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AN EMPIRICAL EXPLORATION OF THE USE OF
NARRATIVE, SYMBOL, AND RITUAL IN
CREATING CHRISTIAN MARITAL
MEMORIALS

A Dissertation
Presented to
the Faculty of
The Southern Baptist Theological Seminary

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by
Joshua Allen Creason
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NARRATIVE, SYMBOL, AND RITUAL IN
CREATING CHRISTIAN MARITAL
MEMORIALS

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Date November 13, 2006

To Courtney,
the one who embodies
Christ's love for me,
my best friend, and my love,
and to
my daughter Elise,
who has cheered me to
the finish line.

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PREFACE

This dissertation symbolizes the culmination of the hard work of numerous individuals through whom the Lord has blessed me greatly. Each has played an important role in the coming together of the content of these pages. I do not believe the Lord could have placed a better combination of men to serve on my committee. Dr. Leigh Conner, Dr. Eric Johnson, and Dr. Bill Cutrer have contributed to this process each from their own unique talents, perspectives, and backgrounds. While Dr. Charles Tackett did not serve on my committee, he also played a major role along side of these men in my education at Southern Seminary. Not only have these men shaped the text of this dissertation, but also they have been used by the Lord to shape me personally, ministerially, and professionally.

I am indebted to Dr. Ken Hollis, who sacrificed many hours of his time to interview couples for a research project about which for the sake of scientific fidelity he knew very little. I am thankful to Seth Rodriguez for his many hours of consultation on the use of the Hebrew language in this dissertation. I am grateful to John Jessee for the use of his video equipment and electronic expertise.

The Lord has used the leadership and congregation of Highview Baptist church in Louisville, Kentucky to bless me personally and to provide participants for this study to take place. The Young Couples Bible Fellowship class, of which my wife and I are a part, were foundational to the early development of this study and prayed Courtney and me through this long road.

My in-laws have invested themselves into this project and into my life, and I am thankful to be a part of their family.

I am thankful to the Lord for the family he has given me. Each individual has encouraged and prayed for me during this process. My grandmother and aunts have poured their lives into me and laid a foundation for any accomplishments the Lord gives me. I have been blessed by renewed and restored relationships with my fathers and miss sharing the completion of this dissertation with my mother, who went to be with the Lord this year.

It would take a document far longer than this dissertation to express my gratitude to and love for my wife, Courtney. She has been my coach, cheerleader, and editor among so many other roles. Her self-sacrifice during this time has demonstrated to me yet again her love for me and gives me a brief glimpse of the kind of love that lays aside one's own life for others as Christ did for me.

Joshua A. Creason

Louisville, Kentucky

December 2006

CHAPTER 1

INTRODUCTION

“Now this day will be a memorial to you, and you shall celebrate it as a feast to the LORD; throughout your generations you are to celebrate it as a permanent ordinance” (Exod 12:14). God set before his chosen people an ordinance of celebration to remind the people what he had done for them, to instruct their children, and to point to a future, spiritual release from slavery through Christ. The Passover memorial describes one of many symbols, narratives, and rituals utilized to strengthen, protect, and cherish the relationship between God and his people. At times God ordains the ritual or symbol as a reminder to the people, while at other times he places a symbol to bring about his own remembrance. Scripture also describes the people of God creating their own symbols to recollect an experience they had with God. God’s Word also records instances where God gives the people a symbol to remind them of the consequences of sin before a holy God. Memorials, rituals, symbols, and narratives play a very significant role in the story of the people of God, both Israel in the Old Testament and the church in the New Testament. These traditions unified the people and helped to create a national and spiritual identity. In many ways, rituals, traditions, symbols, and narratives can serve to build Christian marriages, which reside within the context of the broader Christian body narrative.

Forces from within and without seem to attack Christian marriages in our society. In fact, interpretation of some data describes the divorce rate for evangelical Christians as comparable to the national divorce rate of nearly 50% (barna.org 2005). Counselors and pastors both attempt to help couples choose to remain faithful to the

marital covenant when at times life gets hard and divorce looks like an easy option.

While many of these attempts contribute to the marriage continuing, the state of the relationship often appears stagnant instead of growing. Even marital therapy models with the highest success rates (as defined by lowest divorce rates) often end with marriage stability, not a vibrant, growing marriage (Gottman 2003, 89). The image of marriage presented in Scripture goes far beyond stability and stagnancy by giving the example of Christ and his bride, the church, as the standard.

In the past sixty years, secular researchers have spent countless hours of research trying to understand marriages. Their efforts by no means have been futile. Couples have more tools, resources, seminars, and weekend retreats for marriage building available than at any other time in history. The vast majority of people have access to the information they need to have a stable marriage by the world's standards. However, the best research concerning marital growth the secular world has to offer really boils down to educated guesses (albeit highly educated guesses). Thanks be to God that within his mind lies the exact reality of what it takes for every marriage to succeed not only by the world's standards, but by the ultimate standard: Christ and his church. Let us begin with what God has revealed to us from his mind. Let us begin with the treasures that lie within the text of Scripture as we build an understanding of essential elements for a marriage that points all who encounter it to Christ and his church.

The author believes that one of these essential elements lies in the examples we find in Scripture of memorials, rituals, narratives, and symbols that serve as reminders of experiences within the context of relationship. Shared meaning within marriage is not a new idea. John Gottman's theory of the Sound Marital House proposes that shared meaning and future dreams help to build strong, united marriages (Gottman 1999, 108). The author believes Gottman has experienced God's common grace in his research and has discovered the outline of God's intentions. If John Gottman can come this close to what Scripture seems to indicate without fully utilizing Scripture, how much closer could

Christian researchers get by beginning with God's revealed word and then moving toward empirical research and dialog with secular findings? This dissertation differs from Gottman's and similar research in that it began with Scripture's description of reality and then utilized scientific principles to fill in the details where Scripture is silent or vague. Scripture's examples of what Gottman calls shared meaning and dream making differs in that it includes both a horizontal and vertical component. Shared meaning and dreams should not involve only the human-to-human relationship, but also that relationship in context of a relationship with God.

Thesis

This dissertation argues that memorials and memorial elements described in Scripture contribute to a growing Christian marriage. Throughout Scripture, God describes memorials as a key relational component between God and his people. At times, he creates the memorial as a "reminder" to himself and the people of a shared experience (i.e., the rainbow after the flood, Gen 9:13-16). At other times, the people create a physical object so that when they see it, they will be reminded of what God has done for them (i.e., 1 Sam 7:12). Yet at other times, God commands his people to perform certain acts or rituals in order to commemorate his intercession for them (i.e., the feast of Booths, Lev 23:43). Scripture contains many examples of the methods of memorial prescribed by God that serve additional and often multiple functions such as building anticipation for a future event connected to the past (Stein 1996, 212) and instilling a proper mindset into the next generation (Stein 1996, 203).

In both the Old and New Testaments God likens his relationship with his people to a marital relationship. In fact, it could be argued that God designed marriage with the purpose of giving a human example of the type of union he desires to have with those created in his image. God has deeply connected the understanding of marital relationships with the understanding of his relationship to his people. It would follow

that elements God reveals in Scripture concerning his relationship with his people could be applicable to a human marital relationship. For instance, in Ephesians 5, Paul calls husbands to love their wives sacrificially as Christ loved the church. Scripture points to this relational dynamic between Christ and his bride as normative for a human marital relationship. Additionally, Peter writes (1 Pet 3:7) in a way that interconnects husbands' relationships with their wives and their relationships with God. Our earthly marriages affect our heavenly "marriage" and at the same time, our relationship with God has a deep impact on our relationship with our spouses.

Since Scripture deeply connects earthly marriages with the believer's relationship with God, it follows that memorials and memorial elements presented in Scripture for deepening relationship between God and his bride could be applicable to earthly marriages. Additionally, the principles for memory described in Scripture find a compliment from current theories of memory. Researchers have done countless studies on the created structures of the memory systems (Braddeley 1999, 515). Most early studies focused on an individual's ability to remember lists, images, or sounds (Brown 1958; Peterson and Peterson 1959). In recent years, studies have begun to focus on experiential memories and the physiological responses involved in creating and re-experiencing significant memories (Squire 1999, 521; Favez, de Roten, and Stern 2003). These studies have greatly aided our understanding of why emotional experiences form stronger memories and how rituals, narratives, or symbols can aid recall and re-experiencing of past events and experiences, even at a physiological level.

By beginning with Scripture's use of memorials and memorial elements and moving to give further explanation and support through literary and scientific research, this dissertation argues that Christian marriages stand to benefit greatly through applying memorials and memorial elements as a means of deepening relational connection between each other as individuals and between them as a couple and God.

Background

My personal and professional experiences have influenced my interest in Christian marriages. Personally, my family background includes eight divorces between my birth parents. From these experiences, I have developed a passion to contribute to the growth of marriages in any way possible. As a part of the Lord's calling upon my life, I feel he has directed me to include as a key component ministering to marriages. I have worked with many couples as they attempt to build a more Godly marriage. By the time I see most couples, they are no longer able to see the good things in their marriage. Additionally, they even read negative experiences into the past while forgetting the good times they shared. Gottman describes this phenomenon as Negative Sentiment Override (Gottman 1999,107). I believe that these are simultaneously contributors and resultants of poor marriages.

As I approached the dissertation process, I had no question in my mind that it would involve Christian marriages. In order to narrow this topic, I generated a list of what I consider essential elements of a dissertation that flow out of who God is designing me to be.

The first element focuses on the primacy of Scripture. My dissertation must include the revealed Word of God as its primary source of information. Scripture offers much more to the minister or counselor to help marriages than is typically utilized. While therapists and pastors currently use countless modalities, tools, and methods in trying to help marriages, many stem purely from secular thinkers working with marriages in general. These methods offer much to aid marriages, and often parallel biblical principles. However, it is my belief that we should turn first to Scripture to build a foundation for understanding marriage from an explicitly Christian perspective before we turn to methods developed for marriages in general.

The second element of a dissertation that stems from who I am is that it is strengthened by empirical research. The Lord has given me opportunities to study and

utilize empirical research methods in order to describe better the relationships between constructs in a quantifiable way. It is my desire to bring together strong biblical interpretation with equally uncompromising empirical description.

A third essential component to a dissertation that flows from my identity is that it must be directly applicable to Christian ministry. It is my desire to contribute directly to the ability of Christian marriages to fulfill their God-given purpose. I did not want to theorize or postulate about ideas that are so far removed from an individual couple that they are only useful to other thinkers and researchers. It is my desire to contribute directly to Christian marriages, not just the field in general.

In my opinion, the application of memorial as found in Scripture in Christian marriage fit all my desires for a dissertation topic. Simultaneously, it was narrow enough to keep the dissertation focused and broad enough to have general application.

Methodology

This dissertation begins by examining Scripture's call for remembrance when it comes to the people's relationship to God. From there it provides a description of memorials and memorial elements found in the Old and New Testaments followed by various applications in the context of Christian marriage. As a way to give additional support to the function of memorials in the lives of individuals, this dissertation also offers a brief overview of current understandings of memory, highlighting elements that directly pertain to the methodologies prescribed in Scripture. The methodology of this dissertation consists of two key components: literary research and empirical research.

Literary Research

The literary research phase of this dissertation focuses on scriptural and secular understandings of memorial and memory, respectively.

Scriptural Understandings

The scriptural literary research focuses on key passages, which refer to the use of memorials, narratives, rituals, or symbols as utilized to strengthen the relationship between God and his people. The dissertation presents in-depth word studies of the key Old Testament root זָכַר (*zāhkar*, remember), as well as the parallel New Testament terms μίμνησκομαι (*mimneskomai*, to remember) and ἀνάμνησις (*anamnesis*, reminder). Additionally, it describes a number of the key themes of memorial that tie together the narrative of Scripture.

This dissertation also highlights several key areas Israel was called to remember through the use of narrative, symbol, and ritual that have the potential to contribute directly to Christian marriages. First, memorials can assist a couple in remembering their covenant with God and with each other. Second, memorials can assist a couple in remembering the Lord's and his or her spouse's character. Thirdly, memorials can aid the recall of experiences of God's actions with the couple and others as well as one's spouse's similar actions. Finally, memorials aid the remembrance of a couple's own sin toward God and one's personal sin toward his or her spouse.

Scientific Understandings

In addition to offering a scriptural basis for the uses and impacts of memorials, this dissertation also presents a brief overview of current understandings about the created memory structures of humans. Due to the voluminous nature of the amount of information available in this field, very brief descriptions of the memory systems are provided followed by a more in-depth discussion of theories directly relevant to shared memories and their affective experience. Examples of these areas include neurological factors, narrative factors, and autonomic nervous system factors.

Empirical Research

This dissertation includes an empirical component in order to explore the role of the various constructs in contemporary marriages as a way to give concrete support for the interpretations presented in this dissertation.

Apparatus

The participant group was recruited using a screening questionnaire. This questionnaire consisted of ten basic questions in order to create two groupings for this quasi-experiment. See Appendix 1 for the survey used in this study.

Each couple underwent a video-recorded interview and answered a series of questionnaires. The Memorial History Interview drew from the previously established Oral History Interview (Gottman 199, 398). The OHI covers far more than necessary for the purpose of this study. The MHI helped to focus on the most pertinent elements of the marriage and the use of memorials in particular while taking less time than the OHI. See Appendix 19 for the MHI questions.

A basic digital video camera was used to record video of the interview process. Each participant wore a lapel microphone so that all of the husbands' responses were recorded on the right audio track and the wives' responses were recorded on the left audio track. The video footage was transferred to a computer for later viewing and assessing in conjunction with the physiological measurements. During the interview, participants were measured on a series of physiological indices. The data was recorded along with a time index by a computer so that the physiological measurements can be aligned with the video footage. The following physiological measurements were recorded: interbeat interval, skin conductivity, and skin temperature.

The following questionnaires were administered in electronic form:

The Four Horsemen (FH) questionnaire designed by John Gottman assesses the levels of five factors determined to be major contributors in most divorce situations. Gottman's research team has been able to predict with 98% accuracy divorce in couples

within five years based on these factors being present in a fifteen-minute conflict interview (Gottman 1999, 68). This scale contributes information concerning a handful of significant sinful conflict practices, giving some indication of the presence of negativity in the marriage. See Appendix 11 for FH questionnaire items.

The Locke-Wallace Marital Adjustment Test (MAT) measures the level of agreement and disagreement within a couple. The Locke-Wallace also includes an item assessing perceived marital satisfaction. This measure includes sixteen items (Gottman 1999, 337-338). The MAT gave the researcher a score of perceived marital satisfaction to be compared with the couple's physiological experience of the interview and the numbers and types of symbols, rituals, narratives, and memorials they discuss during the interview. The first eight items focused on marital agreement and were utilized to verify congruence with the single item of marital satisfaction. Items nine through fifteen are less related to this study but were retained because this measurement has been tested and validated as a whole unit. See Appendix 12 for the MAT questionnaire items.

The Joint Religious Activities Inventory (JRA) assessed the frequency of religious activities shared by a couple. The JRA included thirteen items (Mahoney et al. 1999, 337). Mahoney et al. have found this scale to have an α of .91 (Mahoney et al. 1999, 327). See Appendix 13 for the JRA questionnaire items.

The Manifestations of God questionnaire's Marital Scale (MOG) attempted to assess the degree to which their marriage manifests God and religious faith (Mahoney 1999, 229). Mahoney et al. found this scale to account for fourteen percent of variance in measures of marital satisfaction (Mahoney et al. 2003, 228). This twelve item scale has been determined to have an α of .97 (Mahoney et al. 2003, 226). See Appendix 14 for the MOG questionnaire items.

The Perceived Sacred Qualities (PSQ) scale asks couples to rate ten descriptors on a seven degree Likert scale. These qualities have been found to account for 42% of

variance in measures of marital satisfaction. This scale has been determined to have an α of 0.88 (Mahoney et al. 2003, 226). See Appendix 15 for the PSQ questionnaire items.

Participants

The sample for this study was drawn from couples from a single church who have been married once for at least five years or remarried for at least fifteen years. Both individuals in the couple had been a Christian for the majority of the marriage and grew up either outside of the church or in a protestant, evangelical denomination. The sample consisted of two groups of nine couples each. Due to the small sample size, the participant groups had to be as homogenous as possible in order to control for as many potential influencing factors as possible so that the differences between couples on the specified constructs could be described as fully as possible. However, because of the homogeneity of sample, the results were not highly generalizable. In the opinion of the author, it was more useful to be able to have a high level of certainty in describing the relationship between constructs in the sample while decreasing generalizability than to have great generalizability with little to no confidence in the actual factors involved in influencing the relationships between constructs. A large, diverse sample would be ideal; however, the resources required for such a study are far beyond the resources available for this dissertation. To collect participants the researcher administered a ten-item questionnaire to 53 couples (see Appendix 1). The nine highest scoring and nine lowest scoring couples were used for the two groups. Due to the small group sizes, this quasi-experiment functioned primarily as a pilot study to determine if more extensive research of this type is warranted.

Procedure

Participants completed all the questionnaires on computer. After completing the questionnaires, the individuals were connected to the physiological monitors. A baseline physiological reading was taken by giving the couple a few minutes to relax.

The first few questions were also designed to allow the couples to reach a “normal” physiological state after the anxiety around the questionnaires and all the electrodes.

In order to minimize the researcher’s influence on the participants, a “blind” interviewer was used. The interviewer was a researcher who was trained and experienced at administering the Oral History Interview but was unaware of the topic being studied by this research. The interviewer only knew the questions for the MHI and that the participants were being monitored on various physiological factors. The same interviewer conducted all eighteen interviews to decrease variance due to interviewer differences. This video-recorded interview lasted 20 to 40 minutes.

Research Questions

This study sought to address the following research questions.

1. Do couples who identify themselves as using memorials or memorial elements in their marriages differ from couples who do not in scores of self-assessed marital satisfaction?
2. What role does gender play in the relationship between self-assessed marital satisfaction and the use of narratives, symbols, rituals, and memorials?
3. Do couples who identify themselves as using memorials or memorial elements in their marriages differ from couples who do not in self-assessed scores of marital negativity?
4. What role does gender play in the relationship between self-assessed marital negativity and the use of narratives, symbols, rituals, and memorials?
5. Do couples who identify themselves as using memorials or memorial elements in their marriages differ from couples who do not in scores of select spiritual dimensions of marriage?
6. Do couples who identify themselves as using memorials or memorial elements in their marriages differ from couples who do not in scores of physiological/emotional responsiveness while talking about narratives, symbols, and rituals in their marriages?

Definition of Terms

This dissertation uses the term *narrative* in reference to a description of a shared temporal experience that includes relational significance. Holmberg, Orbuch, and

Veroff describe narratives as “storylike constructions told to other people, in which individuals try to summarize, explain, and make sense of stressful, complex, or emotion-laden events in their lives” (Veroff 2004, 10). For instance, this dissertation would refer to a description of the Israelites crossing the Red Sea as a narrative because it tells the story of God’s provision for the Israelites in a supernatural way. Likewise, a couple may tell the story of how they met as a narrative that describes their early relational experiences and how God brought them together.

