting to spousal death is also offered and will include the topic of pre-death communication about life for the survivor.

### Social Psychological Variables

A large body of research has been produced in an attempt to identify the social psychological variables that intervene to aid in grief recovery. Research has linked such social psychological variables as social support (Gallagher et al., 1981-82; Stylianos & Vachon, 1993; Lopata, 1993; Stroebe, Stroebe, Abakoumkin & Schut, 1996) and interaction with fellow widow(er)s (Levy, Derby, & Martinkowski, 1993; Lieberman, 1993) to adjustment during spousal bereavement.

### Social Support

The notion of social support after the death of a spouse as one of the most important moderators of adjusting to bereavement is considered by researchers to be a fundamental truism (Stroebe et al., 1996; Vachon & Stylianos, 1988; Lopata, 1988). The importance of social support in psychosocial adjustment to spousal bereavement has led to the assertion that those with limited social support are more vulnerable and in need of special vigilance by healthcare providers (Jenike, 1997). Reports indicate that the most likely sources of social support are

family, friends and neighbors rather than professionals (VandeCreek, 1988). Gallegher et al. (1981-82) discuss the effects of social network support on a widow's or widower's ability to adjust to the death of a spouse. The primary assertion of their review of past research on the elderly suggests that negative changes in physical and mental health as well as mortality found to occur during the course of bereavement can be attenuated by the adequacy of one's social support network.

In work evaluating the differences between widows reporting high and low levels of distress, a large portion of those of the 'high distress' category report a deficit in social support (Vachon, Sheldon, Lancee, Lyall, Rogers & Freeman, 1982). Morgan (1989) found that, though social support can at times have a negative impact on the role transitions that are a part of widow(er)hood, of primary importance in positive social support is acceptance. Looking at the first two years of bereavement, researchers indicate that the social support networks of older bereaved individuals exhibit considerable stability and that most bereaved individuals perceive their networks as positive (Lund, Caserta, Van Pelt & Gass, 1990). However, Lund et al. (1990) point out that for the oldest portion of their sample, a trend indicated that beyond the initial two years of bereavement, there is a possible shrinking of the support system.

O'Bryant and Morgan (1990) studied widows and task oriented social support finding that age and health of the widow affect the amount of social support needed. Widows who are older and in poorer health have greater task support needs. Other research focusing on elderly widows found that those with more resources, including social support, report less dysfunction (Gass, 1987).

In their study comparing stress theory and attachment theory approaches to understanding social support, Stroebe et al. (1996) found that social support does not compensate for the lost

spouse, a notion best supported by attachment theory. The researchers mention, however, that the bereaved individuals in their study noted the beneficial aspects of friends and social support. Bereaved individuals indicating high levels of perceived social support reported lower depressive and somatic symptom levels than those whose perceived available social support was low. Levy, Derby, and Matinkowski (1993) also found support for the positive relationship between perceived social support and grief reactions stating that their finding “adds to what has become one of the most consistent findings in studies of conjugal bereavement” (p. 379).

#### Interaction with Other Widow(er)s

Interaction with other widow(er)s is of significant value to those coping with spousal bereavement (Morgan, Carder, & Neal, 1997). This type of interaction reflects experiential homophily or similarity based on similar life events encountered (Suitor, Pillemer, & Keeton, 1995). Longitudinal investigation into the support networks of widows reveals that recent widows begin to associate more with other widows and less with their pre-widowhood married friends (Morgan, Carder, & Neal, 1997). This shift in association, the researchers suggest, reflects the companionship associated with socializing with those of like experience but does not indicate a qualitative difference in actual social support.

Much of the research investigating the role of fellow widow(er) interactions in adjustment to spousal loss has focused on formal self-help groups (Lieberman, 1993). These self-help, or support, groups allow interaction with other widowed individuals suffering from their loss. The groups provide social linking that can promote the development of important supportive relationships and allow the widowed individual to see that his/her experiences of loss are not shameful, but are normal (Lieberman, 1993).

Although common perception is that involvement in support groups will have positive consequences for bereavement recovery, some research indicates that those involved in support groups do not adapt in significantly better ways than do those not involved in bereavement support groups (Levy, Derby, & Martinkowski, 1993). But Levy et al. (1993) do recognize that a number of group members report “graduating” from the bereavement support group to widowed persons’ social groups. This movement suggests that some kind of bonding experience takes place with those of like circumstances and supports the notion that interaction with other widowed individuals has a positive effect on bereavement outcome.

#### Demographic Variables

While a number of social psychological factors have been associated with one’s ability to adjust after the death of a spouse, various demographic characteristics are associated with one’s ability to adjust as well (Windholz, Marmar, & Horowitz, 1985). Among these numerous demographic variables are those including income level (Choi, 1992; Cowen & Murphy, 1985; Gallegher, Thompson, & Peterson, 1981-82; Lowenstein, Landau, & Rosen, 1993-94; Lowenstein & Rosen, 1995; Morgan, 1976), gender (for a review, see Allen & Hayslip, 2001; Gilbar & Dagan, 1995; Stroebe, 1998; see also Bloom 1975), age (Carey, 1977; Lowenstein & Rosen, 1995; Sable, 1991, Sheldon et al., 1981), race and/or ethnicity (Kalish & Reynolds, 1981), nature of death (Lundin, 1984; Kitson, 2000; Parkes & Weiss, 1983), time elapsed since the spouse’s death (Turvey, Carney, Arndt, Wallace, & Herzog, 1999; Zisook & Shuchter, 1985), education level (Lund, Caserta, & Dimond, 1993; Wortman, Silver, & Kessler, 1993), employment (Aber, 1992; Fitzpatrick & Boss, 2000) and the presence of dependent children (Morgan, 1976).

## Income

Changes in financial status after the death of a spouse have been shown to impact adjustment to the loss (Morgan, 1976; Harvey & Bahr, 1974), but other research indicates a possible decrease in the overall impact of financial status (Norris & Murrell, 1990). Harvey and Bahr (1974) suggest that the problems often associated with widowhood are not so much caused by the state of widowhood but by changes in socioeconomic factors. Yet, Norris and Murrell (1990) report no differences between widowed and comparison groups they studied in terms of financial pressures. They suggest that these findings may indicate a sufficient safety net now available to protect widow(er)s from experiencing financial strain due to spousal death. But when financial losses do occur, they may affect adjustment due to the limitations of access to resources such as medical care (Morgan, 1976).

In a 2001 study, Hungerford investigated economic consequences for elderly widows in the United States and Germany. The study indicated that some widows in both countries do experience a decrease in real income, but one in four widows actually experiences a rise in income (over 10%) after the spouse's death (Hangerford, 2001). Sanders (1980) reported that lower economic status did not directly predict poorer adjustment, but rather that it was a preexisting status that would negatively impact any type of stressful situation.

## Gender

Shuchter and Zisook (1993), in their discussion of normal grief, note that some grief-specific gender differences are that women are likely to indicate greater degrees of helplessness while men are more likely to show less acceptance of the death, drink more, and engage in new romantic relationships sooner. Other research comparing widows to widowers suggests a gender difference in completing plans, with widowed women reporting lower levels of planning

capabilities (Arbuckle & deVries, 1995). On the other hand, analysis of sex differences in health risks suggests “if there is a sex difference in bereavement reaction on loss of a spouse, it is always the men who appear to suffer more” (Stroebe & Stroebe, 1983, p. 294).

Study of men and women who were Hospice clients shows no significant differences between the two in reports of experienced grief after conjugal loss (Quigley & Schatz, 1999). Quigley and Schatz report, however, that though not statistically significant, mean scores show that women rated higher despair and somatization than did men. In other research investigating the effects of age and sex on the experience of grief, Jacobs, Kasl, Ostfeld, Berkman, and Charpentier (1986) reported no differences between widows and widowers in the reports of anxiety or sadness-loneliness intensity, but did report differences for other variables. Widows reported higher levels of numbness and disbelief as well as depression than widowers.

### Age

The research on age, like that on gender, is somewhat equivocal. Some studies have indicated more difficulty in adjustment for younger spousally bereaved individuals (Carey, 1977) while others suggest that older individuals have more difficulty (Sable, 1991). Ball’s (1977) research compared widows from three different age groups—young, middle-aged, and elderly. Results suggest that the young widow group was more symptomatic than either the middle-aged or the elderly. Younger widows reportedly experience a more intense grief, but make significant improvements within a two-year period (Sanders, 1981).

Research investigating grief and inner representations of the deceased counter the findings that suggest older widows have more difficulty adjusting to spousal bereavement (Marwit & Klass, 1996). In this study, an inverse relationship was reported in that the greater the participant’s age at the time of the spouse’s death, the lower the degree of resolution reported.

Gilbar and Hasida (2002) also report that older widowed individuals report more distress in their current state of bereavement.

### Ethnicity

A qualitative study of bereavement coping differences between Caucasian and African-American women suggests that African-American women tend to rely more on family, friends, and those who are “like family,” also referred to as fictive kin, for emotional and concrete support while emphasizing the loss of task support. Caucasian widows reported less financial security and indicated a greater need to gain control of their lives after the death of the husband (Salahu-din, 1996). Both groups reported growth experiences that would not have occurred if the husbands were still in their lives. Lopata’s (1979) research on widows in the Chicago-area also suggests that the drop in income is more severe for Caucasian widows than for African-American widows, a fact that she suggests possibly makes them more economically similar than different in their widowhood.

Additional research investigating the relationship between ethnicity and reactions to death for caregivers of Alzheimer’s disease patients suggests that African-American, as compared to Caucasian, caregivers are more likely to report higher levels of difficulty accepting the death and greater perceptions of loss (Owen, Goode, & Haley, 2001). However, other studies indicate that Caucasians experience greater health-related effects of bereavement, and African-Americans report no significant health-related effects of bereavement (Fitzpatrick & VanTran, 2002).

### Nature of Death

Suddenness of the death of the spouse has been associated with prolonged grief (Parkes & Weiss, 1983). Those who experience loss of a spouse due to sudden death are more likely to

experience somatic and psychiatric illnesses than those who experience anticipated grief (Lundin, 1984). However, other research contradicts usual expectancies by indicating that widows of those who died due to long-term illnesses reported more distress than widows whose spouse's died suddenly (Kitson, 2000). Nature of death has also been shown to share an association with social support in that survivors of a sudden death loss receive more social support than do survivors of an expected loss (Thuen, 1997).

### Time Elapsed Since Death

In their study of conjugal loss and depression, Turvey et al. (1999) observed lower rates of depression for those widowed the longest. The researchers suggest that this finding indicates that most elderly widows eventually do adjust to their loss. This finding was supported by Nieboer, Lindenbert, and Ormel (1998-99). In their study of spousal bereavement and well-being, a comparison of recently bereaved to those bereaved for more than two years showed clear time-differences for both widowed men and widowed women (Nieboer et al., 1998-99). For men, as more time passes, there is a higher level of sharing emotions experienced as a result of the spouse's death (van Baarsen & van Groenou, 2001).

The exploration of time's relation to grief also indicates that most widows report less anxiety, view themselves as better copers, and report higher mood levels after the first year of bereavement (Lindstrom, 1995), indicating that time does at least begin to heal wounds. Investigation of the psychological resilience of the widowed indicates that as more time passes, the elderly widow, as opposed to the widower and young widow, sees a return to baseline levels of well-being (McCrae & Costa, 1993). This finding provides support for the notion that time heals all wounds.

## Education

Some research has explored the influence of education level on adjustment to spousal bereavement (van Baarsen & van Groenou, 2001), and suggests that for widows, higher education is negatively associated with coping with loss. Similar results were found in research on the meaning of loss and adjustment (Wortman, Silver, & Kessler, 1993). Those individuals with the greatest intellectual resources were most severely impacted by the spouse's death. However, other research indicates no clear relationship between education and the course of bereavement adjustments (Lund, Caserta, & Dimond, 1993).

## Employment

Employment's role in coping with loss has been explored and results suggest that for widows, a paid work history during the marriage provides a measure of health protection after she experiences spousal bereavement (Aber, 1992). Demi (1984) reported similar findings in that employment before and after the spouse's death was positively related to social adjustment for widows of sudden death. These results suggest that employment identity may help the widow deal with a stressful life event such as the loss of a spouse. For older widowers, employment exhibits a direct relationship with physical health but not with mental health (Fitzpatrick & Bosse, 2000).

## Dependent Children

Research exploring the impact of presence of dependent children on bereavement coping indicates that mothers are forced to make fewer role adjustments in relation to the child or children than fathers and that the life of the family is reportedly more disrupted in the case of widowers (Boerner & Silverman, 2001). The findings of such research speak to the special difficulties for widowed individuals who must care for dependent children.

The presence of young dependent children can force the widowed to set aside his/her own grief to attend to the needs of the grieving child (Lopata, 1973). While meeting the needs of the dependents, the widow(er) may be distracted from his/her own suffering, thus delaying the bereavement process for the survivor. Lopata (1973) suggests that single-parenthood carries its own set of demands and may complicate the adjustment process. Feelings of inadequacy may emerge for the newly widow(ed) parent in concert with numerous other challenges that complicate recovery (Lopata, 1973). The need to adjust to single-parenthood while also dealing with one's own grief calls for the bereaved spouse to adjust to a new set of roles, or at least a new organizational structure of roles.

#### Communication's Role in Grief Recovery

Whereas past studies have produced a body of literature that has enhanced the knowledge concerning the state of widowhood, and researchers do acknowledge the importance of communication during the widow(er)hood transition (Thompson & Nussbaum, 1988), few have sought to identify the role of communication in a widowed individual's adaptation to his/her new situation. Examination of the benefits of communication in the bereavement process recognizes the importance of the verbal expression of grief.

In this line of research, findings suggest that the expression of grief, from a therapeutic perspective, is a significant factor affecting loss adjustment (Hardt, 1978-79; Solie & Feilder, 1993-94). These studies suggest that communicating about one's grief while expressing strong emotions such as anger, anxiety, sadness, and despair serves as an integral component to grief resolution.

Other research has explored a couple's use of communication to discuss the imminent death and to prepare the survivor for life after the spouse's death (Hinton, 1982). This research

illustrates the difficulty some experience in communicating about the awareness of dying. One-third of the participants noted they were aware of the seriousness of their spouse's illness, but that little communication about the terminal nature of the illness had occurred and that the spouse had even denied the serious nature of the situation. More open communication took place for couples who considered their marital relationships "average" or "poor" rather than "very good." Parkes (1975b) reports a direct relationship between exacerbated grief and lack of opportunity to discuss impending death with the spouse.

As noted in the previous portion of the review of literature, prior research has unearthed numerous social psychological and demographic variables shown to impact adjustment to spousal loss. Variables such as interaction with other widows and social support likely offer a widow(er) the opportunity to test out their new role-identity, but do not explain the adjustment process alone. Research has not examined the more cognitive aspects of communication that lead to one's ability to function day to day after spousal loss. More specifically, researchers have not yet explored the facets of communication that allow one to function within society while weathering the inevitable transition to life without one's spouse. The use of imagined interactions may serve as the explanatory factor for successful psychosocial adjustment after a spouse's death. With that in mind, the current study's general purpose was to further the knowledge base related to the significance of communication in the course of adapting to the death of a spouse. A more specific detailing of the means through which to cultivate such knowledge is explicated in the paragraphs to follow. That detailing will include an overview of the research on the effects of spousal bereavement on one's identity, the construct of imagined interactions, as well as the construct of self-efficacy.

## Imagined Interactions

Imagined interactions, or IIs, are forms of mental imagery that allow individuals to visualize themselves in anticipated or recently experienced interaction with others (Edwards et al., 1988; Honeycutt et al., 1988; Honeycutt et al., 1989; Honeycutt, 2003). This type of mindful cognitive activity has been compared to Mead's (1934) symbolic interactionist idea of an internalized conversation that permits an individual to take the role of another in mental dialogues (Honeycutt, 1988).

More than a decade's worth of research has shown imagined interactions to serve a number of purposes and functions. To fully address the history of research dealing with imagined interactions, it will first be important to discuss the preliminary developments that led to the construct. Such a discussion will include the theoretical framework in which IIs rest as well as the definitional components of the construct. These research findings will be discussed in terms of the characteristics and functions of IIs. To begin, one must first gain an understanding of the theoretical framework that serves to shape the construct of imagined interactions.

Imagined interaction is a construct that is framed in the approach of symbolic interactionism (Honeycutt et al., 1988; Honeycutt, 1989). Symbolic interactionism, as articulated by Mead (1934), has as a part of its formulation the idea of an internalized conversation of gestures that enables an individual to consciously monitor social action. Mead suggests that this allows an individual to envision a variety of scenarios and to create alternate possibilities for the overt completion of a given act in which the individual is engaged. He noted a human being's ability to monitor social action as a distinguishing sign of intelligence separating humans from all other beings. A person is capable of testing out several possible endings of an initiated act prior to the actual conclusion of the act. Edwards et al. (1988) related this idea to Mead's (1934)

notion of an internal conversation and noted its relation to the construct of imagined interactions. These internalized conversations, as Mead proposed, permit an individual to take the role of another in these mentally based dialogues. This particular aspect of IIs allows for the proposed link between adjustment and imagined interactions that is being investigated in the present work.

Honeycutt (1989, 2003) notes that IIs can serve as the means through which one is capable of testing or imagining the consequences of alternative messages prior to or after actual interaction. In early descriptions of how imagined interactions work, Honeycutt (1989, 2003) reviews metaphors that compares them to cartoons, in which each panel represents the logical sequence of events as envisioned by an individual engaging in the use of IIs. Imagined interactions allow a person the luxury of moving back and forth over the panel, perhaps even of rewriting the sequence if appropriate and necessary.

Imagined interaction is a way of measuring intrapersonal communication in which individuals talk to themselves (Edwards et al., 1988; Honeycutt, 2003). IIs refer to a process of social cognition that allows individuals to imagine themselves in anticipated or recently experienced interaction with others (Honeycutt et al., 1989). Honeycutt and his colleagues (1989) state the following:

The notion that intrapersonal communication involves ‘talking’ to oneself is important but somewhat limited. For, in our view, not only do individuals talk to themselves, but during imagined interactions they imagine themselves talking to others as well. Thus, we surmise that imagined interactions are an extended form of intrapersonal communication (p. 168).

Imagined interaction is a relatively mindful type of cognitive activity that can play a role in the development of memory structures (Honeycutt, 1989; 2003). This approach to the use of imagined interactions suggests that individuals have certain expectancies for relational

development that are used in the formulation of a relational prototype for categorizing various relationships (Honeycutt, 1995; Honeycutt & Cantrill, 2001).

In the early development of the construct, imagined interactions were defined as referring to a process of social cognition through which individuals imagine themselves in anticipated or recently recalled interaction with others (Honeycutt et al., 1988; Honeycutt, 2003). IIs are a form of covert dialogue, which occurs with real-life significant others. Support for the assertion that IIs occur with real-life significant others has been demonstrated by an examination of the relationship shared by the person having the II and the other involved (Edwards et al., 1988). That study revealed that, for college-age students, most IIs are with romantic partners (33%), followed by friends (16%), family members (12%), authority figures (9.4%), coworkers (8%), ex-relational partners (6%), and prospective partners (4%). This data demonstrates that IIs involve significant others rather than strangers or acquaintances. The qualification which limits IIs to occurring with real-life significant others separates IIs from fantasy and does not include all forms of internal thought and memory (Honeycutt & Brown, 1998; Honeycutt, Edwards, & Zagacki, 1989-90).

In describing what IIs are, Honeycutt and his colleagues have put much effort into clearly articulating the difference between an II and a fantasy. Honeycutt et al. (1989) clarify the difference by stating that IIs simulate communication encounters that a person expects actually to experience or has actually experienced during his/her interpersonal life. These authors note, however, that for various reasons, these “real life” interactions may never occur or may take place in ways quite different from the imagined situation. Fantasies involve highly improbable or even impossible communicative encounters. For example, imagining oneself chatting with an idolized movie star or professional athlete would be quite unlikely to actually occur, and thus

would qualify as pure fantasy. These imagined encounters would not, or at least rarely would, serve as the basis for real communicative exchanges. The researchers suggest that they do not intend to disregard the psychological importance of fantasies but note their irrelevance to the study of imagined interactions as currently defined (Honeycutt et al., 1989).

### Imagery Modes of Imagined Interactions

Imagined interactions have been found to differ in their use of imagery (Honeycutt, 1989; 2003). They can make use of verbal or visual imagery exclusively, or they may be comprised of a mix of both forms. Investigating the mode of imagery used in IIs, Zagacki et al. (1992) reported that of the three possible modes of imagery, few reported IIs that were primarily of the visual mode (4%). More individuals reported primarily verbal IIs (31%), while the majority reported IIs that were of a mixed imagery mode (65%). Those reporting a mixed mode also indicated more pleasantness than did those reporting primarily verbal modes.

Less pleasantness has been associated with more conflict related IIs, thus IIs associated with conflict may tend to be of a more verbal mode (Zagacki et al., 1992). Individuals experiencing relational conflict rely primarily on the single mode (verbal only) form of imagery. This finding suggests that individuals process conflict versus non-conflict information through different modes of representation. Zagacki et al. (1992) offered the following explanation for their findings on conflict and imagery:

This leads us to suspect either that the verbal mode entails certain unaccounted for advantages to interpreting conflict information, or that individuals reveal a general mental 'laziness' when it comes to examining conflict information through multi-mode (both verbal and visual) means. (p. 66)

Associated with this idea of imagery mode are the various perspectives that can be taken in the view of the imaginer (Honeycutt et al., 1989). Some IIs may be viewed from a direct perspective, while others may be viewed from an omniscient perspective. The direct perspective

allows an individual to see only other interactants, much like actual interaction. An omniscient perspective gives the imaginer a view of self as well as the other interactants.

Individuals also have an imagery consideration related to II operation. One can use immediate or reflective modes of operation (Honeycutt et al., 1989). The immediate mode is the experience of actually having an II; the reflective mode involves the experience of moving out of the immediate mode of the II in order to deliberate over the happenings in the imagined interaction. One can switch between the modes quite readily.

With a description of the construct's development established, the next section describes the various characteristics of IIs accompanied by a detailed description of those features relevant to the current study.

### Characteristics and Functions of Imagined Interactions

After a decade of research, a number of characteristics and functions related to imagined interactions have been identified (see Honeycutt, 2003, Honeycutt & Ford, 2001, for review). The characteristics most relevant to this study include frequency, discrepancy, specificity, variety, proactivity, and retroactivity and valence. A detailed discussion of each characteristic and related prior research will follow, beginning with that of activity.

#### Characteristics

##### Frequency

Frequency is the characteristic of IIs that refers to their frequency and regularity. Research assessing the association between the occurrence of IIs and an individual's level of loneliness has revealed a negative relationship between the two variables (Honeycutt, Edwards, & Zagacki, 1989-90; see also Honeycutt, 2003). Simply stated, those who are chronically lonely

experience fewer imagined interactions. Results also suggest that those who report higher levels of II frequency also report more self-dominance (Honeycutt et al., 1989-90).

Increased use of IIs, or higher frequency, is associated with a decrease in discrepancy for individuals competing in debate tournaments (Gotcher & Honeycutt, 1989). Couples experiencing geographical separation from one another have reported that they experience an increase in the number of IIs when they are separated (Allen, 1994). Honeycutt and Weimann (1999) found that marital status is related to the use of IIs in that engaged couples have more imagined interactions than married couples.

#### Discrepancy

Marital conflict researcher and psychologist John Gottman (1994) has identified effective communication as occurring when the intent of a message is congruent with the received impact of the message on the recipient. Hence, high discrepancy is associated with communication incompetence. Discrepancy is a characteristic of IIs that reflects the difference between what is imagined and what really happens in an actual encounter. Honeycutt (2003) provides examples of how IIs can be similar to or different from relevant interaction. Highly discrepant IIs are reported by the chronically lonely, a finding that researchers suggest serves to perpetuate the lonely state (Edwards et al., 1988). Lonely people have limited prior interactions upon which to base their IIs, so any they experience prior to new interaction are likely to be high in discrepancy. Discrepancy is also negatively correlated with communication competence (Honeycutt et al., 1992).

In research assessing the relationship between the use of IIs and attachment style (Honeycutt & Kelly, 1996), the secure attachment style appears to be associated with low discrepancy between imagined interaction and real interaction. Those who report an anxious

attachment style experience higher levels of discrepancy in their IIs. As noted above, discrepancy is associated with loneliness (Edwards et al., 1988). This finding provides additional support for Hazan and Shaver's (1987) conclusion that anxious/ambivalents experience higher levels of loneliness.

The relationship between the mode of imagery and discrepancy has been explored. Zagacki et al. (1992) note that verbally based IIs are usually less similar to the actual communication they represent. Thus, through a syllogistic approach, if conflictual IIs are more verbal, and verbally based IIs are usually discrepant, then conflictual IIs are more discrepant, thus distort reality.

#### Specificity

Imagined interactions are also characterized by their specificity, which refers to the level of detail and distinction of images contained within IIs. Honeycutt et al. (1992) assessed IIs and their correlation with communication competence as well as conversational sensitivity. Their results suggest that the level of detail in IIs, or specificity, positively predicts several dimensions of conversational sensitivity including the ability to detect meanings in another's messages, conversational memory, conversational alternatives and conversational memory.

#### Variety

Variety refers to the diversity of topics and partners within IIs. Variety is moderately correlated with II proactivity and retroactivity (Honeycutt et al., 1989-1990). IIs that involve various individuals and different topics are positively related to the imaginer's internal locus of control as well, and this finding lends credence to the idea that the chronically lonely lack variety in their IIs (Honeycutt et al., 1989-90). Research suggests that IIs involve a wide variety of

topics including conflict, dating, activities, school, family/home, and include various partners such as family members, dating partners, friends and roommates (Edwards et al., 1988).

### Proactivity

IIs are also recognized for their use proactively or retroactively. Proactivity refers to those IIs which are engaged in prior to actual interaction, and their prevalence has been shown in research (Zagacki et al., 1992). Research has suggested, for instance, that individuals who measure high in Machiavellianism experience more proactive IIs (Allen, 1990).

Proactivity emerged as a valuable characteristic in research conducted to assess the use of IIs during competitive debate (Gotcher & Honeycutt, 1989). Gotcher and Honeycutt (1989) indicate a correlation between proactive IIs and imagined success during competition rounds but not with actual success. The use of IIs appears to aid competitors in psychologically preparing for actual competition and may serve to create success through self-fulfilling prophecy (Honeycutt & Gotcher, 1991).