The term *symbol* labels a physical or mental object that represents a component from within a narrative. Symbols often have a dual reference in that they have an existing meaning paired with a narrative meaning. A symbolic artifact such as a picture or a model is both a concrete object and a representation of something other than itself (Deeley 2004, 246). For instance, the Israelites kept a portion of manna in the Ark of the Covenant as a symbol of God’s provision for them in the wilderness. Additionally, a wedding ring represents the covenant made between husband and wife and with God. Both the manna and the wedding ring gain meaning within the narrative and an experience in relationship.

This dissertation uses the term *ritual* to describe repeated behavior with attached relational meaning. Deeley argues that rituals “transmit conceptions of the world and imbue them with emotional and motivational significance” (Deeley 2004, 245). As the people of Israel celebrated the Sabbath or the year of Jubilee, they participated in a ritual as defined by this dissertation. Couples may utilize a ritual as a way to remember celebrating their wedding with friends and family at the reception by kissing every time a drinking glass clinks.

This dissertation uses the term *Memorial* to refer to a multifaceted, multitemporal experience that contributes to reliving a shared memory and looking forward to the future in some way. Essential facets include a narrative, symbol(s), and ritual(s). The Passover Feast and the Lord’s Supper both represent archetypal examples

of a Memorial. They both contain all three elements essential to a Memorial, and they look to the past and future. The conclusion of the dissertation gives multiple examples of proposed memorials for Christian marriage.

Memorial elements is another term referring to the narrative, symbol, and ritual as the elements that make up a Memorial.

Delimitations

Four delimitations were necessary to keep this dissertation properly focused. First, all participants were self-professed evangelical Christians and met the criteria as presented in the “Participants” section. Individuals grew up in a protestant, evangelical denomination or completely outside of the influence of the church. By having this restriction, the researcher hoped to prevent the effects of growing up in a more ritualized denomination (such as Catholicism). This allowed more empirical precision and at the same time focused on describing the group that is at the center of the researcher’s heart.

Second, this study did not attempt to determine or postulate factors that contribute to divorce in marriage. This dissertation focused on the factors that contribute to a growing marital relationship not to a marriage that merely is stable (i.e., not divorced yet stagnant).

Thirdly, this dissertation began with a particular presupposition as it approaches empirical research. All scientific inquiry approaches research with a certain set of presuppositions. Secular researchers typically begin with the assumption that science can explain all natural occurrences. At the same time, secular naturalist researchers believe everything occurs naturally. If data seems to indicate the supernatural, the researchers typically deem the measuring instruments unreliable or invalid, or the researcher’s interpretation of the data is in error. This dissertation made a similar, yet entirely different, presupposition. This research presupposed that the Bible is God’s infallible, inerrant word. Prior to conducting the research, the researcher decided

that in the event that any empirical data produced from this study would seem to be contrary to what Scripture indicates, the inconsistency would be attributed to either a misinterpretation or misapplication of scriptural principles or to faulty research design, data interpretation, or instrumentation. It is the conviction of the author that since Scripture is the word of God, no interpretation of empirical data will ever be considered more authoritative than what Scripture explicitly reveals.

Finally, this dissertation did not attempt to exhaustively describe basic memory functioning in the context of marriage. Basic memory function includes sensory and short-term memory systems. While the malfunctioning of these systems can cause difficulties in marriage, they function at a lower level than long-term, episodic, and semantic memory systems. The dissertation provides a basic overview of the memory systems; however, it focused on the systems most relevant to symbol, ritual, and narrative in marriage.

Presupposition About Marriage

Even within the Christian community, understandings of marriage and the purpose of the marital relationship can differ significantly. It is important for the reader to understand the author's substantially different theoretical understanding of marriage.

Few conservative Christians would argue that God is not omnipotent, omniscient, and sovereign. It would follow that an all powerful, all knowing, totally sovereign God would also be perfectly creative. This perfection manifests itself in God's intentionality in every aspect of creation. If it suited his plan and purpose, he could have created the universe with different properties, but he designed it and its governing laws in a way that best reflects his glory and his sovereign plan for creation. Likewise, he could have created humans with any features, characteristics, and reproductive styles he wanted. If the sovereign creator wanted to, he could have created humans to all be of the same gender and reproduce asexually, but he did not. Based on the presupposition that

God created in ways that brought him the most glory, we must infer that there is something particularly special about male and female in relationship. In some special way, the marriage relationship declares and reflects the glory of God.

One possible explanation of this unique and certainly multifaceted reflection of glory is that at the moment of creation, God was intending to give us a living picture or a glimpse of his relational desires with his creation. This view turns most other approaches on their heads. It is not uncommon for scholars to read Scripture and see metaphorical language describing God as husband to Israel (Hos 2), Samaria (Ezek 16), or Zion (Isa 51-52) and argue that God or the author was using an image that the people were familiar with to describe God's relationship with his people. This bottom-up perspective possibly devalues marriage if it is the only way a person conceptualizes marriage. A top-down view of marriage would argue that God created two genders and marriage to not only describe his relationship with his people, but to also give them an earthly experience of oneness, unity, intimacy, and unconditional, covenantal love. Patterson contends that the Bible is a book about marriage and sex (Patterson 2005, 49). Scripture begins and ends with marriage (Gen 2:23-25, Rev 19:6-7, 9), and the central themes that run throughout are underlined with marriage metaphors (Patterson 2005, 49). Piper ties marriage with the knowledge of God when he writes, "sexuality is designed by God as a way to know God in Christ more fully" (Piper 2005, 26). He continues writing,

God created us in his image, male and female, with personhood and sexual passions, so that when he comes to us in this world there would be these powerful words and images to describe the promises and pleasures of our covenant relationship with him through Christ. (Piper 2005, 29-30)

Just as the earthly tabernacle shadows a heavenly reality (Heb 8-10), marriage shadows the present implications and future reality of union with God. Marriage provides one of the most powerful places for the experience of a glimpse of God's character and actions as well as a taste of the union with him that awaits believers.

Previous Research

This dissertation covers many fields of study. Each field has contributed to knowledge in the topics found here. However, it does not seem that many works exist that bring together the scriptural foundation for memorials and memorial elements with a focus on the marital relationship plus factoring in the role of psychophysiology. Some works cover pieces of this spectrum (Childs's *Memory and Tradition in Israel*; Guenwald's *Rituals and Ritual Theory in Ancient Israel*; Merrill's "Remembering: A Central Theme in Biblical Worship"; Ricoeur's *Memory, History, Forgetting and Time and Narrative*; Kunzendorf's *The Psychophysiology of Mental Imagery: Theory, Research, and Application*; Gottman and Silver's *The Seven Principles for Making Marriage Work*; and Schooler and Eich's "Memory for Emotional Events"), but the author has yet to find a work that combines all these elements in context of each other.

Availability of Resources

This dissertation required various types of resources as well as resources pulling from a number of fields.

Literary Resources

In order to cover the topics as fully as possible, this study obtained literary resources in the fields of biblical languages, biblical studies, philosophy of experience and narrative, psychology of religion, psychophysiology, and neuropsychology. As this list progressed, the number of resources available at the James P. Boyce Library decreased. However, adequate resources were available through the Metroversity, internet, and interlibrary loan.

Scientific Resources

Not only did this dissertation require a broad range of literary resources, it also required the accessibility of scientific equipment in order to fulfill the empirical portion of the study. The author had access to essential computer equipment and physiological

monitoring devices and had the ability to generate the appropriate digitized questionnaires.

CHAPTER 2

HEART WRITING

Introduction

Throughout Scripture God seems to indicate that he desires his people to connect with him in a deep, intimate way. He desires his covenant to be written on their hearts (Jer 31:33; cf. Deut 30:6; Heb 8:10, 10:16). In the end, he will be the one doing the final writing, but Scripture also seems to indicate a role for God's people to play when it comes to writing their covenantal relationship with their God on their hearts (Deut 4:39, 9:7, 30:6; Prov 7:3). The Hebrew mind understood the word used for heart (לֵב *lēb*) quite differently from the modern mind. Instead of being simply the seat of emotion, the heart represented one's innermost being, will, and personality as a whole (Eising 1980, 65). This use evokes an idea similar to the modern use of the word 'soul' (Childs 1962, 17). On one level, the heart is to be the recipient of God's laws (Jer 31:33; Deut 8:5). This level would result in a mechanistic obedience to his laws. While admirable, God's standards go beyond mechanistic obedience. Obedience is essential, but beyond mechanistic obedience should be a heart that longs to honor and please its God. Deuteronomy 4:39-40 seems even to imply that true obedience results from a heart that intimately knows its Lord and husband. In the New Testament, Christ points to one's heart condition being deeper than mechanistic obedience when he describes adultery as being more than sex outside of marriage, but also includes the heart condition of lust (Matt 5:27-28). This is the level of internalization that the law and covenant are to be written on the hearts of God's people. It is beyond intellectual knowledge and penetrates into "the innermost being and in the hidden part" (Ps 51:6). It is an intimate knowledge of the object of the heart's love.

God did not leave his people on their own to figure out how to take his commands and covenant and to internalize them. In God's graciousness, he also told the people how to go about the business of writing this intimate knowledge onto their innermost being. Two key passages in Deuteronomy seem to be a generalized roadmap to the heart.

Deuteronomy 6 records a sermon of Moses that summarizes God's relationship with his people along with his expectations for them. In order for the people to follow the Lord's commands when they enter the Promised Land, they are to "love the LORD your God with all your heart and with all your soul and with all your might" (Deut 6:5) as well as work to ensure that these words are on their hearts (Deut 6:6). The following verses (Deut 6:7-9) do not offer a formula for ensuring those words are on their hearts, but they do give us some insight into how the people are to approach the task. The people are to teach God's commands to their children (Deut 6:7a), talk about the commands continually (Deut 6:7b), and have them written where they can see them (Deut 6:8-9). Once again, God desires more than a simple intellectual knowledge of his commands.

He also desires the hearts of his people to be impacted by what he has done for them. Deuteronomy 4:9-10 calls for the people not to forget about what he has done and to tell their children. It is just as important for all generations of God's people to know his character and works as it is for the people to know the content of his laws. In order to "keep their souls," God's people must never forget what he has done (Deut 4:9).

This chapter will argue that Scripture's path to writing onto the heart is through the use of memorials, narratives, symbols, and rituals. In order to do this, it is important to look at key terms and passages that shed light on each of these components separately and how they work together as a whole. It is beyond the scope of this work to present in-depth and exhaustive lexical, grammatical, and exegetical analysis of the key Hebrew and Greek terms. However, germane elements that contribute to the emphases of the

overarching research objectives will be highlighted from the Hebrew and Greek. This will be followed by categorized examples of Scripture's uses of memorials, narratives, symbols, and rituals. The chapter will be concluded with a brief look at three exemplar Memorials from the Old Testament along with their New Testament counterparts as they are utilized to 'write on the hearts' a believer's relationship with God.

A Path to the Heart: זכר

Old Testament Scripture most often uses words derived from the Hebrew root זכר (*zkr*) when referring to anything pertaining to remembering, memory, memorials, and instruments to aid in memory. Additionally, words from this root are explicitly used on several occasions in parallel with the idea of 'taking something to heart' or 'bringing something to mind' with the Hebrew word לֵב being used for 'heart' and 'mind' (2 Sam 19:20; Isa 46:8, 57:11, 65:17; Jer 3:16, Jer 44:21). Eising notes that, "What is remembered is 'taken to heart' with the 'heart' understood to be an expression for the personality as a whole" (Eising 1980, 65). According to Blair, "In the Bible memory is rarely simply psychological recall. If one remembers in the Biblical sense, the past is brought into the present with compelling power. Action in the present is conditioned by what is remembered" (Blair 1961, 43).

This section will look at זכר in some detail as well as related terms that add to the discussion. It will be concluded with a structured look at the ways זכר brings about 'writing on the heart' through the use of narratives, symbols and rituals.

Grammatical Uses of זכר

The Old Testament utilizes various forms of זכר 288 times (Schottroff 1997, 382). These forms fall into three broad grammatical categories, each with its own nuance of meaning. The following section will briefly describe some of the germane nuances of זכר in the following grammatical constructions: verbal, nominal, and verbal adjective.

Verbal Uses of זָכַר

The Hebrew language communicates more information with fewer words than the English language in its uses of verbal forms. English can communicate the exact same information, but it generally takes more words to do it. The Hebrew language communicates in a more economical way. While English relies on multiple words and word forms to communicate tense, voice, and number, Hebrew verbs utilize single words using various stems to add further meaning to the verb. The verbal uses of זָכַר take on specialized use and meaning depending on the stem the biblical writer employed. Since a detailed analysis of the Hebrew goes beyond the scope of this study, the uses of זָכַר root in the qal, hiphil, and niphal stems will be covered in a way that draws out the basic meaning and is applicable to the idea of the use of memorials in Christian marriages.

Qal

When used as a verb in the qal, זָכַר appears in forms of זָכַר (zākar) and takes on the basic meaning of ‘to remember’ (Brown, Driver, and Briggs 1996, 269). Broader uses of the word include ‘call to mind,’ ‘recall past’ events, conditions, and persons; ‘keep in mind,’ ‘be attentive to,’ ‘consider,’ ‘meditate,’ and ‘commemorate’ (Brown, Driver, and Briggs 1996, 269). However, in nearly all instances of זָכַר, remembering entails more than merely calling information into cognitive consciousness (Allen 1997a, 1102). According to Childs, the Old Testament defines the verb זָכַר with “a range of actions wider than usually associated with the verb ‘remember’ in English” (Childs 1962, 30). זָכַר points toward present action in light of the mental process of remembering. Remembering does not happen as a cognitive exercise but as a fuel for future action. For instance, when Joseph asks the butler to remember him when he has been released from prison, he meant far more than, “think of me” (Gen 40:14). Joseph clearly desired the butler to think of Joseph that would lead to him utilizing his new position in an attempt to get Joseph out of prison (Allen 1997a, 1102). For God’s people to remember his precepts (Ps 103:18), means more than for them to have a mental understanding of them, but to

demonstrate obedience and have changed behavior because of their intellectual knowledge of God's precepts. Even a call to remember God's past deeds means more than think about them, it implies the need to praise God for what he has done (1 Chr 16:12) (Allen 1997a, 1102). The list could go on and on. For someone "to remember" is for him or her to be impacted. The mental process of remembering leads to an external manifestation of that knowledge. Maticich described the qal use of זָכַר to "indicate a physical action that is the corresponding expression, expected or otherwise, of that mental process" (Maticich 1990, 12). Pedersen summarizes the use of זָכַר by writing:

When the soul remembers something, it does not mean that it has an objective memory image of some thing or event, but that this image is called forth in the soul and assists in determining its direction, its action. When man remembers God, he lets his being and his actions be determined by him. (Pedersen 1954, 106)

He goes on to write: "But the peculiarity about the Israelite is that he cannot at all imagine memory, unless at the same time an effect on the totality and its direction of will is taken for granted. Therefore *zāhkar* may also mean 'to begin an action,' 'to proceed to do something'" (Pedersen 1954, 107).

In order to examine the qal uses of זָכַר in more manageable bites, instances where God 'remembers' something and instances where a human 'remembers' something will be described separately.

God remembers. זָכַר in the qal appears with God as the subject 72 times throughout the Old Testament. It is also used with God as the subject three times in the hiphil and three times in the niphal, but these uses do not differ enough from the qal to warrant separate treatment so they will be included here (Cosand 1995, 30). Many of these instances are found in the Psalms, Nehemiah, Hosea, and Jeremiah. God remembering can be divided up into times when God remembers (indicative) and when God is asked to remember (imperative). In the times where God remembers, he typically remembers as a way of blessing or cursing. When God remembered Israel, he blessed

them. When he remembered their sin, he cursed them. It is interesting to note that God does not forget Israel, but he does forget their sins (Cosand 1995, 33).

Most frequently, the verb is found with a direct object or a prepositional phrase beginning with לְ (lə). Interestingly, every occurrence of לְ with זָכַר appears in relation to God's memory (Childs 1962, 31). The reason behind the exclusivity of the construction לְ זָכַר could be that it bears a juridical meaning. Only God can be the judge and determine whether or not to remember (credit to one's account) sins or righteousness. Israel cannot be a judge in any ultimate sense, therefore this construction is not used with Israel as the subject. In the three instances where זָכַר takes on a juridical flavor without the לְ construction (Gen 40:14; 1 Sam 25:31; 2 Sam 19:20), there is a clear superior to subordinate relationship (Childs 1962, 32).

The focus of זָכַר when referring to God remembering demonstrates that remembrance is "an action directed toward someone rather than on the psychological experience of the subject" (Childs 1962, 32). Examples of God remembering or being asked to remember include: Genesis 8:1, 9:15, 19:29, 30:22; Exodus 32:13, Leviticus 26:42, 45; Deuteronomy 9:27; 1 Samuel 1:19; Nehemiah 5:19; Psalms 25:6, 74:2; 79:8, 132:1, 137:7; Isaiah 38:3; Jeremiah 2:2. In each of these and other instances of God remembering, memory is not identical with action, but it is never completely separate from it (Childs 1962, 33). God's memory carries ontological reality with it. If God does not remember a person, that person does not exist (Ps 88:6). The result of God not remembering sin is forgiveness (Jer 14:10, 31:34).

A powerful example of God's remembering that goes beyond the purely psychological concept of memory and the idea of action as a result of memory is found in Jeremiah 31:20: "Is Ephraim My dear son? Is he a delightful child? Indeed, as often as I have spoken against him, I certainly still remember him; therefore My heart yearns for him; I will surely have mercy on him,' declares the LORD."

In this instance, we see passion and deep emotion from God as Father toward his child Ephraim. Because God remembers his child, he takes action. His memory does not remain as thoughts but leads to actions (Childs 1962, 34).

God remembering, whether it is Israel, collectively or individually, or his covenant with them, is not an abstraction from the past or future. “For God to remember his covenant implies that the particular covenant relationship of the past will have a decisive bearing upon the present relationship of God with his people” (Koopmans 1985, 12). God’s covenant with his people is perpetually relevant to his relationship with them, particularly when it comes to restoration of the relationship when Israel has been unfaithful to her husband (Ezek 16) or when God’s covenant people is in danger from an outsider (Num 10:9).

Groß nuances זָכַר in the context of God’s covenant with Israel by writing:

An overview of the texts in which God appears as the subject of *zkr* shows that this verb is essentially concerned with the self-disclosure of God; that it marks a basic point of reference in the conception of God . . . *zkr* conveys therefore essentially this: that the God of the Old Testament does not in any way appear removed to an unreachable distance; that salvation history does not run mechanically like a precisely adjusted clock or automatically reach its goal in a pre-established order; rather it [*zkr*] fulfills the task of showing Yahweh as the truly living God, who actively intervenes in the history of the world and, especially, who resolutely pursues his plan of salvation concerning Israel. (Groß 1960, 227)

Here, Groß intimately ties together the concept of remembering with covenant history.

זָכַר clearly goes well beyond a basic psychological recall of information.

Childs summarizes the uses of זָכַר with God as subject by writing:

God’s remembering always implies his movement toward the object of his memory. This action varies in nature, and can be physical or forensic. The objective side of memory is accompanied, in differing degrees, by an internal reaction on God’s part. The essence of God’s remembering lies in his acting toward someone because of previous commitment. (Childs 1962, 34)

Israel remembers. Unlike God, humans are finite creatures who have a tendency to forget things from time to time. God remembering something has nothing to do with him having forgotten something. In contrast, the idea of humans remembering

does take on that basic meaning from time to time. However, the majority of the uses of humans remembering in Scripture imply much more than simple psychological recall of information.

Scripture contains 94 examples of the verb זָכַר used with Israel, as a group or a member of the group, as the subject (Childs 1962, 45). As mentioned previously, Israel as the subject of זָכַר does not appear with the preposition לְ (indicating a forensic ‘remembering’ or ‘holding accountable for’) except in three occasions when the object is clearly a subordinate. The other 91 examples of Israel remembering fall into the following categories: the great acts of Yahweh (approximately 22 times), Yahweh himself (17 times), Yahweh’s commandments (nine times), their own sins (seven times), and special days (three times) (Childs 1962, 46). It is interesting to note that Israel never remembers Yahweh’s covenant compared to the dozen or so times he says he will remember the covenant or commands them to remember it (Childs 1962, 46).

Another contrast to the use of זָכַר with Israel as the subject to the use of זָכַר with God as the subject is that while God remembering typically involves some level of spiritual or cultic significance, Israel remembering involves many facets of life. It is found used in legal matters (Mic 6:5, Ezek 16:43), narrative matters (Gen 42:9), prophetic warnings (Isa 44:21, Jer 51:50, Mal 4:4), taunts (Isa 47:7), threats (Ezek 23:27), and wisdom sayings (Prov 31:7; Eccl 5:19, 11:8, 12:1) (Childs 1962, 46-50). The most frequent use of Israel remembering is in reference to God or objects/ideas related to him (i.e. His commands or actions) (Cosand 1995, 37).

Even though זָכַר appears in a variety of settings and has multiple nuanced meanings depending on the setting, one can generalize its meaning to go beyond mere psychological recall even in these settings, especially when there is reference to Yahweh, his commands, or their history with him.

One aspect of remembering that goes beyond cognitive recall is the connection between remembrance and obedience. Moses’ sermon in Deuteronomy 8 focuses on

obeying Yahweh's commands (Deut 8:1, 6, 11). Moses builds his argument to obey Yahweh by telling Israel to remember how he brought them through the wilderness (Deut 8:2), to remember Yahweh himself (Deut 8:18), and not forget him (Deut 8:19). Taking this passage alongside Isaiah 64:4-5:

For from days of old they have not heard or perceived by ear, nor has the eye seen a God besides You, who acts in behalf of the one who waits for Him. You meet him who rejoices in doing righteousness, who remembers You in Your ways. Behold, You were angry, for we sinned, we continued in them a long time; and shall we be saved?

and Psalm 119:55, "O LORD, I remember Your name in the night, and keep Your law. This has become mine, that I observe Your precepts," gives the clear impression that remembering is tantamount to obeying Yahweh. On the other side of the coin, forgetting Yahweh, his covenant, or his actions communicates disobedience and disrupted relationship (Judg 8:34, Ps 78:40-42).

A second key aspect of remembering that goes beyond cognitive recall is the connection between remembering and reconciliation. Psalm 78 highlights the moral decline of God's people (Ps 78:9-20), God's chastening of them (Ps 78:21-33), and then "they remembered that God was their rock and the Most High God their Redeemer" (Ps 78:35). Interestingly, the moral decline all seems connected to God's people not heeding Moses' admonition to remember Yahweh in Deuteronomy 8. First, the Psalmist describes the people disobeying the law (Ps 78:9-10) and as previously noted, remembering the law is the same thing as obeying it. Second, the people forgot (שָׁכַח *[šākah]*, an antonym for זָכַר to be discussed later) God's works (Ps 78:11-16). Finally, they rebelled against him in their hearts (Ps 78:17-20). This seems to demonstrate a natural progression of sin that begins with not remembering God's covenant, proceeds to not remembering God's faithfulness, and results in rebellion of the heart. Psalm 78 appears to provide further support that remembering, זָכַר, is a path to the heart. But not only is remembering a way to build or maintain the relationship between God and his people, it is the means by which reconciliation takes place. God forgives his people

because they remembered that he was their rock and redeemer (Ps 78:38). The Psalmist goes on to describe Israel's continued forgetfulness and resulting unfaithfulness, but highlights the mercy and compassion of a God who "remembers" the frailty of flesh (Ps 78:39). Not only does the Psalmist connect remembrance with reconciliation, but Ezekiel also makes a similar point. For the exiles, remembering their own sins and responding with appropriate brokenness (Ezek 20:43, 36:31) led to God forgiving their iniquities (Ezek 36:33).

Allen describes God's remembering as having to do with the direction of his attention or his intervention (either grace or judgment) while humans' remembering has to do with reflection on the past which leads to a response (regret, relief, appreciation, or commitment) (Allen 1997a, 1100). It is in the context of worship that Allen sees these two facets coming together where a fellowship of praise and blessing emerge (Allen 1997a, 1100).

Hiphil

When used as a verb in the hiphil (זָכַר *hizkîr*), זָכַר takes on the basic meaning of "to utter or mention" (Brown, Driver, and Briggs 1996, 270). The uses of the hiphil form of זָכַר fall into three basic categories: cultic, judicial, and nominalized participle.

Cultic. Eleven times in the Old Testament, the hiphil form of זָכַר appears with the noun for 'name' (שֵׁם *šēm*). Childs suggests the most likely explanation of the six concurrences of זָכַר with שֵׁם as the direct object (Exod 20:24, 23:13; 2 Sam 18:18; Isa 26:13, 49:1; Ps 45:18) should be interpreted as a denominative of זָכַר (*zēker*), 'to name the name' (Childs 1962, 12). God gives a prohibition not only for worshipping other gods but also even mentioning their names (Exod 23:13). Given the key role of names in the Ancient Near East, to speak the name of a god occurred only at the high moments of cultic practice. The Israelites were to avoid remembering, mentioning, and

worshipping any other god besides Yahweh (Childs 1962, 12). On the other hand, God commands Israel to remember, mention, and worship his name in Exodus 20:24. This passage parallels the Exodus 23:13 passage in meaning and usage of **הָזְכִיר** (Childs 1962, 13).

On four occasions **הָזְכִיר** appears with **שֵׁם** and the preposition **בְּ** (**בְּשֵׁם**) (Josh 23:7, Amos 6:10, Isa 48:1, Ps 20:7). This construction adds the nuance of ‘to invoke the name of’ and in two of the occasions can be seen in parallel to the expression ‘swear by’ (**נִשְׁבַּע** *nišba*) (Isa 48:1, Josh 23:7). When used with **בְּשֵׁם**, **הָזְכִיר** becomes a technical cult expression synonymous with ‘to call upon the name of Yahweh’ (**קָרָא בְּשֵׁם יְהוָה**) *qārā’ bēšēm Yhwh* (Gen 4:26, 1 Chr 16:8, Ps 79:6) (Childs 1962, 14).

The final cultic use of **הָזְכִיר** is found as a denominative of ‘memorial offering’ (**אֲזַכְרָה** *’azkārā*) and carries the basic meaning of ‘to make a memorial offering’ (Childs 1962, 14).

Juridical. There are a number of occasions when **זָכַר** appears in the hiphil where it is clearly not being used as a denominative and differs from the cultic use (Childs 1962, 15). In these cases, it occurs within a “technical forensic setting” (Childs 1962, 14). When used in these instances, **הָזְכִיר** takes on a meaning of accusation of sin or making sin known (Num 5:15, 1 Kgs 17:18, Ezek 21:23-24, 29:16, Gen 41:9) (Allen 1997a, 1104; Schottroff 1997, 385). Isaiah 43:26 highlights this parallel in that the traditional translation, “put me in remembrance” makes less sense than translating **הָזְכִירָנִי** as “accuse me” (Childs 1962, 15). A basic translation of this hiphil use of **זָכַר** is “to utter an accusation” or “to pronounce the sinner’s name” (Childs 1962, 15).

Nominalized participle. In a number of instances, **זָכַר** in the hiphil is used as a nominalized participle (**מַזְכִּיר** *mazkîr*), functioning as a noun (e.g., 2 Sam 8:16, 20:24; 1 Kgs 4:3; 2 Kgs 18:18, 37; Isa 36:22). In these cases, it is best translated, “recorder” (literally, “one who records”) and seen as an official courtly role. The task of the

recorder was to make a written account of the events in the court (Eising 1980, 75). On the surface, this role has no cultic or theological connection. However, an accurate record of events on some level portrays the works of God, which do have theological relevance. Even the use of זָכַר when describing what would seem like a basic, raw data occupation actually still can carry with it the implications for ‘writing on one’s heart’ by accurately recording the history of God’s people.

Niphal

When used as a verb in the niphal (נִזְכַּר, *nizkar*), זָכַר is usually translated as “be remembered, invoked” (Allen 1997a, 1100) or simply as the passive form of the hipil “be mentioned” (Childs 1962, 16). Most of these occurrences imply a courtly or legal function (Eising 1980, 72). In these instances, God chooses not to account for (often translated “does not remember”) the deeds of a person (Ezek 3:20, 18:22, 24, 33:13, 16). Since God is omniscient, the translation of this does not make sense if נִזְכַּר is translated simply as “remember.” An omniscient God cannot literally forget, but he can choose whether to reckon one’s deeds when being a just judge (Eising 1980, 72; Preuss 2004, 676).

When the niphal form of זָכַר takes the meaning of “to mention” it often is associated with the word for ‘name’ (שֵׁם *šēm*). In many of these instances, the idea of a person’s name not being mentioned is an expression for bodily death or obliteration of all current and future impact (Eising 1980, 73). In the Hebrew mind, one’s name signified a person’s total outward being and presence, so if someone’s name was forgotten, not only was he or she dead, but the person left no lasting presence or impact. Jeremiah’s enemies desired his total annihilation (Jer 11:19; cf. Ps 83:4), which goes beyond just his physical death, but also includes any lasting impact or legacy he may have left (Eising 1980, 73). Additionally, the Lord declares he will do the same to the idols Israel was serving instead of him (Hos 2:17, Zech 13:2). If the names of the idols are wiped out of memory, not

only will Israel no longer seek the idols, but also it will be almost as if the idols never existed (Eising 1980, 73).

זכר as a Noun

When Scripture uses זכר as a noun, it typically appears in the form of זְכָרוֹן (*zikkārôn*, memorial sign), אֲזָכָרָה (*'azkārā*, memorial offering), or זֵכֶר (*zēker*, memorial name). Each of these brings with it the idea of remembering being more than cognitive recall. These noun forms will be explored individually as they pertain to writing on hearts.

Zikkārôn זְכָרוֹן

The noun זְכָרוֹן appears 25 times in the Old Testament. Of those occurrences, one is an Aramaic cognate and two are in a plural form (Childs 1962, 66). זְכָרוֹן is generally translated ‘memorial sign’ (Eising 1980, 77). Maticich contends that: “זְכָרוֹן is mainly a thing or a repeated event used to remind God’s people of His faithfulness and of their covenant relation to Him. The purpose of the זְכָרוֹן is to keep them trusting in Him, to inspire continued acts of faith” (Maticich 1990, 30).

זְכָרוֹן can be put into two broad categories. Passively, זְכָרוֹן indicates things themselves that are worthy of remembering and can be thought of as a memorandum. The active use indicates objects that evoke something else to remembrance (Childs 1962, 66) and can be thought of as a memorial.

Passive memorandums represent the smaller group of זְכָרוֹן occurrences. Scripture records various memorandums ranging from memorable deeds (Esth 6:1), memorable sayings (Job 13:12), remembrance (Eccl 1:11, 2:16), simply a record (Ezra 6:2, Exod 17:14), or book of recordings (Mal 3:16, Esth 6:1) (Childs 1962, 66).

Active memorials typically also involve important theological significance (Childs 1962, 67). In ten instances a זְכָרוֹן clearly plays a cultic role: an altar covering (Num 16:40), spoils (Num 31:54), onyx stones on an ephod (Exod 28:12, 39:7),

atonement money (Exod 30:16), the priestly breastpiece (Exod 28:29), a grain offering (Num 5:15, 18), and Passover (Exod 12:14). The writers of Scripture typically used the idiomatic expression ‘a memorial for the children of Israel before Yahweh’ (Childs 1962, 67). With this idiom, the memorial becomes connected to the covenant relationship God established with Israel. Childs explains the implication of this by writing:

Signs and memorials serve within this dispensation of grace both to guarantee and maintain for each generation this eternal relationship. The cultic acts of Israel continually remind God of this eternal covenantal order. The cultic objects and rites act to guarantee that the covenant is not forgotten. (Childs 1962, 67)

Even memorials that are not directly cultic seem to have a comparable purpose. For instance, Joshua 4:7 records a pillar of stones being used as a reminder of the works of God and his faithfulness to Israel. Additionally, Numbers 16 describes the transformation of bronze censers, illegitimately used by 250 who desired to be priests, into hammered plating for the altar so that the people would remember God’s expectations for obedience to his prescribed methods of worshiping him. זָכָרוֹן can be basically anything that “prevents a particular event from being forgotten” (Kruger 1997a, 332).

It will be beneficial here to turn our attention to a number of Hebrew terms related to זָכָרוֹן. Each of these objects are either explicitly referred to as זָכָרוֹן or they are used in a context where they clearly take on features of זָכָרוֹן.

אוֹת (*’ot*). Signs (**אוֹת**) often take the role of זָכָרוֹן to the point that they are nearly synonymous (Helfmeyer 1977, 168). On nearly 20 occasions, **אוֹת** appears in a parallel construction with **מוֹפֵת** (*môpēt*). In these instances, the two appear to have the same meaning (e.g., Deut 34:11, Neh 9:10, Dan 4:3) (Kruger 1997a, 332). When the two are examined when they occur individually, they seem to possibly take on slightly differing nuances. In these cases, **אוֹת** often appears to be a present physical witness to something that has happened in the past (Gen 9:12, Josh 4:6). In contrast, **מוֹפֵת** appears to be typically referring to a miraculous event (Exod 11:9, Josh 3:5, Judg 13:9, Ps 107).

Because of this subtle distinction, מוֹפֵת will be addressed more extensively as a form of a זִכָּר (zēker). This categorization of אֹת is not all-inclusive but a generalization. For example, Joshua 24:17:

For the LORD our God is He who brought us and our fathers up out of the land of Egypt, from the house of bondage, and who did these great signs [הַאֲתוֹת] in our sight and preserved us through all the way in which we went and among all the peoples through whose midst we passed.

uses the word אֹת where one would expect to see מוֹפֵת given the general categorization of אֹת being physical objects and מוֹפֵת being miraculous actions.

The basic function of a sign is to impart knowledge (Kruger 1997a, 332; Helfmeyer 1977, 176). The content of that knowledge varies from situation to situation. For Cain, a sign communicated to others that if they chose to kill him, God would exact great vengeance on the perpetrator (Gen 4:15). The rainbow in the sky communicates God's covenant never to destroy all living creatures with water again (Gen 9:11). Aaron's budded rod demonstrated God's desire for only his descendents to be priests (Num 17:10). A pile of stones near the Jordan river served to demonstrate God's faithfulness in bringing his people across the river on dry ground (Josh 4:6). Each of these signs, and all other signs, are not significant in of themselves. Signs draw their significance from their interpretation and historical events they refer to (Helfmeyer 1977, 181). Signs were used to "recall and remind of divine actions in the past" (Kruger 1997a, 332) and to impart knowledge about the sign giver (Helfmeyer 1977, 173).

On occasion, an אֹת is not a physical object but a physical action. For instance God tells Ezekiel, "Get yourself an iron plate and set it up as an iron wall between you and the city, and set your face toward it so that it is under siege, and besiege it. This is a sign to the house of Israel" (Ezek 4:3). In this case, Ezekiel's actions become a sign with meaning (cf. Isa 8:18, 20:3). These peculiar sign-acts have no meaning apart from their interpretation, just as a pile of stones has no meaning without an explanation (Josh 4:6) (Helfmeyer 1977, 186).

Just as זכר implies more than basic cognitive recall, signs were intended to do more than prompt a person to remember a past event. The point was not to store information about past events but to become motivated and aroused to action (Helfmeyer 1977, 175). Signs helped maintain faith and give expression of faith (Helfmeyer 1977, 179).

יָד (*yād*). The Hebrew word יָד is used primarily in reference to one's 'hand' (Haag 1998, 456) or metaphorically as 'power' (Dreytza 1997, 403). However, on a few occasions יָד denotes a monument (e.g., 1 Sam 15:12, 2 Sam 18:18). In these two examples, Saul and Absalom set up monuments for themselves that demonstrate their power to future generations. These monuments are a witness to what these two men accomplished. While יָד is never referred to as a זִכְרוֹן, it does appear to be a perversion of the core of זִכְרוֹן. Where זִכְרוֹן points to God's power and character, יָד points to a human's power and character.

צִיּוֹן (*ṣiyyûn*) and תְּמָרָרִית (*tamrûr*). These two Hebrew words appear in the Old Testament a combined four times. תְּמָרָרִית occurs once (Jer 31:21) and is translated 'signpost' or 'guidepost.' A תְּמָרָרִית communicates information used as a basis for decisions in direction of travel. The related word, צִיּוֹן, appears parallel to תְּמָרָרִית in Jeremiah 31:21 and takes on a synonymous meaning. The other two times צִיּוֹן is found in the Old Testament, it indicates a physical object that points to meaning beyond itself. Once it is referring to a marker to call attention to something (Ezek 39:15) and once it is a marker for the grave of an unnamed prophet (2 Kgs 23:17). Each of these in some way can take on meanings that point to something related to God. The signposts in Jeremiah 31 are placed along the highway so that the exiles can remind themselves how to return to Zion and God. The marker denoting the grave of the unnamed prophet was a testimony to God's word being preached. This example is particularly noteworthy because the power of God was so demonstrated in the prophet that only it is remembered . . . no one

even remembers who this prophet was, but they do remember how God worked through him.

נֵשׂ (*nēs*). The Hebrew word **נֵשׂ** or **נֵשׂוֹ** typically indicates a military standard or flag. These banners represented the presence of a particular power in a particular location. Even when Scripture uses this word in a literal way, it often has deeper, theological meaning present. For instance, Isaiah 5:26 describes God erecting a standard to call to the distant nations together in order to bring about his judgment on his people. This standard also functions to point the way to Israel (Fabry 1998, 441). Even though the majority of uses of **נֵשׂ** point toward a normal standard (a pole with a flag at the top), Scripture also uses the concept behind a standard on other objects. Exodus 17:15 describes Moses erecting an unusual banner or standard. After the Lord defeated Amelek through Joshua, Moses built an altar and called it “The LORD is My Banner.” While this altar differed from typical military banners, it took on similar roles and functions by indicating an area controlled by military power (Fabry 1998, 441). Zechariah 9:16 also depicts an unusual use of **נֵשׂ** when it figuratively describes the people of Israel as a banner in the land. The people themselves are an indication of God and his power to all who see them.

One of the most powerful uses of **נֵשׂ** appears in Isaiah 11:10-12. Here we see the foretold Messiah becoming a figurative banner and signal for his people. The Messiah will become a call to the ends of the earth for all of God’s people to assemble together (Fabry 1998, 442). Christ was raised up as a standard to all the peoples when his children placed him on top of a wooden pole, a cross. He described this as parallel to Moses raising a fiery serpent on a pole (**נֵשׂוֹ**) as a sign for the bitten Israelites to look to in order to be saved from death (John 3:14, Num 21:8) (Fabry 1998, 440).