### Retroactivity

Retroactivity involves reviewing the interaction once it has taken place. For example, a worker may desire a raise, so she decides to approach her boss concerning the matter. Using an II proactively, she may visualize herself going into her boss's office and may even devise a plan for what she will say. Once the real-life interaction has taken place, she may reflect on the interaction, analyzing it to determine what worked and what did not. This reflection is an example of making use of a retroactive II. In his discussion of the planning process, Berger (1993) acknowledged the likelihood that individuals recall previous interaction with others in order to determine if past interactions have or will have bearing on a present goal, providing indirect support for the value of retroactive IIs.

## Valence

IIs vary in the amount of emotion felt as they are experienced. The affect may be positive, negative, or mixed as well as non-existent. IIs associated with positive emotions occur less frequently and with lower levels of retroactivity than those with mixed emotions (Zagacki et al., 1992). The researchers note the surprising nature of such findings indicating that one might expect persons to dwell upon pleasant communicative episodes to extend the benefit of positive feelings. Yet, the results show that individuals do not engage in such II usage. Rather, once pleasant communicative experiences are acknowledged, they are simply taken for granted and not often recalled. Another possibility, suggest Zagacki et al. (1992), is that individuals avoid reviewing what they perceive to have been pleasant communicative episodes through the use of IIs for fear of finding potentially discrepant information that could possibly lead to an unpleasant state.

These six characteristics of IIs also manifest themselves in a number of functions within the context of communication. In the following section, each of the functions relevant to the current exploration will be described.

## Functions

The study of imagined interactions has unearthed several functions connected with their use (Allen, 1994; Allen & Berkos, 1998; Gotcher & Honeycutt, 1989; Honeycutt, 1989, 1991, 1995). As research indicates, IIs function in that they (a) keep a relationship alive, (b) serve to aid in rehearsal for future interactions, (c) serve to compensate for lack of real interaction, (d) aid an individual in self-understanding in terms of clarifying thoughts and feelings, and (e) serve as a form of catharsis by relieving tension and reducing uncertainty (see Honeycutt, 2003, for review). Imagined interactions have also been recognized for their contribution in keeping

conflict alive. While research has also produced support for the conflict linkage function if IIs, this will not be included in this proposed study due to predicted insignificance. The other five functions most pertinent to the current project will be thoroughly addressed in the following sections.

### Relational Maintenance

Honeycutt (2003) devotes an entire chapter to the maintenance of interpersonal relationships through IIs. Individuals report having IIs involving relational partners such as romantic partners, friends, family members, authority figures, people from work, ex-relational partners, and prospective partners (Honeycutt et al., 1989-90). As the data indicate, IIs are predominated by thoughts of significant others rather than strangers or acquaintances.

Duck (1980) has suggested that study of relational communication should involve interpersonal research that examines relationships as they evolve outside of direct relational encounters by looking at such processes as replaying relational events during time spent alone, planning future encounters, and remembering the pleasures of encounters. The study of imagined interactions has provided for a means of investigating such phenomena (Honeycutt, 1989). "IIs can psychologically maintain relationships by concentrating thought on relational scenes and partners" (Honeycutt, 1995, p. 143).

Research demonstrates that geographically separated couples use IIs as a means of maintaining their relationships (Allen, 1994). Suggesting that IIs can and do serve a specific purpose in establishing relational significance for anticipated relational encounters, Allen explored II usage to relieve separation anxiety. The study involved 40 couples, half of whom were in long distance relationships. Allen found that geographically separated couples report an increase in the number of IIs experienced during times of separation and view them as a coping

strategy. Thus, the study provides support for the usefulness of IIs in allowing individuals to continue their relationships even when circumstances prevent real interaction. These results, as Honeycutt et al. (1989) note, are a strong indication that imagined interactions have relational significance and support the idea that IIs are used to create as well as maintain interpersonal relationships.

While imagined interactions can serve to create a given relationship, they can also shape it as it goes through certain stages. The memory structure approach to IIs suggests that not only do IIs bring the relationship into existence, they can also serve to shape the developmental progression of said relationship (Honeycutt & Cantrill, 2001). The assumption of such an approach is that individuals have certain expectancies in terms of the developmental stages of relationships that can be used in the formulation of an expected prototype for categorizing another's as well as one's own relationship. As new observations of relationships are made, they are assimilated into the expectancies and revisited in the form of IIs. These IIs may serve to keep an existing relationship intact, or maybe to rehearse for the initiation of a new one. In these terms, IIs enable the process of thinking about a relationship, even through its various developmental phases.

Research suggests, however, that the nature of IIs is a function of the communicator's situational experiences (Zagacki et al., 1992). If a person is currently not experiencing stressful activities or relationships, imagined interactions are likely to involve mixed imagery that has been shown to be more pleasant (Zagacki et al., 1992). Cancer patients report that 80% of their IIs are positive—a fact that suggests patients use IIs to imagine themselves free of cancer (Gotcher & Edwards, 1990).

## Rehearsal

Several studies have suggested that IIs can be used strategically for rehearsing anticipated encounters and for relieving stress, for example in such settings as forensics competition (Gotcher & Honeycutt, 1989; Honeycutt & Gotcher, 1991). Participants involved in forensics competition must be aware of the communication environment and in control of the messages they convey because the nature of such a form of competition is that those most adept at doing so receive the highest rewards (Honeycutt & Gotcher, 1991). Gotcher and Honeycutt (1989) found that IIs can be used to practice possible messages even when several possibilities exist for the way the actual interaction may really occur.

Studying the use of IIs by student protesters present at the Tian-an-men Square demonstrations, Petress (1990) indicated that students actually present during the riots reported engaging in the use of IIs for such purposes as rehearsing and preparing scripts in the case they were taken in for interrogation by the authorities, the rehearsal of conversations with family members and friends enabling the student to remain calm during the riots, and reflecting on actual experiences and interactions endured after the riots were stopped.

Petress (1995) also looked at the use of IIs by Chinese foreign exchange students in preparing to study abroad. Oral interview results indicate that the students reported using IIs for rehearsal purposes. They reported using IIs for the purpose of rehearsing meetings and interviews with individuals with whom they were seeking help in the process of securing admission to a U. S. university as well as for rehearsing meetings with future foreign advisers.

Imagined interactions have also been shown to aid in the planning process to help reduce anxiety and increase speech fluency (Allen & Honeycutt, 1997). In this study, an experiment was developed to investigate the effects of the independent variables of a planning task and

discrepant IIs on the dependent variable of anxiety as operationalized through the use of object adaptors. The subjects completed the SII and then participated in the experimental part of the study that involved videotaping. In this portion of the study, participants were asked to devise a plan for convincing a friend with a drinking problem to seek help. One group of the participants was then placed in a distractor-task condition for the purpose of minimizing their message planning time. The other group members were given time solely to rehearse their plan for convincing a friend to seek help. The researchers looked at the use of nonverbal object adaptors that involve people manipulating objects (e.g., pens, glasses, jewelry) when they are aroused or nervous. Results of the study indicate that individuals who were able to plan their conversations displayed fewer object adaptors than those who completed the distractor task (Allen & Honeycutt, 1997).

Geographically separated couples (GSCs) have been found to make particular use of IIs for the purpose of rehearsing future interactions (Allen, 1994). In comparison to couples not geographically separated, GSCs reported greater use of imagined interactions for the purpose of preparing for the next interaction with their partners. Such a result seems to suggest that GSCs emphasize an efficiency meta-goal that is in operation during times of separation.

#### Self-Understanding

Rosenblatt and Meyer's (1986) original conception of the therapeutic use of IIs recognized that imagining interaction that involves explaining things or relating things to another can aid in the process of clarification of the self. IIs help to uncover opposing or differing aspects of the self (Rosenblatt & Meyer, 1986)

Research which sought to assess the use of IIs by couples who were experiencing geographical separation (GSCs) suggests that they do experience IIs as a tool for increasing self-

understanding more than do couples who are not geographically separated (Allen, 1994). The results suggest that GSCs have a greater need to develop better understanding prior to interaction because of the limitation on interaction time due to geographic circumstances. The use of IIs helps to create a better understanding of the partner as well as the self. Allen (1994) also suggests that GSCs may also use IIs to discuss certain issues with the relational partner so as not to be forced to deal with the given issue that may have been deemed unimportant during precious and limited interaction time.

Zagacki et al. (1992) studied the role of mental imagery and emotion in imagined interactions and found imagined interactions that involved more conflict were related to an increase in self-understanding. Imagined interactions that provided increased self-understanding were also found to involve more verbal imagery with the self playing a greater role in the II, or being more dominant.

#### Catharsis

Imagined interactions have been recognized for their ability to relieve tension and reduce uncertainty about another's actions (Honeycutt, 1989). Rosenblatt and Meyer (1986) proposed IIs as a means of emotional catharsis in counseling sessions having found that IIs served as an outlet for their patients to release unresolved tension. Patients had noted feeling less relational tension after having experienced IIs.

Individuals reportedly use IIs to release emotions when they know that enacting certain behaviors or expressing certain emotions may be inappropriate in actual interactions (Allen & Berkos, 1998; Berkos, Allen, Kearney, & Plax, 2001). The use of IIs has also been associated with a reduction in anxiety level (Allen & Honeycutt, 1997). When planning for an interaction, making use of IIs results in a lower occurrence of object adaptors. This result seems to suggest

that when one uses IIs, one experiences anxiety relief. Thus, IIs help one release certain emotions in the form of catharsis. Honeycutt (1991) offers numerous accounts of individuals who have reported that their IIs made them feel better and helped them release anxiety. Gotcher and Edwards (1990) report that the prevalence of cancer patients' high frequency of pleasant IIs may produce a cathartic release reducing stress and anxiety.

### Compensation

Research suggests that IIs function to compensate for the lack of real interaction (Allen, 1994; Honeycutt, 1989b). From their inception, IIs have been purported to serve in the place of real interaction when face-to-face communication is not possible (Rosenblatt & Meyer, 1986; Honeycutt, 2003). In their discussion of IIs used for therapeutic purposes, Rosenblatt and Meyer (1986) indicate that an individual may choose to use IIs in place of actually confronting a loved one in fear that the loved one would be hurt by the message.

Honeycutt (1989b) has discussed the use of IIs as a means of compensation by the elderly who may not see their loved ones as often as they would like. For example, retirement center residents report imagining conversations with children as well as fellow residents. The research focusing on geographically separated individuals and their increased use of IIs during separation for the purposes of coping is additional support for the notion that IIs are used in the place of real interaction (Allen, 1994). According to Allen (1994), engaged couples are more likely to use IIs to compensate for the lack of real interaction due to their living apart than are other types of couples living apart.

Imagined interactions reflect a number of characteristic and functional dimensions. Imagined interactions may be characterized by activity, proactivity, retroactivity, specificity, variety, discrepancy, and valence. These aspects of IIs lead to the use of II for various functions.

A person may use IIs to produce a sense of catharsis through releasing emotions, or may develop a better understanding of the self through the use of IIs. Imagined interactions also allow one to rehearse for upcoming interactions and may allow for compensation in the absence of actual interaction. The present study seeks to explore how these various II dimensions impact one's ability to deal with a significant loss and major adjustment.

The study of imagined interactions has led to the understanding of various characteristics and functions of the mental representations of interpersonal interaction, many of which are pertinent to the investigation of psychosocial adjustment to the death of a spouse. II usage likely allows a bereaved individual to transition from the spousal role-identity to the widowed role identity by permitting one to visualize the self interacting in the new role during the transition process.

Whereas IIs do perhaps play a role in the psychosocial adjustment of bereaved spouses, another variable conceivably at work in the success of such adjustment is the bereaved individual's belief that he/she is indeed making the transition well. While some past bereavement research has included locus of control variables, a more telling variable for evaluating one's personal assessment of success in adjusting to the death of a spouse is that of self-efficacy. The following section will examine the construct of self-efficacy, its definition, as well as its role in prior and present research.

### Self-Efficacy

The self-efficacy construct is offered as a unique form of self-evaluation that identifies a distinction between one's ability to do something and actually doing it (Bauer & Bonanno, 2001). Bandura (1986) offers the following definition of self-efficacy:

Perceived self-efficacy is defined as people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is

concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses. (p. 391)

Of all the aspects of self-knowledge, one of the most important and influential in the everyday life of a person is the conception of personal efficacy (Bandura, 1986). Bauer and Bonanno (2001) state that the distinction among evaluations of one's own ability, what one has done (behavior), and who one is (characteristics), "may be especially important during times of crisis because at these times the view that one *could possibly* make things go well might be the individual's predominant mechanism for coping with difficult circumstances" (p. 426).

In the context of spousal bereavement, the ability to reorganize life after a spouse's death is reflected in the self-efficacy concept. Key to the process of adjustment to the death of one's spouse is one's personal assessment that life without the partner is manageable—that one can survive without the partner (Benight, Flores, & Tashiro, 2001).

Cognitive interpretation of the loss is an important element in adjusting to it. Past research has evaluated the role of locus of control in aiding a widow or widower during the adjustment phase (Lowenstein et al., 1993-94) as well as coping strength (Gallagher et al., 1981-82). Lowenstein et al. (1993-94) examined long-term adjustment to loss and reported that for their sample, locus of control was the most important predictor. In their study, they examined adjustment as a four component dependent variable: (a) functioning in everyday living, (b) depression level, (c) health status, and (d) life satisfaction. Using stepwise multiple regression analysis to examine the effects of a number of independent variables on adjustment, they found that the widow's locus of control was strongly associated with all four of the adjustment variables. Those widows characterized by an internal locus of control were assessed as having adjusted better to the loss of their spouses than those with an external locus of control. Externally

oriented widows reported poorer adjustment and were at a higher risk for requiring further attention and assistance for dealing with the death of their spouses.

Results indicate that one's belief in his/her own internal ability to control one's destiny, rather than an external orientation which would have outside forces acting upon the individual, is strongly associated with successful adjustment to a spouse's death (Lowenstein et al., 1993-94). Concern for understanding issues of human agency (e.g., determinism versus indeterminism, free will versus causality) has led to increasing interest in this variable for tapping into agency-oriented topics referred to as self-efficacy (Gecas, 1982, 1989).

Self-efficacy has emerged as a major area of interest in the discipline of social psychology and has been identified as an important aspect of mental health, particularly in relation to depression (Gecas, 1989). Although the term self-efficacy has at times been defined in such broad terms as to lose its meaning, the more delimited definition refers to an individual's assessment of her/his effectiveness, competence, and causal agency (Gecas, 1989). With learned helplessness, individuals are subject to higher occurrences of depression when they believe their actions have no effect on their environment (Seligman, 1975). Self-efficacy has emerged as a mediating factor in dealing with job disruption, physical injury, and disability (Gecas, 1989; Pearlin, Leiberhan, Menaghan, & Mullin, 1981). A potential way for empirically assessing the belief in one's ability to adjust to the death of a spouse would be by measuring an individual's self-efficacy. By applying this definition to the psychosocial adjustment of the bereaved, one can potentially tap into the bereaved person's assessment of his/her performance in the new role-identity of "widow" or "widower." Framing role-identity adjustment in terms of self-efficacy allows for the measure of an individual's own assessment of performance effectiveness and competence in the new "widowed" role-identity.

Research on self-efficacy has taken two approaches in the past. The initial development of the construct grew out of Bandura's (1977) work, which proposed behavioral changes are most powerfully determined by expectations of self-efficacy because of self-efficacy's connection to the initial decision to perform a behavior (Sherer et al., 1982). This perspective led to the situation-specific study of self-efficacy. In therapeutic settings, clinicians used the concept of self-efficacy to convince a client that certain behaviors which would lead to desirable consequences could only be enacted if the client believed that he/she could perform said behavior.

Although initially seen as a situation-specific belief, researchers have suggested that evidence supports the contribution of self-efficacy to generalized actions rather than target behavior alone (Sherer et al., 1982). Mahoney and Arnkoff (1978) state that self-efficacy theory offers a significant contribution to the understanding of cognitive processes involved in adjustment. Certainly the transition process encountered during spousal bereavement offers a potentially fertile context in which to examine the impact of self-efficacy on adjustment.

Bereavement research that included the self-efficacy construct suggests a significant, inverse relationship between self-efficacy and grief and findings indicate that self-efficacy predicts less grief over time (Bauer & Bonanno, 2001). Research that evaluated the effect of internal control beliefs, similar to self-efficacy, found that at particularly high risk for poorest recovery and most suffering are those with low internal control beliefs who experienced an unexpected death (Stroebe, Stroebe, & Domittner, 1988). This finding supports the importance of self-efficacy in dealing with the death of a spouse.

Including self-efficacy in the current study is important because of the potential relationship between self-efficacy and imagined interaction in their mutual influence on

psychosocial adjustment to spousal bereavement. Both self-efficacy (Bandura, 1986) and imagined interactions (Gotcher & Edwards, 1990) reflect cognitive aspects of coping. Bandura (1986) suggests that, aside from actual experience, one source of self-efficacy information is vicarious experience. Through seeing or through visualizing similar others performing successfully, one can raise self-perceptions of ability to succeed. This visualization of others succeeding may lead to visualizations of the self succeeding, potentially a reflection of II usage. An exemplar of using IIs to visualize the self successfully coping is reflected in the investigation by Gotcher and Edwards (1990) that suggests IIs work in concert with cognitive coping. Thus, a natural connection appears to exist between IIs and self-efficacy. Together, they may assist a widow(er) in the cognitive aspects of processing spousal loss. The purpose of this study is to investigate the linkage of IIs and self-efficacy in relation to global psychosocial adjustment to spousal bereavement.

As noted, the death of one's spouse necessitates adjustment to life without the spouse. The high number of current and soon-to-be widow(er)s obliges social science researchers to continue an exploration of the spousal bereavement phenomenon so that a clearer understanding of the process of adjusting to spousal death can be established. Although research has unearthed variables that partially explain adjustment, not all aspects of adjustment are elucidated. Clearer understanding of the process of adjustment can help inform the knowledge that clinicians and other support providers have concerning the process leading to better assistance that can be offered to the spousally bereaved. The current work explores the process further by investigating the links of cognitive aspects of coping, namely imagined interactions and self-efficacy, as they function within the context of conjugal bereavement.

## Chapter 2

### Rationale Summary and Hypotheses

As the review of literature in the previous chapter suggests, examining imagined interactions' influences on the process of psychosocial adjustment to the death of a spouse serves to offer insight into the link between intrapersonal communication processes and bereavement. The following hypotheses and research questions empirically test notions couched in the symbolic interactionist approach.

A key point at which one's identity inevitably changes is during a life-altering event such as the death of a spouse (Shuchter & Zisook, 1993). When one's partner dies, the surviving spouse faces identity reformulation because the spousal role-identity must then move out of the hierarchy allowing for the integration of the "widower" or "widow" role-identity (Lopata, 1975). The reformulation of identity is facilitated by the use of imagined interactions, while one's evaluation of success at such reformulation is facilitated by one's personal assessment of self-efficacy. Simply put, psychosocial adjustment to the death of a spouse is dependent on one's use of imagined interactions and degree of self-efficacy. The hypotheses and the necessary justification that evolve from such notions are presented in the following section.

The first hypothesis reflects an expected negative relationship between the independent II variable of discrepancy and the dependent variable psychosocial adjustment. This negative correlation is expected due to the prior research related to discrepancy. As articulated in the review of literature offered in the previous chapter, discrepancy has been associated with chronic loneliness (Edwards et al., 1988). That is, those who have IIs that are markedly different from the reality with which the IIs correspond are more likely to be lonely. Likewise, those bereaved individuals who lack sufficient social support, thus experience feelings of isolation or loneliness,

have reported experiencing more difficulty adjusting to the spousal loss (Windholz et al., 1985).

Following that line of reasoning, the first expected relationship leads to the following hypothesis:

H1: Imagined interaction discrepancy is negatively associated with global psychosocial adjustment.

The second hypothesis reflects an expected positive relationship between a number of II characteristics and psychosocial adjustment. In relation to specificity, research has suggested that the level of detail in IIs positively predicts dimensions of conversational sensitivity such as detecting meanings of another person's messages, conversational memory, and conversational alternatives (Honeycutt et al., 1992-93). These dimensions are important to an individual who is seeking to adjust to the loss of a spouse because they can serve as aids for dealing with family and work relationships after losing a spouse and handling the compulsory transitions.

The chronically lonely tend to lack both variety and activity in their imagined interactions, which would seem to support the idea that those who are better adjusted, and less likely to be lonely, would experience greater variety and activity in their IIs (Honeycutt et al., 1989-1990). Research on II activity has also revealed that discrepancy and activity are negatively associated (Gotcher & Honeycutt, 1989). Thus, following the first hypothesis, which suggests that those with higher levels of discrepancy will experience lower levels of adjustment, it would logically follow that activity is positively associated with adjustment.

In terms of proactivity, research suggests that competitive debaters use IIs psychologically to prepare for actual competition, serving perhaps a self-fulfilling prophecy function. The psychological preparation and self-fulfilling prophecy benefits that IIs can provide are likely to assist widows and/or widowers as they prepare for social reemergence following the death of a spouse. In light of this possibility, the second hypothesis is as follows:

- H2a: Imagined interaction activity is positively associated with global psychosocial adjustment.
- H2b: Imagined interaction specificity is positively associated with global psychosocial adjustment.
- H2c: Imagined interaction variety is positively associated with global psychosocial adjustment.
- H2d: Imagined interaction proactivity is positively associated with global psychosocial adjustment.

Another II characteristic discussed in the previous chapter's review of literature is that of retroactivity. Research conducted by Zagacki et al. (1992) revealed that IIs associated with positive emotions are not as likely to be experienced retroactively as those associated with mixed emotions. With the highly emotional experience of bereavement, a widow or widower would possibly report less II retroactivity. This possibility, however, does not seem to be sufficient evidence to warrant a hypothesis.

The research on II valence suggests that, in association with retroactivity, those IIs with more negative affect are perhaps more enduring (Zagacki et al., 1992). Exploring the relationship of valence to psychosocial adjustment could offer interesting insight into the transition to widow(er)hood. However, at this time, that relationship can only be investigated through a proposed research question due to insufficient evidence upon which to base a directional hypothesis. The following research questions are more appropriate:

- RQ1a: What is the relationship of imagined interaction characteristics of retroactivity to global psychosocial adjustment?

RQ1b: What is the relationship of imagined interaction valence to global psychosocial adjustment?

As discussed in the previous chapter, the direct expression of one's grief has been recognized as a key contributor to the adjustment process. This cathartic outlet of emotions has also been recognized as a function of imagined interactions. Thus, it is likely that individuals who report experiencing a sense of catharsis from their IIs would also report higher levels of psychosocial adjustment.

With the original conception of the therapeutic application of imagined interactions, Rosenblatt and Meyer (1986) acknowledged the ability to achieve greater clarification of self through the use of IIs. The period of bereavement after the loss of the spouse has been identified as a time when the widow or widower is faced with decided changes in identity. IIs likely serve to aid in the resolution of the identity through increasing self-understanding.

While catharsis and self-understanding are II functions that are likely associated with the bereavement process, the rehearsal function is presumably at work as well. Research on the rehearsal function of IIs has indicated their use in strategically preparing for anticipated encounters and for relieving stress. Forensics competitors reported using IIs for such reasons (Gotcher & Honeycutt, 1989). Widows and widowers facing identity adjustment after the death of a spouse would likely use IIs for preparing for reentrance into society and would use them to review the several possibilities for enacting the adjusted identity. Prior research has demonstrated the cathartic, rehearsal, and self-understanding functions of imagined interactions. That prior research provides support for the following proposed hypothesis:

H3a: The imagined interaction function of catharsis is positively associated with global psychosocial adjustment.

H3b: The imagined interaction function of self-understanding is positively associated with global psychosocial adjustment.

H3c: The imagined interaction function of rehearsal is positively associated with global psychosocial adjustment.

Prior research on the compensation function of imagined interactions has shown it to be at work in geographically separated couples' relationships (Allen, 1994). Couples living apart noted the use of IIs as a means of compensating for the lack of real interaction with the absent spouse and as a means of perpetuating the relationship during times of separation. While it is not being proposed here that IIs help the widow or widower compensate for the lack of interaction with the deceased spouse, it may be possible that they serve these functions in terms of other surviving family members. Without more direct support from previous research, it is possible only to propose a research question exploring the impact of the compensation function of IIs on the adjustment process. Thus, the following research question is proposed:

RQ2: What is the relationship between the compensation function of imagined interaction and global psychosocial adjustment?

Once a spouse dies, memories of the spouse undoubtedly remain (Shuchter & Zisook, 1993). The memories are seen as powerful tools to maintain connection to the deceased, providing comfort by keeping a sense of the spouse while also inducing pain through reminders of what has been lost (Shuchter & Zisook, 1993). Those memories likely include communication episodes previously shared with the spouse. These memory structures would likely represent imagined interaction with the deceased spouse. While this type of memory appears to be equivalent to IIs, no formal study of this use of imagined interaction has been explored in prior II research, and no study has investigated IIs with the deceased spouse on adjustment to spousal

bereavement. Hence, a research question exploring a widow(er)'s use of IIs in such a way is appropriate and is proposed below:

RQ3: What is the relationship between imagined interactions with the deceased spouse and global psychosocial adjustment to spousal bereavement?

In terms of self-efficacy, it appears probable that a widow's or widower's overall assessment of personal competence and effectiveness would be a powerful tool in the adjustment process. As discussed in the previous chapter, self-efficacy has been noted as a significant factor in terms of mental health, particularly as it pertains to depression. Depression has also been noted to occur more often in those bereaved individuals who have not adjusted to the death of the spouse very well (Zisook, Paulus, Shuchter & Judd, 1997). Because self-efficacy is negatively associated with depression and adjustment is negatively associated with depression, it appears probable that general self-efficacy and global adjustment have a shared association. Proposing a positive correlation between the two variables, the hypothesis is as follows:

H4: Self-efficacy is positively associated with global psychosocial adjustment.

Finally, it is necessary to explore the relationship between imagined interactions and self-efficacy on global psychosocial adjustment to the death of a spouse. Exploring the combination of the various II dimensions in conjunction with self-efficacy as they impact adjustment results in the following research question:

RQ4: How will global psychosocial adjustment be influenced by the Combined effects of self-efficacy and imagined interaction use (discrepancy, activity, specificity, variety, proactivity, catharsis,

self-understanding, rehearsal, retroactivity, valence, compensation, and IIs  
with deceased spouse).

## **Chapter 3**

### **Methods and Procedures**

This chapter offers a discussion of the methods employed for the current study. The sampling procedure and sample characteristics are described. Also included are a description of the survey instrument, a report of reliabilites, and a detailed discussion of variable measurement.