תָּו (*tāw*). Scripture occasionally uses the word **תָּו** for ‘mark’ or ‘sign.’ This word probably originates from the last character of Old Hebrew which looked like a

cross. This character was used as a sign, mark of identification, or distinguishing mark (Kruger 1997b, 278). Ezekiel 9:4-6 describes a mark being placed on the foreheads of the faithful in order to save them from God's wrath. This type of marking is very clearly parallel to the doorposts at the first Passover. Additionally, the use of marks on foreheads and doorposts is very reminiscent to Deuteronomy 6:8-9. Scripture also uses the word **תָּי** functionally as we would use a signature. It verifies origin and power. Job 31:35 illustrates this (Kruger 1997b, 278).

עֵד ('*ed*). Commonly, the word **עֵד** ('witness') appears in conjunction with a **זְכָרוֹן**. When these two appear together, the **זְכָרוֹן** is a witness to a previous deed. It not only reminds one of what happened in the past but also provides concrete evidence for the present (Ringgren 1999, 506). Typically, **עֵד** is a technical legal term (Ringgren 1999, 507). Various objects are identified as 'witnesses' of business transactions (Gen 21:30), personal agreements (Gen 31:44-52), and divine abilities (Exod 4:8) in the Old Testament.

זְכָר *Zēker*

Where **זְכָרוֹן** tends to describe concrete objects and **זְכָרָה** ritualistic offerings, **זְכָר** tends to describe abstract ideas. While Scripture uses **זְכָר** in a variety of settings, there does seem to be a common thread of an encapsulation of history of experiences.

Exodus 17:14 records God commanding Moses to write a memorial book (**זְכָרוֹן**) that recorded God's faithfulness and how God blotted out all memory (**זְכָר**) of Amalek. Here we see both a concrete testimony of God bringing victory to the Israelites and at the same time the abstract idea of Amalek's essence, history, and future power after death being removed.

In Esther 9:28 Scripture preserves for us the events surrounding the establishment of the feast of the Purim. In order for the people to remember (or to write

on their hearts) God's hand in preserving them, they are to celebrate the feast annually. Otherwise, the present people's memory (זָכַר) of the people in Esther's time may fade. It is not the details of the events that are so important to remember but rather God's actions (cf. Ps 111:4) and character (cf. Ps 145). God's past faithfulness is kept alive in the people by their perpetual celebration of this festival (Childs 1962, 72).

Just as other forms of the root זָכַר typically denote cognitive information plus a response, זָכַר also has a responsive element. Remembering God's character and actions prompts one to action. Psalm 6:5 uses זָכַר in parallel construction with the verb יוֹדֶה 'thanksgiving.' If there is no 'mention' (זָכַר) of God in death, there is also no thanks from Sheol. To experience the זָכַר of God prompts one to praise and thank him. The re-experiencing of God's faithful character and actions that flow from his covenant necessitates one to respond appropriately.

In order to better understand זָכַר, a brief study of two related terms will be presented.

שֵׁם (šēm). The word for 'name' (שֵׁם) often appears parallel to זָכַר. In a number of other instances, the connection is apparent from the context (Childs 1962, 71). In general, the שֵׁם is the name itself while זָכַר is the result of speaking that name. With the Hebrew mind seeing one's name intimately connected with the person's essence, the זָכַר takes on the nuance of being a container for the essence of the person's past actions and character (Childs 1962, 71).

In six instances, זָכַר takes on the highly specialized use of being God's memorial name, יְהוָה (Yahweh) (Exod 34:6-7; Pss 30:4, 97:12, 102:12; Hos 12:5) (Maticich 1990, 39). God revealed his memorial name in Exodus 3:15: "Thus you shall say to the sons of Israel, 'The Lord, the God of your fathers, the God of Abraham, the God of Isaac, and the God of Jacob, has sent me to you.' This is My name forever, and

this is My memorial-name to all generations.” God then goes on to explain the essence of his memorial name in Exodus 34:6-7:

The LORD, the LORD God, compassionate and gracious, slow to anger, and abounding in lovingkindness and truth; who keeps lovingkindness for thousands, who forgives iniquity, transgression and sin; yet He will by no means leave the guilty unpunished, visiting the iniquity of fathers on the children and on the grandchildren to the third and fourth generations.

Wrapped up in God’s memorial name is his covenant with his people. When the people spoke, heard, or saw God’s memorial name, they were prompted to remember not only his covenant to them, but also their responsibilities in response to that covenant (Maticich 1990, 41).

Even though this specialized use is best translated ‘name’ it takes on a deeper meaning than many other uses of שֵׁם. Here, God has given the people his specific memorial name for them to associate with all his actions and character. This use goes hand-in-hand with the cultic use of the hiphil form of זָכַר. God is worshiped by mentioning his name (זָכַרְתִּי) (Isa 26:8). Key to the proper worship of God is the renewing and reactualizing of his people’s redemptive history (Childs 1962, 73).

מוֹפֵת (*môpēt*). Even though ‘signs’ (אוֹת) and ‘wonders’ (מוֹפֵת) are often used in parallel and translated synonymously, when it appears alone, it seems to take on the nuance of an abstract quality not found with אוֹת. Signs alone typically are concrete objects which communicate information about past events that have present implications, while wonders are miraculous acts that give witness to the powers of God. They are then communicated down through the ages as a way to remember the mighty acts of a covenant God (Josh 3:5, 4:7-11). While מוֹפֵת may inspire awe and fear, the intention “is not to terrify the onlooker, but to mediate an understanding or to motivate a kind of behavior” (Helfmeyer 1977, 171).

'Azkārā זָכָרָה

Memorial offerings are found seven times in the Old Testament. The objects designated as זָכָרָה vary from grain offerings (Lev 2:2, 9, 16; 6:15; Num 5:26), to sin offerings (Lev 5:12), to shewbread in the tabernacle (Lev 24:5-7). Every occurrence of זָכָרָה appears in a clear cultic context that points to the covenant relationship between God and his people. According to Harrison: “It is uncertain whether the original intent of the ‘*azkara* was to remind God of the existence of the impoverished worshipper, to recall to the mind of the offerer the majesty, bounty and provision of God for human needs, or a combination of both” (Harrison 1980, 51). These offerings reminded the people of both their sinfulness and their being a possession of God. By calling this into consciousness, the people experienced their unfaithfulness in contrast with Yahweh’s fidelity. Offerings were not only for the benefit of the offerer, but also prompted God to be mindful of his covenant with his people (Maticich 1990, 48).

Forget

Any discussion of זָכָר without mention of its antonyms would be incomplete. The negated antonyms of זָכָר, שָׁכַח (*šākah*) and נָשָׁה (*nāšā*), often stand in its place (for parallel constructions supporting this, see Deut 9:7, 1 Sam 1:11) (Allen 1997c, 104; Allen 1997b, 184). Just as זָכָר implies more than a mental process, these two forms also indicate external implications for cognitive activities. Typically when Scripture uses the phrase “do not forget . . .” (e.g., Deut 4:9, 23, 6:12, Deut 8:11; Pss 10:12, 74:23, 119:83, 109), the same information is being communicated as if the text said, “remember . . .” In a few cases, שָׁכַח also appears in parallel as a synonym for לֵא-יָדַע (‘unknown,’ Gen 41:30-31), בִּלְרָאָה (‘never see,’ Ps 10:11), and שָׁקַר (‘deal falsely,’ Ps 44:17; Jer 13:25) (Preuss 2004, 672). Forgetting in Scripture may take the external forms of abandonment, neglect of obligations, or choosing not to be impacted by external cues. For God to forget someone is the same as him “hiding his face” (Pss 10:11, 13:1, 44:24), which is to say that he chooses not to come to his or her rescue (Preuss 2004, 672).

Scripture rarely uses the term נָשָׁח without implying a theological impact on some level. For instance, Jeremiah 2:32a seems like a simple case of a bride forgetting her ornaments, yet theologically this implies that the bride's type of forgetfulness reflects Israel's relationship to God (Preuss 2004, 673). Similarly, Deuteronomy 24:19 refers to a forgotten sheaf of wheat in the field. The theological implication is that the Lord works through the finitude of human mental processes to bring about the sustenance of the alien, widow, and orphan (Preuss 2004, 673). Human forgetfulness has theological implications. In the book of Judges, Israel's forgetfulness is directly tied to their lapsing into idolatry (Judg 2:10, 8:33-35) (Cosand 1995, 204).

An important aspect of forgetfulness germane to this discussion of memorials is what circumstances typically lead to or surround someone forgetting. Proverbs 31:5-7 describes drunkenness leading to forgetfulness, which has the theological implication that justice and God's laws are also forgotten (Preuss 2004, 673). The march of time also can lead to forgetfulness (Eccl 2:16, 8:10; Isa 23:15) (Allen 1997b, 104). New encounters can dislodge memories (Ps 45:10). One particularly powerful amnesiac agent is change in life circumstances (Allen 1997b, 104). These changes can be for the worse, such as famine (Gen 41:30), affliction (Ps 102:4), and punishment (Jer 30:14), or even changes for the better (Gen 40:23). All of these types of forgetfulness involve forgetting experiences. Forgetting God has even broader implications.

While people forgetting experiences or interpersonal relationships have theological implications on some level, the most significant forgetfulness occurs when it is God who is forgotten. Preuss contends that throughout Scripture, "People do not forget Yahweh/God unconsciously or because of the inevitable march of time, but rather through a willful, culpable act and from conscious disinclination and renunciation" (Preuss 2004, 674). Anytime God is forgotten, the forgetter is responsible for that action because it was a conscious decision, either commission (actively choosing to rebel) or by omission (not working to sustain the relationship). For Israel to forget her husband God

is equivalent to her committing adultery (Hos 2:13) and forgetting the covenant (Mal 2:10) (Preuss 2004, 675). For Israel to remember, be mindful of or to know (as in ‘intimate knowledge’) her husband is for her to be a faithful bride (Hos 2:20) (Preuss 2004, 674).

Earlier, Psalm 78 was mentioned as an example of remembering being a path toward reconciliation. Psalm 78 also showed a path toward destruction that began with not obeying God’s laws (Ps 78:9-10), progressed to forgetting (אָבָן) God’s works (Ps 78:11-16), and resulting in rebellious hearts (Ps 78:17-20). This passage certainly gives incentive to remember God’s laws (i.e., actively choosing to obey) and remember his actions (i.e., actively internalizing them). The tragedy of Psalm 78 is that even though Israel remembers and turns toward God who reconciles with them, they once again enter a cycle of forgetfulness. They were not intentional about remembering so they defaulted to forgetfulness and were culpable for their infidelity. Additionally, Cosand contends that one of the themes of the book of Ezekiel is the results of Israel’s forgetfulness, a call to remembrance, and a promise of reconciliation (Cosand 1995, 234). Ezekiel 16 describes Israel’s fundamental problem as forgetfulness, and Ezekiel 20 describes God bringing their forgetfulness to their attention which results in shame (v. 43), repentance (vv. 42, 44), and reconciliation (vv. 38, 41, 44).

God Directs Israel to Remember

Given an understanding of Scripture’s use of זָכַר and its related terms, it becomes important to look at the themes of remembrance God calls for explicitly in his relationship to his people. These themes appear to be part of God’s prescription for building one’s relationship with him and writing that covenant on one’s heart.

The Covenant

The majority of the times we see God remembering something in Scripture, it is his covenant with his people. He reminds the people repetitively that he will remember

that covenant (Gen 9:15, Lev 26:42, Ps 111:15, Ezek 16:60; cf. Luke 1:72). Given his constant reminding, it seems that it is important for his people to remember this covenant as well. Surprisingly, we never see the people actually remembering the covenant in its fullest sense. We certainly see the results of their forgetting the covenant though (Deut 8:11-20).

However, in 1 Chronicles 16, after David has returned the Ark of the Covenant to Zion, David's sermon to the people contains the explicit call to remember the Lord's covenant (v. 15-18). Additionally, God calls for the people to not forget the covenant (Deut 4:23; 2 Kgs 17:38).

God's Character

Not only does God call for his people to remember his covenant with him, but he also calls for them to remember his character (Isa 46:9; Deut 8:14, 18-19). Do not forget who he is. This is slightly different than remembering what God has done for the people. This is only about who God is. He alone is God. There is no other like him. He is holy. He is faithful. He is just. He is merciful. He is covenantally loving.

Remembering God's name is directly tied to worshiping him. To speak his **זָכַר** is to worship him. To speak the name of another god is to be unfaithful to God. By forgetting the name of God, the people cease to worship the God who alone is worthy of worship. Encapsulated in that name is God's character and a history of experiences together. He has demonstrated to the people time and again his holy character traits and they must not forget this. When they do truly remember him and his character, they respond with humility:

Then those of you who escape will *remember Me* among the nations to which they will be carried captive, how I have been hurt by their adulterous hearts which turned away from Me, and by their eyes which played the harlot after their idols; and they will *loathe themselves* in their own sight for the evils which they have committed, for all their abominations. Ezekiel 6:9 (italics added)

From this humble position, God restores them:

Therefore thus says the Lord GOD, “Now I will restore the fortunes of Jacob and have mercy on the whole house of Israel; and I will be jealous for My holy name. They will forget their disgrace and all their treachery which they perpetrated against Me, when they live securely on their own land with no one to make them afraid.”
Ezekiel 39:25-26

This passage points to the distant eschaton when Israel will no longer need to remember their own sins because God will have completed the process of writing his covenant on their hearts. The role of the people remembering their own sins will be highlighted in a subsequent section of this discussion.

God’s Actions

God also tells Israel to remember his actions (1 Chr 16:12; cf. Ps 77:11). At times, the call is to remember his actions with them while at other times, the call is to remember his actions with others.

With Israel

God and Israel have a long history. Scripture records many instances of both God’s blessings and curses on them. By Israel remembering these events, they write the relationship deeper on their hearts. God commands them to remember that he led them in the wilderness for forty years to test their hearts (Deut 8:2). They are to remember that they were slaves in Egypt and God delivered them (Exod 13:3; Deut 5:15, 15:15, 16:3). Do not forget all the things your eyes have seen (Deut 4:9). Psalm 78 commands the people to remember God’s works (v. 7) and then goes on to say that the previous generations had not prepared their hearts by rebelling and not remembering those works (v. 8). Those who did not remember God’s deliverance in the time of the Judges were the ones who began serving other gods (Judg 8:33-34).

God tells the people not only to remember his good actions toward the people, but also his faithful actions in response to their unfaithfulness to him. Numbers 12 gives account of Miriam and Aaron’s backstabbing of Moses and God’s response. Miriam had attacked the man that God had a unique, intimate relationship with (Num 12:6-8), and

God responded by giving her leprosy (Num 12:10). Toward the end of Moses' life, as he preaches the word of God to the people, he tells them to remember the way God had dealt with Miriam (Deut 24:9). In a similar sermon (Deut 9:7), Moses tells Israel to remember God's responses to their repeated unfaithfulness. Time and again they provoked him to wrath (Num 11:33, 16:31-53, 21:5-7, 32:9-11). At times, God demonstrated mercy within his wrath (Num 12:14-15, Num 21:8), while at others, his wrath demonstrated his justness. Either way, God's people must remember his dealings with them in order to ensure their own fidelity (Neh 9:17).

With Others

Not only does Scripture imply the importance of the people remembering how God has dealt with them, it implies the importance of remembering how God has dealt with others. After Joshua overpowered Amalek and his people, God told Moses to write down the events in a book to serve as a זְכָרוֹן (Exod 17:13-16). This זְכָרוֹן helped the people to remember not only God empowering the people to victory over Amalek, but also to remind them of the consequences of standing against God's people. To stand against God is to risk being blotted out of existence just as Amalek's זְכָר (Exod 17:14). Moses goes on to also build an altar to further commemorate God's actions against anyone who comes against his people without his command for all generations (Exod 17:15-16).

Later during Moses' final sermons before sending the people into the promised land, he reminds them not to fear the people they will encounter there: "You shall not be afraid of them; you shall well remember what the LORD your God did to Pharaoh and to all Egypt" (Deut 7:18). Knowing God's past actions with others gives courage to face the same types of people in the future. By the people remembering God's dealings with Pharaoh, they are prompted to respond with courage. If they did not have courage, they did not truly remember God's actions with others.

Your Own Unfaithfulness

While the majority of factors God calls for Israel to remember involve them remembering something about him, he also directs them to remember something about themselves. When he does call them to remember something about themselves, it is probably something they would rather forget. God tells his people to remember their own unfaithfulness. Everything around the cultic practices of Israel in some way calls for remembrance of some kind (Cosand 1995, iv), but the sacrifices of atonement speak specifically to remembering one's own sin (Num 5:15). The sacrifices themselves were not efficacious for the remission of sins, but they did serve a purpose. One of those purposes was to bring into consciousness the gravity of being a defiled, sinful person in the eyes of a holy, just God. Sacrifices confront the person with a shadow of the repercussions of sin (Heb 10:1-3). It is only within the context of a full understanding of one's own sin that one is able to understand the greatness of God's mercy and grace.

In addition to the remembrance of sin that occurs at the time of sacrifice, God also commands Israel to remember her unfaithfulness at other times. Deuteronomy 9:7 calls for Israel to remember how they provoked God to wrath. This passage shows us both a remembrance of God's desire for holiness and Israel's responsibility for not being holy. As mentioned previously, remembrance is one of the steps toward reconciliation. Ezekiel 20:42-44 and 36:31-33 both describe God commanding the people to remember their own sin and respond in humility. God responds to this remembrance by cleansing and restoring them.

Summary of Old Testament Remembrance

As the previous section has demonstrated, the term זכר is very complex, multidimensional, and a dominant theme throughout the Old Testament. Remembrance goes beyond a mental activity and implies action. Remembrance ties together the past, present, and future implications of a person or event. At times, various stories, objects, or actions are the facilitators of memory, but apart from their memorial meanings, these

tales, things, and motions are meaningless. Maticich summarizes זכר with the following:

The Old Testament concept of remembrance is very significant, always expecting action to follow as a result of the knowledge called to conscious focus. Remembering was not merely something which occurred in the mind, rather “to remember” was “to do,” whether the “doing” found expression in a resultant attitude, thought or physical act. (Maticich 1990, 29)

She goes on to write that memorials helped the people recall God’s

consistent character and faithful acts throughout their history, often by means prescribed by Him (e.g., the Passover). This was to result in strengthened faith and trust in Him and to inspire them to continue on in lives of faith and godliness, forsaking unrighteousness and standing firm as His people no matter what the circumstances. (Maticich 1990, 30)

Maticich concludes with:

From the preceding discussion it may be observed that the Old Testament idea of remembrance was never static. Rather it was active. The modern western mind tends to separate the idea of action from cognitive recall, thus bisecting and discarding half of the Old Testament concept. *Zāhkar* and its cognates expect action to flow from whatever is recalled. Remembrance is not merely mental. God and men ‘remembered’ or did not remember by doing something – attitudes changed, lives were altered, God delivered men, God punished men, men trusted God. Remembrance expected an outflow. (Maticich 1990, 48)

Key New Testament Terms

While the Hebrew language inherently has a more nuanced understanding of memory and remembrance than Koiné Greek, many of the biblical authors wrote from a Hebrew mindset. As a result, much of the implied meaning behind remembrance and memory in the Old Testament is subsumed into the New Testament (Maticich 1990, 67). Additionally, when comparing the Hebrew texts to the Greek LXX translation of the Old Testament, one can determine which Greek words took on the fully nuanced understanding of remembering (Maticich 1990, 9). Utilizing the foundation provided by the Hebrew word study of זכר, this section will look at two families of Greek words that also communicate memory as both mental activity and physical response.