#### **Sample**

##### Participants

Procedures used in this study for recruiting participants and collecting data were reviewed and approved by the Institutional Review Board (IRB). To gather data for the study, a non-probability sampling technique of snowball/network sampling was employed. Eligible participants included widows and widowers who were not yet remarried and who were widowed from legally sanctioned heterosexual marriages. With the goal of recruiting an adequately sized sample, students in several sections of basic communication courses at a medium-sized southeastern university were offered extra credit for helping to identify potential participants. Students would solicit participation from a widow(er) known to the student. Upon gaining agreement from the widow(er), the student delivered the Adjustment Survey Packet to the recruited participant.

##### Procedure

The survey packet contained the Adjustment Survey (Appendix A) and two copies of the consent form. One copy of the consent form was designated for the participant to keep, and the other was to be signed and returned, along with the completed survey, in a sealed envelope provided by the investigator. The consent form included a request for the participant to place his/her name and contact telephone number on the outside of the envelope once sealed.

Participants were told that the contact information would be used for the sole purpose of performing random confirmatory telephone calls to verify their participation and would be separated from the completed packets upon receipt by the investigator. Packets were returned to the investigator via the student recruiters.

As completed packets were returned, every tenth packet was pulled from the pile for the confirmatory telephone calls to verify the widow's or widower's participation. Of the 23 verification calls made, all widows/widowers reported having completed the survey. Participants were thanked for their time and willingness to participate.

An a priori power analysis, using an alpha level at .01, indicated that 257 participants were optimal. The decision to begin analyzing the data with 232 participants was made based on the decreasing rate at which surveys were being returned. Thus, data analysis was conducted on a sample size of 232, which included 200 widows and 32 widowers.

### Demographics and Characteristics

Of the 232 participants, 86.2% were female and 13.8% were male, with a mean age of 63.17 years (range 28.00 - 98.00, SD = 13.14), and 70.1% were Caucasian, 25.5% were African-American, and 4.3 % were of other racial backgrounds (Table 1). Educationally, 16.8% reported having no diploma, 45.3% had a high school diploma or GED, 11.6% had a two-year degree, 13.4% had four-year degrees, and 8.6% had graduate or professional degrees. The remaining 3.4% reported some college education or other type of specialized schooling.

For this sample, only 45.3% were currently employed. Of those who did report employment, 26.5% worked in secretarial-type positions, 19.4% were teachers, 15.3% were healthcare workers, 9.2% were laborers, 8.2% were in management, and 6.1% were in sales positions. The remaining 15.2% were self-employed or report other types of employment. In

Table 1:  
Descriptive Statistics (Study 1)

	<u>n</u>	<u>M</u>	<u>SD</u>
Current Age	232	62.92	13.66
Age at Spouse's Death	231	54.87	13.20
Age of Spouse at Death	232	58.53	14.09
Time Elapsed Since Death	229	8.39	7.98
Length of Marriage	229	30.22	15.60
Number of children	232	2.88	1.82
Number of dependents	232	0.36	0.68
Social Support	222	5.54	1.04
Interaction with other Widow(er)s	223	4.06	1.42
Pre-death Communication	231	4.43	1.69
Bereavement Coping Self-efficacy	232	5.37	1.19
II Activity	231	3.63	1.35
II Variety	232	3.74	1.31
II Rehearsal	228	3.95	1.32
II Discrepancy	231	3.81	1.28
II Proactivity	232	3.74	1.39
II Retroactivity	232	3.54	1.47
II Specificity	231	3.73	1.24
II Valence	228	4.35	1.21
II Catharsis	227	3.92	1.32
II Self-Understanding	231	3.96	1.33
II Compensation	230	3.49	1.15
IIs with Deceased Spouse	230	4.03	1.59
Global Psychosocial Adjustment	232	81.91	11.89

reports of income, 31.1% had an annual income of \$20,000 or less; 34.9% reported earning between \$20,000 and \$40,000; 14.7% earned between \$40,000 and \$60,000; while the remaining 11.2% earned more than \$60,000.

The largest portion of the sample, 37.2%, indicated that the spouse had died more than one year after the illness diagnosis, while 23.5% reported sudden illness as cause of death. The remainder of the sample listed nature of death as less than six months after diagnosis (12.4%), accidental (9.3%), more than six months after diagnosis (9.3%), suicide (3.1%), victim of crime (1.3%), natural disaster (0.4%), and other cause (3.5%). The mean age of the survivor at the time of the spouse's death was 54.87 (range 25.00 - 84.00; SD = 13.20), and the mean age of the spouse at time of death was 58.87 (range 27.00 - 87.00; SD = 14.09). Those in the sample were married a mean of 30.22 years (range 2.00 - 62.00; SD = 15.60) and participants were widowed a mean of 8.39 years (range .10 - 38.00; SD = 7.98) at the time of completing the survey, and only 25.9% have dependent children.

## Method

### General Procedures

Between the months of November 2002 and March 2003, students were offered extra credit to recruit widows and widowers to participate in the current study. Those students interested were required to attend a brief instructional meeting at which they were notified of participant qualifications and trained in survey dissemination guidelines. A total of 413 students were extended the offer of extra credit and 86.9% (359) opted to accept by taking a survey packet to be delivered to the widow(er). Of those who took surveys, 12 (3.34%) returned them uncompleted indicating their desire to withdraw their participation. In the end, a 56.17% return rate was achieved (n = 232).

## Survey Instrument

### Design

Participants received a questionnaire designed to examine use of imagined interactions, level of bereavement coping self-efficacy, and perception of global psychosocial adjustment to spousal bereavement. The instrument also assessed perception of social support, interaction with other widow(er)s, pre-death communication related to surviving the spouse, as well as a variety of demographic items.

### Measurement of Variables

There were three variables of primary importance to this study—two predictor variables (imagined interaction and self-efficacy) and one criterion variable (global psychosocial adjustment). In addition, there were a number of variables that were treated as covariates within the present study. The covariates included social support, interaction with other widows, pre-death communication related to survivor, sex, race, education, employment, income, time elapsed since spouse's death, participant's age, participant's age at spouse's death, age of spouse at death, nature of spouse's death, years married, number of children, and number of dependents.

### Imagined Interactions

The Adjustment Survey included a scale for measuring imagined dimensions. The Survey of Imagined Interactions (Honeycutt et al., 1992; Honeycutt, 2003), or SII, consists of 42 items to measure those factors noted as relevant. Nine items were created for the sole purposes of this study, resulting in a 51-item measurement tool. Honeycutt (2003) discusses the development and modification of the "Survey of Imagined Interactions," or SII. The current project made use of those portions of the original survey that measure the functions and characteristics that were relevant to the present study.

From the inception of the imagined interaction construct and its application to communicative encounters, researchers were faced with the same difficulty as other cognitive researchers. Measuring imagined interactions must rely largely on the inferences based on external behavior (Honeycutt et al., 1989). Measuring mental states is a lofty and difficult task. Introspective self-report was recognized early on for its potential contribution to uncovering the dimensions and uses of imagined interactions.

The SII's introduction describes IIs as "mental interactions we have with others who are not physically present" and follows with a description of some likely characteristics such as being "ambiguous or detailed" and that "they may address a number of topics or examine one topic exclusively. The interactions may be one-sided where the person imagining the discussion does most of the talking, or they may be more interactive where both persons take an active part in the conversation" (Honeycutt, 2003, p. 43). The items ask the respondent to indicate on a 7-point Likert-type scale ranging from very strong disagreement (NO!) to very strong agreement (YES!) based on a no-yes continuum.

Factor analysis has confirmed eight factors to be part of the II construct as measured using the Survey of Imagined Interactions (Honeycutt et al., 1992; Honeycutt, 2003). For the purposes of the current project, the SII was revised such that only those 10 dimensions previously described as relevant were included (Appendix A). Honeycutt et al. (1992) reported the following Cronbach alpha levels for the various dimensions. Discrepancy is a 7-item index measuring the incongruity between IIs and actual interaction ( $\alpha = .84$ ). Activity, measured by a four-item index, represents the reported frequency of IIs ( $\alpha = .76$ ). The index measuring retroactivity ( $\alpha = .80$ ), made up of three items, assesses the occurrence of IIs after an important event, while the index measuring proactivity ( $\alpha = .73$ ), consisting of three items, assesses II use

prior to actual interaction. The variety factor reflects topic and partner diversity and is assessed by four items ( $\alpha = .67$ ). Specificity, a five-item factor, measures the degree of detail in the II ( $\alpha = .73$ ). The six items assessing the pleasantness of IIs provide a measure of the valence factor ( $\alpha = .85$ ). The II function of self-understanding is measured by four items ( $\alpha = .70$ ). The dimension of rehearsal reflects the use of IIs for an anticipated encounter and is measured by four items ( $\alpha = .75$ ), and catharsis, or the release of tension, is measured by two items ( $\alpha = .51$ ). A third item was added to increase the total number of items measuring the catharsis function to three. Three items were also created to measure the compensation function of IIs, and five items were created to assess the use of IIs with the deceased spouse.

For the current study, confirmatory factor analyses (CFAs) were conducted for each of the II dimensions. Results validated the existence of a single factor for each II dimension. Reliability analyses were also conducted for each II variable (Table 2). For several of the II factors, reliability levels were attained using the original number of items offered by Honeycutt et al. (1992) with no adjustments necessary. The Cronbach's alpha for each of those dimensions is as follows: proactivity  $\alpha = .77$ , retroactivity  $\alpha = .85$ , catharsis  $\alpha = .88$ , rehearsal  $\alpha = .90$ , self-understanding  $\alpha = .83$ , and activity  $\alpha = .66$ .

Some II variables required item-deletion for improved reliability. II variables that required item-deletion are as follows: discrepancy became a five-item measure with  $\alpha = .87$ , valence became a three-item measure with  $\alpha = .84$ , variety became a three-item measure with  $\alpha = .75$ , and specificity became a three-item measure with  $\alpha = .61$ . The items assessing compensation and IIs with deceased spouse were constructed specifically for this study. IIs with deceased spouse reduced to a three-item factor with a Cronbach's alpha of  $.85$ . The three items assessing compensation had an alpha =  $.45$ . Because of its poor reliability level, II compensation

Table 2:  
Reliabilities of Independent and Dependent  
Variables (Study 1)

<u>Variable</u>	<u>alpha reliability</u>
II activity	0.6587
II proactivity	0.7692
II variety	0.8397
II retroactivity	0.8480
II specificity	0.6174
II discrepancy	0.8734
II valence	0.8392
II self-understanding	0.8267
II rehearsal	0.8997
II catharsis	0.8771
II with deceased spouse	0.8455
II compensation	0.4447*
Social support	0.7995
self-efficacy (BCSE)	0.9235
pre-death communication	0.8739
Interaction with widow(er)s	0.6920
global psychosocial adjustment	0.8847

\*omitted from analysis

was omitted from analysis. Although specificity and activity had relatively low reliability levels, they were near the acceptable .70 level (Nunnally, 1967). The exploratory nature of this study justifies retaining these two II variables in the current analysis.

Mean scores were computed for each of the II dimensions by summing the responses for a given dimension and dividing by the total number of items measuring that dimension. Mean scores, standard deviations, and ranges of II dimensions for the current sample are (Table 1): activity  $\underline{M}$  = 3.63,  $\underline{SD}$  = 1.35, range = 1.00 - 7.00; proactivity  $\underline{M}$  = 3.74,  $\underline{SD}$  = 1.39, range = 1.00 - 7.00; retroactivity  $\underline{M}$  = 3.54,  $\underline{SD}$  = 1.47, range = 1.00 - 7.00; variety  $\underline{M}$  = 3.74,  $\underline{SD}$  = 1.31, range = 1.00 - 7.00; specificity  $\underline{M}$  = 3.73,  $\underline{SD}$  = 1.24, range = 1.00 - 7.00; discrepancy  $\underline{M}$  = 3.81,  $\underline{SD}$  = 1.28, range = 1.00 - 7.00; valence  $\underline{M}$  = 4.35,  $\underline{SD}$  = 1.21, range = 1.00 - 7.00; catharsis  $\underline{M}$  = 3.92,  $\underline{SD}$  = 1.32, range = 1.00 - 7.00; self-understanding  $\underline{M}$  = 3.96,  $\underline{SD}$  = 1.33, range = 1.00 - 7.00; rehearsal  $\underline{M}$  = 3.95,  $\underline{SD}$  = 1.32, range = 1.00 - 7.00, II with deceased spouse  $\underline{M}$  = 4.03,  $\underline{SD}$  = 1.58, range = 1.00 - 7.00.

#### Self-Efficacy

Self-efficacy was measured using the bereavement coping self-efficacy (BCSE) survey developed by Benight, Flores, and Tashiro (2001). The original tool consists of 33 items measured on a 7-point Likert scale. Items measuring bereavement coping self-efficacy include asking the participant to indicate current confidence levels on such items as: expressing feelings about what happened; controlling feelings of grief; coping with painful memories of the widow(er)s, pre-death communication related to surviving the spouse, time elapsed since the spouse's death, age at time of spouse's death, age of spouse at time of death, nature of spouse's death, years married as well as demographic variables such as sex, race, age, education, employment, income, number of children, number of dependents.

## Social Support

The covariate of social support was measured using a brief, five-item self-report scale reported by Hogan & Smith (2002). The Inventory of Social Support, or ISS, (Hogan & Smith, 2002) was originated for study of bereavement, making it ideal in the context of this study of spousal bereavement. The ISS asks respondents to identify their level of agreement or disagreement, on a 7-point Likert-type scale in this study, to items assessing their perception of social support. Hogan & Smith (2002) report a Cronbach's alpha level of .76 for the scale. In the present study, the scale's reliability was at a .80 level ( $M = 5.54$ ,  $SD = 1.04$ , range = 1.75 - 7.00).

## Interaction with Fellow Widow(er)s

To assess the role of socialization with other widow(er)s on adjustment, a three-item scale was created for the purposes of this study. The scale asked respondents to indicate on a 7-point Likert-type scale, with the no-yes continuum, their interaction with other widow(er)s and the support received from such interaction. Results of a reliability analysis of the scale indicated  $\alpha = .69$  ( $M = 4.06$ ,  $SD = 1.42$ , range = 1.00 - 7.00). Had more items been included in this scale, the possibility exists that a higher reliability could have been achieved through item-deletion. However, three items were deemed sufficient in light of the considerable length of the Adjustment Survey. Given its nearly acceptable reliability, the scale was retained for analysis.

## Pre-death Communication

To assess the impact of a couple's communication about life for the surviving spouse once one spouse dies, a three-item scale was created for the purposes of this study. Respondents were asked to indicate on a 7-point Likert-type scale, with a no-yes continuum, their perception of shared communication with the spouse prior to death about life for the surviving spouse. A reliability analysis of the scale indicated an  $\alpha = .87$  ( $M = 4.43$ ,  $SD = 1.69$ , range = 1.00 - 7.00).

## Global Psychosocial Adjustment

The dependent variable in this study is global psychosocial adjustment. Psychosocial adjustment was assessed using a revision of the self-report version of the Psychosocial Adjustment to Illness Scale (PAIS-SR) (Derogatis, 1986; Morrow, Chiarello, & Derogatis, 1978). The use of this particular measure to aid this project in the assessment of psychosocial adjustment seemed most appropriate because of its strong association with role behaviors (Derogatis, 1986). The original measure was formulated to assess the adjustment of those dealing with a particular illness; however, Gilbar and Dagan (1995) and Gilbar (1998) report using a modified version to assess the adjustment of widows and widowers of deceased cancer patients. It has been adjusted for the present study as well.

The original measure (Derogatis, 1986) consists of 46 items. The tool is made up of seven subscales that are summed to produce the global adjustment measure. The original subscales include healthcare orientation, vocational environment, domestic environment, extended family relationships, social environment, psychological distress, and sexual relationships. Due to efforts to reduce the length of the survey used in this study, research that examined the PAIS-SR factor structure and reported a reduced 26-item scale was used to guide scale development for this study (Rodrigue, Kanasky, Jackson & Perri, 2000). Rodrigue et al. (2000) report a .87 alpha level for the reduced scale. The measure, in its reduced form, consists of six subscales: healthcare orientation, vocational environment, sexual relationship, family relationships, social environment and psychological distress. Again, each of the items measuring a subscale is summed to gain a score on that particular subscale. The sum of all subscales can then be calculated to form the global adjustment measure. For the purposes of this study, only the global psychosocial adjustment score was used.

When assessing psychosocial adjustment, numerous relevant factors can be identified, but due to time constraints, especially for the current study, only the most central factors could be included (Derogatis, 1986). Following the lead of Gilbar and Dagan (1995), the sexual relations subscale was eliminated from the current study's version of the PAIS-SR. Although sexual relationships can be important even in a state of bereavement, posing questions of this nature seemed inappropriate in light of the fact that some respondents were very recently bereaved. The PAIS-SR's inceptive purpose was to evaluate the progress of an individual dealing with an illness such as cancer or Hodgkin's disease. A person dealing with an illness is not as likely to have experienced a complete severing of a romantic relationship due to the illness, and thus has some expectation of continuing to engage in activity within that romantic relationship even during the illness. An widow(er) seems more likely to take a natural break from such activity for at least some period of time during the early stages of bereavement.

With the items assessing sexual relationships omitted, the reduced scale consists of 22 items measuring five subscales including healthcare orientation, vocational environment, family relationships, social environment and psychological distress. Because of their import to the current study, six items from the original measure (Derogatis, 1986) that are not part of the reduced measure (Rodrigue et al., 2000) were retained for use in the current study. Four are items that more specifically assess the extended family relationships, while the other two additional items are part of the original measure of domestic environment. The final product was a 28-item tool used to calculate a global psychosocial adjustment to bereavement score for this study (Appendix A). An analysis of the scale's reliability revealed a Cronbach's alpha of .87, but deletion of two items increased the reliability to .89. This adjustment was deemed necessary to

provide the best possible measurement of the criterion variable. The 26-item scale had a mean of 81.91 (SD = 11.89; range = 37.00 - 103.00)

### Statistical Analysis

To properly explore multivariate relationships, such as those potentially shared by the current study's variables, it is necessary to use more complex models (Agresti & Finlay, 1997). A useful tool for eliciting information from a data set is through the use of hierarchical regression (Cohen & Cohen, 1983). Hierarchical regression, also referred to as incremental partitioning of variance (Pedhazur, 1982), allows the proportion of variance accounted for by all predictor variables to be partitioned in increments. One purpose of this method is to enable the study of independent variable(s) on a dependent variable after controlling for other variables, or covariates (Pedhazur, 1982).

Multiple hierarchical regression analysis allows for the inclusion of variables that can be statistically controlled (Pedhazur, 1982). As demonstrated in the first chapter's literature review, research has shown significant relationships between a number of predictor variables and adjustment. The current study's goal was to examine the impact of predictor variables (i.e., imagined interaction dimensions and self-efficacy) on adjustment in light of variables already shown to influence bereavement recovery. Those variables known to influence adjustment included as covariates in the current study are social support, interaction with other widow(er)s, pre-death communication related to surviving the spouse, time elapsed since the spouse's death, age at time of spouse's death, age of spouse at time of death, nature of spouse's death, years married as well as demographic variables such as sex, race, age, education, employment, income, number of children, number of dependents. Thus hierarchical multiple regression analysis was

employed as the hypothesis-testing tool as well as the exploratory tool examining proposed research questions.

## Chapter 4

### Results

This chapter provides results of the systematic analysis of hypotheses and research questions. Results indicate support for a relationship of II usage and self-efficacy to psychosocial adjustment to spousal bereavement. A detailed description of results follows.

#### Preliminary Analysis

Prior to hypothesis testing, the data set was examined to insure that no entered values fell outside the expected ranges. Due to the number of comparisons in the current study, analysis of the data requires a large number of statistical tests. This large number of comparisons is commonly thought to increase the likelihood of incorrectly rejecting the null hypothesis (O'Keefe, 2003). The common practice for avoiding such an error is to adjust the traditional significance level (alpha) of .05 to a more stringent level using a Bonferroni correction (Agresti & Finlay, 1997). As O'Keefe (2003) states, a Bonferroni adjusted alpha is calculated by dividing a traditional level of alpha, .05, by the number of comparisons to be made in the study. For this study, a Bonferroni correction yields a revised significance level of .004. O'Keefe (2003) argues, however, that such alpha adjustments are too stringent, leading to reduced statistical power, and such practices should be abandoned. He suggests "adjusting the alpha level because of the number of tests conducted in a given study has no principled basis" (O'Keefe, 2003, p. 444).

Other researchers do not wholly accept O'Keefe's (2003) arguments for abandoning alpha adjustments, suggesting that experiment-wise error corrections are still necessary (Hewes, 2003). For the purposes of this study, the data were interpreted in light of both test-wise alpha level, .05, and experiment-wise alpha level, .004.

Another issue addressed in the preliminary stages of analysis was multicollinearity, which refers to the interrelations of predictor variables (Pedhazur, 1982). Independent variables that are highly intercorrelated can cause increasing sensitivity to sampling and measurement errors (Blalock, 1979). One indication of multicollinearity is the substantial change of the initial estimated regression coefficient when another predictor variable is introduced to a model (Agresti & Finlay, 1997). A diagnostic that can be used to assess multicollinearity is a correlation matrix (Kerr, Hall & Kozub, 2002). When predictor variables share a relationship equal to or above .80, multicollinearity is indicated.

Another formal diagnostic tool is the variance inflation factor (VIF)/tolerance (Norusis, 2002). Tolerance represents linear relationship strength among predictor variables, or 1 minus multiple R for each independent variable (Bryman & Cramer, 1990). When tolerance is low, multiple correlation is high. Tolerance levels between zero and 0.25 indicate considerable multicollinearity (Bryman & Cramer, 1990; Norusis, 2002). VIF, the reciprocal of tolerance, indicates multiple correlation among variables when values are high; values equal to or greater than 4.0 indicate multicollinearity (Norusis, 2002).

To examine for multicollinearity in the current study, a correlation matrix of all interval level variables was created. Examination of the matrix (Table 3) revealed some correlations equal to or greater than .80. Quite naturally, the participant's age when the spouse died was significantly correlated with the age of the spouse at death (.909,  $p < .001$ ), and the number of years married (.810,  $p < .001$ ). For the purposes of confirmation, tolerance and VIF levels on the interval level variables were evaluated. Unacceptable levels were observed for subject's age at spouse's death, age of spouse at death, and II rehearsal. II self-understanding was near the unacceptable level.

**Table 3**  
**Correlation Matrix (Study 1)**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
<b>1</b>	1																								
<b>2</b>	-.126	1																							
<b>3</b>	-.179**	<b>.909**</b>	1																						
<b>4</b>	-.155**	<b>-.312**</b>	<b>-.277**</b>	1																					
<b>5</b>	-.078	<b>.810**</b>	<b>.741**</b>	<b>-.227**</b>	1																				
<b>6</b>	-.162*	<b>.292**</b>	<b>.254**</b>	.057	<b>.290**</b>	1																			
<b>7</b>	.147*	<b>-.357**</b>	<b>-.382**</b>	-.002	<b>-.271**</b>	.027	1																		
<b>8</b>	-.175*	<b>.816**</b>	<b>.714**</b>	<b>.298**</b>	<b>.631**</b>	<b>.305**</b>	<b>-.331**</b>	1																	
<b>9</b>	-.053	.120	.142*	.033	.145	.154	.013	.107	1																
<b>10</b>	-.085	<b>.182**</b>	<b>.200**</b>	.091	.125	.068	<b>-.199**</b>	<b>.216**</b>	<b>.268**</b>	1															
<b>11</b>	.108	.081	.076	-.056	.149*	.096	.034	.057	<b>.366**</b>	.092	1														
<b>12</b>	.117	-.087	-.103	-.034	-.126	-.094	-.088	-.088	-.144	-.018	-.083	1													
<b>13</b>	.121	-.078	-.080	.029	-.150*	-.060	-.036	-.028	-.082	.116	-.049	<b>.548**</b>	1												
<b>14</b>	<b>.138*</b>	-.079	-.046	-.031	-.136*	-.113	-.043	-.056	-.125	-.011	-.062	<b>.603**</b>	<b>.646**</b>	1											
<b>15</b>	.045	-.079	-.096	.025	-.134*	-.046	.032	-.022	<b>-.203**</b>	.039	<b>-.173**</b>	<b>.594**</b>	<b>.699**</b>	<b>.634**</b>	1										
<b>16</b>	.110	-.044	-.015	-.069	-.074	-.078	-.002	-.041	-.078	.017	-.020	<b>.579**</b>	<b>.478**</b>	<b>.564**</b>	<b>.516**</b>	1									
<b>17</b>	.015	-.088	-.078	-.007	-.162*	-.084	-.020	-.049	-.087	.014	-.141	<b>.485**</b>	<b>.603**</b>	<b>.621**</b>	<b>.652**</b>	<b>.474**</b>	1								
<b>18</b>	-.021	.051	.123	.053	.007	.029	-.075	.084	.137*	.155*	.083	<b>.260**</b>	<b>.310**</b>	<b>.403**</b>	<b>.229*</b>	<b>.462**</b>	<b>.345**</b>	1							
<b>19</b>	.005	-.050	.006	-.017	-.066	-.041	.066	-.018	.019	.083	-.067	<b>.369**</b>	<b>.538**</b>	<b>.642**</b>	<b>.435**</b>	<b>.456**</b>	<b>.532**</b>	<b>.485**</b>	1						
<b>20</b>	.037	.046	.066	-.073	-.006	-.046	-.043	.041	.036	.119	-.087	<b>.390**</b>	<b>.569**</b>	<b>.560**</b>	<b>.498**</b>	<b>.382**</b>	<b>.526**</b>	<b>.465**</b>	<b>.726**</b>	1					
<b>21</b>	.082	-.062	-.019	-.004	-.101	-.040	-.006	-.018	-.007	.126	-.041	<b>.455**</b>	<b>.716**</b>	<b>.692**</b>	<b>.581**</b>	<b>.465**</b>	<b>.591**</b>	<b>.499**</b>	<b>.703**</b>	<b>.742**</b>	1				
<b>22</b>	.024	-.095	-.088	-.063	-.093	-.084	-.062	-.092	-.164*	.057	<b>-.218**</b>	<b>.503**</b>	<b>.374**</b>	<b>.481**</b>	<b>.436**</b>	<b>.478**</b>	<b>.426**</b>	<b>.352**</b>	<b>.441**</b>	<b>.505**</b>	<b>.468**</b>	1			
<b>23</b>	.049	.119	.102	-.134*	.072	-.008	-.078	.024	.027	<b>.224**</b>	-.043	.015	.107	.101	.114	-.033	.055	.016	.030	.035	.119	.153*	1		
<b>24</b>	.084	.122	.112	-.043	.124	.045	.038	.090	<b>.271**</b>	.074	<b>.388**</b>	<b>-.224**</b>	-.113	-.155*	-.139*	-.069	-.119	-.002	-.144*	-.079	-.142*	-.288**	.010	1	

\*\*Correlation is significant at the .000 level (two-tailed)

\*Correlation is significant at the .001 level (two-tailed)

**LEGEND:**

1 = Income

2 = Age when spouse died

3 = Age of spouse at death

4 = Time elapsed since death

5 = Years married

6 = # of children

7 = # of dependent children

8 = Widow(er)s current age

9 = Social Support

10 = Interaction w/ other widow(er)s

11 = Global Psychosocial Adjustment

12 = II Activity

13 = II Proactivity

14 = II Variety

15 = II Retroactivity

16 = II Specificity

17 = II Discrepancy

18 = II Valence

19 = II Catharsis

20 = II Self-Understanding

21 = II Rehearsal

22 = II w/ deceased spouse

23 = Pre-death communication

24 = Self-Efficacy

To address the probable multicollinearity, the potential contribution to the overall model of each of the highly correlated variables was assessed. Multicollinearity existed between the age of the participant at the time of spouse's death and spouse's age at death ( $p = .909, \alpha < .001$ ). Because this study is interested in focusing on the experience of the surviving spouse during bereavement, the decision was made to eliminate the age of spouse at death variable and retain the subject's age at spouse's death variable.

Signs of multicollinearity were also present for II rehearsal and II self-understanding. An evaluation of the TIF/tolerance level for II rehearsal indicated that the variable met the established criteria for multicollinearity and was thus eliminated from further analysis. The II self-understanding variable was retained for inclusion in the analysis.

A reanalysis of TIF/tolerance, excluding age of spouse at death and II rehearsal, indicated no multicollinearity problems among the remaining variables. Interval level predictor variables retained for hypothesis testing include the following: II characteristics of activity, proactivity, variety, retroactivity, specificity, discrepancy, and valence; II functions of catharsis and compensation; IIs with deceased spouse; and bereavement coping self-efficacy. As the review of literature in the first chapter suggests, several variables are identified in prior research that impact adjustment to spousal bereavement. Those variables were used as covariates in the current study. Covariates included social support, interaction with other widows, pre-death communication, time elapsed since spouse's death, age at spouse's death, years married, number of children, number of dependent children, and income level.

Having evaluated the interval level predictors, analysis of nominal and ordinal covariates was necessary. Such variables included race, the nature of spouse's death, education level,

whether currently employed, and sex. A one-way ANOVA was used to determine whether significant differences existed for those covariates with more than two categories. Results indicated no statistically significant differences for race, nature of spouse's death, or education level. A t-test was used to assess differences for the bivariate predictors of sex and being currently employed. The only significant difference revealed by the comparison of means was for the variable which indicates whether the subject is currently employed or not ( $t = 4.358$ ,  $p < .001$ ). Thus, the current employment variable was used as a covariate in subsequent analysis.

### Theory-Related Hypotheses

#### Hypotheses 1, 2, and 3

The first three hypotheses addressed the predicted relationship between II factors and global psychosocial adjustment. To reduce the number of analyses, these II factors with predicted relationships with global psychosocial adjustment were evaluated simultaneously in a single hierarchical regression model. For the analysis, covariates were entered at the first stage, and II variables were entered at the second stage. The first hypothesis predicted a significant, negative relationship between II discrepancy and global psychosocial adjustment. The second hypothesis predicted a positive, significant relationship of II characteristics activity, specificity, variety, and proactivity with global adjustment. The third hypothesis predicted a positive, significant relationship for II functions catharsis, self-understanding, and rehearsal with global adjustment. As stated previously, due to its high correlation with self-understanding among this sample, II rehearsal was omitted from analysis.

Using a multiple hierarchical regression model, the covariates were entered into the equation at the first stage. The variables of II discrepancy, activity, specificity, variety, proactivity, catharsis and self-understanding were entered at the second stage. The models

revealed a traditional level of statistical significance for these II variables in relation to global psychosocial adjustment for those employed [ $F(15, 77) = 1.81, p < .05, R^2 = .261$ ] as well as for those not employed [ $F(15, 88) = 2.12, p < .05, R^2 = .266$ ] (Table 4). Although not significant at the Bonferroni-adjusted alpha level of .004, the first three hypotheses were supported at the traditional alpha level of .05.

#### Hypothesis 4

The fourth hypothesis predicted a positive, significant relationship between self-efficacy and global psychosocial adjustment. Using a separate multiple hierarchical regression model, the covariates were once again entered in the first stage while the self-efficacy mean was entered at the second stage. The analysis revealed significance near the experiment-wise alpha level for the importance of self-efficacy in the regression model for those employed [ $F(10, 83) = 2.87, p = .004, R^2 = .257$ ]. Analysis of the model for those not employed [ $F(10, 94) = 4.57, p < .001, R^2 = .327$ ] revealed significance at the Bonferroni-adjusted alpha level of .003 (Table 5). Thus, the fourth hypothesis was strongly supported for those not employed and approached experiment-wise alpha for those employed.

In terms of its individual relationship with global psychosocial adjustment, self-efficacy for the employed ( $t = 1.85, p < .05$ ) showed traditional significance. For those not employed, self-efficacy was a highly significant predictor of adjustment ( $t = 3.54, p = .001$ ) in this hierarchical regression model (Table 5).

#### Research Questions 1, 2, & 3

The first three research questions probed the role of the II variables retroactivity, valence, and IIs with deceased spouse in global psychosocial adjustment. To evaluate the relationship, a

Table 4:  
Multiple Hierarchical Regression Results for Hypotheses 1, 2, & 3

<u>Global Psychosocial Adjustment</u>									
		<u>Employed</u> n = 93				<u>Not Employed</u> n = 104			
	Predictor	<u>B</u>	<u>b</u>	<u>R<sup>2</sup></u>	<u>ΔR<sup>2</sup></u>	<u>B</u>	<u>b</u>	<u>R<sup>2</sup></u>	<u>ΔR<sup>2</sup></u>
Step 1				0.228				0.236	
	Social Support	3.260	0.321***			4.056	0.326		
	Interaction w/ Other Widow(er)s	-0.454	-0.057			0.719	0.084		
	Pre-death Communication	-0.808	-0.119			0.006	0.008		
	Time Elapsed Since Death	0.009	0.059			0.002	0.015		
	Age at Spouse's Death	0.001	0.013			-0.004	-0.046		
	Years Married	0.204	0.240*			0.231	0.290		
	# of Children	0.239	0.033			0.182	0.027		
	# of Dependents	-0.238	-0.017			-0.613	-0.027		
	Income	-0.008	-0.008			0.306	0.033		
Step 2				0.261	.033			0.266	.030
	Social Support	3.475	0.342***			4.004	0.322***		
	Interaction w/ Other Widow(er)s	-0.285	-0.036			0.652	0.076		
	Pre-death Communication	-0.966	-0.143*			-0.143	-0.019		
	Time Elapsed Since Death	0.007	0.047			-0.033	-0.025		
	Age at Spouse's Death	0.003	0.028			-0.059	-0.062		
	Years Married	0.215	0.253*			0.233	0.292**		
	# of Children	0.004	0.006			0.180	0.027		
	# of Dependents	0.127	0.009			-1.293	-0.056		
	Income	-0.198	-0.019			0.286	0.030		
	II Discrepancy	-1.594	-0.183*			-.022	-0.002		
	II Activity	0.252	0.030			-1.744	-.175*		
	II Specificity	0.373	0.040			-0.462	-0.048		
	II Variety	1.185	0.137			2.155	0.207*		
	II Proactivity	0.635	0.072			0.349	0.039		
	II Self-Understanding	-1.369	-0.156			-1.163	-0.117		

\* $p < .10$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ ; \*\*\*\* $p < .001$

Table 5:  
Multiple Hierarchical Regression Results for Hypothesis 4

		<u>Global Psychosocial Adjustment</u>							
		<u>Employed</u> n = 93				<u>Not Employed</u> n = 105			
Predictor	<u>B</u>	<u>b</u>	<u>R</u> <sup>2</sup>	<u>ΔR</u> <sup>2</sup>	<u>B</u>	<u>b</u>	<u>R</u> <sup>2</sup>	<u>ΔR</u> <sup>2</sup>	
Step 1			0.226***				0.237***		
Social Support	3.258	0.320***			4.107	0.334***			
Interaction w/ Other Widow(er)s	-0.507	-0.065			0.703	0.082			
Pre-death Communication	-0.828	-0.122			0.005	0.007			
Time Elapsed Since Death	0.009	0.060			0.002	0.016			
Age at Spouse's Death	0.003	0.004			-0.004	-0.042			
Years Married	0.204	0.240*			0.228	0.287**			
# of Children	0.291	0.040			0.175	0.026			
# of Dependents	-0.249	-0.018			-0.645	-0.028			
Income	-0.006	-0.006			0.300	0.032			
Step 2			0.257**	.031			0.327****	.090	
Social Support	2.616	0.257**			3.471	0.282***			
Interaction w/ Other Widow(er)s	-0.370	-0.047			0.650	0.076			
Pre-death Communication	-0.781	-0.115			-0.003	-0.005			
Time Elapsed Since Death	0.067	0.041			0.003	0.028			
Age at Spouse's Death	0.025	-0.027			-0.007	-0.082			
Years Married	0.198	0.234*			0.244	0.307**			
# of Children	0.247	0.034			0.003	0.006			
# of Dependents	-0.263	-0.019			-1.072	-0.047			
Income	-0.111	-0.011			-0.006	-0.006			
Bereavement coping self-efficacy	1.998	0.192**			2.836	0.311***			

\* $p < .10$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ ; \*\*\*\* $p < .001$

multiple hierarchical regression analysis was employed. The covariates were again entered into the model in the first step while all three II variables were entered in the second step. Results suggest significance at the test-wise alpha level for those employed [ $F(12, 80) = 2.33, p < .02, R^2 = .259$ ] and offers experiment-wise alpha level support for the model for those not employed [ $F(12,90) = 3.46, p < .001, R^2 = .316$ ]. In this model, IIs with deceased spouse ( $t = -3.36, p = .001$ ) shared a significant, inverse relationship with global adjustment at the Bonferroni adjusted significance level (Table 6).

#### Research Question 4

The fourth and final research question sought to explore the impact of all II variables along with self-efficacy on global psychosocial adjustment. Once again, a multiple hierarchical regression analysis was employed. As previously done, covariates were entered in the first step of the hierarchy. Because of the strength of support from prior research related to its connection to adjustment, the measure for self-efficacy was entered in the second step. Finally, all II variables were entered in the third step. Results indicate traditional significance of the model for those employed [ $F(20, 72) = 2.00, p < .05, R^2 = .357$ ] and experiment-wise alpha level significance for the model of those not employed [ $F(20, 81) = 3.029, p < .001, R^2 = .428$ ]. Therefore, it appears that the fourth hypothesis is significant in light of test-wise and experiment-wise alpha levels (Table 7).

#### Summary

This chapter offers an account of the statistical analysis of the proposed hypotheses and research questions of interest in this study. Of primary concern has been the influence of imagined interactions and self-efficacy on a widow(er)s global psychosocial adjustment to the death of his/her spouse. Support for the role of II characteristics and functions in global

Table 6:  
Multiple Hierarchical Regression Results for RQ 1,2, & 3

		<u>Global Psychosocial Adjustment</u>							
		<u>Employed</u> n = 93				<u>Not Employed</u> n = 103			
Predictor		<i>B</i>	<i>b</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>B</i>	<i>b</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1				0.228***				0.230***	
	Social Support	3.260	0.321***			4.040	0.322***		
	Interaction w/ Other Widow(er)s	-0.454	-0.057			0.726	0.085		
	Pre-death Communication	-0.808	-0.119			0.006	0.009		
	Time Elapsed Since Death	0.009	0.059			0.002	0.014		
	Age at Spouse's Death	0.001	0.013			-0.004	-0.046		
	Years Married	0.204	0.240*			0.231	0.289*		
	# of Children	0.239	0.033			0.179	0.027		
	# of Dependents	-0.238	-0.017			-0.584	-0.025		
	Income	-0.008	-0.008			0.301	0.032		
Step 2				0.259*	.032			0.316****	.086
	Social Support	3.055	0.300***			2.763	.220**		
	Interaction w/ Other Widow(er)s	-0.450	-0.057			1.152	0.136		
	Pre-death Communication	-0.956	-0.141			-0.011	-0.001		
	Time Elapsed Since Death	0.057	0.035			-0.062	-0.046		
	Age at Spouse's Death	0.023	0.024			-0.147	-0.153		
	Years Married	0.160	0.188			0.287	0.360**		
	# of Children	0.239	0.033			-0.073	-0.011		
	# of Dependents	0.124	0.009			-0.910	-0.039		
	Income	0.119	0.001			0.351	0.037		
	II w/ Deceased Spouse	-0.130	0.012			-2.965	-.364***		
	II Retroactivity	-1.447	-0.019			0.903	0.105		
	II Valence	1.258	0.124			1.285	0.122		

\**p* < .10; \*\**p* < .05; \*\*\**p* < .01; \*\*\*\**p* < .001

Table 7:  
Multiple Hierarchical Regression Results for RQ 4

<u>Global Psychosocial Adjustment</u>								
Predictor	<u>Employed</u>				<u>Not Employed</u>			
	<i>B</i>	<i>b</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>B</i>	<i>b</i>	R Square	$\Delta R^2$
Step 1			0.228***				0.228***	
Social Support	3.260	0.321***			4.034	0.322***		
Interaction w/ Other Widow(er)s	-0.454	-0.057			.0.733	0.086		
Pre-death Communication	0.808	-0.119			0.005	0.008		
Time Elapsed Since Death	0.009	0.059			0.001	0.012		
Age at Spouse's Death	0.001	0.013			-0.004	-0.044		
Years Married	0.204	0.24			0.226	0.282*		
# of Children	0.239	0.033			0.216	0.032		
# of Dependents	-0.238	-0.017			-0.618	-0.027		
Income	-0.008	-0.008			0.311	-0.033		
Step 2			0.256***	0.028			0.334*****	0.105
Social Support	2.635	0.259**			3.010	0.240**		
Interaction w/ Other Widow(er)s	-0.340	-0.043			0.769	0.091		
Pre-death Communication	-0.771	-0.114			0.003	0.005		
Time Elapsed Since Death	0.006	0.041			0.002	0.016		
Age at Spouse's Death	0.001	-0.02			-0.109	-0.113		
Years Married	0.198	0.234			0.262	0.327**		
# of Children	0.216	0.03			0.005	0.009		
# of Dependents	-0.256	-0.018			-0.835	-0.036		
Income	-0.124	-0.012			-0.008	-0.009		
Bereavement coping self-efficacy	1.942	0.185*			3.227	0.341****		

\**p* < .10; \*\**p* < .05; \*\*\**p* < .01; \*\*\*\**p* < .001

(table continued)

Table 7 continued

Predictor	<i>B</i>	<i>b</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>B</i>	<i>b</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 3			0.357**	0.101			0.428****	0.094
Social Support	2.495	0.245**			1.715	0.137		
Interaction w/ Other Widow(er)s	-0.216	-0.027			1.205	0.142		
Pre-death Communication	-1.104	-0.163			0.008	0.011		
Time Elapsed Since Death	0.021	0.012			-0.006	-0.051		
Age at Spouse's Death	0.048	0.050			-0.187	-0.195		
Years Married	0.158	0.186			0.303	0.379**		
# of Children	-0.094	-0.013			-0.150	-0.022		
# of Dependents	1.437	0.104			-0.628	-0.027		
Income	-0.051	-0.005			-0.598	-0.064		
Bereavement coping self-efficacy	1.989	0.190			3.130	0.331***		
II Activity	1.591	0.192			0.009	0.001		
II Proactivity	1.519	0.173			-0.731	-0.083		
II Variety	1.207	0.139			3.422	0.325**		
II Retroactivity	-3.075	-0.401**			-0.197	-0.023		
II Specificity	0.365	0.039			-0.451	-0.046		
II Discrepancy	-0.775	-0.089			-0.599	-0.060		
II Valence	1.333	0.131			0.786	0.071		
II Catharsis	-2.226	-0.254			0.190	0.019		
II Self-Understanding	-0.437	-0.050			0.577	0.057		
II w/ Deceased Spouse	0.492	0.072			-2.789	-0.342**		

\* $p < .10$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ ; \*\*\*\* $p < .001$

adjustment was found. One highly significant II variable did emerge in the analysis for those participants who were not employed—that of IIs with deceased spouse. According to the analysis, this relationship between IIs with deceased spouse and global psychosocial adjustment is an inverse one.

The predicted positive relationship between self-efficacy and psychosocial adjustment was also supported. Among those not employed, findings indicate that there is indeed a positive relationship between bereavement coping self-efficacy at the Bonferroni-adjusted significance level. Though not meeting the stringent Bonferroni level, the relationship between self-efficacy and adjustment for the employed group was very near the adjusted alpha level, thus indicating a relationship exists between those variables for that part of the sample as well.

As for the explored influence of all II variables and self-efficacy on global psychosocial adjustment, there was some support. The model for employed participants was significant when viewed in light of test-wise alpha while the model for those not employed showed significance at the adjusted-alpha level. This support should be interpreted cautiously and will be discussed fully in the final chapter. Overall, the results of this study offer some interesting insight into the process of adjusting to the loss of one's spouse. The key to understanding the adjustment process further is, of course, subsequent study. The following chapter includes discussion of additional research conducted as a direct result of findings discussed thus far. Included in the discussion of the subsequent study is a description of revisions made to the survey instrument, data collection procedures, and results.

## **Chapter 5**

### **Study Two**

As noted by the study described in the preceding chapters of this work, several variables play a role in the process of adjusting to spousal bereavement. The initial study for the present work confirmed the role of bereavement coping self-efficacy in adequate adjustment to spousal bereavement. In addition, the initial study revealed that imagined interactions do share a role in a widowed individual's adjustment to his or her loss. Findings of the initial study suggest an indirect relationship between IIs with the deceased spouse and self-reported adjustment to the loss. The nature of the relationship between IIs with the deceased spouse and psychosocial adjustment, while significant, was unexpected, thus, further analysis of the role of IIs in adjustment to bereavement was conducted to clarify this relationship.

Mirroring the process employed in the first study, the purpose of the second study was to examine whether the contextualization of survey items measuring imagined interaction would reveal more about the relationship between IIs and global psychosocial adjustment to spousal bereavement. This chapter includes a detailed description of the follow-up investigation procedures. Within this chapter is an explanation of the purpose of the subsequent study, a description of the methods used to conduct this investigation, including discussion of the revised instrument used to collect additional data, a description of the new sample, as well as a delineation of the results of this second study.

#### **Rationale and Research Question**

In Study 1, the statistically significant II factor was that of IIs involving the deceased spouse. A possible explanation for the lower significance levels of imagined interaction functions and characteristics in the first study was the need for contextualizing items assessing II

factors. Contextualization was deemed necessary for examining IIs in the unique condition of bereavement. In their work designing a specialized tool for measuring coping self-efficacy, Benight et al. (2001) justify their effort based on Bandura's (1997) suggestion that judgments of coping self-efficacy are most reliably predictive of adjustment when the measurement is context-specific. Rather than using survey items that tap one's perception of his/her own generalized self-efficacy, Benight et al. (2001) created a questionnaire with items reflecting one's perception of self-efficacy within the particular circumstance of coping with bereavement. Conceivably the same idea was applicable to the measurement of IIs. The II item that did emerge as significant in the Study 1 was that which assessed specific use of IIs within the condition of bereavement—those that measured IIs with the deceased spouse. Thus, the purpose of Study 2 was to examine if such contextualization revealed a stronger relationship between IIs and global adjustment to spousal bereavement. With that purpose in mind, the following research question was proposed for Study 2:

RQ:      What is the relationship between context-specific imagined interaction  
            Factors and global psychosocial adjustment?

In order to examine this research question, a follow-up investigation was conducted using the same methods and procedures employed in Study 1. The following section delineates the approach taken to explore the proposed research question.

#### Methods and Procedures

This section offers a discussion of the process employed for this project's second phase. The sampling procedure and sample characteristics are described as is the revised survey instrument. A report of scale reliabilities is also included.

## Sample

### Participants

To gather data for this phase of study, the same non-probability sampling technique of snowball/network sampling that was used in Study 1 was again used. The primary source of participant recruitment was students enrolled during summer semester at a medium-sized southeastern university who were offered extra credit for help in identifying potential participants. Students enrolled in a communication course at a second, larger southeastern university were also offered extra credit for recruiting study participants. Students were asked to solicit study participation from a widow or widower known to the student. Upon gaining agreement from the widow(er), the student delivered the Adjustment Survey Packet to the recruit.

The survey packet contained the revised version of the Adjustment Survey (Appendix B) and two copies of a consent form. One copy of the consent form was for the participant's records while the other was to be signed and returned, along with the completed survey, in a sealable envelope provided by the investigator. The consent form included a statement informing the participant that his/her contact information would be used for random confirmatory telephone calls to verify her/his participation in this study. Once completed, packets were returned to the investigator by the student recruiters. A total of 75 completed survey packets were received and used in the analysis.

Following the same procedure described in the first study, upon receipt of the surveys, the investigator pulled every tenth packet from the pool of packets for verification purposes. Of the seven confirmation calls made, all widows/widowers reported having completed the survey. The investigator thanked the participants for their time and willingness to participate.

## Demographics and Characteristics

Of the 75 participants, 89.3% were female and 10.7% were male, with a mean age 61.66 years (range 34.5 - 84.0, SD = 13.4), and 54.1% were Caucasian, 44.5% were African-American, and 1.4% were American Indian (Table 8). Educationally, 29.2% reported no high school diploma, 31.9% had a high school diploma or GED, 2.8% had some college education, 13.9% had earned a two-year degree, 9.7% had a four-year degree, and 12.5 % had a graduate degree.

For this sample, 45.3% were currently employed. Of those reporting current employment, 13.3% performed secretarial-type jobs, 6.7% were teachers, 5.3% were in management, 5.3% were in sales, and 5.3% were technicians. The remaining portion of the sample was in healthcare (1.3%), accounting (1.3%) or was self-employed (1.3%). In reports of yearly income, 36.2% earned \$19,999 or less; 36.2% earned \$20,000 to \$39,999; 15.9% earned \$40,000 to \$59,999; while the remaining 11.5% earned \$60,000 or more.

As was true of the sample in the first phase of this study, the largest portion of the sample for the second phase indicated that the spouse had died more than one year after being diagnosed with an illness (37.5%) while the second most reported nature of death was sudden illness (20.8%). The remaining portion of the sample reported the nature of death as more than six months after illness diagnosed (15.3%), less than six months after diagnosis of illness (13.9%), accidental (6.9%), victim of crime (4.2%), and suicide (1.4%). The mean age of the widowed individual at the time of the spouse's death was 51.7 years of age (range 22.00 - 81.00; SD = 13.03), and the mean length of marriage was 25.6 years (range .25 - 59.5; SD = 14.68). Participants were widowed an average of 9.95 years (range .20 - 41.00; SD = 9.96) at the time of survey completion, and 38.7% reported having dependent children.

Table 8:  
Descriptive Statistics (Study 2)

	<u>n</u>	<u>M</u>	<u>SD</u>
Current Age	71	61.66	13.40
Age at Spouse's Death	71	51.71	13.03
Time Elapsed Since Death	71	9.95	9.96
Length of Marriage	71	25.60	14.68
Number of children	75	2.91	2.51
Number of dependents	75	0.63	0.94
Social Support	73	5.71	0.91
Interaction w/ Other Widow(er)s	73	4.00	1.54
Pre-death Communication	74	4.13	1.74
Bereavement Coping Self-Efficacy	74	5.28	1.17
II Activity	75	3.52	1.02
II Variety	75	3.79	1.68
II Specificity	74	4.22	1.77
II Valence	75	4.80	1.74
II Catharsis	73	3.86	1.71
II Self-Understanding	74	3.55	1.55
II Compensation	74	3.92	1.71
II with Deceased Spouse	74	4.12	1.72
Global Psychosocial Adjustment	75	84.45	15.36

## Method

### General Procedures

During the time period between June 2, 2003 and July 3, 2003, students were offered extra credit to recruit widows and widowers to participate in this subsequent study. Interested students were required to attend a brief instructional meeting at which time they were given a description of participant qualifications and guidelines for survey dissemination. A total of 158 students were extended the offer of extra credit. Of those students, 126 took surveys in hopes of having them completed by a widow or widower. In the end, 75 completed surveys were returned and used in the study—a return rate of 47 percent.

### Instrumentation

Participants received a revised questionnaire similar to the one used in the first study of the present work. The questionnaire was designed to examine the use of context-specific imagined interactions, level of bereavement coping self-efficacy, and self-reported adjustment to spousal bereavement. The instrument also measured social support, interaction with other widow(er)s, pre-death communication about surviving one's spouse, and various demographic items including time elapsed since spouse's death, nature of spouse's death, income, employment, and number of children.

### Measurement of Variables

The revised version of the Adjustment Survey was the same as the original except for the portion measuring imagined interaction dimensions. This section will include detailed information about the contextualized version of the Survey of Imagined Interactions (Honeycutt et al, 1992; Honeycutt, 2003) as well as reports of reliability analyses. Description of the unchanged portions of the survey is contained in Chapter 3 of this work.

### Imagined Interactions

The Survey of Imagined Interactions (Honeycutt et al., 1992; Honeycutt, 2003), or SII, used in the initial stage of this investigation was a 51-item measurement tool. Each of the original 11 factors was evaluated for its usefulness to the second phase of analysis if contextualized. Items for factors deemed appropriate for contextualization were slightly reworded so as to reflect direct relation to widow(er)hood (Appendix B). For example, an item assessing II activity originally worded as “I have imagined interactions all the time” was reworded to state “I have imagined interactions that include my deceased spouse all the time.” Of the original 11 factors used in the prior study, eight were determined to be useful in the attempt to contextualize the items for assessing use specifically related to widowhood. Those eight factors included activity, variety, specificity, valence, catharsis, self-understanding, compensation, and IIs with deceased spouse. The II factors not included in the revised version of the II survey are proactivity, retroactivity and rehearsal.