μιμνήσκομαι (mimneskomai)

Μιμνήσκομαι (*mimneskomai*), and its related words (μνεία, μνήμα, μνηεῖον, μνημονεύω) all in some way touch on the ideas behind זָכַר and its lexical field. When comparing the LXX to the Hebrew text, μιμνήσκομαι and μνημονεύω correspond almost exclusively with זָכַר, the qal stem of זָכַר. Michel goes on to describe remembrance as a central element to the biblical view of God (Michel 1967, 675). Just as in the Old Testament, remembrance goes beyond a mental activity. For instance, it was not until the disciples really remembered all that Jesus had told them that they actually believed and understood his death (Luke 24:6-8; cf. John 2:22, 12:16). Additionally, Jesus continually ties together the past (both recent and distant) with its present implications (Luke 17:32, John 15:20, 16:4, Matt 16:9, Mark 8:19). By experiencing the cognitive process of calling information to mind, the disciples responded with understanding and faith. They did not have any new information, only a new experience of that information because of the process of remembering (Matt 5:23, 26:75, 27:63; Acts 11:16; 2 Pet 3:2; Jude 1:7). It seems as if μιμνήσκομαι parallels זָכַר most closely. Michel summarizes the nuanced meaning of μιμνήσκομαι with: “It includes total dedication to God, concern for the brethren, and true self-judgment. It carries with it the thinking in terms of salvation history and the community which the whole of Scripture demands” (Michel 1967, 678).

Along with μιμνήσκομαι, we also find μνεία as a word taking on various nuances of זָכַר. The idea behind μνεία can be found parallel to the juridical hiphil use of זָכַר, הִזְכִּיר. Μνεία typically translates to “mention” as in “to mention in prayer” (Michel 1967, 678). Paul uses this word on numerous occasions (Rom 1:9, Eph 1:6, 1 Thess 1:2, Phlm 1:4), and given his relationship with those he is mentioning in prayer, it is evident he means more than, “As I was talking to God, I mentioned your name.” There is an earnestness in this prayer that communicates an intimate knowledge of the person and deep love. Paul is presenting his case for this person before the almighty Judge. Paul knows these people and is giving testimony and interceding for them. Paul’s uses of

μνεία also imply more than praying for a particular situation or events in a person's life. The prayer is for the person himself or herself. It is not about external issues but internal being. There is more to mentioning someone in prayer than just remembering to say his or her name in a list before God. To remember or mention someone in prayer is to bring an awareness of that person's being to mind and be impacted by that experience before the Lord. Perhaps this is one of the reasons we are commanded to pray for our enemies (Matt 5:44).

The New Testament typically connects the Greek words for 'memorial', μνήμα and μνηεῖον, with remembrance of the dead and is often translated 'tomb.' This use brings to mind the nuances of a זָכָרִית which utilizes a physical object to encapsulate a specific relational event or the entire history of a person. The New Testament uses the word typically to refer to bringing to mind the entire life and essence of a person, similar to זָכָר when it is used with זָכָרִית (Mark 5:3, 5; Luke 8:27, 23:53, 24:1; Acts 2:29, 7:16; Rev 11:9; Matt 23:29; Mark 16:2, 5; Luke 11:47; John 5:2). Curiously, only the gospel writers use μνηεῖον, while one finds μνήμα throughout the New Testament.

The words of Michel nicely pull together the theme of remembrance throughout the New Testament through the uses of μιμνήσκομαι and its related words:

That all remembrance of God's saving acts is recognition, confession and orientation to God Himself may be seen from the usage in Heb 11:15, 22. Faith itself implies remembrance. Thus the NT Scripture is an attempt to serve the remembrance of Jesus Christ and His apostles. (Michel 1967, 683)

ἀνάμνησις (anamnesis)

While μιμνήσκομαι in the New Testament generally corresponds to the non-cultic uses of the Hebrew זָכָר, ἀνάμνησις pulls together a number of the high cultic implications of certain uses of זָכָרִית and brings them into the Greek of the New Testament. Ἀνάμνησις occurs only four times in the text of the New Testament, three of which are associated with the Lord's Supper (Luke 22:19; 1 Cor 11: 24, 25), and one which is connected with the sacrificial system of the Old Testament (Heb 10:3).

Just as cultic memorial in the Old Testament implied a reliving of a moment, so too does ἀνάμνησις. Ἀνάμνησις is a “reliving of vanished impressions by a definite act of will” (Behm 1964, 348). The Lord’s Supper is an active memory that has many present effects. According to Patsch:

Until the return of the Lord, it is in the celebration of the Lord’s Supper that the memory of the vicarious, reconciling death of the Lord “for you” is proclaimed in word and deed and thus becomes effective. This command to remember obligates them, then, not only to a repetition of the meal as a ritual event, but also to the proclamation of the saving significance of the death of Jesus which excludes, on theological grounds, a Eucharistic praxis such as that of the Corinthians. (Patsch 1990, 85)

In terms of meaning, not form, ὑπόμνησις also implies an active memory instead of mere mental recollection (Behm 1964, 349). Ὑπόμνησις can be found in 2 Timothy 1:5, 2 Peter 1:13 and 2 Peter 3:1.

Slightly less rare than ἀνάμνησις, the related word, ἀναμιμνήσκω, does not take on the cultic nuances of ἀνάμνησις, but does retain the ‘beyond mental processing’ aspects of רָמַז (Mark 11: 21, 14:72; 1 Cor 4:17; 2 Cor 7:15; 2 Tim 1:6; Heb 10:32). Typically translated “reminder” or “remember,” whatever the content of the reminder, it is binding. At times, it becomes synonymous with “admonish” (Patsch 1990, 86).

Memorials and Memorial Elements

The preceding discussion has highlighted God’s desire for his people, in both the Old and New Testaments, to write his relationship with them on their hearts. The key Hebrew word for ‘remember’ (רָמַז), its included lexical field, and Greek parallels encapsulate much of this process. Based on the grammatical and contextual studies of these terms, a loose pattern seems to emerge. It appears that God has called his people to remember certain things and has given certain methods for remembering. The term ‘memorials’ will be used to describe the entire group of categories that seem to be prescribed to build the relationship with God. Within this group of memorials, there seems to be categories or ‘memorial elements’ that are somewhat distinct methods used

to bring about remembrance. These memorial elements will be derived from the three noun forms of זָכַר: זִכָּר (zēker), זִכְרוֹן (zikkārôn), and אִזְכָּרָה ('azkārâ). In the instances where all three memorial elements coincide, it will be called a 'Memorial.' This section will look at some of those methods as they fit into loose categories as well as offer some scriptural examples. Scripture does not anywhere directly list these categories as such, nor does the grammar always neatly fit. If anything, these constructed categories are theoretical absolutes that rarely exist as distinct individuals.

זָכַר zēker

As discussed previously, one of the main emphases of זָכַר is a long-term history of relationship. God's memorial name, his זָכַר, assumes within it his identity as the God of Abraham, Isaac, and Jacob. Within that זָכַר is a narrative spanning all of history. In Proverbs 10:7 we see the contrast between one's זָכַר and the idea of a pure 'name': "The memory [זָכַר] of the righteous is blessed, But the name [שֵׁם, šēm] of the wicked will rot." This verse demonstrates the lasting impact of persons of righteousness while the wicked are not only forgotten, but their impact on the present ceases. In the vast majority of occurrences of זָכַר the 'memory' implies more than an intellectual knowledge of a person, but an experience of that person's character and actions which have an ongoing impact on another person's mental processes and actions. Deuteronomy 25:19 further illustrates this:

Therefore it shall come about when the LORD your God has given you rest from all your surrounding enemies, in the land which the LORD your God gives you as an inheritance to possess, you shall blot out the memory [זָכַר] of Amalek from under heaven; you must not forget [תִּשְׁכַּח].

It is clear here that the events and circumstances surrounding the defeat of Amalek are not to be forgotten while Amalek's זָכַר is to be blotted out. The knowledge of God's power and character demonstrated by the interaction is to continue influencing Israel, yet the influence of the life of Amalek himself is to cease. It is likely that Amalek was seeking to build a name (זָכַר) for himself by facing Israel, but the real result was God

building his own name (זִכָּר). These types of experiences and knowledge of the character of God are wrapped up into his זִכָּר.

זִכָּר touches on what this dissertation means when it refers to ‘narrative.’ A relational narrative is more than a story or an account of events. It is an account of events loaded with meaning. The deep meaning in the past impacts the present and the future. As we begin to move from the biblical text to present day application, the term זִכָּר will be used to describe this relational narrative. A זִכָּר is an intangible encapsulation of a story of relationship or a relational event. In order to better understand the important aspects of what makes up a זִכָּר, two examples will be given along with a brief discussion of each.

Place Names

Old Testament Scripture gives a number of accounts of events occurring at particular places. After the event, the place is given a new name that reminds the people of what happened there. For example, Genesis 26:21 describes Isaac’s conflicts over a well after which he names it Sitnah, literally, “hostility.” Isaac relocates to a more open area and digs another well where no one else bothers him. Because of this, he names it Rehoboth, literally, “broad places.” On occasion, this type of זִכָּר is also connected with an object taking on some aspects of a זִכָּרֹן (i.e., Bethel, Gen 28:19; Galeed/Mizpah, Gen 31:48; Allon-bacuth, Gen 35:8), but the main emphasis is the experience of a relational event whose memory is evoked by the name. By remembering the event or series of events (as in the case of Bethel where Jacob had multiple encounters with God), the one remembering has the opportunity to re-experience those events, leading to deeper heart writing and an appropriate response.

God’s Name

By God giving his people his memorial-name, he gave them a word that alone is meaningless, yet when a history of relationship, character, and experiences has been

built upon it, it takes on deeper meaning than can be expressed in volumes of books.

Every time the people heard, thought of, or saw the name יהוה, it should have brought to mind his character, his actions, his history with them.

God's name goes beyond his relationship with his people and extends on to all peoples. Exodus 9:16 (cf. Rom 9:17) connects the events of the Exodus with God's name. By God hardening pharaoh's heart, he had the opportunity to demonstrate his power to both Israel and the entire world. Those experiences become associated with the name of Yahweh. Additionally, since his people are associated with him, anything they do represents him and his name in some way to outsiders. Hence, Scripture puts taking the Lord's name in vain as a very serious offense (Exod 20:7, Deut 5:11).

Jesus' Name

Just as God's name encapsulated a history of relationship, Jesus' name in the New Testament becomes more than the name of God become flesh. The phrase, "the name of Jesus" and its variants ("the name of our Lord Jesus Christ," "name of his son Jesus Christ," etc.) appears thirty times in the New Testament. There is power in the name of Jesus. We know that it is not just the name itself because there were then and are now countless people named Jesus. Scripture records a number of examples of people trying to use the name of Jesus as a magic word or for their own power and gain, but apart from a relational history with him, the name does not necessarily carry the same power (Matt 7:22; Acts 19:13-16). Even being baptized in the name of Jesus by itself is not efficacious for anything besides getting wet (Acts 8:16). Encapsulated in the name of Jesus is a history of relationship. When people come to know him as Lord and Savior by calling on his name (Acts 2:21), the name now signifies their redeemer and their experience of his saving work. Within that relationship the power of the name becomes real. For believers, anytime the name of Jesus is heard, seen, or thought about, it should

bring to mind that history of relational experiences and lead the person to respond with humility, obedience, and thanksgiving.

The Empty Tomb

Scripture presents the resurrection of Christ and the resulting empty tomb as one of the most important events in all of history (Rom 1:4, 1 Cor 15:3-21; cf. Acts 2:22-36, 13:34-37). What began as a physical reminder of the resurrection became an intangible idea as the early church spread throughout the area. While the empty tomb gave testimony to Christ's resurrection, not everyone could go look at the tomb itself. By now, no one knows exactly where that empty tomb is, but the idea of that empty tomb lives on. At the mention of the empty tomb, believers are prompted to remember that Christ has power over death, his sacrifice was accepted by God, and that because of his resurrection all believers can have confidence that they will be raised likewise. This cognitive recall must then lead to a response of humility, thanksgiving, a life of holiness, and a desire for deeper relationship with one's savior. The זָכָר of the empty tomb takes on one element that we do commonly find among most of the Old Testament זְכוּרִים (*zēkārîm*): it not only calls to memory a past relational narrative, but it also points to a future relational narrative. The empty tomb reminds the believer of Christ's resurrection, and it gives assurance of the believer's resurrection (1 Thess 4:13-14). Many New Testament Memorials and memorial elements take on this future aspect. This is not to say a future piece does not appear in the Old Testament Memorials and memorial elements (for instance, the Passover and animal sacrifices both point to a future fulfillment).

Conclusion

These few examples of זָכָר can help in generating some core attributes of זָכָר that differentiate it from other memorial elements.

A זִכָּר is typically an intangible idea, word, or name. Occasionally, a זִכָּר can become associated with a physical object, but typically, the name itself carries the deeper meaning. The meaning behind a זִכָּר can be found in the relational history of two persons, a person and God, or a people group and God. Most often, this relational narrative spans a period of time but can also point to a relational event or events that contribute to an overall relational narrative. In American history, the name of the location of a crushing defeat became a battle cry: “Remember the Alamo!” This contemporary example demonstrates the encapsulation of a relational event that the mere mention of its name evokes not only cognitive recall of the event, but passion that necessitates the response of engaging future enemies with greater urgency. As chapter 6 applies the memorial element of זִכָּר in Christian marriages, it will attempt to give examples of both long term relational narrative and event based relational narrative.

זִכָּרוֹן *zikkārôn*

Scripture often uses the term זִכָּרוֹן when referring to tangible objects that bring to mind events and experiences in the past. On occasion, the זִכָּרוֹן is intangible yet functions as if it were tangible (i.e., a day of the week, Exod 12:14; trumpet blasts, Lev 23:24; proverbial sayings, Job 13:12). While זִכָּר is intangible and encapsulates a history of relational experiences, the idea behind זִכָּרוֹן is a tangible object that points to a specific relational interaction. For instance, the hammered bronze censers of the false priests on the altar in the tabernacle became a physical reminder of a relational interaction (Num 16:39-40). It may seem simplistic that God would desire to use physical objects to point to his relationship with his people. However, John Calvin opined, “It pleases the Lord to employ earthly elements, as vehicles for raising the minds of men on high” (Calvin 1975, 299). For the finite human mind, there is something especially comforting and effective about having a physical object with which to interact.

Scripture describes numerous examples of objects used as a זָכָרוֹן. These symbols are physical reminders of a relational experience that continues to affect the present relationship. The following examples of זִכְרֹנוֹת (*zikhronot*) either are explicitly labeled as such in Scripture or include an object that clearly fulfills that role.

Rainbow

Just because Scripture describes the rainbow of Gen 9:14-16 as reminding God of his covenant, it does not mean that it has no role in human remembrance. According to Cosand, “Certainly the sign of the bow in the sky was intended to be seen by people and to remind them of the judgment of Noah’s day and of God’s promise” (Cosand 1995, 123). Calvin also wrote, “But this mode of speaking his reference to the faith of men, in order that they may reflect, that God, whenever he stretches out his arch over the clouds, is not unmindful of his covenant” (Calvin 1975, 300). The presence of the rainbow in the sky serves as a reminder to both God and humans. For humans, the rainbow reminds us that God will be faithful to his covenant, and as we truly remember God’s covenant and faithfulness, we must respond with thanksgiving and humility.

Tamarisk Tree

Genesis 21:33 gives an account of Abraham planting a tamarisk tree. This event follows a string of major events, all within this chapter: the birth of Isaac, Ishmael being preserved, and a treaty over a well with Abimelech. God had proven that he would follow through on his covenant with Abraham. Leupold adds: “The planting of this long-lived tree, with its hard wood, and its long, narrow, thickly clustered evergreen leaves, was to be a type of the ever-enduring grace of the faithful covenant God” (Leupold 1960, 614). The tree marked a location of a supernatural experience with God. From that point on, whenever Abraham or any of his foretold numerous descendants looked upon that tree, or maybe even any tree like that one at other locations, they would remember the actions of a covenant God and be motivated to honor him. It appears that

Abraham intentionally created this זָכָרוֹן to help internalize and be shaped by his experiences with God.

Jacob's Pillars

On several occasions in the book of Genesis, Jacob has an intense relational experience after which he erects a stone pillar to commemorate the event. Two were supernatural experiences with God (Gen 28:18, 35:14), and one was an experience with his father-in-law (Gen 31:45). Jacob experienced the presence of God in two unique ways. First, a dream of angels ascending and descending with God at the top proclaiming a continuation of the covenant he had made with Abraham. In the second supernatural experience, Jacob wrestled with God and lived to tell about it. Jacob walked away with two personal reminders of the experience (a name change and a dislocated hip), but he still erected a pillar to commemorate these events. Given the first two reminders, it would seem unlikely Jacob would ever forget the experience, so it would follow that the purpose of the pillar extended beyond Jacob's personal reminder. Jacob did pour out a drink and oil offering on the pillar, so one function could be Jacob's response of worship after an experience with God. However, Jacob goes beyond just worshiping on that pillar altar. He names it Bethel. Jacob himself had just been renamed Israel by God, demonstrating God's position of power and authority over him. In a sense, Jacob could be imaging God by repeating the event with an object that is as different from him as he is from God. Also, by naming it Bethel, that location now has long term meaning. Jacob, in a way, creates not only a זָכָרוֹן but also a זֵכֶר. There is now a name and a physical symbol to look to as devices of relational internalization with the result that remembering this event would lead to worship.

The third pillar we see Jacob erect comes as he parts ways with his father-in-law. They make a covenant together and set up a pillar as a reminder of the event. This pillar could also take on the function of a boundary marker in addition to being a witness

to the oath the two made together. While this זָכָרוֹן differs markedly from those Jacob set up after experiences with God, it still retains some of the basic qualities. When either Jacob or Laban encountered this pillar, the event they shared together would be brought to mind and then lead to an acknowledgment of and fidelity to the covenant the two made to each other. Not only does this pillar influence Jacob and Laban in this way but also others who see it. It becomes a witness to others so that if anyone sees Laban or Jacob not fulfilling the covenant, they can be held accountable.

Pillar of Cloud/Pillar of Fire

As the Israelites made their way across the wilderness of Sinai, the Lord led them with a cloud in the light hours and a pillar of fire at night (Exod 13:21-22; Num 14:14). While these two manifestations of God's direction are tangible objects that served as a reminder of God's presence and direction during the forty years of wilderness wanderings, they evolved from potential זְכָרֹנוֹת to something containing aspects of both a זָכָר and a זָכָרוֹן once they were no longer visible reminders. These physical manifestations of God's direction became verbal reminders that encapsulated a shared experience between God and his people. Nehemiah made specific mention of the pillars twice as he was praising God and encouraging the Israelites during the time of the reconstruction of the walls around Jerusalem (Neh 9:12, 19; cf. Neh 9:7-31). Nehemiah's short speech only included very significant events, and given that he mentions the pillars twice we can assume that the pillars had powerful meaning for his audience. These symbols point to a larger narrative of God's presence among his people.

Fiery Serpent

During Israel's wilderness sojourn, the people grumbled from time to time, forgetting all God had done for them. On one of these occasions, God sent fierce serpents into their midst to weed out the unfaithful. In response to the repentance of the people, the Lord told Moses and Aaron to construct a fiery serpent and raise it up on a

staff (Num 21:8). Those whom the serpents bit would not die from the venom if they looked at the figure. Prior to this moment, the figure of a serpent made of bronze at the top of a pole had no meaning. By the people experiencing God's mercy while in the presence of the bronze serpent, it took on deeper meaning. This object became a symbol after the people experienced it within the context of God's work.

However, what should have been a symbol to remind the people of their experience of God's wrath and mercy leading them to a deeper relationship with him became an object of worship itself. What could have been a powerful זָכָרוֹן became an abomination, leading the people away from God. King Hezekiah destroyed the idol of the bronze serpent during restoration of proper worship at the time of his reign (2 Kgs 18:4). This symbol gives us a good picture of what can happen if the idea behind a זָכָרוֹן is misused. What God intends to be a powerful reminder of him or his actions in order to deepen his relationship with his people can be perverted and twisted by depraved humans so that it can have an equally powerful effect of damaging the relationship. This parallels other good and perfect things God created to deepen covenantal relationship, such as physical intimacy, that can be perverted and used to destroy relationships instead of build them. The fiery serpent stands as a word of caution as we consider implementing the concepts of זָכָר , זָכָרוֹן , and זָכָרָה in the context of Christian marriage.

Bronze Censers

During Israel's sojourn in the wilderness, the people began to question whether Aaron and the Levites really were the only people who could be priests of the Lord. Korah and his followers decided to burn incense of their own in bronze censers. God responded to this affront to his commands swiftly and decisively by having the ground open and swallow them all up. Even though the men were acting in disobedience, these censers had been presented to the Lord, making them holy. The Lord commanded that the censers be made into a covering for the altar and kept as a reminder for Israel (Num

16:38-40). Whenever Israel saw this זָכָרֹן on the altar, they were reminded of a number of things. First, God's commands are not recommendations but are to be obeyed to the letter. Second, God is a holy and just God who will not allow willful disobedience to continue. When Israel truly remembers this, they respond with obedience, fidelity, and proper worship.

Aaron's Rod

As a follow-up to the negative incident of Korah's rebellion (negative in the sense that it is clear God does not want Korah and his followers as priests), the Lord prepares a positive event (positive in the sense that God will indicate clearly who he does want as priests) to demonstrate his desires for proper worship. We read in Numbers 17:1-11 that in order to confirm to the people of Israel that Aaron and the Levites were his chosen people to be the priests for all of Israel, God causes Aaron's rod to bud, blossom, and begin to bear fruit while the rods of all the other tribes were nothing but sticks in the ground. Physically, Aaron's rod signified God's selection of his priests. Between the זָכָרֹן of the bronze censers and Aaron's rod, the people will remember that God did not choose Korah and his people to be priests and that God has definitively chosen Aaron and the Levites as priests.

These two examples differ from Abraham's tree and Jacob's pillar in that while Abraham and Jacob took the initiative to create their זָכָרֹן, God commanded the זָכָרֹן of the hammered bronze altar covers and the preservation of Aaron's rod. Even though these זָכָרֹן have different origins, they all serve the same functions of leading to greater internalization of the people's relationship with God.

The Ark of the Covenant

The Ark of the Covenant forms a very complex זָכָרֹן containing a number of the most significant symbols in Israel's history. The Ark itself served as multiple reminders for the people of Israel. Originally, God commanded Moses to build a box of

wood to put the tablets of the covenant in (Deut 10:1-3). At this point, the Ark reminded the people of the commands and laws God had given them (Exod 20-23) and of the covenant they made with God after Moses read the book of the covenant to them (Exod 24:7). At the time of the building of the Tabernacle, the artisans upgraded the ark of acacia wood to meet God's new specifications (Exod 25:10-21) for its new role (Exod 25:22). Now, in addition to being a reminder of the commandments, the law, and an oath of obedience, the Ark of the Covenant became the very throne of God and a reminder of his presence among his people (Exod 25:22). As with any זְכָרוֹן, the remembrance that comes from seeing the Ark of the Covenant implies a change in physical response. The remembrance of God's commands and laws demands not only a response of obedience, but also a response of humility in the realization of the goodness of a God who has directly revealed his desires for his people. The people experienced the graciousness of a covenant God through the revelation of the law and commands. Their contemporary people groups in the Ancient Near East did not have the benefit of knowing exactly how to please their silent gods (Block 2000a, 110). Remembrance evoked by the presence of the Ark of the Covenant also prompted a reoccurring awareness of the covenant the people had made to be obedient to their gracious God. Remembrance of the presence of God in their midst prompted the people to live set apart lives and to be humbled by God choosing to reveal himself to them. As the presence of God, the Ark served to lead the way when the people of Israel moved through the wilderness (Num 10:33) and acted as a military standard in battle (Num 14:44, Josh 6:4). With the reminder that God led them and empowered them for battle, the people had courage. First Chronicles 16:4 points to one of the main functions of the Ark of the Covenant: "He appointed some of the Levites as ministers before the ark of the LORD, even to celebrate [וַיִּלְחָצְוּ] and to thank and praise the LORD God of Israel." David placed these Levite ministers before the ark so that they would remember all it stood for and then to respond to the LORD with praise and thanks.

As God directed the Ark of the Covenant to be the container for other sacred symbols (Heb 9:4), it took on even greater meaning and prompted further remembrance with resulting life change. Since no one could look inside the Ark of the Covenant and live, these objects were now out of sight and no longer fitting into the usual tangible aspect of זָכָרוֹן. As this happened, the Ark of the Covenant became the new tangible זָכָרוֹן taking on the properties of the individual contents, and at the same time, the symbolic power of the Ark of the Covenant immediately immortalized the objects in it, categorically changing the contents into a mix of זָכָר and זָכָרוֹן. The complexity of memorial elements in these objects warrants a closer look at each.

Stone Tablets

As previously mentioned, the initial stated purpose of the Ark was to contain the stone tablets of the covenant (Exod 25:10; cf. Exod 40:20, Deut 10:2, 5). Many have speculated about the meaning of the two tablets. Some believe each tablet contained five of the Ten Commandments. Others believe each tablet contained the text of the covenant found Exodus 20-23. Traditions of the Ancient Near East dictated that when two people made a covenant, each took a copy of the agreement. If the two tablets contained the text of the covenant, God himself kept both copies for himself in his throne on each, the Ark of the Covenant (Block 2000b). Regardless of the exact content of the tablets, they in some way represented God's commands and laws to the people. As that representation, any encounter with them, whether from knowledge of their location in the Ark of the Covenant or from hearing them mentioned, should lead to a mental recall of the contents and the experience of the covenant and lead to an impact on the present situation. These tablets came to stand for both an experience and a long-term relationship, and at the same time, they were physical objects yet they were out of sight. Thus, they blur the lines between זָכָרוֹן and זָכָר as defined in this study. They take on traits of both. It is the

opinion of this author that when this merging of two memorial elements occurs, a more powerful method of heart writing results.

Manna

As the people of Israel journeyed from Egypt to the Promised Land, God provided them nourishment through manna (Exod 16:13-15). God directed for some of the manna to be kept in his presence down through the generations (Exod 16:33). This manna literally demonstrated God's provision for the people. It was unlike anything they had seen before and showed not only God's power but also his faithfulness to them. The manna became an encapsulation of the history of God's forty years of provision for his people. Deuteronomy 8:1-5 summarizes the power of the manna:

All the commandments that I am commanding you today you shall be careful to do, that you may live and multiply, and go in and possess the land which the LORD swore to give to your forefathers. You shall *remember* [זָכַרְתָּ] all the way which the LORD your God has led you in the wilderness these forty years, that He might humble you, testing you, to know what was in your *heart*, whether you would keep His commandments or not. He humbled you and let you be hungry, and fed you with manna which you did not know, nor did your fathers know, that He might make you understand that man does not live by bread alone, but man lives by everything that proceeds out of the mouth of the LORD. Your clothing did not wear out on you, nor did your foot swell these forty years. Thus you are to know in your *heart* that the LORD your God was disciplining you just as a man disciplines his son. (italics added)

This passage demonstrates the power of all that is wrapped up in manna as it is used to write on the hearts of God's people. This passage intimately ties together the wilderness wanderings, manna, God's provision, God's discipline, and his desire to write his laws and commands on their hearts. By the people seeing, thinking of, or hearing about manna they are prompted to examine themselves to see if they still remember the lessons they learned in the wilderness and to then respond with increased fidelity to their covenant with God.

Aaron's Rod

At the conclusion of events surrounding Korah's revolt, where God designates which tribe he desires to be his priests, God tells Moses to place Aaron's budded rod alongside the tablets of the covenant in the Ark. With the rod in the Ark of the Covenant, it would then be out of sight from everyone from that moment on. The rod begins functioning as a זָכָרֹן symbol (a physical reminder of an event that leads to change in behavior), yet is removed from sight, and ends up functioning also like a זִכָּר (a mental representation that encapsulates a relational narrative). As a זִכָּר, the occurrence of this wonder is remembered by the mere mention of Aaron's rod. Any time any question arises of who can properly lead the people in worship before God, all that must be said is, "Remember Aaron's rod." Aaron's rod functions as both sign and wonder, זָכָרֹן and זִכָּר, prompting the people to call to mind a relational event and respond with obedience and worship.

Tabernacle/Temple

Both the New and Old Testaments point to the Tabernacle and Temple as symbols with multiple facets (Exod 26-27; Heb 8-9). First, they symbolize a non-corporeal God's presence among his people. At the same time, the tabernacle and temple point to a heavenly temple. The grandeur of the earthly temple is a mere shadow or reflection when compared to the majesty of the real temple. As the people saw the tabernacle and temple, they were reminded of both God's presence and a heavenly place to worship Him and were prompted to worship. Because of Christ's sacrifice, the earthly temple built with human hands is no longer needed. Instead of the Holy Spirit dwelling in that temple, he dwells within believers. For the believer, reading about the tabernacle or temple in the Old Testament should prompt remembrance of the grace he or she receives through the blood of Christ. That grace has given believers direct access to the Holy Spirit (1 Cor 3:16, 6:19).

Tassels

During the desert wanderings, God directs Moses to instruct the people to modify their clothing as a way to remember the commands of the Lord.

The LORD also spoke to Moses, saying, speak to the sons of Israel, and tell them that they shall make for themselves tassels on the corners of their garments throughout their generations, and that they shall put on the tassel of each corner a cord of blue. It shall be a tassel for you to look at and *remember* [זָכַרְתֶּם] all the commandments of the LORD, so as to do them and not follow after your own *heart* and your own eyes, after which you played the harlot, so that you may *remember* [תִּזְכְּרֶנּוּ] to do all My commandments and be holy to your God. I am the LORD your God who brought you out from the land of Egypt to be your God; I am the LORD your God. (Numbers 15:37-41, italics added)

By the Israelites creating these tassels on their garments as visible reminders of God's commands, the people were daily confronted with the call to obedience. This passage contrasts what is already on the hearts of the people and where it will lead them (to harlotry) with what God desires to write on their hearts and where it will lead them (they will be holy). Deuteronomy 6:6-12 and 11:18 also takes this idea and adds to the command that the people write the commands on their doorposts, their hands, and their foreheads. It also describes that if they perpetually remind themselves of these things, that when they enter into the land God has prepared for them, they will not forget all he had done nor go astray. These זְכָרֹנוֹת function as not only mnemonic devices to help the people remember exactly what the law says, but also to call them to holy living, day in and day out.

Jordan Crossing Pillar

Throughout much of the Old Testament, and in Genesis and Joshua in particular, we read of various pillars or altars being erected. While these pillars are not always directly associated with זָכַר, they still take on the same qualities (Koopmans 1985, 89). These were not always for sacrificial purposes alone, but often marked an extraordinary experience with God (e.g., Gen 28:17-18, 35:12-15; Exod 17:14-15; Josh 8:30, 24:26; Isa 19:19-20). Among other functions, these event markers served to help

keep that extraordinary experience of the past active and alive in the present. According to Gaesser:

The *massaba* [one Hebrew word for ‘pillar’] was basically a stone ‘set up,’ as its etymological origin (from *nsb* ‘to set up’) indicates. In this position it served as a marker, jogging the memory. It would arrest the attention of the onlooker because it stood in a position it would not take naturally from gravity alone; only purposeful human activity could accomplish such ‘setting up.’ (Gaesser 1972, 34)

He goes on to write, “The stone commemorates an event, yet not for the sake of the event itself, but for the significance it lends to the participants” (Gaesser 1972, 41).

The pillar erected as the Israelites crossed the Jordan (Josh 4:2-7) is one particular pillar functioning as a זָכָרוֹן worthy of a closer look. The Lord instructs one man from each of the twelve tribes to take up a stone from the firm ground where the Jordan River had previously been flowing and to build a pillar of stones.

This simple yet explicit זָכָרוֹן serves multiple functions. First, it is a clear testimony to what just happened. These stones previously had been at the bottom of the Jordan River yet they were now on dry ground where the people built the pillar. This pillar gives witness to God’s power over nature. Second, the pillar demonstrates not only that God has power to create a one time event like the Jordan river parting, but he also has the power to orchestrate the freeing of a people from bondage and bringing them to a land he had promised them. It is possible that other forces could replicate God’s sign of power at the Jordan just as Pharaoh’s wise men and magicians could turn their staffs into serpents (Exod 7:11-12). If the pillar at the Jordan were only a witness to God’s power of parting the waters it would be incomplete. Only the God of Israel could free his people from bondage, lead them in the wilderness for forty years, and bring them safely into the land he had promised them (Josh 4:23 uses the “bookends” of crossing the Red Sea and crossing the Jordan to communicate this).

Along with the command to build the pillar to communicate these things, the pillar also serves to perpetuate the event down through history. This זָכָרוֹן serves to prompt future generations to ask about it. Joshua tells the people to tell their children

about what God did that day. By the parents telling the children, they not only perpetuate the knowledge of God's power in their children, but they also remind themselves. By the children asking the question "What does this mean *to you*" (Josh 4:6) they change this interaction from having a catechetical (memorizing of information) feel to being more dialogical and didactic (Cosand 1995, 197). As with any type of memorial, this pillar and the reminder it brings does not stop at intellectual knowledge but prompts a response. This pillar prompts the people to be awestruck with the power and faithfulness of their covenant God (Josh 4:24) (Childs 1962, 69). The prompting of the children and the verbalization of the parents' responses help the parents continue to write God's covenant, character, and power on their own hearts as well as begin the same process in their children. According to Childs, "The act of remembering serves to actualize the past for a generation removed in time from those former events in order that they themselves can have an intimate encounter with the great acts of redemption. Remembrance equals participation" (Childs 1962, 56). By all generations participating in this event, they were tied closer to their covenant God.

It is important to note that this זָכָרוֹן was very simple. It was a pile of rocks from a riverbed. According to Blaikie, "It was a very simple memorial, but it was all that was needed. It was not like the proud temples or glorious pyramids of Egypt . . . [it was] void of every ornament or marking that could magnify man, and designed for one single purpose – to recall the goodness of God" (Blaikie 1908, 111). It does not take anything fancy to create a good way to remember one's relationship with God.

Altars of Joshua 22 and 24

Later in the book of Joshua (chap. 22), we see the two and a half tribes from the other side of the Jordan setting up an altar, with the intent of being a reminder between them and the rest of Israel.

When the two and one half tribes desired to be remembered as part of the nation of Israel, it was the *altar*, the focus of so much of the Israelite cultus, that was

chosen as the symbol of memorial. The altar which called Israelites to remember their sins and the works of God was here made to call them to remembrance of cultic and national unity (Cosand 1995, 200).

This is one of the instances where the memorial is not erected because of a command and stands as a personal and communal reminder. It appears that the people took what God had been prescribing in other instances and created their own altar to serve the same function.

At the conclusion of the book of Joshua, the people of Israel go through a time of covenant renewal. The celebration begins with a recounting of the history of God and his people (Josh 24:1-18). At the conclusion, Joshua erects a pillar to be a witness of the event (Josh 24:27).

In both the Joshua 22 and 24 passages, we nowhere see the use of any form of זָכַר, however, it is very clear from the use of the pillars that the previously discussed meanings behind זָכַר are alive in the text.

The Cross

Few symbols hold power like that of the cross of Christ to bring back the memory of the events on Calvary. What was a symbol for the most painful, humiliating, and dehumanizing death of that period became a symbol for victory to believers. The horror of the crucifixion of the holy, pure, righteous, perfect Son of God at the hands of his creation is the ugliest event in history. Because of his victory over death, that seeming defeat became the most important and beautiful moment in history. The זָכָרוֹן of the cross has loaded on it both the memories of the horror and beauty of Calvary. Through that very cross, Christ has reconciled sinful humans with God (Eph 2:16).

Jesus foretold his own being lifted up in John 3:14-15 and created a parallel link to one of the זָכָרוֹן of the Old Testament: “As Moses lifted up the serpent in the wilderness, even so must the Son of Man be lifted up; so that whoever believes will in Him have eternal life.” Just as the Israelites bitten by the serpents in the wilderness could

look to the bronze serpent on the pole and be saved from physical death, those who look to the cross of Christ will be saved from spiritual death. Unfortunately, just as the Israelites took the figure of the bronze serpent and made it into an idol, changing its true meaning, representations of the cross have been abused and misused. The symbol of a horrific human death has become a fashion statement for many people and a source of mystical power to others. The cross does have power (1 Cor 1:18), but it is not the physical object itself but rather what it accomplished and what it communicates: it reconciled God and believers and reminds us of the magnitude and horror of our own sin. Just as Aaron's rod functions as both זָכָר and זִכְרוֹן, the cross becomes both a symbol and an encapsulation of relational events. Through the זִכְרוֹן of the cross, believers recall the details of the most important relational event in history, are reminded of their own sin and God's call to holiness, are prompted to deeper faith, and have their eyes set on their future completed union with Christ.

Conclusion

This list of זְכָרֹת, while not exhaustive, is representative of the various זְכָרֹת found throughout Scripture. By looking at these examples in detail, we can now make some observations of important factors that make up a זִכְרוֹן with the purpose of using these factors to construct present day זְכָרֹת to be utilized in the relationship between husband and wife or God and couple. Chapter 6 will include some projected examples of contemporary זְכָרֹת. This section will simply delineate some of the possible factors.

Most of the time, a זִכְרוֹן is a tangible object. When not tangible, it can take on semi-tangible characteristics. For instance, the Sabbath is an intangible idea, yet in a sense, it can be pointed to on a calendar.