The descriptive paragraph that introduced imagined interaction in the survey was also altered in an attempt to clarify the construct to participants. The statement “we may even recall a memorable message from a grandparent or loved one who is no longer living” was added to the introductory paragraph to further orient the participant toward imagined interactions within the bereavement process (Appendix B). As with the initial version of the survey, items ask the respondent to indicate on a 7-point Likert-type scale ranging from very strong disagreement (NO!) to very strong agreement (YES!) based on a no-yes continuum.

For the current study, confirmatory factor analyses (CFAs) were conducted for each of the II dimensions. Results indicated validation for the existence of a single factor for each II dimension. The Reliability analyses for four of the factors demonstrated adequate reliability or

better with the original items and are as follows: activity  $\alpha = .76$ , variety  $\alpha = .89$ , catharsis  $\alpha = .94$ , and self-understanding  $\alpha = .82$  (Table 9).

Some II variables required item-deletion for improved reliability. Valence was reduced to a three-item measure with  $\alpha = .93$ , specificity was reduced to a three-item measure with  $\alpha = .86$ , II compensation was reduced to a five-item scale with  $\alpha = .91$ , and IIs with deceased spouse was also reduced to a five-item scale with  $\alpha = .91$ . All II factors achieved levels above the acceptable .70 level (Nunnally, 1967).

Mean scores were computed for each of the II dimensions by summing the responses for a given dimension and dividing by the total number of items measuring that dimension. Mean scores, standard deviations and ranges for each dimension are as follows (Table 8): activity  $\underline{M} = 3.52$ ,  $\underline{SD} = 1.02$ , range = 1.00 - 6.00; variety  $\underline{M} = 3.79$ ,  $\underline{SD} = 1.68$ , range = 1.00 - 7.00; specificity  $\underline{M} = 4.22$ ,  $\underline{SD} = 1.78$ , range = 1.00 - 7.00; valence  $\underline{M} = 4.80$ ,  $\underline{SD} = 1.75$ , range = 1.00 - 7.00; catharsis  $\underline{M} = 3.86$ ,  $\underline{SD} = 1.71$ , range = 1.00 - 7.00; self-understanding  $\underline{M} = 3.54$ ,  $\underline{SD} = 1.55$ , range = 1.00 - 7.00; compensation  $\underline{M} = 3.92$ ,  $\underline{SD} = 1.71$ , range = 1.00 - 7.00, and II with deceased spouse  $\underline{M} = 4.12$ ,  $\underline{SD} = 1.72$ , range = 1.00 - 7.00

#### Covariates and Dependent Variable

The reliability analyses for the remaining independent variables revealed the following alpha levels: social support  $\alpha = .76$ ; interaction with other widow(er)s  $\alpha = .76$ ; pre-death communication  $\alpha = .80$ ; and bereavement coping self-efficacy  $\alpha = .91$  (Table 9). The dependent variable of global psychosocial adjustment achieved a Cronbach's alpha of .92.

Mean scores, standard deviations and ranges for the remaining independent variables and dependent variable are as follows: social support  $\underline{M} = 5.71$ ,  $\underline{SD} = .91$ , range = 3.40 - 7.00; interaction with other widows  $\underline{M} = 4.01$ ,  $\underline{SD} = 1.54$ , range = 1.00 - 7.00; pre-death

Table 9:  
Reliabilities of Independent and Dependent Variables  
(Study 2)

Name	alpha reliability
II activity	0.6703
II variety	0.8847
II specificity	0.8553
II valence	0.9267
II self-understanding	0.8201
II catharsis	0.9413
II with deceased spouse	0.9066
II compensation	0.9074
Social support	0.7585
self-efficacy (BCSE)	0.9109
pre-death communication	0.7959
Interaction with widow(er)s	0.7551
global psychosocial adjustment	0.9244

\*omitted from analysis

communication  $\underline{M}$  = 4.13,  $\underline{SD}$  = 1.74, range = 1.00 - 7.00; and bereavement coping self-efficacy  $\underline{M}$  = 5.28,  $\underline{SD}$  = 1.17, range = 2.70 - 7.00 (Table 8). Means were computed for each of the variables by summing the responses for a given variable and dividing by the total number of items measuring that dimension. On the other hand, global psychosocial adjustment is calculated as a sum score with a  $\underline{M}$  = 84.45,  $\underline{SD}$  = 15.36, range = 36.00 - 110.00.

### Statistical Analysis

As with Study 1, hierarchical regression was employed as the analytical tool to evaluate the relationship shared among the various independent variables as they impact global psychosocial adjustment. Hierarchical regression allows covariates to be entered into the model in one step; independent variables that are the focus of the study can be entered in a second step allowing for a view of their impact on the overall model. In the follow-up study, covariates included sex, race, age, education, employment, income, number of children, number of dependents, social support, interaction with other widows, and pre-death communication. Since this phase of the study was concerned only with investigating the role of contextualized imagined interaction in perception of global psychosocial adjustment, bereavement coping self-efficacy was also treated as a covariate. Predictor variables included imagined interaction factors including activity, variety, specificity, valence, catharsis, self-understanding, compensation, and IIs with deceased spouse with bereavement coping self-efficacy serving as the dependent variable.

### Results

This section provides results of the systematic analysis of the proposed research question. A description of preliminary analyses, however, is first necessary.

### Preliminary Analysis

Prior to hypothesis testing, the data set was again examined to insure that no entered values fell outside the expected ranges. Because this phase of study was a follow-up to the initial study, the traditional significance level (alpha) of .05 was deemed appropriate. Also addressed in the preliminary stages of data analysis was the issue of multicollinearity. The first step taken to evaluate the likelihood of multicollinearity was creation of a correlation matrix (Table 10). According to Kerr et al. (2002), predictors that share a relationship equal to or greater than .80 are multicollinear. Examination of the matrix revealed years married to be highly correlated with age when spouse died (.820,  $p < .001$ ). Because years married proved to be a significant factor in the analyses for the initial study, it was retained for the present analysis. Several II factors showed signs of multicollinearity as well. II compensation was highly correlated with II variety (.874,  $p < .001$ ), II self-understanding (.826,  $p < .001$ ), and IIs with deceased spouse (.841,  $p < .001$ ). Due to its high correlation with multiple factors, II compensation was omitted from further analysis. II variety also shared multiple high correlations with II compensation (.874,  $p < .001$ ) and IIs with deceased spouse (.841,  $p < .001$ ). Because of its direct theoretical relevance to this study, IIs with deceased spouse was retained for analysis while II variety was omitted. A second multicollinearity diagnostic, TIF/tolerance, was evaluated and no further variable elimination was deemed necessary since none exceeded the acceptable levels (Bryman & Cramer, 1990; Norusis, 2002).

After evaluating interval level data for multicollinearity, analysis of nominal and ordinal level covariates was necessary to determine their potential significance in upcoming analysis. A one-way ANOVA was used to determine whether significance differences existed for those covariates with three or more categories. Results indicated no significant differences for race,

**Table 10**  
**Correlation Matrix (Study 2)**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	1																				
2	.449**	1																			
3	.047	.048	1																		
4	-.288*	-.205	-.345**	1																	
5	-.026	.081	.820**	-.112	1																
6	-.212	-.291*	.058	.178	.146	1															
7	-.049	.085	-.251*	-.242	-.176	.328**	1														
8	-.170	-.109	.716**	.408**	.705**	.189	-.424**	1													
9	.119	-.211	.057	-.124	.106	-.219	-.026	-.038	1												
10	.077	-.054	.235	-.085	.166	-.066	-.191	.165	.251*	1											
11	-.066	.076	.181	-.214	.148	-.054	-.050	.017	.238*	.012	1										
12	.008	-.021	-.034	.101	.060	.031	-.064	-.042	-.025	.150	-.118	1									
13	.074	-.014	-.124	-.120	-.089	-.007	-.040	-.210	-.035	.225	-.367**	.349**	1								
14	.061	.013	-.134	-.110	-.121	.042	-.007	-.212	-.049	.125	-.193	.228	.657**	1							
15	.005	-.116	-.082	-.188	-.070	-.027	-.033	-.219	.046	.284*	-.187	.250*	.652**	.797**	1						
16	-.191	-.051	-.142	-.113	-.090	.117	.126	-.220	-.067	.221	-.249*	.257*	.661**	.622**	.688**	1					
17	-.192	-.055	-.140	-.079	-.079	.003	.028	-.194	.038	.131	-.276*	.275*	.745**	.573**	.617**	.835**	1				
18	.015	-.009	-.045	-.073	.027	.082	-.017	-.098	.009	.275*	-.337**	.307**	.874**	.628**	.637**	.772**	.862**	1			
19	.075	.044	-.104	-.059	-.022	-.014	-.092	-.145	-.003	.212	-.334**	.224	.841**	.620**	.645**	.649**	.699**	.841**	1		
20	.137	.101	.062	-.292*	-.019	-.039	.075	-.156	.251	.040	.041	-.078	.232*	.061	.037	.121	.246*	.267*	.216	1	
21	.075	.085	.073	.144	.178	.058	-.068	.178	.228	-.117	.309**	-.097	-.300	-.185	-.156	-.174	-.164	-.158	-.261*	.187	1

\*\*Correlation is significant at the .000 level (two-tailed)

\*Correlation is significant at the .001 level (two-tailed)

LEGEND:

1 = Education

2 = Income

3 = Age at spouse's death

4 = Time elapsed since death

5 = Years married

7 = # of dependent children

8 = Widow(er)s current age

9 = Social Support

10 = Interaction w/ other widow(er)s

11 = Global Psychosocial Adjustment

12 = II Activity

13 = II Variety

14 = II Specificity

15 = II Valence

16 = II Catharsis

17 = II Self-Understanding

18 = II Compensation

19 = II w/ deceased spouse

20 = Pre-death communication

21 = Self-efficacy

nature of spouse's death, or education level. A t-test, used to evaluate significance of bivariate predictors, showed no significant difference for sex or source of survey, but did, as in the initial study, detect a significant difference between those employed and those not employed ( $t = 2.344, p < .05$ ). Thus, a person's employment status, whether currently employed or not currently employed, was used as a covariate in subsequent analysis.

### Research Question

The research question for the second phase of study sought to explore the impact of II factors that were contextualized specifically for spousal bereavement on the adjustment process. To evaluate the relationship, multiple hierarchical regression analysis was put to use. In an attempt to create an opportunity for equitable analysis, II variables were entered into regression models in the same fashion as they were in the first phase of this study. Replicating the prior analysis, covariates were entered into the hierarchical regression model in the first step while II activity, II self-understanding, and II specificity were entered into the second step. For those who were employed, results suggest no significant relationship [ $F(12,17) = .582, p > .05, R^2 = .291$ ], but for those not currently employed there is support for the model [ $F(12, 17) = 2.87, p < .03, R^2 = .670$ ] (Table 11). Though missing the .05 level of significance, II self-understanding did achieve statistical significance at the more liberal .1 level ( $t = -1.92, p = .07$ ), indicating an inverse relationship between II self-understanding and global adjustment.

A second hierarchical regression model was computed for II valence and IIs with deceased spouse. Again, covariates were entered into the first step, and II factors were entered in the second step. The result for those currently employed suggested no significant relationship [ $F(11, 18) = .654, p > .05, R^2 = .286$ ] (Table 12). For those not currently employed, the model

Table 11:  
Multiple Hierarchical Regression Model--Study 2 (RQa)

		<u>Global Psychosocial Adjustment</u>							
		<u>employed</u>				<u>not employed</u>			
		n = 30				n = 30			
<u>Predictor</u>		<u>B</u>	<u>Beta</u>	<u>R<sup>2</sup></u>	<u>ΔR<sup>2</sup></u>	<u>B</u>	<u>Beta</u>	<u>R<sup>2</sup></u>	<u>ΔR<sup>2</sup></u>
Step 1				.284				.452	
	total yearly family income	3.207	0.214			-1.744	-0.251		
	time elapsed since spouse died	-0.694	-0.305			0.024	0.025		
	years married	0.205	0.170			0.417	0.482**		
	number of children	4.035	0.242			0.064	0.017		
	Number of dependents	-3.831	-0.239			-1.959	-0.137		
	Social Support	2.365	0.127			3.590	0.237		
	Interaction w/ other widow(er)s	-0.422	-0.041			0.041	0.005		
	Pre-death Communication	-0.872	-0.102			-1.558	-0.191		
	Bereavement Coping Self-Efficacy	3.970	0.265			3.039	0.345		
Step 2				.291	.008			.670**	.218
	total yearly family income	3.162	0.211			-1.846	-0.266		
	time elapsed since spouse died	-0.598	-0.263			-0.017	-0.018		
	years married	0.260	0.216			0.436	0.504**		
	number of children	4.523	0.271			-0.025	-0.007		
	Number of dependents	-3.383	-0.211			-2.042	-0.143		
	Social Support	2.660	0.143			3.186	0.210		
	Interaction w/ other widow(er)s	-0.573	-0.056			0.305	0.037		
	Pre-death Communication	-0.780	-0.091			-1.146	-0.141		
	Bereavement Coping Self-Efficacy	3.661	0.245			3.043	0.346**		
	II Activity	-1.448	-0.083			0.355	0.033		
	II Specificity	0.853	0.087			-0.272	-0.044		
	II Self-Understanding	-0.039	-0.004			-3.338	-0.455*		

\*p < .10; \*\*p < .05; \*\*\*p < .01; \*\*\*\*p < .001

Table 12:  
Multiple Hierarchical Regression Model--Study 2 (RQb)

Global Psychosocial Adjustment

Predictor	<u>employed</u> n = 30				<u>not employed</u> n = 30			
	<i>B</i>	Beta	R <sup>2</sup>	ΔR <sup>2</sup>	<i>B</i>	Beta	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1			.284				.452	
total yearly family income	3.207	0.214			-1.744	-0.251		
time elapsed since spouse died	-0.694	-0.305			0.024	0.025		
years married	0.205	0.170			0.417	0.482**		
number of children	4.035	0.242			0.064	0.017		
Number of dependents	-3.831	-0.239			-1.959	-0.137		
Social Support	2.365	0.127			3.590	0.237		
Interaction w/ other widow(er)s	-0.422	-0.041			0.041	0.005		
Pre-death Communication	-0.872	-0.102			-1.558	-0.191		
Bereavement Coping Self-Efficacy	3.970	0.265			3.039	0.345		
Step 2			.286	.001			.654**	.202
total yearly family income	3.407	0.227			-1.997	-0.287		
time elapsed since spouse died	-0.717	-0.315			-0.006	-0.067		
years married	0.191	0.159			0.407	0.470**		
number of children	4.060	0.244			0.359	0.094		
Number of dependents	-3.996	-0.249			-2.249	-0.158		
Social Support	2.857	0.153			2.273	0.150		
Interaction w/ other widow(er)s	-0.593	-0.058			1.144	0.137		
Pre-death Communication	-0.696	-0.082			-1.849	-0.227		
Bereavement Coping Self-Efficacy	3.565	0.238			3.248	0.369*		
II Valence	0.373	0.039			-2.239	-0.339		
II with Deceased Spouse	-0.615	-0.059			-1.105	-0.186		

\*p < .10; \*\*p < .05; \*\*\*p < .01; \*\*\*\*p < .001

did achieve an acceptable level of significance [ $F(11,18) = 3.09, p < .05, R^2 = .654$ ]. When viewing the separate contributions of each of the II factors within the model, neither II valence nor IIs with deceased spouse were significant. Close examination of the VIF/tolerance levels for the two II factors revealed that II valence and IIs with deceased spouse were quite near the unacceptable level for multicollinearity (II valence:  $VIF = 3.18, tolerance = .314$ ; II with deceased spouse:  $VIF = 3.37, tolerance = .297$ ). Due to the evidence of correlation between the two factors, each was entered into separate hierarchical regression models to gain a clearer view of their impact in the model.

When IIs with deceased spouse was entered alone at the second step, with covariates entered in the first step, the resulting hierarchical regression model showed no significance for those currently employed [ $F(10,19) = .758, p > .05, R^2 = .285$ ], but did demonstrate significance for those not employed [ $F(10,19) = 3.07, p < .05, R^2 = .618$ ] (Table 13). Within the overall model, IIs with deceased spouse shared a significant, inverse relationship with global adjustment ( $t = -2.87, p = .01$ ). When II valence was entered into a separate hierarchical model, the results suggest no significance for the currently employed model [ $F(10,19) = .755, p > .05, R^2 = .284$ ] (Table 14). But for those not currently employed, the model was significant [ $F(10,20) = 3.71, p < .01, R^2 = .650$ ].

### Summary

This section provides an account of the procedures employed to conduct the second phase of analysis for the present work. Included in this chapter is a rationale for the second study, a delineation of the proposed research question to be explored, a description of the revisions made to the Adjustment Survey and of the methods employed to gather data, and a detailing of

Table 13:  
Multiple Hierarchical Regression Model--Study 2 (II w/ deceased spouse only)

<u>Global Psychosocial Adjustment</u>									
		<u>employed</u> n = 30				<u>not employed</u> n = 30			
Predictor		B	Beta	R <sup>2</sup>	ΔR <sup>2</sup>	B	Beta	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1				.284				.452	
	total yearly family income	3.207	0.214			-1.744	-0.251		
	time elapsed since spouse died	-0.694	-0.305			0.024	0.025		
	years married	0.205	0.170			0.417	0.482**		
	number of children	4.035	0.242			0.064	0.017		
	Number of dependents	-3.831	-0.239			-1.959	-0.137		
	Social Support	2.365	0.127			3.590	0.237		
	Interaction w/ other widow(er)s	-0.422	-0.041			0.041	0.005		
	Pre-death Communication	-0.872	-0.102			-1.558	-0.191		
	Bereavement Coping Self-Efficacy	3.970	0.265			3.039	0.345		
Step 2				.285	.001			.618**	.166
	total yearly family income	3.223	0.215			-1.428	-0.205		
	time elapsed since spouse died	-0.724	-0.319			0.002	0.021		
	years married	0.189	0.158			0.457	0.528**		
	number of children	3.749	0.225			0.404	0.105		
	Number of dependents	-3.850	-0.240			-3.359	-0.236		
	Social Support	2.580	0.138			1.787	0.118		
	Interaction w/ other widow(er)s	-0.465	-0.046			1.130	0.135		
	Pre-death Communication	-0.744	-0.087			-1.091	-0.134		
	Bereavement Coping Self-Efficacy	3.688	0.246			2.083	0.237		
	II with Deceased Spouse	-0.412	-0.040			-2.740	-0.461**		

\*p < .10; \*\*p < .05; \*\*\*p < .01; \*\*\*\*p < .001

Table 14:

Multiple Hierarchical Regression Model--Study 2 (II valence only)Global Psychosocial Adjustment

Predictor	<u>employed</u> n = 30				<u>not employed</u> n = 30			
	B	Beta	R <sup>2</sup>	ΔR <sup>2</sup>	B	Beta	R <sup>2</sup>	ΔR <sup>2</sup>
Step 1			.284				.454	
total yearly family income	3.207	0.214			-1.744	-0.251		
time elapsed since spouse died	-0.694	-0.305			0.024	0.025		
years married	0.205	0.170			0.417	0.482**		
number of children	4.035	0.242			0.064	0.017		
Number of dependents	-3.831	-0.239			-1.959	-0.137		
Social Support	2.365	0.127			3.590	0.237		
Interaction w/ other widow(er)s	-0.422	-0.041			0.041	0.005		
Pre-death Communication	-0.872	-0.102			-1.558	-0.191		
Bereavement Coping Self-Efficacy	3.970	0.265			3.039	0.345		
Step 2			.284	.000			.650**	.195
total yearly family income	3.228	0.215			-2.224	-0.316*		
time elapsed since spouse died	-0.692	-0.304			-0.009	-0.103		
years married	0.206	0.171			0.364	0.437**		
number of children	4.087	0.245			0.326	0.085		
Number of dependents	-3.847	-0.240			-1.528	-0.106		
Social Support	2.385	0.128			2.723	0.179		
Interaction w/ other widow(er)s	-0.434	-0.043			0.981	0.116		
Pre-death Communication	-0.873	-0.102			-2.229	-0.272*		
Bereavement Coping Self-Efficacy	3.971	0.265			3.820	0.439**		
II Valence	-0.004	-0.004			-3.220	-0.485***		

\*p &lt; .10; \*\*p &lt; .05; \*\*\*p &lt; .01; \*\*\*\*p &lt; .001

analysis procedures. Of primary concern for this follow-up investigation is an exploration of the influence of contextualized IIs on global psychosocial adjustment to spousal bereavement. This investigation reaffirms the initial study's findings—that IIs involving the deceased spouse share a significant relationship with global adjustment. As the first study suggests, this shared relationship is an indirect one.

Also confirmed by this second phase analysis is the distinction between those individuals who report having current employment and those who report having no current employment. All significant relationships uncovered by this investigation occurred only within the population of those not currently employed. A detailed discussion of these findings and others follows in the next chapter.

## **Chapter 6**

### **Discussion**

Spousal bereavement is a phenomenon that a large portion of the general population will experience as marriage continues as a societal standard. With such a probability, research is necessary to illuminate the process so that it can be better understood and more successfully navigated. As noted in the first chapter's review of literature, several variables have been identified in prior research as having a significant influence on the success or failure of bereavement processing (Hershberger & Walsh, 1990, Lowenstein et al, 1993-94, Solie & Fielder, 1987-88, Stroebe et al., 1988b). However, there are aspects of bereavement recovery that have remained untapped—a fact that was the impetus for the current investigation. The first study's purpose was to investigate the import of internal phenomena, namely imagined interaction and self-efficacy, in perceptions of global psychosocial adjustment. The second study's purpose was to investigate further the contextualization of IIs and their role in global psychosocial adjustment to bereavement. This chapter is devoted to interpreting the findings of both studies, to offer possible explanation for their limitations, and to discuss future directions for research of this nature.

#### **Study 1**

Although this study's overall findings are more limited than expected based on hypothesis testing, the investigation does offer some significant contributions to both intrapersonal communication and bereavement literature. The most striking discovery this part of the study offers is the confirmation that imagined interactions are at play in adjusting to spousal loss. With some support for specific II characteristics and functions, findings indicate that bereaved individuals do experience post-loss IIs with their deceased spouse. Prior to this

study, no relationship between imagined interaction and spousal bereavement had been established. This preliminary understanding of such a connection offers new insight into processing spousal loss.

### Hypotheses and Research Questions—Study 1

The first three hypotheses predicted relationships between II characteristics and functions that had been identified in prior research and global psychosocial adjustment to spousal bereavement. Adjustment was hypothesized to be negatively associated with II discrepancy and positively associated with II activity, specificity, variety, proactivity, catharsis, and self-understanding. The data revealed some statistically significant relationship between the dependent variable, global psychosocial adjustment, and II characteristics and functions. The findings of the first and second studies revealed some interesting relationship directions.

The predicted inverse relationship for II discrepancy and global adjustment received some support, though only at the test-wise alpha level. The expected positive relationship between adjustment and II variety and proactivity was also supported at the traditional alpha level. Counterintuitive relationships were, however, revealed for the remaining II variables. II self-understanding was expected to share a positive relationship with adjustment, yet the data suggested an inverse relationship indicating that spousally bereaved individuals who report using IIs for creating better self-understanding are also likely to report lower adjustment levels.

Another unexpected finding was the differences between those employed and those not employed in their use of II activity and specificity. In both cases, data show that the employed report a positive connection between adjustment and their use of II activity and specificity, while those not employed report an inverse relationship. These unanticipated relationships suggest need for follow-up research, not only to establish a more statistically significant relationship

between II characteristics and functions with global adjustment, but to also create a clearer picture for the type of shared relationship.

Another noteworthy aspect of the hierarchical regression results for the first three hypotheses is that three of the II factors did begin to approach traditional significance, suggesting at least some level of practical significance. For those employed, II discrepancy's inverse relationship with adjustment did begin to approach traditional significance as did II variety and activity for those not employed. These results indicate there may be relationships that could be uncovered, opening the door for additional research to examine these associations further.

The fourth hypothesis tested the impact of self-efficacy on global psychosocial adjustment. The Bereavement Coping Self-Efficacy Scale, or BCSE, (Benight et al., 2001) is a tool to measure self-efficacy that has been contextualized specifically for the condition of bereavement. Coping self-efficacy has been investigated in prior research as a factor in adjusting to spousal bereavement (Arbuckle & de Vries, 1995; Hayslip, Allen & McCoy, 2001) but assessment of the recently developed BCSE (Benight et al., 2001) is sparse and was proposed as a hypothesis in this study for confirmatory purposes as well as to allow for exploration of two types of internal phenomena, self-efficacy and imagined interaction, as they affect adjustment.

The fourth hypothesis predicted a positive, significant relationship between bereavement coping self-efficacy and global psychosocial adjustment and was supported. Those individuals not employed clearly indicated a positive relationship between self-efficacy and adjustment. While the hypothesis did not hold for those employed under the Bonferroni corrected alpha level, it was significant within the model at the traditional level of alpha.

Interestingly, in comparing the results of the two hierarchical models produced for those employed and those not employed, results suggest that for the portion of the sample not

employed, self-efficacy is perhaps a more important aspect of adjustment. However, those who are employed seem to place more importance on social support. One possible explanation for such findings may be reflected in Herberger and Walsh's (1990) work tying multiple role involvement to adjustment after spousal loss. Their study found participants' current roles had the largest impact on reports of bereavement adjustment. In the current study, those employed have a set of roles connected to their employment that those not employed may not have. The differentiation in role involvement may also reflect a differentiation in the expanse of social support. Being employed enlarges one's potential pool of contacts for social support. Because of the larger support potential, perhaps those employed see a greater value in social support as a means of adjustment, while those who do not have work cohorts have fewer role involvements, thus fewer potential sources of external support. Those respondents who are not employed must rely more on their internal strengths, one being bereavement coping self-efficacy.

The research questions of the first study sought to reveal the relationship shared by global psychosocial adjustment and the II variables retroactivity, valence, and to uncover the nature of IIs with the deceased spouse. The model for the employed group was not supported at the Bonferroni-adjusted significance level, but did begin to approach the traditional significance level. However, when examining the contribution made specifically by the II variables to the model, none was especially valuable. Imagined interaction retroactivity, which shared a positive relationship with adjustment for this group, does have perhaps some practical significance, but further studies are needed to validate such a relationship.