Often, a זִכְרוֹן encapsulates a particular experience instead of being a generic encapsulation of a long history. On occasion, a זִכְרוֹן could be a reminder of a series of

events, however this still communicates the idea of a reminder of “something we experienced together” common to a זָכָרוֹן. When an object that becomes a זָכָרוֹן is present throughout a relational history, it tends to encapsulate the entire phase or series of events instead of a particular event. By the people seeing manna over and over throughout the wilderness years, the manna brings back memories of that entire phase of Israel’s history. In contrast, Aaron’s rod was present at one event and the remembrance it evokes is tied to a particular moment in time. However, both are types of זְכָרָנוּת.

A זָכָרוֹן can be formed by intentionally creating or selecting an object. However, a זָכָרוֹן is almost always closely associated with the event by physical proximity and often by theme. For instance, a rock has little to do with Jacob’s dream, but given its proximity to the experience, it took on greater meaning than a normal rock. In contrast, manna kept in the ark of the covenant not only was present when God provided sustenance for the people of Israel, but it in itself was literally sustenance demonstrating both proximity to and thematic coherence with the shared relational event.

זְכָרָה *'azkārā*

זְכָרָה represents the third category of memorial elements. Whereas a זָכָרוֹן is a tangible object usually pointing to an event and a זִכָּר is an intangible idea encapsulating a relational narrative, an זְכָרָה involves a present physical action connected to a past event. By a person performing these rituals, they provide a fertile ground for experiential remembrance and heart writing. However, performing the ritual itself does not necessarily mean that true remembrance is happening. Cosand notes, “Remembering was not identical to the performance of the rituals which God had prescribed, but was an integral part of their design” (Cosand 1995, 92). He goes on to add, “Certainly ritual acts could be performed out of routine alone (and in Israel’s history they often were), but such cases do not fit the criteria of biblical remembrance” (Cosand 1995, 297).

Scripture contains few explicitly stated examples of an **זָכָרָה**, but these few do give us some insights into understanding some of the key facets of this memorial element. These examples are limited to memorial offerings, however a number of other rituals seem to fit into this category as well. In order to extract some of the key components for the memorial element of an **זָכָרָה**, memorial offerings will be briefly examined followed by discussion of a few examples of an implied **זָכָרָה**.

Memorial Offering

The word, **זָכָרָה**, itself appears six times in Leviticus (Lev 2:2, 9, 16, 5:12, 6:8, 24:7) and once in Numbers (Num 5:26). Each time it is associated with a particular offering. With each, the entire or a portion of the offering is set apart as a memorial. At times, the offerer is to give the first portion of their possessions as a way to remember that all his or her possessions belong to God, which prompts him or her to manage those possessions as such. At other times, the memorial offering calls to memory the person's previous sin and prompts a change in behavior toward greater obedience. The common features among the memorial offerings are that they all occur repetitively and involve physical action to perform the ritual, together which write those ideas on their hearts to a greater extent.

Burning Lamp

As a part of the daily temple rituals, God commands Aaron and his sons to keep an oil lamp burning, morning and night, outside the veil of testimony throughout all generations (Exod 27:20-21; cf. Lev 24:2-4). For the people of Israel, this perpetual command called for them to bring oil for the lamp to the priests. For the laity and priests, this ritual provided a continual reminder of service to the God who was in their midst and prompted them to behave with holiness.

Sacrifices

The Levitical laws clearly spell out a regiment of sacrifices the people were to perform before their God (Lev 3, 4, 23). These sacrifices ranged from large, a bull, to small, a dove. However, regardless of the size or type of sacrifice, they all had at least two elements in common. First, while they were done in obedience, they did not have any direct efficacy. The sacrifices themselves did not absolve the person from his or her sin. Second, the people always had to sacrifice again. No one sacrifice was enough to ensure never needing to make another sacrifice. According to Scripture, these sacrifices served to provide a reminder of sin (Num 5:15; cf. Heb 10:3). Each time an Israelite brought a bull or lamb to the priest for sacrifice, he or she was confronted with the magnitude of his or her own sin. God demands holiness, and the result of sin is death. This example of an זָבַח־עֹלָה also takes on a few elements of a זָבַח־שְׂמֵרָה because it includes a tangible representation of the person's sin. However, the more dominant feature is the repetitive, ritualistic component, resulting in it being loosely categorized as an זָבַח־עֹלָה .

Feasts

As part of God's relational narrative with his people, he commanded them to celebrate certain feasts throughout the calendar year as a way of commemorating and reliving particular shared relational events (William 1998, 12). Among these are the Feast of Unleavened Bread (Exod 12, 17, 23:15, 34:18, Lev 23:6), Feast of Harvest (Exod 23:16), Feast of Weeks (Exod 34:22, Num 28:26, Deut 16:10), and Feast of Booths (Lev 23:34, Deut 16:13). All of these feasts pale in importance when compared to the Passover Feast, however, since the Passover takes on multiple memorial elements, it will be discussed in more detail in the section on Memorials. For each of these other feasts, the Israelites annually participated in various physical reminders of their relationship with God. Each communicated an important truth. In the seventh month when the Israelites celebrated the Feast of Booths, they lived in booths for seven days instead of their usual homes. By doing so they were reminded of the booths they lived in when they were

captives in Egypt (Lev 23:43). Scripture ties the Feast of Weeks, related to the harvest, to the gift of the Torah (Williams 1998, 12). Each of the feasts involved a physical ritual with an accompanying reminder of some event or phase in Israel's relationship with their God.

Later on in Israel's history, a new **זִכְרוֹן** feast was added to their repertoire. At the climactic conclusion of the book of Esther, the author describes the events leading up to the Feast of Purim:

Therefore they called these days Purim after the name of Pur. And because of the instructions in this letter, both what they had seen in this regard and what had happened to them, the Jews established and made a custom for themselves and for their descendants and for all those who allied themselves with them, so that they would not fail to celebrate these two days according to their regulation and according to their appointed time annually. So these days were to be *remembered* [זִכְרוֹן] and celebrated throughout every generation, every family, every province and every city; and these days of Purim were not to fail from among the Jews, or their *memory* [זִכְרוֹן] fade from their descendants. (Esther 9:26-28 italics added)

As a way to remember God's protection of the people of Israel by placing Esther in a position of royalty "for such a time as this" (Esth 4:14), the people celebrated the Feast of Purim yearly. This passage brings together two memorial elements. First, we see the **זִכְרוֹן** of the Feast of Purim itself, an annual feast to commemorate the relational event of God's preservation of his people. Second, the passage describes the word Purim itself as a **זִכְרֹן** which encapsulates this phase of Israel's history with their God where Israel was a hair's breadth away from being victims of genocide, but because of God's sovereignty, a Jewess was in a position of authority where she could intercede on their behalf. Together, this **זִכְרוֹן** and **זִכְרֹן** provide a powerful means of writing the message of these events on their hearts. Their covenant God is faithful to his promises, and he is sovereign over all. These mental acknowledgements must lead to greater fidelity to the God of Israel.

Conclusion

From the above examples, we can make the following generalizations about the memorial element of **אֶזְכָּרָה**. An **אֶזְכָּרָה** involves some sort of regular meaningful physical action. These actions have derived meaning because of either emulating the past (Feast of Booths) or referentially pointing to some reality (inability to cover ones own sins through sacrifice). An **אֶזְכָּרָה** can both point to a past event (Feast of Unleavened Bread) or phase (Feast of Purim) within a relational history and can even point to the present state of relationship (sacrifices, burning lamp). While the idea of **אֶזְכָּרָה** seems to have a good deal of overlap with other memorial elements, it stands as different by having physical action and being regularly scheduled. The intentionality of the repetition, along with engaging the corporeal aspect of the one remembering, sets this memorial element apart from **זָכַר** and **זָכָרֹן**, giving it a unique pathway to writing on the heart.

Memorials

As previously stated, the memorial elements **זָכַר**, **זָכָרֹן**, and **אֶזְכָּרָה** generalize what appear to be vague categories for methods of writing on one's heart in Scripture. While these categories do overlap in ways, each represents a unique angle to building one's relationship with God. On several occasions, a particular way of building that relationship may have multiple memorial elements involved. For instance, manna fits the criteria for **זָכַר** and **זָכָרֹן**, while the burning lamp outside the veil of testimony fits the criteria for **אֶזְכָּרָה** and **זָכָרֹן**. Any time two memorial elements occur together, a more powerful heart writing event takes place.

When looking at the most significant God-people relationship building events throughout Scripture that have parallels in both the Old and New Testaments we find that they typically utilize all three memorial elements. These Memorials, when utilized to remember in the tradition of **זָכַר**, would seem to be the most important for us to look at as we attempt to translate these principles into methods for building Christian marriages

through writing the couple's relationship with each other on their hearts as well as their relationship as a couple to God.

These three Memorials, Sabbath-Lord's Day, Circumcision-Baptism, Passover-Lord's Supper, are presented in parallel pairs from the Old and New Testaments. This is not to say that they are the same thing in each, but that they are based on similar concepts. The New Testament manifestations of Old Testament phenomena not only fulfill the old ways, but supersede them, adding greater meaning and significance.

Sabbath – Lord's Day

While the Sabbath and the Lord's Day probably come on two different days of the week, the two have numerous similarities. Both beckon the one remembering to respond anew to the slavery he or she has been freed from (the Israelites from Egypt, Christians from sin). Both are celebrated weekly. Both connect the present day person to the generations past, all of which have a joint relational narrative with their God. In order to gain greater understanding of the power of these Memorials, each will be discussed individually.

Sabbath

Celebration of the Sabbath has a rich history and is tied into multiple facets of Scripture. In the account of creation in Genesis, we see God resting on the seventh day and setting it apart as holy (Gen 2:2-3). Later, as part of the Decalogue, the Lord instructs the his people to “remember [זָכוֹר] the Sabbath day” (Exod 20:8). At first glance, it would be easy to take this at face value and interpret it as, “do not forget to take a day off every week.” Given our previous discussion of the nuances of זָכוֹר and the whole counsel of Scripture, remembering the Sabbath takes on far greater meaning. First, celebrating the Sabbath prompts the people to act similarly to the God whose image in which they were made (Gen 1:26). God rested on the seventh day, and they, as image bearers, are also to rest. Celebrating the Sabbath helps remind the people that they are a

special creation of God, different from all other creatures, and that God is creator of all things (Cosand 1995, 219). Second, God describes the Sabbath as being a reminder that his people in specific are set apart from all other people and image bearers. We find in Exodus 31:13: “You shall surely observe My Sabbaths; for this is a sign between Me and you throughout your generations, that you may know that I am the LORD who sanctifies you.” Thirdly, the Sabbath marks a reminder that God redeemed Israel from bondage. Deuteronomy 5:15 directly ties together the observance of the Sabbath day with remembering that the Lord had freed the people from slavery in Egypt. Additionally, we find in Ezekiel (20:12, 20) God describing the Sabbath as a sign so that the people know that he is the LORD. They celebrate the Sabbath in order to remember their slavery and deliverance (Childs 1962, 53). Childs puts it: “When Israel observes the Sabbath in order to remember the events of her redemption, she is participating again in the Exodus event. Memory functions as an actualization of the decisive event in her tradition” (Childs 1962, 53).

Since the Sabbath inevitably comes each week, it becomes a reoccurring, non-physical sign to prompt the people to remember the actions and character of their covenant God. While people who live at the other side of the Promised Land may never see a physical sign like the pillar at the crossing of the Jordan River, the Sabbath day knows no physical or linguistic bounds (as becomes an issue during the time of the captivity) (Cosand 1995, 133). It comes to the people every week, calling them to remember God’s actions and character and to respond to him in faithfulness.

Given all this, celebration of the Sabbath has all three memorial elements. As a זָכָר, the word Sabbath encapsulates a relational history beginning in Eden, running throughout time where generation after generation has experienced a day of rest with its creator God. As a זְכוּרָה, Sabbath stands as an intangible symbol that knows no physical bounds, but comes to the people each week to remind them of God bringing them out of

slavery. As an **אִזְכָּרָה**, the people refrained from work each week in a physical remembrance of their freedom from slavery.

The Lord's Day

While God commanded his people to celebrate the Sabbath, celebration of the resurrection of Jesus on the first day of the week arose out of sanction, not command (Reymond 1987, 10). The Lord revealed himself to the disciples on the first day of the week and again on the following first day (John 20:26). From that point on, we see a reoccurring gathering of believers on the first day of the week (Acts 20:7, 1 Cor 16:2) and its eventual naming, The Lord's Day (Rev 1:10). Slowly, all that these Jewish Christians had associated with the Sabbath merged in with the celebration of the Lord's Day (Williams 1998, 12). It is beyond the scope of this discussion to examine all the various views of the role of the Lord's Day (Is it the same thing as the Sabbath? Does it replace the Sabbath? How ought we celebrate it? etc.). Points where most views agree are enough to make an argument that the Lord's Day is a Memorial.

For the believer, the Lord's Day functions as a **זִכָּר** by encapsulating the sum of the shared experiences around that day. The longer the believer has celebrated the Lord's Day by gathering together with other believers to worship, give, and be instructed in the Scriptures, the more meaning the mere idea of the Lord's Day has. By remembering the Lord's Day, the believer is prompted to remember the summation of these events and respond with greater faithfulness.

When the believer looks at the Lord's Day and sees a reminder of the events on that first Lord's Day, he or she once again internalizes the power of the resurrection of Christ. This relational event tied to a symbol (albeit an intangible symbol) creates a **זִכָּרוֹן** to be used by the believer to write this on his or her heart and lead to greater faith.

As the believer participates in the celebration of the Lord's Day, he or she physically joins together with other believers. Approaching God without the need for

animal sacrifice reminds the believer of the completed work of Christ on the cross, freeing the believer from the eternal consequence of sin. In this capacity, the Lord's Day functions as an **זִכְרוֹן**.

When the Memorial elements found in the Sabbath are brought into a New Testament context, an added future element emerges. Now, with the celebration of the Lord's Day, the believer looks forward to Christ's return leading to both his or her own bodily resurrection and the bodily resurrection of those who have already fallen asleep (1 Thess 4:13-14). In the celebration of the Lord's Day, the believer experiences a culmination of all three memorial elements. This Memorial is greater than the sum of its parts, with each element enhancing the power of the other. Memorials such as this deeply write an intimate relationship with Christ upon the heart of the believer.

Circumcision – Baptism

Just as the Sabbath and the Lord's Day do not necessarily represent the exact same phenomena, circumcision and baptism both utilize memorial elements in comparable ways and communicate similar truths. Likewise, as much, if not more, controversy amongst believers surrounds the relationship between these two Memorials. A full account of these controversies is beyond the scope of this discussion. These Memorials parallel each other in that both communicate the continuation of a relational history, demonstrate a physical representation that points to a relational event, and involve bodily action connecting a past relational event to the present. As a way to tease out the significance of each memorial element, each of these Memorials will be discussed separately.

Circumcision

From the time the Lord instituted circumcision in Genesis 17 with Abraham, it has been a sign of the covenant God made with Abraham and all his descendants. Circumcision unites the participants (the one who is being circumcised and the one who

is doing the circumcising) with the unbroken tradition going back to Abraham (except for a short lapse according to Josh 5:2-9). The power of that moment is experienced anew each time. While the eight-day-old baby boy will not remember the experience of his own circumcision, he will have the opportunity to experience it as his sons join that very same tradition. This זָכַר facet of the circumcision Memorial connects the present with the long relational history God has with his people. At the same time, the physical activity and the physical reenacting of that moment in Genesis 17 with each male covenant member fits into the idea of אִזְכָּרָה. As a זִכְרוֹן, circumcision stands as a physical reminder, a mark in the flesh, constantly reminding one of God's covenant and prompting him to respond to that covenant. The Memorial of circumcision unites all three memorial elements to the point that the distinctions blur and the various elements amplify and enhance each other.

Baptism

Baptism differs significantly from circumcision in that members of both genders participate in baptism and the obedience of the believer leads to his or her baptism. In contrast, it is not the baby boy being circumcised who is being obedient but the parents. While neither baptism nor circumcision are efficacious for salvation, baptism demonstrates a believer's acknowledgement of the saving work of Christ in his or her life, and circumcision only demonstrates the child's inclusion in a covenant community.

The Memorial of baptism within the church acts as an אִזְכָּרָה in that it is a physical action reenacting a present reality – the believer's union with Christ's death, burial, and resurrection. While baptism occurs once in the life of the believer, by viewing the baptism of other believers, the believer participates in an ongoing group ritual reminding one of his or her own experience, creating a joint זָכַר and זִכְרוֹן.

As with many New Testament Memorials, baptism goes beyond its Old Testament parallel in that it also points to a future event. As the believer remembers and meditates upon baptism, he or she is reminded of not only his or her present union with Christ, but also the completion and fulfillment of that union upon Christ's return. That awareness impacts current living and relationship with Christ.

Passover – Lord's Supper

Of the three sets of Memorials being discussed, the Passover and the Lord's Supper both stand as the ultimate examples of memorial element utilization. Each memorial element is clearly represented and plays a large role in the power of each Memorial.

Passover

God instituted the Passover Memorial as he prepared to bring Israel out of slavery to Egypt in Exodus 12:24-27. By celebrating this each year throughout their generations, the Israelites reconnected with the experience of the hardships of Egypt (bitter herbs, salt water), the hurried manner in which they had to flee (unleavened bread, and they ate it with their sandals on and staff in hand), and the price of their freedom (death of all firstborn males of Egypt and the lambs to keep their firstborn from being slaughtered). The memorial elements within the Passover Memorial are so entwined and interconnected it is difficult to see where one stops and another starts. In the Passover Memorial we find a relational narrative of not only an event (the Passover itself), but also an encapsulation of a series of events (beginning with Joseph being sold into slavery and ending with pharaoh's army drowning in the Red Sea). We find physical symbols pointing to that particular event (the unleavened bread) as well as physical symbols pulling together a phase of life (bitter herbs and salt water). We find a bodily reenactment of events connecting one to a past event as well as a history of reenactment amongst an ancestral covenant community (Cosand 1995, 153).

The Passover Memorial serves as the ultimate Memorial of the Old Testament, weaving together זָכַר, זְכָרוֹן, and אֶזְכְּרָה in a way that serves to connect Israel to God, write that relationship on their hearts, and prompt them to respond with fidelity to their covenant God.

Lord's Supper

Given that the first Lord's Supper probably occurred at the time of the celebration of the Passover, it is not surprising that many themes and meanings reappear, albeit with deeper, more significant meaning. Additionally, of all the New Testament Memorials, it is the only one linguistically connected to the concept of זָכַר from the Old Testament. Christ says, "Do this in remembrance [ἀνάμνησις] of me" (Luke 22:19, 1 Cor 11:24-25). It is as if he is saying, "Write all these things on your hearts in such a way that everything about you is changed."

In the Lord's Supper we find a relational narrative of the key event of history: Christ shed his blood and allowed his body to be broken for believers, becoming their Passover lamb, freeing them from the bondage of sin. Along with this event, the celebration of the Lord's Supper communicates the present relational truth of the believer's union with Christ. By taking in the symbolic flesh of her husband, each believer in the church, Christ's bride, experiences a taste of the full union with Christ to come. Together, these components make up a double אֶזְכְּרָה memorial element.

The Lord's Supper also includes two key זְכָרוֹן (bread and wine) that point to the event of the breaking of Christ's body and the spilling of his blood. By the believer seeing, touching, and tasting these זְכָרוֹן, the reality of Christ's sacrifice for him or her becomes even more real in the present resulting in an impact on day-to-day life.