Though the model for the employed group did not meet the experiment-wise alpha standard for significance, the model for those not employed did. The II factor that contributed to the model most significantly was that which assessed participants' use of IIs with the deceased

spouse. Imagined interaction with the deceased spouse is indicative of one's use of IIs to reflect on conversations once shared with the spouse and/or to imagine what the spouse might have to say about current issues the widow(er) might be facing. By virtue of the inverse association between IIs with the deceased spouse and psychosocial adjustment revealed by the current analysis, this sample's responses indicate that the more a bereaved individual uses IIs with the deceased spouse, the poorer that individual's adjustment is likely to be. Research that explored the importance of confiding in others during bereavement indicates that those who report lower levels of confiding in others report increases in rumination that then leads to the long-term probability of the development of stress-related disease (Pennebaker & O'Heeron, 1984). Perhaps these reports of IIs with the deceased spouse reflect increased levels of rumination resulting in poorer adjustment.

The same directional relationship was revealed for the employed group, again at a traditional alpha level. Once again, the work of Pennebaker and O'Herron (1986) may offer insight into the difference between those employed and those not employed. In their study, the researchers found that those reporting higher levels of rumination about the lost spouse were less likely to report confiding in others. Those not employed perhaps have fewer role involvements (Hershberger & Walsh, 1990), thus fewer interactants in whom they can confide. Employed individuals, in addition to their family members and friends, may have relationships cultivated in their work environment that allow them a larger pool of confidants. Hence, they have less need to ruminate because their larger pool of confidants and actual confiding allows a reduction in unwanted thoughts.

The final research question called for analysis of the conglomerate of predictor variables being explored in the current study to see their overall impact on global psychosocial adjustment.

Performing this analysis allowed for a greater understanding of the combined effects of self-efficacy and imagined interaction. The analysis for the employed group showed some support for the overall model. Self-efficacy again was seen as somewhat significant to adjustment for this group, but, though not significant at the Bonferroni-adjusted statistical level, social support was more highly valued by this portion of the sample. Also of traditional significance was the inverse role of II retroactivity within the adjustment process for the employed. Those not employed indicated the same directional relationship at the traditional alpha level. This finding suggests that as one experiences more II retroactivity, he/she will likely report lower levels of adjustment. As the participants completed the bereavement survey packet, perhaps rather than viewing II retroactivity simply as a reflection of one aspect of intrapersonal communication, they began to associate retroactivity with having IIs with the deceased spouse. II retroactivity, for this sample, may have been an indication of living in the past or ruminating, which would lead to poorer adjustment (Pennebaker & O'Heeron, 1984).

The overall model did meet the required Bonferroni adjusted significance level for those not employed. Of the predictor variables under scrutiny in the current work, self-efficacy was the only one with the appropriate significance level. However, IIs with deceased spouse were again negatively associated with adjustment, but only at a traditional significance level. A positive influence for II variety was indicated as well, though again, in the context of traditional significance.

The findings of the first study, which gave a clear picture of the relationship between bereavement coping self-efficacy and global adjustment, provided only a limited view of the specific relationship shared by imagined interaction and global adjustment. For that reason, the second study was designed to delve deeper into the potential influence of IIs on adjustment to

spousal bereavement. Making use of a context-specific II measurement tool, the follow-up study sought to shed further light on the nature of the shared relationship between IIs and adjustment. The next section offers a discussion of the results of the second study.

## Study 2

With the purpose of clarifying results offered by the first study, the primary goal of the second study was to explore a research question concerning the nature of the relationship between context-specific imagined interaction factors and global psychosocial adjustment. The initial study confirmed that bereaved individuals acknowledge experiencing IIs with the deceased spouse. With those findings established, a follow-up investigation using a different sample was designed to replicate the initial study with one change—items assessing the imagined interaction construct were reworded to reflect a specific bereavement context. The aim was to see if specific II characteristics and functions, which had been insignificant in the initial study, would demonstrate a stronger relationship with adjustment.

### Research Question—Study 2

In order to explore the proposed research question, hierarchical regression was again used in an attempt to replicate the methods used in the first phase of this investigation. II factors that were investigated in the first study's hypotheses were again entered into the second stage of an hierarchical regression model, with covariates entered at the first stage. As with the first study, separate models were created for those employed and those not employed. With II activity, II specificity and II self-understanding entered in the second step, the resulting model for the currently employed was not significant. Interestingly, no covariate or predictor achieved a .05 level of significance for this population. However, the model for those not currently employed did reach the traditional level of significance. For this portion of the sample, years married and

bereavement coping self-efficacy made significant individual contributions to the model. II self-understanding, though not significant at the .05 level, was significant at a .1 alpha level. A larger sample size may have permitted a more significant relationship to be exhibited. Once again, the relationship of II self-understanding to adjustment was shown to be an indirect one.

The next hierarchical regression calculated the influence of IIs with deceased spouse and II valence on global adjustment. Again, separate models were created based on employment status with covariates entered at step one and predictors entered at step two. The resulting model for those currently employed was not significant, nor did any individual covariate or predictor show signs of significance. The model for those not employed did, however, show significance, as did the covariates of years married and bereavement coping self-efficacy. Neither of the II factors reached an appropriate level of significance within the model. A closer look at the collinearity statistics for the II valence and IIs with deceased spouse in these models revealed a high level of collinearity. Although the levels did not exceed the acceptable VIF/tolerance levels (Norusis, 2002), they were near those levels. For this reason, subsequent hierarchical regression models were calculated for each II variables separately.

Entering IIs with the deceased spouse as the only predictor in the model, results for the employed population were once again insignificant. As in prior analyses, no individual variables emerged as significant for this sample. The model for those not employed did reach the appropriate level of traditional significance. Length of marriage again exhibited a significant positive influence on the model while IIs with the deceased spouse exhibited a significant inverse relationship with adjustment.

The final hierarchical analysis evaluated the lone influence of II valence on adjustment. Once again, the model for the currently employed sub-sample was not significant, but the model

for those not employed did reach traditional significance. Significant covariates were length of marriage and bereavement coping self-efficacy. II valence also achieved significance within the model.

As with the first study, those not currently employed appear to rely more on bereavement coping self-efficacy than those currently employed. This result appears to again support the notion that the status of not being employed necessitates further reliance on internal coping mechanisms. Also echoing the first study is the inverse relationship shared between significant II variables and global adjustment. This finding suggests that those who report having IIs are more likely to report poorer adjustment. II valence, IIs with deceased spouse, and II self-understanding each exhibited an inverse relationship with adjustment.

#### Synthesis

On the whole, bereavement coping self-efficacy and IIs with deceased spouse are the only predictors examined specifically in the first study that emerged at any point as significant enough to pass the stringent Bonferroni-adjusted alpha level. This first study confirms the key influence of an individual's belief in her/his own ability to traverse the adjustment path after the death of a spouse, a reflection of self-efficacy. Though the findings for the role of imagined interactions in the first study may be viewed as moderate, indications point to the fact that indeed IIs are at play in the process of bereavement. The second study uncovered other significant or near significant II factors including II self-understanding and II valence. But again, the relationship between these II factors and adjustment is an inverse one, suggesting that the experience of IIs involving the deceased spouse is associated with poorer adjustment.

A potential explanation for lower occurrence of IIs being associated with better adjustment is the social stigma associated with holding on to the deceased (Klass et al., 1996).

The common assumption is that proper adjustment to bereavement is achieved by cutting ties with the deceased spouse to allow for investment in new relationships. Klass et al. (1996) note that this supposition is based not on sound research, but on cultural norms. The results of this study do seem to offer empirical evidence for the value of cutting ties with the deceased. However, further study is needed in order to determine if such a step truly is necessary for adjusting to spousal loss. Perhaps individuals who consider themselves well-adjusted, or who want to be perceived as well-adjusted, think that acknowledging the experience of IIs including the deceased spouse suggests an inability to adjust, thus causing them to deny their true experience or to cut off their experience of healthy imagined interactions with the deceased spouse. Future analysis should explore the potential difference between healthy or mature IIs involving the deceased and unhealthy or immature IIs involving the deceased spouse.

#### Limitations

While this study can serve as the impetus for further exploration of the role of intrapersonal elements in bereavement, there are limitations of the current study that perhaps interrupted the discovery process.

#### Study 1

One limitation of the first study was perhaps tied to the measurement of imagined interactions. Although the measurement tool used to assess IIs, the Survey of Imaged Interaction (see Honeycutt, 2003), is an established measurement tool perhaps some participants had difficulty comprehending the concept of imagined interaction. More than half (63%) of the sample reported their highest level of education as high school graduate or below. This somewhat under-educated sample may have had problems clearly grasping imagined interaction as a construct related to intrapersonal communication. A comparison of the two groups did not

reveal statistical differences between those with high school diplomas or below and those with some college education or higher. However, there is still the chance that a limited comprehension of the II construct interfered with the study's findings.

A more probable explanation for the limited significance of imagined interaction functions and characteristics in the first study is the need for contextualizing those items assessing II factors. Context-specific II items can create a more fruitful view of the unique condition of bereavement. In their work designing a specialized tool for measuring coping self-efficacy, Benight et al. (2001) justify their effort based on Bandura's (1997) suggestion that judgments of coping self-efficacy are most reliably predictive of adjustment when the measurement is context-specific. Perhaps the same idea applies to the measurement of IIs. The II factor that did emerge as significant in the initial study was that which assessed specific use of IIs within the condition of bereavement—that which measured IIs with the deceased spouse. Contextualizing the II functions and characteristics could prove difficult if, as in the current study, the researcher's purpose is to examine IIs as they reflect one's general intrapersonal communication practices. But for this project, the potential for clarification offered by contextualizing II items prompted the follow-up study discussed in Chapter 5 and necessitates further investigation.

## Study 2

Although the purpose of the second study was to address one of the limitations of the first study, the second study did suffer from its own weaknesses. The primary weakness of the second study was the comparatively small sample size ( $n = 75$ ). Due to missing data and the need for separate regression operations to be run for those employed and not employed, all of the hierarchical regression analyses included data of only 30 participants. While there were some

significant findings, the potential for greater significance and for clarity of results lies in a larger sample size. Future studies would be greatly enhanced by the use of a larger data set.

A second potential limitation for this study was the use of an untested revision of the Survey of Imagined Interaction. While the revisions were basic and were intended simply to contextualize II items for the situation of spousal bereavement, there could be issues with the construction of the revised version that can only be addressed through subsequent re-testing and analysis. This need for further analysis and development was perhaps evidenced by the occurrence of multicollinearity among revised II items. Multicollinearity guidelines (Norusis, 2002) required the omission of several II variables from analysis including II variety, II catharsis and II compensation. Further study using the revised version of the Survey of Imagined Interactions is needed to identify any underlying themes associated with the experience of IIs including the deceased spouse.

#### General Limitations

An area of potential limitation for both phases of this project relates to global psychosocial adjustment and its assessment. Analysis of the samples suggests overall that both groups of respondents were adjusted quite well. Less than half of the respondents (only 39%) fell at or below the mean adjustment score in the first study. This result could reflect some level of social desirability, meaning that the widowed may feel social pressure to report adequate adjustment even if they don't actually feel well adjusted. On the other hand, the high level of adjustment reported by subjects in both studies truly reflects the possibility that most individuals find a way to successfully process their loss. Some bereavement researchers have seen the need to differentiate between the process experienced by those normally bereaved and those chronically or pathologically bereaved (Brabant, Forsyth, & Melancon, 1992; Middleton,

Raphael, Martinek, & Misso, 1993; Parkes, 1996). More significant differences may be observed in samples that include more respondents who are less well adjusted. Limiting inclusion of participants to those in the first year of bereavement could perhaps produce a wider array of significant findings.

The tool used to measure psychosocial adjustment, the PAIS-SR (Derogatis, 1975) has been used in prior bereavement research (Gilbar, 1998; Gilbar & Dagan, 1995; Gilbar & Hasida, 2002), and proved to be a reliable scale in this study. However, the four-point scale structure with which it has been designed may be too limited to allow for adequate dispersion among such a highly adjusted samples as those that were tested in this study. Bereavement studies often use a combination of tools to assess adjustment (Gilbar & Dagan, 1995; Lowenstein et al., 1993-94; Sable, 1991). Future studies of intrapersonal variables could benefit from such an approach. However, one of the current project's concerns was the length of the survey instrument, so an effort was made to minimize the time needed to complete the survey as much as possible. This need for time economy was the guiding principle in the decision to use the PAIS-SR revised for adjustment.

As with any investigation using convenience sampling techniques for participant recruitment, this study is limited by virtue of its participants being drawn primarily from those living in the southeastern portion of the United States. Although the sample is geographically limited, the findings of this study provide insight into the bereavement process that can and should be used in future confirmatory investigations that make use of random sampling.

The limitations discussed above cannot be changed for the present work, but future research in the intrapersonal communication arena by the current project's investigator will be greatly informed by this process. Although the current project has its areas of weakness, its

outcome still offers greater insight into the process of bereavement, and brings the investigation of spousal bereavement into the intrapersonal communication domain. These findings do not necessitate abandoning the exploration of imagined interaction as an influencing factor in changes in role-identity as one passes through various significant role changes in life. With a delineation of the current study's findings articulated and its possible limitations addressed, a discussion of future directions for research in this area is in order.

### Future Directions

This study offers several avenues for future investigation into the process of bereavement and the role of internal phenomena in that process. Clearly in need of further exploration is the association of IIs including the deceased spouse and adjustment to bereavement. This study establishes the relationship but offers little in uncovering why having imagined interactions with the deceased spouse is associated with poorer adjustment. Future investigations should explore the nature of these types of IIs through having individuals report examples of such IIs, perhaps mapping them in a longitudinal study employing a diary technique. This type of study may allow for the identification of constructive and destructive uses of IIs involving the deceased spouse. In light of calls by some researchers (Klass, Silverman, & Nickman, 1996) to shift from the dominant model of cutting bonds with the deceased for proper adjustment to a model allowing for continued ties that can provide resources for the bereaved in the present, one may surmise that not all IIs with the deceased spouse are detrimental to adjustment. Investigating these IIs more thoroughly could prove quite beneficial in understanding the influence of societal expectations of letting go of the deceased for adequate bereavement processing.

Though this study explored the direct relationship between internal phenomena, namely imagined interaction and self-efficacy, and psychosocial adjustment to spousal bereavement,

future studies might do well to explore factors that may mediate the relationship. For example, this study was framed in symbolic interactionism and role-identity theory but did not directly examine role-identity and actual role-identity transition. Perhaps future research could explore imagined interaction's role in role-identity transition and identity transition's role in adjustment to spousal loss. In other words, future studies could investigate how imagined interactions' influence on role-identity transition influences adjustment.

Furthermore, the role of imagined interaction should also be explored in the context of other types of significant losses, such as the death of a child or parent, or perhaps even within the context of stigmatized losses, such as divorce. Each of these cases calls for an individual to make adjustments in his/her role-identity repertoire, and using imagined interaction to explore that change could still prove fruitful. Investigation of other types of identity transitions, including transitions from being single to being married, first-time transitions to motherhood or fatherhood, transitions from college student to professional could include contextualized or open-ended imagined interaction items.

Although not every hypothesis and research question proved significant in the current study, this project did establish a relationship between IIs, self-efficacy and bereavement adjustment and furthered our understanding of the relationship between contextualized imagined interactions and global adjustment. Regardless of significance, or lack thereof, within this study, spousal bereavement is a phenomenon that will not cease and is an area of study still in need of investigation. The current project's major contribution was bringing the investigation of bereavement processing into the arena of intrapersonal communication. To neglect further cultivation of intrapersonal communication's role in bereavement and other types of adjustment would be a disservice to all who will ever face such challenges.

## References

- Aber, C. S. (1992). Spousal death, a threat to women's health: Paid work as a "resistance resource." *IMAGE: Journal of Nursing Scholarship*, 24(2), 95-99.
- Agresti, A., & Finlay, B. (1997). *Statistical methods for the social sciences*. Upper Saddle River, NJ: Prentice-Hall.
- Allen, S. E. & Hayslip, B. (2001). Research on gender differences in bereavement outcome: Presenting a model of experienced competence. In D. Lund (Ed.), *Men coping with grief* (pp.97-115). Amityville, NY: Baywood Publishing.
- Allen, T. H. (1990). The effects of Machiavellianism on imagined interaction. *Communication Research Reports*, 7, 116-120.
- Allen, T. H. (1994). *Absence makes the mind work harder: Imagined interactions and coping with geographical separation*. Paper presented at the Speech Communication Association Conference, New Orleans, LA.
- Allen, T. H. & Berkos, K. M. (1998). *A functional approach to imagined interaction: Examining conflict-linkage and aggression*. Paper presented at the annual convention of the National Communication Association, New York.
- Allen, T. H. & Honeycutt, J. M. (1997). Planning, imagined interaction, and the nonverbal display of anxiety. *Communication Research*, 24, 64-82.
- Arbuckle, N. W. & de Vries, B. (1995). The long term effects of later life spousal and parental bereavement on personal functioning. *Gerontologist*, 35(5), 637-647.
- Ball, J. F. (1977). Widow's grief: The impact of age and mode of death. *Omega: Journal of Death and Dying*, 7, 307-333.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.
- Bauer, J. & Bonanno, G. (2001). I can, I do, I am: The narrative differentiation of self-efficacy and other self-evaluations while adapting to bereavement. *Journal of Research in Personality*, 35, 424-448.
- Benight, C. C., Flores, J., & Tashiro, T. (2001). Bereavement coping self-efficacy in cancer widows. *Death Studies*, 25, 97-125.

- Berger, C. R. (1993). Goals, plans and mutual understanding in relationships. In S. Duck (Ed.), *The cognitive bases of interpersonal communication* (pp. 141-179). Hillsdale, NJ: Lawrence Erlbaum.
- Berger, P. & Kellner, M. (1970). Marriage and the construction of reality. In H. Dreitzel (Ed.) *Recent sociology, 2*, (pp. 50-73). New York: Collier-McMillan.
- Berkos, K. M., Allen, T. H., Kearney, P., & Plax, J. G. (2001). When norms are violated: Imagined interactions as processing and coping mechanisms. *Communication Monographs, 68*(3), 289-300.
- Blalock, H. M. (1979). *Social statistics, 2<sup>nd</sup> ed.* New York: Mcgraw-Hill, Inc.
- Bloom, B. L. (1975). *Changing patterns of psychiatric care.* New York: Behavioral Publications.
- Boerner, K. & Silverman, P. R. (2001). Gender specific coping patterns in widowed parents with dependent children. *Omega: Journal of Death and Dying, 43*(3), 201-216.
- Bohannon, J. R. (1991). Religiosity related to grief levels of bereaved mothers and fathers. *Omega: Journal of Death and Dying, 23*, 153-159.
- Brabant, S., Forsyth, C., & Melancon, C. (1992). Differences between normal and pathological grief. *Hospice Journal, 8*(4), 33-84.
- Bryman, A. & Cramer, D. (1990). *Quantitative analysis for social scientists.* London: Routledge.
- Burke, P. J. & Tully, J. C. (1977). The measurement of role identity. *Social Forces, 55*(4), 882-897.
- Carey, R. G. (1977). The widowed: A year later. *Journal of Counseling Psychology, 24*(2), 125-131.
- Choi, N. G. (1992). Correlates of economic status of widowed and divorced elderly women. *Journal of Family Issues, 13*(1), 38-54.
- Cohen, J. & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the Behavioral sciences.* Hillsdale, NJ: LEA.
- Cowen, M., & Murphy, S. (1985). Identification of postdisaster bereavement risk predictors. *Nursing Research, 34*, 71-75.
- DeGarmo, D. S., & Kitson, G. C. (1996). Identity relevance and disruption as predictors of psychological distress for widowed and divorced women. *Journal of Marriage and Family, 58*, 983-997.

- Demi, A. S. (1984). Social adjustment of widows after a sudden death: Suicide and non-suicide survivors compared. *Death Education, 8*, 91-111.
- Derogatis, L. R. (1975). *Psychosocial adjustment to illness scale*. Baltimore: Clinical Psychometric Research, Inc.
- Derogatis, L. R. (1986). The psychosocial adjustment to illness scale. *Journal of Psychometric Research, 30(1)*, 77-91.
- Duck, S. (1980). Personal relationships research in the 1980s: Towards an understanding of complex human sociality. *Western Journal of Speech Communication, 44*, 114-119.
- Edwards, R., Honeycutt, J. M. & Zagacki, K. S. (1988). Imagined interaction as an element of social cognition. *Western Journal of Speech Communication, 52*, 23-45.
- Farsworth, J., Pett, M. A., Lund, D. A. (1989). Predictors of loss management and well-being in later life widowhood and divorce. *Journal of Family Issues, 10*, 102-121.
- Fitzpatrick, T. R. & Bosse, R. (2000). Employment and health among older bereaved men in the normative aging study: One year and three years following a bereavement event. *Social Work In Health Care, 32(2)*, 41-60.
- Fitzpatrick, T. R. & VanTran, T. (2002). Bereavement and health among different race and age groups. *Journal of Gerontological Social Work, 37(2)*, 77-92.
- Gallagher, D. E., Thompson, L. W., & Peterson, J. A. (1981-82). Psychosocial factors affecting adaptation to bereavement in the elderly. *International Journal of Aging and Human Development, 14(2)*, 79-95.
- Gass, K. A. (1987). The health of conjugally bereaved older widows: The role of appraisal, coping, and resources. *Research in Nursing and Health, 10(1)*, 39-47.
- Gilbar, O. (1998). Length of cancer patients' stay at a hospice: Does it affect psychological adjustment to the loss of the spouse? *Journal of Palliative Care, 14(4)*, 16-20.
- Gilbar, O. & Dagan, A. (1995). Coping with loss: Differences between widows and widowers of deceased cancer patients. *Omega: Journal of Death and Dying, 31(3)*, 207-220.
- Gilbar, O. & Hasida, B. (2002). Bereavement of spouse caregivers of cancer patients. *American Journal of Orthopsychiatry, 72(3)*, 422-432.
- Gotcher, J. M. & Edwards, R. (1990). Coping strategies of cancer patients: Actual communication and imagined interactions. *Health Communication, 2(4)*, 255-266.
- Gotcher, J. M. & Honeycutt, J. M. (1989). An analysis of imagined interactions of forensic participants. *The National Forensic Journal, 7*, 1-20.

- Hangerford, T. L. (2001). The economic consequences of widowhood on elderly women in the United States and Germany. *The Gerontologist*, *41*(1), 103-110.
- Hardt, D. V. (1978-79). An investigation of the stages of bereavement. *Omega: Journal of Death and Dying*, *9*, 279-285.
- Harvey, C., & Bahr, H. (1974). Widowhood morale and affiliation. *Journal of Marriage and the Family*, *36*, 97-106.
- Hayslip, B., Allen, S. E., McCoy, R. L. (2001). The role of gender in a three-year longitudinal study of bereavement: A test of the experienced competence model. In D. A. Lund (Ed.), *Men Coping with Grief* (pp. 121-146). Amityville, NY: Baywood Publishing Co.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511-524.
- Hershberger, P. J., & Walsh, W. B. (1990). Multiple role involvements and the adjustment to conjugal bereavement: An exploratory study. *Omega: Journal of Death and Dying*, *21*(2), 91-102.
- Hewes, D. E. (2003). Methods as tools: A response to O'Keefe. *Human Communication Research*, *29*(3), 448-454.
- Hinton, J. (1981). Sharing or withholding awareness of dying between husband and wife. *Journal of Psychosomatic Research*, *25*(5), 337-343.
- Hogan, N. S. & Schmidt, L. A. (2002). Testing the grief to personal growth model using structural equation modeling. *Death Studies*, *26*, 615-634.
- Holmes, R. H. & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychomatic Research*, *11*, 213-218.
- Honeycutt, J. M. (1988, June). Keynote address delivered at the 10<sup>th</sup> annual American Association for the Study of Mental Imagery Conference, Yale University, New Haven, CT.
- Honeycutt, J. M. (1989). *Imagined interactions, message planning, and transference*. Paper presented at the 75<sup>th</sup> annual Speech Communication Association Conference, San Francisco, CA.
- Honeycutt, J. M. (1989b). A pilot analysis of imagined interaction accounts in the elderly. In R. Marks & J. Padgett (Eds.), *Louisiana: Health and the elderly* (pp. 183-201). New Orleans, LA: Pan American Life Center.
- Honeycutt, J. M. (1991). Imagined interactions, imagery and mindfulness/mindlessness. In R. Kunzendorf (Ed.), *Mental Imagery* (pp. 121-128). New York: Plenum Press.

- Honeycutt, J. M. (1995). Imagined interactions, recurrent conflict and thought about personal relationships: A memory structure approach. In J. E. Aitken & L. J. Shedletsky (Eds.), *Intrapersonal Communication Processes* (pp. 138-150). Plymouth, MI: Speech Communication Association and Midnight Oil Multimedia, Inc.
- Honeycutt, J. M. (1995). The oral history interview and reports of imagined interactions. *Journal of Family Psychotherapy*, 6, 63-69.
- Honeycutt, J. M. (1998, October). Presentation made during graduate level course lecture on conflict linkage theory at Louisiana State University.
- Honeycutt, J. M. (2003). *Imagined interactions: Daydreaming about communication*. Cresskill, N.J.: Hampton Press.
- Honeycutt, J. M. & Brown, R. (1998). Did you hear the one about? Typological and spousal differences in the planning of jokes and sense of humor in marriage. *Communication Quarterly*, 46, 1-11.
- Honeycutt, J. M. & Cantrill, (2000). *Cognition, communication, and romantic relationships*. Mahwah, NJ: LEA.
- Honeycutt, J. M., Edwards, R., & Zagacki, K. S. (1989-1990). Using imagined interaction features to predict measures of self-awareness: Loneliness, locus of control, self-dominance, and emotional intensity. *Imagination, Cognition, and Personality*, 9(1),17-31.
- Honeycutt, J. M. & Ford, S. G. (2001). Mental imagery and intrapersonal communication: A review of research on imagined interaction (IIs) and current developments. In W. B. Gudykunst (Ed.), *Communication yearbook 25* (pp. 315-345). Mahwah, NJ: LEA.
- Honeycutt, J. M. & Gotcher, J. M. (1991). Influence of imagined interactions on communicative outcomes: The case of forensic competition. In R. Kunzendorf (Ed.), *Mental Imagery* (pp. 139-143). New York: Plenum Press
- Honeycutt, J. M. & Weimann J. M. (1999). An analysis of functions of talk and reports of imagined interactions (IIs) during engagement and marriage. *Human Communication Research*, 25, 399-420.
- Honeycutt, J. M., Zagacki, K. S. & Edwards, R. (1988). Intrapersonal communication, social cognition, and imagined interactions. In C. Roberts & K. Watson (Eds.), *Readings in Intrapersonal Communication*. Spectra Incorporated Publishers.
- Honeycutt, J. M., Zagacki, K. S. & Edwards, R. (1992). Imagined interaction, conversational sensitivity, and communication competence. *Imagination, Cognition, and Personality*, 12(2),139-157.

- Jacobs, S., Stanislav, K., Ostfeld, A., Berkman, L., & Charpentier, P. (1986). The measurement of grief: Age and sex variation. *British Journal of Medical Psychology*, 59, 305-310.
- Jenike, M. A. (1997). Topics in geriatrics. *Journal of Geriatric Psychiatry and Neurology*, 10(1), 47-48.
- Johnson, K. L. & Roloff, M. E. (1998). Serial arguing and relational quality: Determinants and consequences of perceived resolvability. *Communication Research*, 25, 327-343.
- Kalish, R. & Reynolds, D. (1981). *Death and ethnicity*. Farmingdale, NY: Baywood.
- Kerr, A. W., Hall, H. K., & Kozub, S. A. (2002). *Doing Statistics with SPSS*. London, Sage.
- Kitson, G. (2000). Adjustment to violent and natural deaths in later and earlier life for black and white widows. *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences*, 55B(6), 341-351.
- Kitson, G. & Zyzanski, S. (1987). Grief in widowhood and divorce. *Psychiatric Clinics of North America*, 10(3), 369-386.
- Klass, D., Silverman, P. R., & Nickman, S. L. (1996). *Continuing bonds: New understandings of grief*. Philadelphia, PA: Taylor & Francis.
- Klos, D. S. & Singer, J. L. (1981). Determinants of the adolescent's ongoing thought following simulated parental confrontations. *Journal of Personality and Social Psychology*, 41, 975-987.
- Levy, L. H, Derby, J. F., & Martinkowski, K. S. (1993). Effects of membership in bereavement support groups on adaptation to conjugal bereavement. *American Journal of Community Psychology*, 21(3), 361-381.
- Lieberman, M. (1993). Bereavement self-help groups: A review of conceptual and methodological issues. In M. S. Stroebe, W. Stoebe, & R. O. Hansson (Eds.), *Handbook of bereavement* (pp. 91-101). New York: Cambridge University Press.
- Lindstrom, T. C. (1995). Anxiety and adaptation in bereavement. *Anxiety, Stress and Coping: An International Journal*, 8(3), 251-261.
- Lopata, H. Z. (1973). *Women as widows: Support systems*. New York: Elsevier North Holland.
- Lopata, H. Z. (1975). On widowhood: Grief work and identity reconstruction. *Journal of Geriatric Psychiatry*, 8, 41-55.
- Lowenstein, A. & Rosen, A. (1995). The relation of locus of control and social support to life-cycle related needs of widows. *International Journal of Aging and Human Development*, 40(2), 103-123.

- Lowenstein, A., Landau, R., & Rosen, A. (1993-94). Adjustment to loss of spouse as a multivariate construct. *Omega: Journal of Death and Dying*, 28, 229-245.
- Lund, D. A., Caserta, M. S., Dimond, M. (1993). Spousal bereavement in later life. In M. S. Stroebe, W. Stoebe, & R. O. Hansson (Eds.), *Handbook of bereavement* (pp. 240-254). New York: Cambridge University Press.
- Lund, D. A., Caserta, M. S., Van Pelt, J., & Gass, K. A. (1990). Stability of social support networks after later-life spousal bereavement. *Death Studies*, 14, 53-73.
- Lundin, T. (1984). Morbidity following sudden and unexpected bereavement. *British Journal of Psychiatry*, 144, 84-88.
- Mahoney, M. J., & Arnkoff, D. B. (1978). Cognition and self-control therapies. In S. L. Garfield & A. E. Bergin (Eds.), *Handbook of psychotherapy and behavior change: An empirical analysis*. New York: Wiley.
- Marwit, S. J. & Klass, D. (1996). Grief and the role of inner representation of the deceased. In D. Klass, P. Silverman, & S. Nickman (Eds.), *Continuing bonds: New understandings of grief* (pp. 297-309). Washington D. C.: Taylor & Francis.
- Mead, G. H. (1934). *Mind, self, and society from the standpoint of a social behaviorist*. Chicago: University of Chicago Press.
- McCall, G., & Simmons, J. (1978). *Identities and interaction*. New York: Free Press.
- McCrae, R. R. & Costa, P. T. (1993). Psychological resilience among widowed men and women: A 10-year follow-up of a national sample. In M. S. Stroebe, W. Stoebe, & R. O. Hansson (Eds.) *Handbook of bereavement* (pp. 196-207). New York: Cambridge University Press.
- Middleton, W., Raphael, B., Martinek, N., & Misso, V. (1993). Pathological grief reactions. In M. S. Stroebe, W. Stoebe, & R. O. Hansson (Eds.), *Handbook of bereavement* (pp. 44-61). New York: Cambridge University Press.
- Morgan, D. L. (1976). A re-examination of widowhood and morale. *Journal of Gerontology*, 31, 687-695.
- Morgan, D. L. (1989). Adjusting to widowhood: Do social networks really make it easier? *Gerontologist*, 29(1), 101-107.
- Morgan, D., Carder, P., Neal, M. (1997). Are some relationships more useful than others? The value of similar others in the networks of recent widows. *Journal of Social and Personal Relationships*, 14(6), 745-759.

- Morrow, G. R., Chiarello, R. J., & Derogatis, L. R. (1978). A new scale for assessing patients' psychosocial adjustment to medical. *Psychological Medicine*, 8, 605-610.
- Natchez, G. (1990). Separation, widowhood, and divorce. *Psychotherapy Patient*, 6(3-4), 81-88.
- Norris, F. H. & Murrell, S. A. (1990). Social support, life events, and stress as modifiers of adjustment to bereavement by older adults. *Psychology and Aging*, 5(3), 429-436.
- Norusis, M. J. (1997). *SPSS 11.0 guide to data analysis*. Upper Saddle River, NJ: Prentice Hall.
- O'Bryant, S. L. & Morgan, L. A. (1990). Recent widows' kin support and orientations of self-sufficiency. *The Gerontologist*, 30(3), 391-398.
- O'Keefe, D. J. (2003). Colloquy: Should familywise alpha be adjusted? *Human Communication Research*, 29(3), 431-447.
- Owen, J. E., Goode, K. T., & Haley, W. E. (2001). End-of-life care and reactions to death in African-American and White family caregivers of relatives with Alzheimer's disease. *Omega: Journal of Death and Dying*, 43(4), 349-361.
- Parkes, C. M. (1975b). Determinants of outcome following bereavement. *Omega: Journal of Death and Dying*, 6, 303-323.
- Parkes, C. M. (1993). Bereavement as a psychosocial transition: Processes of adaptation to change. In M. S. Stroebe, W. Stoebe, & R. O. Hansson (Eds.), *Handbook of bereavement* (pp. 91-101). New York: Cambridge University Press.
- Parkes, C. M. (1996). *Bereavement: Studies in adult life*, 3<sup>rd</sup> ed. London, Routledge.
- Parkes, C. M. & Weiss, R. S. (1983). *Recovery from bereavement*. New York: Basic Books.
- Pearlin, L. I., Lieberman, M. A., Menaghan, E. G., Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 337-356.
- Pedhazur, E. J. (1982). *Multiple Regression in Behavioral Research*, 2<sup>nd</sup> ed. New York: CBS College Publishing.
- Pennebaker, J. W. & O'Heeron, R. C. (1984). Confiding in others and illness rate among spouses of suicide and accidental-death victims. *Journal of Abnormal Psychology*, 93(4), 473-476.
- Petress, K. C. (1990). *The role imagined interactions played in the Tian-an-men Square student demonstrations: An analysis of participants' self-reporting*. Paper presented at American Association for the Study of Mental Imagery; Lowell, MA, 1990.

- Petress, K. C. (1995). Coping with a new educational environment: Chinese students' imagined interactions before commencing studies in the US. *Journal of Instructional Psychology, 22*, 50-63.
- Quigley, D. G. & Schatz, M. S. (1999). Men and women and their responses in spousal bereavement. *Hospice Journal, 14*(2), 65-78.
- Rodrigue, J. R., Kanasky, W. F., Jackson, S. I., & Perri, M. G. (2000). The psychosocial Adjustment to illness scale—self-report: Factor structure and item stability. *Psychological Assessment, 12*(4), 409-413.
- Rolloff, M. E., & Anastasiou, L. (2001). Interpersonal communication research: An overview. In W. B. Gudykunst (Ed.), *Communication yearbook 24* (pp.51-71). Thousand Oaks, CA: Sage.
- Rosenblatt, P. C., & Meyer, C. (1986). Imagined interactions in the family. *Family Relations, 35*, 319-324.
- Rosik, C. H. (1989). The impact of religious orientation in conjugal bereavement among older adults. *International Journal of Aging and Human Development, 28*, 251-260.
- Sable, P. (1991). Attachment, loss of spouse, and grief in the elderly. *Omega: Journal of Death and Dying, 23*(2), 129-142.
- Sanders, C. M. (1980). A comparison of adult bereavement in the death of a spouse, child, and parent. *Omega: Journal of Death and Dying, 10*, 303-322.
- Sanders, C. M. (1981). Comparison of younger and older spouses in bereavement outcome. *Omega: Journal of Death and Dying, 11*, 217-232.
- Salahu-din, S. N. (1996). A comparison of coping strategies of African American and Caucasian widows. *Omega: Journal of Death and Dying, 33*(2), 103-120.
- Schwartz, L. & Kaslow, F. (1985). Widows and divorcees: The same or different? *American Journal of Family Therapy, 13*(4), 72-76.
- Sheldon, A. R., Cochrane, J., Vachon, M. L., Lyall, W., Rogers, J., & Freeman, S. (1981). A psychosocial analysis of risk of psychological impairment following bereavement. *Journal of Nervous and Mental Disease, 169*, 253-255.
- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs B. & Rogers R. W. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports, 51*, 663-671.

- Shuchter, S. R. & Zisook, S. (1993). The course of normal grief. In M. S. Stroebe, W. Stoebe, & R. O. Hansson (Eds.), *Handbook of bereavement* (pp. 23-43). New York: Cambridge University Press.
- Shuchter, S. R. & Zisook, S. (1986). Treatment of spousal bereavement: A multidimensional approach. *Psychiatric Annals*, *16*(5), 295-305.
- Stillion, J. A. (1985). Death and the sexes. Washington: Hemisphere Publishing Corporation.
- Stroebe, M. S. (1998). New directions in bereavement research: Exploration of gender differences. *Palliative Medicine*, *12*(1), 5-12.
- Stroebe, M. S. & Stroebe, W. (1983). Sex differences in health risks of the widowed. *Psychological Bulletin*, *93*(2), 279-301.
- Stroebe, M. S., Stroebe, W. & Hansson, R. O. (1993). *Handbook of bereavement: Theory, research, and intervention*. New York: Cambridge University Press.
- Stroebe, M. S., Stroebe, W. & Hansson, R. O. (1988b). Bereavement research: An historical introduction. *Journal of Social Issues*, *44*(3), 1-18.
- Stroebe, W., Stroebe, M. S., & Domittner, G. (1988). Individual and situational differences in recovery from bereavement: A risk group identified. *Journal of Social Issues*, *44*(3), 143-158.
- Stroebe, W., Stroebe, M. S., Abakoumkin, G., & Schut, H. (1996). The role of loneliness and social support in adjustment to loss: A test of attachment versus stress theory. *Journal of Personality and Social Psychology*, *70*(6), 1241-1249.
- Stryker (1980). *Symbolic interactionism: A social structural version*. Palo Alto, CA: Benjamin Cummings.
- Stylianos, S. K. & Vachon, M. L. (1993). The role of social support in bereavement. In M. S. Stroebe, W. Stoebe, & R. O. Hansson (Eds.), *Handbook of bereavement* (pp. 91-101). New York: Cambridge University Press.
- Suitor, J. J., Pillemer, K., & Keeton, S. (1995). When experience counts: The effects of experiential and structural similarity on patterns of support and interpersonal stress. *Social Forces*, *73*, 589-607.
- Thompson, T. L. & Nussbaum, J. F. (1988). Interpersonal communication: Intimate relationships and aging. In C. W. Carmichael, C. H. Botan, & R. Hawkins (Eds.), *Human communication and the aging process* (pp. 95-109). Prospect Heights, IL: Waveland.
- Thuen, F. (1997). Received social support from informal networks and professionals in bereavement. *Psychology, Health and Medicine*, *2*(1), 51-63.

- Turvey, C. L., Carney, C., Arndt, S., Wallace, R. B., & Herzog, R. (1999). Conjugal loss and syndromal depression in a sample of elders aged 70 years and older. *American Journal of Psychiatry*, *156*(10), 1596-1601.
- Vachon, M. L. & Stylianos, S. K. (1988). The role of social support in bereavement. *Journal of Social Issues*, *44*(3), 175-190.
- Vachon, M. L., Sheldon, A. R., Lancee, W. J., Lyall, W. A., Rogers, J., & Freeman, S. J. (1982). Correlates of enduring distress patterns following bereavement: Social network, life situation and personality. *Psychological Medicine*, *12*, 783-788.
- van Baarsen, B. & van Groenou, M. (2001). Partner loss in later life: Gender differences in coping shortly after bereavement. *Journal of Loss and Trauma*, *6*(3), 243-262.
- VanderCreek, L. (1988). Sources of support in conjugal bereavement. *Hospice Journal*, *44*(3), 175-190.
- Windholz, M., Marmar, C. & Horowitz, M. J. (1985). A review of the research on conjugal bereavement: Impact on health and efficacy of intervention. *Comprehensive Psychiatry*, *26*(5), 433-447.
- Wortman, C. B., Silver, R. C., & Kessler, R. C. (1993). The meaning of loss and adjustment to bereavement. In M. S. Stroebe, W. Stoebe, & R. O. Hansson (Eds.), *Handbook of bereavement* (pp. 349-366). New York: Cambridge University Press.
- Zagacki, K. S., Edwards, R., Honeycutt, J. M. (1992). The role of mental imagery and emotion in imagined interaction. *Communication Quarterly*, *40*, 56-68.
- Zisook, S. & Shuchter, S. R. (1985). Time course of spousal bereavement. *General Hospital Psychiatry*, *7*(2), 95-100.
- Zisook, S., Paulus, M., Shuchter, S. R., & Judd, L. L. (1997). The many faces of depression following spousal bereavement. *Journal of Affective Disorders*, *45*, 85-95.

## Appendix A: Survey Questionnaire

This questionnaire has been designed to collect information on communication and behavior following the death of one's spouse. It is part of research being conducted by UAB adjunct faculty member Sherry Ford. Your participation is voluntary and greatly appreciated. Results of this research will be used for meeting graduate program requirements and may be submitted for presentation at professional association meetings and/or published in journal articles; however, please understand that your individual identification and responses will be kept strictly confidential. By completing this survey, you are indicating your consent to participate in this study.

As you complete the survey, please read each item carefully before indicating your answer. Simply circle the number to the corresponding answer that best represents your feelings. Please rate ALL items. If you are not completely sure about a statement, please rate it as best you can.

***For the following items, select the number that best describes the way you have been feeling during the past two weeks, including today. Circle the number that best describes YOU and your feelings.***

People take the time to listen to how I feel.

NO!      NO    no    ?    yes    YES    YES!

I can express my feelings about my grief openly and honestly.

NO!      NO    no    ?    yes    YES    YES!

It helps me to talk with someone who is nonjudgmental about how I grieve.

NO!      NO    no    ?    yes    YES    YES!

There is at least one person I can talk to about my grief.

NO!      NO    no    ?    yes    YES    YES!

I can get help for my grieving when I need it.

NO!      NO    no    ?    yes    YES    YES!

***The following items concern your interaction with other widows. Circle the number that best represents your response.***

I have spent time with other widows/widowers since my spouse's death.

NO!      NO    no    ?    yes    YES    YES

I have attended meetings of a support group for widows.

NO!      NO    no    ?    yes    YES    YES

Other widows/widowers I know have been a source of support since my spouse's death.

NO!      NO    no    ?    yes    YES    YES

*The following items address the transitions you have experienced since the passing of your spouse. Please circle the answer that best represents your response to that question or statement.*

**Describe your general attitude and approach to taking care of your health.**

- 1 I am very concerned and pay close attention to my personal health.
- 2 Most of the time I pay attention to my health care needs.
- 3 Usually, I try to take care of health matters, but sometimes I just don't get around to it.
- 4 Health care is something that I just don't worry too much about.

**Losing a spouse can be a confusing experience, and some widows/widowers feel they do not receive enough information and details about their new situation. How do you feel?**

- 1 I have been given a very complete picture of my situation.
- 2 I have a pretty fair understanding of my situation, and if I want to know more, I can always get new information.
- 3 I do have some information about my situation, but I feel I would like to know more.
- 4 I have very little information or knowledge about my situation.

**In a situation involving the loss of a spouse, people have different ideas about the grieving process and what to expect from it. How do you feel?**

- 1 I believe I know a great deal about the grieving process and will have little problem working through it.
- 2 I trust that I will get through the grief, but sometimes I have doubts.
- 3 I sometimes wonder if I'll ever make it through this.
- 4 I don't believe things could get worse, and I doubt I'll ever get better.

**In a situation such as yours, individuals have different amounts of information about dealing with such a situation. How much information do you feel you have?**

- 1 I feel my understanding of this process is very up to date.
- 2 My knowledge concerning my situation is pretty complete, but there are a few things I still want to know.
- 3 I have some knowledge of my situation, but there is still so much I don't understand.
- 4 I have little knowledge about this situation, and feel quite lost.

**How would you characterize your relationship with your family now?**

- 1 Very good
- 2 Adequate
- 3 Somewhat inadequate
- 4 Markedly inadequate

**How would you characterize your relationship with your children?**

- 1 Very good
- 2 Adequate

- 3 Somewhat inadequate
- 4 Markedly inadequate

**In those areas where you've found your abilities impaired by your situation, has your family shifted roles to take over those duties?**

- 1 Excellent family adaptation
- 2 Generally adequate adaptation
- 3 Generally inadequate adaptation
- 4 Highly inadequate adaptation

**Has your situation resulted in any decrease in communication between yourself and members of your family?**

- 1 No decrease in communication
- 2 A slight decrease
- 3 Communication is significantly decreased
- 4 Communication significantly decreased and I feel very alone.

**A situation such as yours often creates a drain on a family's financial resources; are you having any difficulty meeting the financial demands of your new situation?**

- 1 No financial drain.
- 2 Slight financial drain
- 3 Substantial financial drain
- 4 Severe financial drain

**Have you had as much communication with members of your family outside of your immediate household since the death of your spouse (e.g., called them on the phone, written to them, etc.)?**

- 1 Contact is the same or greater.
- 2 Contact is slightly less.
- 3 Contact is markedly less.
- 4 No contact since my spouse's death.

**Have you remained as interested in interactions or activities with these family members as you were before?**

- 1 Interest is the same or greater.
- 2 Interest is slightly less.
- 3 Interest is markedly less.
- 4 Little or no interest in getting together with them.

**Do you depend on these members of your family for support and physical help, particularly since your spouse's death?**

- 1 I need no help, or they give me all the help I need.
- 2 Their help is enough, except for some minor changes.
- 3 They give me some help but not enough.
- 4 They give me little or no help even though I need a great deal.

**Do you socialize much with these members of your family? Has your situation reduced your ability to do so?**

- 1 Little or no change in socializing.
- 2 Socializing with them has been slightly reduced.
- 3 Substantial reduction in socialization.
- 4 Socialization with extended family totally eliminated.

**In general, how have you been getting along with these members of your family recently?**

- 1 Good, same as previously.
- 2 Fair
- 3 Poor
- 4 Very poor

**Are you still as interested in your leisure time activities and hobbies as you were prior to your spouse's death?**

- |        |          |          |                    |
|--------|----------|----------|--------------------|
| 1----- | 2-----   | 3-----   | 4-----             |
| No     | Slightly | Markedly | Little or no       |
| change | reduced  | reduced  | interest remaining |

**Are you interested in leisure time activities with your family as you were prior to your spouse's death?**

- |        |          |          |                    |
|--------|----------|----------|--------------------|
| 1----- | 2-----   | 3-----   | 4-----             |
| No     | Slightly | Markedly | Little or no       |
| change | reduced  | reduced  | interest remaining |

**Do you still participate in those activities to the same degree as you once did?**

- |        |          |          |                    |
|--------|----------|----------|--------------------|
| 1----- | 2-----   | 3-----   | 4-----             |
| No     | Slightly | Markedly | Little or no       |
| change | reduced  | reduced  | interest remaining |

**Have you maintained your interest in social activities since your spouse's death?**

- |        |          |          |                    |
|--------|----------|----------|--------------------|
| 1----- | 2-----   | 3-----   | 4-----             |
| No     | Slightly | Markedly | Little or no       |
| change | reduced  | reduced  | interest remaining |

**Have you felt anxious or nervous recently?**

- |            |              |             |           |
|------------|--------------|-------------|-----------|
| 1-----     | 2-----       | 3-----      | 4-----    |
| Not at all | A little bit | Quite a bit | Extremely |

**Have you been feeling depressed recently?**

- |            |              |             |           |
|------------|--------------|-------------|-----------|
| 1-----     | 2-----       | 3-----      | 4-----    |
| Not at all | A little bit | Quite a bit | Extremely |

**Have you been more irritable or angry recently?**

- |            |              |             |           |
|------------|--------------|-------------|-----------|
| 1-----     | 2-----       | 3-----      | 4-----    |
| Not at all | A little bit | Quite a bit | Extremely |

**Have you been feeling guilty or like you have let people down lately?**

- 1-----2-----3-----4  
Not at all      A little bit      Quite a bit      Extremely

**Have you been worrying about things more since the death of your spouse?**

- 1-----2-----3-----4  
Not at all      A little bit      Quite a bit      Extremely

The following 5 items focus on employment. If you are not employed, please skip this section.

**Has your situation impaired your ability to do your job?**

- 1      No impairment.
- 2      Mild impairment, but very minor problems.
- 3      Some serious problems.
- 4      Situation has totally prevented me from doing my job.

**How well do you physically perform your job now?**

- 1      Very well, complete adequacy.
- 2      Slight inadequacy.
- 3      Not too well.
- 4      Poorly.

**During the last 30 days, have you lost any time at work due to your situation?**

- 1      3 days or less.
- 2      1 week
- 3      2 weeks
- 4      more than 2 weeks

**Is your job as important to you now as it was before your spouse passed away?**

- 1      Equal or greater importance than before.
- 2      Slightly less importance.
- 3      A lot less importance.
- 4      Little or no importance to me now.

**Have you had to change your goals concerning your job as a result of your situation?**

- 1      My goals are unchanged.
- 2      There has been a slight change in my goals.
- 3      My goals have changed quite a bit.
- 4      I have changed my goals completely.

*The following items address your use of imagined interactions. Imagined interactions are those “mental” interactions we have with others who are not physically present. We may have imagined conversations that occur in self-controlled daydreams or while the mind wanders.*

*We may imagine interactions before falling asleep, before interacting with someone, after interacting with someone and so on.*

*Imagined interactions may be brief or long, ambiguous or detailed. They may address a number of topics or examine one topic exclusively. The interactions may be one-sided where the person imagining the discussion does most of the talking, or they may be more interactive where both partners take an active part in the conversation.*

*Following are a few items asking you about imagined interactions with others. Answer each item while keeping in mind your experience as a widow or widower. Please read each item carefully and try to answer as honestly as possible.*

**YES!** = very strong agreement

**YES** = strong agreement

**yes** = agreement

**?** = neither agreement or disagreement

**NO!** = very strong disagreement

**NO** = strong disagreement

**no** = disagreement

**I have imagined interactions all the time.**

NO! NO no ? yes YES YES!

**I often have imagined interactions before interacting with someone of importance.**

NO! NO no ? yes YES YES!

**Most of my imagined interactions are with different people.**

NO! NO no ? yes YES YES!

**I often have imagined interactions after interacting with someone of importance.**

NO! NO no ? yes YES YES!

**When I have imagined interactions, they tend to be detailed and well-developed.**

NO! NO no ? yes YES YES!

**More often than not, what I actually say to a person in a real conversation is different from what I imagined I would say.**

NO! NO no ? yes YES YES!

**In my real conversations, I am very different than in my imagined ones.**

NO! NO no ? yes YES YES!

**After important meetings, I frequently imagine them.**

NO! NO no ? yes YES YES!

**I usually say in real life what I imagined I would say.**

NO! NO no ? yes YES YES!

**My imagined interactions usually involve conflicts or arguments.**

NO! NO no ? yes YES YES!

**Before I meet someone important, I imagine conversations with them.**

NO! NO no ? yes YES YES!

**When I have imagined interactions, the other person tends to talk a lot.**

NO! NO no ? yes YES YES!

**I frequently have imagined interactions.**

NO! NO no ? yes YES YES!

**I do not enjoy most of my imagined interactions.**

NO! NO no ? yes YES YES!

**When I have a real conversation that I have previously imagined, the actual conversation is very different from what I imagined.**

NO! NO no ? yes YES YES!

**After I meet someone important, I imagine my conversation with them.**

NO! NO no ? yes YES YES!

**I rarely imagine myself interacting with someone else.**

NO! NO no ? yes YES YES!

**In my real conversations, other people are very different than in my imagined ones.**

NO! NO no ? yes YES YES!

**My imagined interactions are quite similar to the real conversations which follow them.**

NO! NO no ? yes YES YES!

**I enjoy most of my imagined interactions.**

NO! NO no ? yes YES YES!

**It is hard recalling the details of imagined interactions.**

NO! NO no ? yes YES YES!

**My imagined interactions are very specific.**

NO! NO no ? yes YES YES!

**My imagined interactions are usually quite unpleasant.**

NO! NO no ? yes YES YES!

**The other person has a lot to say in my imagined interactions.**

NO! NO no ? yes YES YES!

**My imagined interactions are usually quite pleasant.**

NO! NO no ? yes YES YES!

**The other person dominates the conversation in my imagined interactions.**

NO! NO no ? yes YES YES!

**My imagined interactions usually involve happy or fun activities.**

NO! NO no ? yes YES YES!

**Before important meetings, I frequently imagine them.**

NO! NO no ? yes YES YES!

**More often than not, what the other actually says in a real conversation is different from what I imagined he/she would say.**

NO! NO no ? yes YES YES!

**After having an imagined interaction, I often feel a sense of emotional release.**

NO! NO no ? yes YES YES!

**Having imagined interactions allows me to alleviate nervousness about interacting with others.**

NO! NO no ? yes YES YES!

**I never experience an emotional release as a result of having imagined interactions.**

NO! NO no ? yes YES YES!

**Having imagined interactions allows me to gain a better understanding of myself.**

NO! NO no ? yes YES YES!

**Having imagined interactions gives me a better sense of myself.**

NO! NO no ? yes YES YES!

**I never feel I've gained a better understanding of myself as a result of having an imagined interaction.**

NO! NO no ? yes YES YES!

**I always use imagined interactions to practice what I want to say to someone in real life.**

NO! NO no ? yes YES YES!

**I never use imagined interactions to practice what I will say to someone in real life.**

NO! NO no ? yes YES YES!

**I enjoy most of my imagined interactions.**

NO! NO no ? yes YES YES!

**I see imagined interactions as a good means of preparing for real-life interactions with others.**

NO! NO no ? yes YES YES!

**I do not enjoy most of my imagined interactions.**

NO! NO no ? yes YES YES!

**Imagined interactions give me the opportunity to compensate for the lack of real-life interactions with friends and family.**

NO! NO no ? yes YES YES!

**My imagined interactions are usually enjoyable.**

NO! NO no ? yes YES YES!

**When I can't actually spend time with significant others, I often have imagined interactions involving those individuals.**

NO! NO no ? yes YES YES!

**My imagined interactions are usually quite unpleasant.**

NO! NO no ? yes YES YES!

**I seldom use imagined interactions as a substitute for real interaction with my family and friends.**

NO! NO no ? yes YES YES!

**My imagined interactions usually involve happy or fun activities.**

NO! NO no ? yes YES YES!

**I have imagined interactions with my deceased spouse.**

NO! NO no ? yes YES YES!

**I never have imagined interactions involving my deceased spouse.**

NO! NO no ? yes YES YES!

**I often imagine interacting with my spouse about a current situation, problem, or issue.**

NO! NO no ? yes YES YES!

**When dealing with a current situation or problem, I never imagine interacting with my spouse about that situation or problem.**

NO! NO no ? yes YES YES!

**My imagined interactions often involve remembering past communication with my spouse.**

NO! NO no ? yes YES YES!

***Please give some information about yourself:***

**Sex:**  Male  Female

**Race:**  African-American/Black  Hispanic/Spanish/Latino  
 American Indian  White, not of Hispanic origin  
 Asian or Pacific Islander  Other: \_\_\_\_\_

**Highest level of education you have completed:**

- |   |   |
|---|---|
| <input type="checkbox"/> K to 12 <sup>th</sup> grade - NO DIPLOMA | <input type="checkbox"/> Professional degree (MD, JD, DDS, DVM, etc.) |
| <input type="checkbox"/> High school graduate or GED              | <input type="checkbox"/> Doctorate degree (PhD, EdD)                  |
| <input type="checkbox"/> Associate degree (AA, AS)                | <input type="checkbox"/> Other: _____                                 |
| <input type="checkbox"/> Bachelor's degree (BA, BS)               |   |
| <input type="checkbox"/> Master's degree (MA, MS, MSW, MBA, etc.) |   |

**Are you currently employed?**     Yes     No

**If yes, please indicate the nature of your employment (e.g., lawyer, teacher, cashier, secretary, laborer, salesperson, nurse, veterinarian etc.)**

\_\_\_\_\_

**Which of the following categories best describes your total yearly family income for the last year, including wages and salaries, interest and dividends, social security, and any other money received by all people in your household, before taxes and other deductions?**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> less than \$5,000    | <input type="checkbox"/> \$20,000 to \$39,999 | <input type="checkbox"/> \$80,000 to \$99,999 |
| <input type="checkbox"/> \$5,000 to \$9,999   | <input type="checkbox"/> \$40,000 to \$59,999 | <input type="checkbox"/> \$100,000 and above  |
| <input type="checkbox"/> \$10,000 to \$19,999 | <input type="checkbox"/> \$60,000 to \$79,999 |   |

**What age were you when your spouse passed away?** \_\_\_\_\_ years

**What was the age of your spouse when he or she passed away?** \_\_\_\_\_ years

**How much time has elapsed since your spouse passed away?** \_\_\_\_\_ year(s)

**Which of the following best describes the nature of your spouse's death?**

- Accidental (*automobile, household, on-the-job accidents*).
- Sudden illness (*no advance warning of illness*).
- Less than six months after diagnosis of illness.
- More than six months, less than one year after diagnosis of illness.
- More than one year after diagnosis of illness.
- Suicide
- Victim of crime
- Natural disaster (*tornado, earthquake, hurricane*)
- Other cause of death:

\_\_\_\_\_.

**How long were you and your spouse married?** \_\_\_\_\_ year(s)

**How many children do you have?** \_\_\_\_\_

**How many children currently live in your home?** \_\_\_\_\_

**Age(s) of child(ren) currently in living in your home:** \_\_\_\_\_

Couples sometimes discuss how life will be for the surviving spouse once one member dies. Would you say you and your spouse ever had discussions of this type?

NO! NO no ? yes YES YES!

*Below you are asked to rate how confident you are that you can successfully deal with important things people must typically think about after a spouse's death. Because people differ in the way that they deal with the death of a spouse, there is no right or wrong answer to these questions. Simply give your best possible answer.*

*Please read each statement, then rate each statement on how confident you are that you can successfully deal with it by circling a number on the scale. Circling a "1" suggests that you are not at all confident that you can accomplish the task. A "7" suggests that you are totally confident that you can accomplish that task. Numbers in the middle of the scale indicate that you are moderately confident that you can accomplish that task.*

*Think about yourself today, not as you were yesterday or how you will be in the future. We are interested in what you think right now. Please circle the number that indicates how confident you are today that you can successfully...*

	Not at all confident		Moderately confident			Totally confident	
Control my feelings of grief.	1	2	3	4	5	6	7
Generate meaning in my life	1	2	3	4	5	6	7
Feel settled about my future direction in life.	1	2	3	4	5	6	7
Cope with thoughts about my own vulnerability and mortality.	1	2	3	4	5	6	7
Cope with thoughts about losing other loved ones.	1	2	3	4	5	6	7
Develop some philosophy to help accept my spouse's death.	1	2	3	4	5	6	7
Think optimistically about the future.	1	2	3	4	5	6	7
Cope with thoughts that life has no meaning or purpose.	1	2	3	4	5	6	7
Know where I am going in life.	1	2	3	4	5	6	7
Manage my thoughts about how all suffering in life is pointless.	1	2	3	4	5	6	7

<b>Cope with thoughts about my life being insignificant.</b>	1	2	3	4	5	6	7
<b>Construct a personal meaning about the death of my spouse.</b>	1	2	3	4	5	6	7
<b>Cope with feelings of being alone.</b>	1	2	3	4	5	6	7
<b>Cope with feelings of grief.</b>	1	2	3	4	5	6	7

## Appendix B: Revised Survey Questionnaire

As you complete the survey, please read each item carefully before indicating your answer. Simply circle the number to the corresponding answer which best represents your feelings. Please rate ALL items. If you are not completely sure about a statement, please rate it as best you can.

***For the following items, select the number that best describes the way you have been feeling during the past two weeks, including today. Circle the number that best describes YOU and your feelings.***

**YES!** = very strong agreement

**NO!** = very strong disagreement

**YES** = strong agreement

**NO** = strong disagreement

**yes** = agreement

**no** = disagreement

**?** = neither agreement or disagreement

People take the time to listen to how I feel.

NO!      NO    no    ?    yes    YES    YES!

I can express my feelings about my grief openly and honestly.

NO!      NO    no    ?    yes    YES    YES!

It helps me to talk with someone who is nonjudgmental about how I grieve.

NO!      NO    no    ?    yes    YES    YES!

There is at least one person I can talk to about my grief.

NO!      NO    no    ?    yes    YES    YES!

I can get help for my grieving when I need it.

NO!      NO    no    ?    yes    YES    YES!

***The following items concern your interaction with other widows. Circle the number that best represents your response.***

I have spent time with other widows/widowers since my spouse's death

NO!      NO    no    ?    yes    YES    YES

I have attended meetings of a support group for widows.

NO!      NO    no    ?    yes    YES    YES

Other widows/widowers I know have been a source of support since my spouse's death.

NO!      NO    no    ?    yes    YES    YES

***The following items address the transitions you have experienced since the passing of your spouse. Please circle the answer that best represents your response to that question or statement.***

**How would you characterize your relationship with your family now?**

- 1 Very good
- 2 Adequate
- 3 Somewhat inadequate
- 4 Markedly inadequate

**How would you characterize your relationship with your children?**

- 1 Very good
- 2 Adequate
- 3 Somewhat inadequate
- 4 Markedly inadequate

**In those areas where you've found your abilities impaired by your situation, has your family shifted roles to take over those duties?**

- 1 Excellent family adaptation
- 2 Generally adequate adaptation
- 3 Generally inadequate adaptation
- 4 Highly inadequate adaptation

**Has your situation resulted in any decrease in communication between yourself and members of your family?**

- 1 No decrease in communication
- 2 A slight decrease
- 3 Communication is significantly decreased
- 4 Communication significantly decreased and I feel very alone.

**A situation such as yours often creates a drain on a family's financial resources; are you having any difficulty meeting the financial demands of your new situation?**

- 1 No financial drain.
- 2 Slight financial drain
- 3 Substantial financial drain
- 4 Severe financial drain

**Describe your general attitude and approach to taking care of your health.**

- 1 I am very concerned and pay close attention to my personal health.
- 2 Most of the time I pay attention to my health care needs.
- 3 Usually, I try to take care of health matters, but sometimes I just don't get around to it.
- 4 Health care is something that I just don't worry too much about.

**Losing a spouse can be a confusing experience, and some widows/widowers feel they do not receive enough information and details about their new situation. How do you feel?**

- 1 I have been given a very complete picture of my situation.
- 2 I have a pretty fair understanding of my situation, and if I want to know more, I can always get new information.
- 3 I do have some information about my situation, but I feel I would like to know

more.

- 4 I have very little information or knowledge about my situation.

**In a situation involving the loss of a spouse, people have different ideas about the grieving process and what to expect from it. How do you feel?**

- 1 I believe I know a great deal about the grieving process and will have little problem working through it.
- 2 I trust that I will get through the grief, but sometimes I have doubts.
- 3 I sometimes wonder if I'll ever make it through this.
- 4 I don't believe things could get worse, and I doubt I'll ever get better.

**After the loss of a spouse, individuals have different amounts of information about dealing with such a situation. How much information do you feel you have?**

- 1 I feel my understanding of this process is very up to date.
- 2 My knowledge concerning my situation is pretty complete, but there are a few things I still want to know.
- 3 I have some knowledge of my situation, but there is still so much I don't understand.
- 4 I have little knowledge about this situation, and feel quite lost.

**Have you had as much communication with members of your family outside of your immediate household since the death of your spouse (e.g., called them on the phone, written to them, etc.)?**

- 1 Contact is the same or greater.
- 2 Contact is slightly less.
- 3 Contact is markedly less.
- 4 No contact since my spouse's death.

**Have you remained as interested in interactions or activities with these family members as you were before?**

- 1 Interest is the same or greater.
- 2 Interest is slightly less.
- 3 Interest is markedly less.
- 4 Little or no interest in getting together with them.

**Do you depend on these members of your family for support and physical help, particularly since your spouse's death?**

- 1 I need no help, or they give me all the help I need.
- 2 Their help is enough, except for some minor changes.
- 3 They give me some help but not enough.
- 4 They give me little or no help even though I need a great deal.

**Do you socialize much with these members of your family? Has your situation reduced your ability to do so?**

- 1 Little or no change in socializing.
- 2 Socializing with them has been slightly reduced.

- 3 Substantial reduction in socialization.
- 4 Socialization with extended family totally eliminated.

**In general, how have you been getting along with these members of your family recently?**

- 1 As well as before my spouse's death
- 2 Fair
- 3 Poor
- 4 Very poor

**Are you still as interested in your leisure time activities and hobbies as you were prior to your spouse's death?**

- |        |          |          |                    |
|--------|----------|----------|--------------------|
| 1----- | 2-----   | 3-----   | 4-----             |
| No     | Slightly | Markedly | Little or no       |
| change | reduced  | reduced  | interest remaining |

**Are you interested in leisure time activities with your family as you were prior to your spouse's death?**

- |        |          |          |                    |
|--------|----------|----------|--------------------|
| 1----- | 2-----   | 3-----   | 4-----             |
| No     | Slightly | Markedly | Little or no       |
| change | reduced  | reduced  | interest remaining |

**Do you still participate in those activities to the same degree as you once did?**

- |        |          |          |                    |
|--------|----------|----------|--------------------|
| 1----- | 2-----   | 3-----   | 4-----             |
| No     | Slightly | Markedly | Little or no       |
| change | reduced  | reduced  | interest remaining |

**Have you maintained your interest in social activities since your spouse's death?**

- |        |          |          |                    |
|--------|----------|----------|--------------------|
| 1----- | 2-----   | 3-----   | 4-----             |
| No     | Slightly | Markedly | Little or no       |
| change | reduced  | reduced  | interest remaining |

**Have you felt anxious or nervous recently?**

- |            |              |             |           |
|------------|--------------|-------------|-----------|
| 1-----     | 2-----       | 3-----      | 4-----    |
| Not at all | A little bit | Quite a bit | Extremely |

**Have you been feeling depressed recently?**

- |            |              |             |           |
|------------|--------------|-------------|-----------|
| 1-----     | 2-----       | 3-----      | 4-----    |
| Not at all | A little bit | Quite a bit | Extremely |

**Have you been irritable or angry recently?**

- |            |              |             |           |
|------------|--------------|-------------|-----------|
| 1-----     | 2-----       | 3-----      | 4-----    |
| Not at all | A little bit | Quite a bit | Extremely |

**Have you been feeling guilty or like you have let people down lately?**

- |            |              |             |           |
|------------|--------------|-------------|-----------|
| 1-----     | 2-----       | 3-----      | 4-----    |
| Not at all | A little bit | Quite a bit | Extremely |

**Have you been worrying about things more since the death of your spouse?**

- 1-----2-----3-----4  
Not at all      A little bit      Quite a bit      Extremely

***The following 5 items focus on employment. If you are not employed, please skip this section.***

**Has your bereavement impaired your ability to do your job?**

- 1      No impairment.
- 2      Mild impairment, but very minor problems.
- 3      Some serious problems.
- 4      Situation has totally prevented me from doing my job.

**How well do you physically perform your job now?**

- 1      Very well, complete adequacy.
- 2      Slight inadequacy.
- 3      Not too well.
- 4      Poorly.

**During the last 30 days, have you lost any time at work due to your bereavement?**

- 1      3 days or less.
- 2      1 week
- 3      2 weeks
- 4      more than 2 weeks

**Is your job as important to you now as it was before your spouse passed away?**

- 1      Equal or greater importance than before.
- 2      Slightly less importance.
- 3      A lot less importance.
- 4      Little or no importance to me now.

**Have you had to change your goals concerning your job as a result of your bereavement?**

- 1      My goals are unchanged.
- 2      There has been a slight change in my goals.
- 3      My goals have changed quite a bit.
- 4      I have changed my goals completely.

*The following items address your use of an internal communication process called imagined interaction. Imagined interactions are those mental representations of interactions we have with others who are not physically present. We may imagine interactions before and/or after real-life interaction with someone. Imagined interactions may include friends, family members, co-workers, or people we've just met. We may even recall a memorable message from a grandparent or loved one who is no longer living.*

*Following are a few items asking you about imagined interactions that you may have experienced since your spouse passed away. Please read each item carefully and try to answer as honestly as possible.*

**I have imagined interactions that include my deceased spouse all the time.**

NO! NO no ? yes YES YES!

**Most of my imagined interactions include my spouse.**

NO! NO no ? yes YES YES!

**When I have imagined interactions that include my spouse, they tend to be detailed and well-developed.**

NO! NO no ? yes YES YES!

**Imagined interactions that include my spouse usually involve conflicts or arguments we had.**

NO! NO no ? yes YES YES!

**I do not enjoy my imagined interactions that include my spouse.**

NO! NO no ? yes YES YES!

**It is hard recalling the details of imagined interactions that include my spouse.**

NO! NO no ? yes YES YES!

**My imagined interactions that include my spouse are very specific.**

NO! NO no ? yes YES YES!

**My imagined interactions with my spouse are usually unpleasant.**

NO! NO no ? yes YES YES!

**In my imagined interactions, I can “hear” what my spouse is saying.**

NO! NO no ? yes YES YES!

**When I have an imagined interaction that includes my spouse, I often have only a vague memory of what he or she said.**

NO! NO no ? yes YES YES!

**Imagined interactions that include my spouse are usually quite gratifying.**

NO! NO no ? yes YES YES!

**Imagined interactions with my spouse usually involve happy or fun topics.**

NO! NO no ? yes YES YES!

**Having imagined interactions that include my deceased spouse allows me to alleviate anxiety I feel about being widowed.**

NO! NO no ? yes YES YES!

**Imagined interactions with my spouse help me relieve tension and stress I feel about being widowed.**

NO! NO no ? yes YES YES!

**Having imagined interactions that include my spouse allows me to gain a better understanding of myself.**

NO! NO no ? yes YES YES!

**I think having imagined interactions with my spouse gives me the ability to maintain a sense of connection with him or her.**

NO! NO no ? yes YES YES!

**Imagined interactions help me understand my spouse better.**

NO! NO no ? yes YES YES!

**I never have imagined interactions involving my deceased spouse.**

NO! NO no ? yes YES YES!

**Having imagined interactions that involve my spouse helps me reduce the uncertainty I feel about being widowed.**

NO! NO no ? yes YES YES!

**Imagined interactions that include my spouse make me feel more confident about handling widowhood.**

NO! NO no ? yes YES YES!

**I enjoy most of the imagined interactions that include my spouse.**

NO! NO no ? yes YES YES!

**I use imagined interactions with my spouse to maintain the relationship that I shared with him or her.**

NO! NO no ? yes YES YES!

**I rarely imagine myself interacting with my spouse.**

NO! NO no ? yes YES YES!

**Imagined interactions give me the opportunity to compensate for the lack of real-life interaction with my spouse.**

NO! NO no ? yes YES YES!

**Since I can't actually spend time with my spouse, I often have imagined interactions that include him or her.**

NO! NO no ? yes YES YES!

**My imagined interactions with my spouse tend to involve several different topics.**

NO! NO no ? yes YES YES!

**I seldom use imagined interactions as a substitute for real interaction with my spouse.**

NO! NO no ? yes YES YES!

**Having imagined interactions with my spouse allows me to maintain a connection to him or her.**

NO! NO no ? yes YES YES!

**I frequently have imagined interactions with my deceased spouse.**

NO! NO no ? yes YES YES!

**Imagined interactions that include my spouse help me clarify my thoughts and feelings about widowhood.**

NO! NO no ? yes YES YES!

**I have recurrent imagined interactions with my spouse.**

NO! NO no ? yes YES YES!

**I often imagine interacting with my spouse about a current situation, problem, or issue.**

NO! NO no ? yes YES YES!

**When dealing with a current situation or problem, I never imagine interacting with my spouse about that situation or problem.**

NO! NO no ? yes YES YES!

**When I'm faced with a new challenge, I imagine what my spouse would have to say to me about dealing with the situation.**

NO! NO no ? yes YES YES!

**My spouse is my communication partner in most of my imagined interactions.**

NO! NO no ? yes YES YES!

**I often have imagined interactions with my spouse before I take on a new challenge.**

NO! NO no ? yes YES YES!

**My imagined interactions often involve remembering past communication with my spouse.**

NO! NO no ? yes YES YES!

**Whenever I'm preparing to take care of a responsibility that my spouse used to handle, I imagine what he or she would say to me about the situation.**

NO! NO no ? yes YES YES!

**We appreciate your time and effort! Please continue...**

***Please give some information about yourself:***

**Sex:**  Male  Female

**Race:**  African-American/Black  Hispanic/Spanish/Latino  
 American Indian  White, not of Hispanic origin  
 Asian or Pacific Islander  Other: \_\_\_\_\_

**Highest level of education you have completed:**  
 K to 12<sup>th</sup> grade – NO DIPLOMA  Master’s degree (MA, MS, MSW, MBA, etc.)  
 High school graduate or GED  Professional or Doctorate degree (MD, PhD, JD, DDS, DVM, etc.)  
 Associate degree (AA, AS)  Bachelor’s degree (BA, BS)  
 Other: \_\_\_\_\_

**Are you currently employed?**  Yes  No

\* **If yes, please indicate the nature of your employment (e.g., lawyer, teacher, cashier, secretary, laborer, salesperson, nurse, veterinarian etc.)**

\* \_\_\_\_\_

**Which of the following categories best describes your total yearly family income for the last year, including wages and salaries, interest and dividends, social security, and any other money received by all people in your household, before taxes and other deductions?**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> less than \$5,000    | <input type="checkbox"/> \$20,000 to \$39,999 | <input type="checkbox"/> \$80,000 to \$99,999 |
| <input type="checkbox"/> \$5,000 to \$9,999   | <input type="checkbox"/> \$40,000 to \$59,999 | <input type="checkbox"/> \$100,000 and above  |
| <input type="checkbox"/> \$10,000 to \$19,999 | <input type="checkbox"/> \$60,000 to \$79,999 |   |

**What age were you when your spouse passed away?** \_\_\_\_\_ years

**How much time has elapsed since your spouse passed away?** \_\_\_\_\_ year(s)

**Which of the following best describes the nature of your spouse’s death?**

- Accidental (*automobile, household, on-the-job accidents*).
- Sudden illness (*no advance warning of illness*).
- Less than six months after diagnosis of illness.
- More than six months, less than one year after diagnosis of illness.
- More than one year after diagnosis of illness.
- Suicide
- Victim of crime
- Natural disaster (*tornado, earthquake, hurricane*)
- Other cause of death: \_\_\_\_\_.

**How long were you and your spouse married?** \_\_\_\_\_ year(s)

**How many children do you have?** \_\_\_\_\_

How many children currently live in your home? \_\_\_\_\_

Age(s) of child(ren) currently in living in your home: \_\_\_\_\_

Couples sometimes discuss how life will be for the surviving spouse once one member dies.  
Would you say you and your spouse ever had discussions of this type?

NO! NO no ? yes YES YES!

My spouse and I had many discussions concerning how life would be if one of us were to pass away before the other.

NO! NO no ? yes YES YES!

My spouse and I avoided discussions concerning what would happen if one of us were to pass away before the other.

NO! NO no ? yes YES YES!

**You're doing a great job! Please continue...**

This questionnaire asks you to think about important things people typically have to think about or do, following their spouse's death. For each of the activities described below, you are asked to rate *how confident you are* that you can successfully deal with them. There is no right or wrong answer to these questions; simply give your best possible answer.

Please read each statement, then rate each statement on how confident you are that you can successfully deal with it by circling a number on the scale. If you circle a "1" you state that you are *not at all confident* that you can accomplish the task. If you circle a "7" you state that you are *totally confident* that you can accomplish that task. Numbers in the middle of the scale indicate that you are *moderately confident* that you can accomplish that task.

Please rate ALL items. If you are not completely sure about a statement, please rate it as best you can.

Think about yourself *today*, not as you were yesterday or how you will be in the future. We are interested in what you think right now. Please circle the number that indicates how confident you are *today* that you can successfully...

	Not at all confident		Moderately confident			Totally confident	
Control my feelings of grief.	1	2	3	4	5	6	7
Generate meaning in my life	1	2	3	4	5	6	7
Cope with thoughts about my own vulnerability and mortality.	1	2	3	4	5	6	7
Cope with thoughts about losing	1	2	3	4	5	6	7

other loved ones.

Develop some philosophy to help accept my spouse's death.	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Cope with thoughts that life has meaning or purpose.	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

Manage my thoughts about how all suffering in life is pointless.	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

Cope with thoughts about my life being insignificant.	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Construct a personal meaning about the death of my spouse.	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

Cope with feelings of being alone.	1	2	3	4	5	6	7
------------------------------------	---	---	---	---	---	---	---

***Thank you again for your participation. Your insight is invaluable. The information that you and many other widowed individuals have provided will give social researchers the information needed to better understand the process of bereavement. If you have any suggestions, questions, or comments, please feel free to write them in the remaining space or include on a separate sheet of paper.***

## Appendix C: Hypotheses and Research Questions Results (Study 1)

### Hypotheses and Research Questions Results (Study 1)

Study 1: H/RQ	Method	Employment Status	p	R <sup>2</sup>	Power	Effect Size
<b>H1:</b> Negative relationship between II discrepancy and GPSA						
<b>H2:</b> Positive relationship between II activity, specificity, variety, proactivity, and GPSA	hierarchical regression	emp	.048	.261	.537	.5
		nonemp	.016	.266	.354	.5
<b>H3:</b> Positive relationship between II self-understanding and GPSA						
<b>H4:</b> Positive relationship between BCSE and GPSA						
<b>RQ1:</b> Relationship between II retroactivity, valence, and GPSA	hierarchical regression	emp	.004	.257	.118	.5
		nonemp	.001	.327	n/a	
RQ2: <i>Eliminated from analysis</i>						
<b>RQ3:</b> Relationship between II w/ deceased spouse and GPSA	hierarchical regression	emp	.013	.259	.185	.5
		nonemp	.001	.316	n/a	
<b>RQ4:</b> Relationship of combined II and BCSE effects on GPSA	hierarchical regression	emp	.018	.357	.338	.5
		nonemp	.001	.428	n/a	

#### LEGEND:

GPSA = global psychosocial adjustment

BCSE = bereavement coping self-efficacy

emp = employed

nonemp = not employed

## Vita

Sherry Greenwood Ford, a 1992 graduate of Jacksonville State University, in Jacksonville, Alabama, has been studying communication for the past fifteen years. She earned bachelor's degrees in both communication and English from Jacksonville State University and her master's degree in communication arts from the University of Montevallo in Montevallo, Alabama. She is currently a candidate for the degree of Doctor of Philosophy at Louisiana State University where she is majoring in communication studies, specializing in communication theory.

While enrolled in the doctoral program, Ms. Ford served as co-author for an article published in *Communication Yearbook* and has presented papers at annual meetings of the National Communication Association, Southern States Communication Association, and the Louisiana Communication Association. Topics for these works included intrapersonal communication, similarity and dissimilarity in dating relationships, and success or failure of dating services.

Ms. Ford's research interests include areas of intrapersonal dynamics of bereavement recovery, identity and interpersonal interaction, marital relationships, and the individual in an organizational context. She currently resides in Birmingham, Alabama, with her husband of eleven years, Doug, and is a faculty member at the University of Montevallo where she teaches courses in organizational communication.