Unlike many Memorials, the Lord's Supper contains an explicit call for self-examination and altered beliefs and actions (1 Cor 11:29). Any true remembrance as

discussed in this chapter implies these processes, but Paul explicitly states this necessity. As with the other New Testament Memorials, the Lord's Supper also looks forward to a future relational event. This supper foreshadows the supper Christ will have with his believers in his father's kingdom (Matt 26:29, Mark 14:25, Luke 22:18). As we celebrate the Lord's Supper now, we look forward to the coming of Christ and a heavenly banquet with him. Memorials like the Lord's Supper serve to unite "the present with the past, the mind with the emotions and will, and worshiper with those who precede him" (Cosand 1995, 191).

Conclusion

The preceding discussion has argued that Scripture presents remembrance as the path toward deeper intimacy with God and writing that covenant on one's heart. Through this heart writing process, God perpetuates the covenant identity of his people. "Israel was constantly called to remember, in essence, 'to become who they already were.' They were a covenant people; they had to continually be a covenant people" (Koopmans 1985, 180). According to Cosand, "To remember was not simply to recall. The remembrance of God and His works was meant to affect the emotions and will, to thrust the worshiper toward God, and so lead to obedience" (Cosand 1995, 2). He also adds, "Taken to heart as prescribed by God, ritual remembrance is the means by which worshipers commune with God from the innermost parts of their being and by which the heart is stimulated to obedience" (Cosand 1962, 302). The Hebrew usage of "remembrance" reminds the believer of passages such as John 14 where Christ connects love with obedience or James 2 that interrelates faith and works. In both instances, we find an internal state (love and faith) that has external implications (obedience and works).

Scripture gives clues to how to take these things to heart and gives examples of important methods. Stemming from the idea of remembrance, narrative (זִכָּרוֹן), symbol

(זְכָרוֹן), and ritual (אַזְכָּרָה) utilize various relational events, phases, and histories along with physical objects and physical activities to not only bring information to mind, but to shape one's heart and impact one's lifestyle.

The following chapter will consult extra-biblical texts pertaining to the study of the human soul and current empirical studies that shed further light on the process of deepening intimacy through heart writing.

CHAPTER 3

MEMORY, EMOTION, AND HEART WRITING

Introduction

As described in the previous chapter, Scripture implies a number of methodologies for building deeper intimacy and writing the marital relationship on one's heart resulting in the building of a marital identity. While Scripture is our primary text for understanding and studying the human soul, it was not written with the intent of being a manual for marriage. Now that we have attempted to extract some foundational principles for building marital identity, it becomes important to consult other texts that can contribute to this discussion. These other texts at times may come from different and contradictory worldviews, however any conclusions that contradict the clear truth of Scripture will be rejected. In the realms of modern psychology, physiology, and neuroscience, researchers have conducted countless studies that have helped believer and unbeliever alike better understand the interactions of our physiology, mental activity, and behavior. At times, the presuppositions of the various researchers have been contrary to Scripture, but due to God's grace, even the lost have made discoveries that reflect God's glory, though they are unaware of it.

This chapter will take into consideration various extra-biblical texts that contribute to the discussion of the use of narrative, symbol, and ritual in Christian marriages. It will put most emphasis on empirical studies and studies that deal with measurable phenomena as these types of studies translate into a Christian worldview most directly and with the least tainting of secularism (Johnson 2006, 12).

As discussed in the previous chapter, Scripture uses the concepts of narrative, symbol, and ritual as a means of promoting "heart writing." Translating the biblical

concept of “heart writing” into contemporary psychological language is no easy task. Since the biblical idea of “remembrance” includes not only cognitive functioning but also behavioral implications, it is a dynamic concept very different from the common usage of the term. As Koopmans argued, this remembrance helped to create and perpetuate a covenant identity, which then necessitated external manifestations of that internal truth (Koopmans 1985, 180). This internalization with external implications (“heart writing”) has no direct contemporary analogous word or phrase. In order to incorporate contemporary, extra-biblical texts on this topic, we will need to examine a number of interrelated terms and fields of study. We will begin with a look at current understandings of human memory, followed by a look at the interactions between memory and emotion, and conclude with an overview of contributory findings from various studies involving narrative, symbol, or ritual in the context of marriages.

Memory

Definitions of “memory” vary from researcher to researcher with some emphasizing the concrete functioning and others emphasizing the abstract qualities. An introductory text on psychology defines memory as “the persistence of learning over time via the storage and retrieval of information” (Myers 1998, 270). Siegel defines memory more abstractly by writing, “Memory is the way past events affect future function” (Siegel 1999, 24). While Siegel’s definition is much broader than Myers’s, they both ultimately depend on basic information processing.

Information Processing

Stimuli come to be stored in the mind initially through information processing. This process begins with stimuli that enter into the brain through sensory input (visual, auditory, tactile, etc.). The information about the stimuli resides in sensory memory for approximately one-half of one second, after which it is “over-written” by new sensory input unless that stimulus has been tagged as important to notice. The brain structure

called the amygdala deems which stimuli are worthy of attention which are then encoded into the short-term memory. The amygdala, a gatekeeper of sorts, handles the perpetual onslaught of stimuli the brain deals with (Ochsner and Barrett 2001, 44). It determines which information is significant (has meaning, such as the empty gas warning light on the dashboard of the car) and which information is insignificant (has no current meaning, such as the sound of an appropriately running air-conditioning unit) (Ochsner and Barrett 2001, 44). Without attention, stimuli cannot be encoded explicitly (Siegel 1999, 39). Once information has been encoded into the short-term memory, it is now something we are directly conscious of or thinking about. We are aware of that stimulus. Short-term memory tends to last approximately thirty seconds until it is overwritten by new information the amygdala has deemed important. At that point, the stimuli is either no longer part of conscious thought or the information has been encoded (whether automatically or with effort) and placed in long-term memory. Information in long-term memory is not in conscious awareness unless actively recalled, at which time it reenters short-term (Philippot and Schaefer 2001, 44).

For both Myers's concrete and Siegel's abstract definitions of memory, information processing leads to memory. Myer's description of memory has a mechanistic flavor that is reminiscent of how a computer works. However, Siegel goes on to describe memory from a neurological perspective that encompasses a broader spectrum of human experience. From a neurological perspective, Siegel describes memory as "the way the brain is affected by experience and then subsequently alters its future responses" (Siegel 1999, 24). He goes on to write that memory is "complex and sensitive to both external and internal factors as it constructs the past, the present, and the anticipated future" (Siegel 1999, 23). This way of understanding memory comes much closer to fitting Scripture's command to remember as described in the previous chapter. For Siegel, memory is more than the ability to store and retrieve information over time.

Memory shapes a person in a way that influences his or her future behavior (whether consciously or unconsciously) (Siegel 1999, 24).

In order to better utilize current understandings of memory and its role in narrative, symbol, and ritual as applied to Christian marriages, it is important to have some grasp of the memory systems, structures, and the influencing factor of emotion.

Levels of Processing

The research of Craik has extended our understanding of information processing even further, describing the depth of processing (Craik 1979, 457). Craik describes information being stored at various depths, with information stored with the greatest depth being the easiest to recall (Jacoby and Craik 1979, 19). The depth of encoding is directly connected to the number of neural networks utilized in storage of the memory. Memories involving only visual information (lacking meaning) only activate neurons in the visual cortex. An example of this would be asking a Westerner who is completely unfamiliar with Chinese characters to remember and recreate a Chinese word shown to them previously. However, memories that involve visual information and can be pronounced linguistically are encoded at a greater depth. For instance, the nonsense syllable “wux” carries no meaning in the English language, but one can see and pronounce this word (whether aloud or silently). By involving both visual and auditory centers, this nonsense syllable could be encoded at greater depth easier than the previously referred to Chinese word. The use of multiple brain regions leads to greater depth encoding. For instance, asking an English speaking person to remember the word “car” as written on a piece of paper would be far easier than both remembering the Chinese word or the nonsense syllable “wux” because “car” activates the visual cortex, auditory cortex, and carries with it a meaning. As we describe neurons, neural networks, and the other physical components of the memory system, the physiological basis for Craik’s levels of encoding becomes apparent.

Overview of Memory Systems

Researchers have various theories about how human memory works. Some theories describe memory using various processes as the criteria for categorization. These theories focus on operations or processes needed for a particular task. In contrast, other theories focus on large-scale systems that stem from physical brain structures and operate across broad domains (Schacter, Wagner, and Buckner 2000, 629). Recent research utilizing brain-imaging technologies has begun to shed greater light on human memory. Schacter, Wagner, and Buckner describe these two camps of theories as complementary, not contradictory (Schacter, Wagner, and Buckner 2000, 629). Additionally, they make the distinction between “memory systems” and “memory forms.” Memory forms are loose categories of memory processes with labels such as implicit memory, explicit memory, and spatial memory. In contrast, memory systems are more restrictive categories based on physiological structures (Schacter, Wagner, and Buckner 2000, 629). Memory forms often fall within the bounds of various memory systems, demonstrating a complementary process.

Schacter, Wagner, and Buckner describe five memory systems delineated by recent neuro-imaging studies: working memory, semantic memory, episodic memory, perceptual representation system, and procedural memory (Schacter, Wagner, and Buckner 2000, 630-637). Schacter, Wagner, and Buckner define working memory as supporting “the temporary storage and maintenance of internal representations such that these representations can be used to guide future behavior and mediates the controlled manipulation of these representations, often in the service of higher level cognition” (Schacter, Wagner, and Buckner 2000, 630). Semantic memory refers to “a person’s general knowledge about the world” (Schacter, Wagner, and Buckner 2000, 632). This includes facts, vocabulary, and various concepts. Semantic memory has no specific learning context (in contrast to episodic memory). Episodic memory “makes possible the acquisition and retrieval of information about specific personal experiences that occur at

a particular time and place” (Schacter, Wagner, and Buckner 2000, 633). This memory system allows the individual to mentally travel back into his or her past experiences. The perceptual representation system “operates on perceptual information about the form and structure of words and objects” (Schacter, Wagner, and Buckner 2000, 635-36). It is this system that allows us to quickly identify objects we have had previous encounters with. Procedural memory includes the learning of various motor and cognitive skills. Examples of procedural memory include learning to ride a bike or learning to read (Schacter, Wagner, and Buckner 2000, 636).

Memory systems have traditionally been categorized into two main categories of memories (implicit and explicit), each having two subcategories (semantic and episodic, and procedural and dispositional respectively). Implicit (or nondeclarative) memory traditionally has been understood as referring to memories that do not require conscious recall while explicit (or declarative) memory involves conscious awareness (Deeley 2004, 257). Implicit memory includes skills, habits, and the ability to do certain tasks as well as any unconscious influences of classical or operant conditioning. Explicit memory includes the conscious recalling of facts, events, and information as well as any meaning associated with them.

Overview of Memory Structures

The complexity of the human brain continues to baffle the most intelligent researchers, however many strides have been made in understanding its functioning. The current understanding of the brain posits that neurons form neural pathways as they are activated by internal and external stimuli. Neurons that fire together once tend to fire together again in the future (Siegel 1999, 26). By these neurons firing together repeatedly, various changes occur within each neuron so that they fire more efficiently together (Cozolino 2002, 74). This process, called long-term potentiation, helps the neurons to become “interconnected and synchronized in their firing patterns” (Cozolino

2002, 74). Through the process of long-term potentiation, these pathways function together as neural networks creating a more complicated, nuanced functioning (Cozolino 2002, 75). Any time a stimulus triggers a specific neural pathway, it increases the likelihood that it will be triggered again (in other words, it has a lower threshold for activation). The more often a pathway has been triggered, the more likely it is to be triggered again in the future. The experience of these stimuli (whether external or internal) directly shapes the structure of the brain (Siegel 1999, 24). Siegel also writes that the brain “experiences the world and encodes this interaction in a manner that alters future ways of responding” (Siegel 1999, 4). These principles together form the basis for learning in all the neural systems (Cozolino 2002, 75).

The Amygdala

With neurons forming the building blocks for brain activity and structures, it becomes important to look at the larger structures and their functioning in memory. The two primary structures for memory (excluding sensory input structures) are the amygdala and hippocampus. As noted previously, the amygdala functions as gatekeeper to the memory. As data comes into the sensory memory, the amygdala “sorts” the data to determine if it is meaningful or not. Meaningful data includes things that are novel, unique, pleasurable or dangerous. When the hippocampus encodes memories while the amygdala is emotionally activated, those memories are labeled as having greater importance, creating a value-laden memory (Philippot and Schaefer 2001, 84).

The Hippocampus

Working hand-in-hand with the amygdala is the hippocampus. Together, they function “to focus the mind’s attention on interesting sensory input, to generate emotions, and to link those emotions to images, memory, and learning” (Newberg, d’Aquili, and Rause 2001, 44). Cozolino describes the amygdala and hippocampus as working in a complimentary fashion where the amygdala heightens awareness of stimuli and the

hippocampus inhibits awareness of unnecessary stimuli. Where the amygdala evokes fear at the sight of a spider, the hippocampus calms the fear because it recognizes it to be a non-poisonous spider (Cozolino 2002, 96-97). In addition to working with the amygdala in determining attention, the hippocampus is the key player for storing and accessing long-term memories (Newberg and D'Aquili 2001, 45). Damage to the hippocampus can lead to the inability to create new memories (Cozolino 2002, 95).

Researchers studying depression have also found that people with depression also tend to have inhibited memory abilities. Serotonin levels appear to play a role in the formation of long-term memories. In studying the impacts of selective serotonin reuptake inhibitors (SSRIs), researchers have found that raising the levels of serotonin in the synapses alone does not treat the depression or the inhibited memory. However, when the researchers raised levels of serotonin in an area within the hippocampus that generates new cells, both the depressive symptoms and inhibited memory improved. Serotonin seems to play some role in the creation of long-term memories through promoting new neural cell creation in the hippocampus. This helps to account for a two- to three-week lag time between patients initiating SSRI treatments and a change in symptoms even though the drugs increase serotonin levels in the synapses within a few hours (Kandel 2006, 360).

The hippocampus also plays a key role in recalling emotional feeling states associated with long-term explicit memories. According to Kandel,

The unconscious recall of emotional memory has now been shown to involve implicit memory storage, whereas conscious remembrance of the feeling state has been shown to involve explicit memory storage and therefore requires the hippocampus (Kandel 2006, 342).

The hippocampus not only contributes to the storage of explicit memories, but also helps in the recall of feeling states. Both the amygdala and hippocampus will be returned to later when addressing emotion as a factor that influences memory.

Location of Memory

Once the amygdala has brought a stimulus to attention and has been encoded into long-term memory by the hippocampus the memory now resides in the brain. However, there is no one place that we can point to and say, “This is where your memory is.” In fact, this is one of the aspects of memory that researchers understand the least. At this time, it appears that various types of memories are stored in different parts of the brain (Cozolino 2002, 91). For instance, autobiographical memory seems to involve a combination of the right hippocampus and the right orbitofrontal cortex (Siegel 1999, 39-40). These internal stimuli actually reactivate the various brain centers that originally interpreted the data (for visual stimuli, the visual cortex is activated when remembering stored visual information, etc.). In one sense, the recall of memory generates a mental re-living of that memory (Siegel 1999, 27).

When looking at information processing from the perspective of neural functioning, the final step of memory storage (or encoding information into long-term memory) is less like putting a box on a shelf in the closet and more like playing dice with a set of weighted dice. “Memory storage is the change in probability of activating a particular neural network pattern in the future” (Siegel 1999, 25). Every time that neural network is activated, it is more likely to be reactivated in the future. When those networks are reactivated, they do not stay static. Each time a memory is recalled, it is recalled into a present context along with other memories about that context. A new memory is created that has been influenced by a current state of mind. The present has been influenced by the past memory while at the same time the present memory influences future responses (Siegel 1999, 28). Remembering is not merely the recall of information. Even when we are not conscious of a memory, it still impacts our future behavior (Siegel 1999, 24).

Implicit and explicit memories influence neural functioning in different ways. Implicit memory involves basic associations that are not brought into conscious thinking.

These include behavioral, emotional, perceptual, and somatosensory memory that does not make it into conscious awareness (Siegel 1999, 65). When various stimuli activate these implicit memories in the future, they do not bring with them a sense of self, time or even the experience of something being recalled. They create a mental experience of behavior, emotion, or perception. According to Siegel: “When implicit memory is retrieved, the neural net profiles that are reactivated involve circuits in the brain that are a fundamental part of our everyday experiences of life: behaviors, emotions, and images” (Siegel 1999, 29). Interestingly, these three facets of everyday life Siegel points out seem to parallel the biblical concepts of *‘azkārâ*, *zēker*, and *zikkārôn*. Siegel goes on to write: “These implicit elements form part of the foundation for our subjective sense of ourselves: we act, feel, and imagine without recognition of the influence of past experience on our present reality” (Siegel 1999, 29). This description of implicit memory functioning seems to touch on one aspect of “heart writing.” By creating implicit memories, an individual’s neurological connections change in such a way that behavior flows out without conscious thought. Just as James implies that the content of one’s faith can be seen by one’s actions (Jas 2:18), the structuring of one’s neural networks can be seen by one’s actions. Within the brain, these implicit memories are stored in the cerebellum, striatum, and amygdala (Kandel 2006, 130). While the cerebellum and striatum typically store implicit information about motor skills and coordination activities, the amygdala stores emotionally laden memories (Kandel 2006, 132).

On a neural level, various activities and stimuli create implicit memories through the processes of habituation, sensitization, and classical conditioning. Most people are familiar with studies on entire organisms, such as Pavlov’s salivating dogs, that demonstrate aspects of these implicit memory processes. However, researchers have also found that these principles actually act on a neural level. If stimulated multiple times, individual neurons become habituated to a stimulus so that the degree of its responses decreases (Kandel 2006, 167). Sensitization, the theoretical inverse of

witness to his anticipated future actions. While most occurrences of this fall in the realm of conscious memory, there is inherently an implicit realm for this remembrance.

While unconscious, implicit memory anticipates the future, conscious, explicit memory plans for the future (Siegel 1999, 31). As mentioned previously, explicit memory takes two forms: semantic (facts) and episodic (autobiographical). Episodic memory is of much interest to this study because of its autobiographical nature. According to Siegel: “Episodic recall activates autobiographical memory representations and evokes a process of mental time travel – the sense of self in time – which differentiates it from semantic recollections” (Siegel 1999, 39). Where semantic memory gives us the facts, episodic memory allows us to revisit and, in a sense, relive past moments. Since long-term memory storage occurs in the areas of the cortex that correspond to the senses involved in the acquisition of the knowledge, recollection of those explicit memories reactivates those areas, bringing about an experience of reliving the moment (Kandel 2006, 130). As with any neural network, each time a stimulus activates these neuronal pathways, the likelihood they will fire again increases. For explicit memories, the presence of extra levels of the neurotransmitter dopamine prompt neurons to synthesize new proteins for the creation of new axon terminals, strengthening synaptic connections (Kandel 2006, 315). These same principles function in autobiographical memory. According to Cozolino, “Autobiographical memory is characterized by the narrator being at the center of the story and combines episodic, semantic, and emotional memory with the self-awareness needed for maximal neural network integration” (Cozolino 2002, 90). These relived past moments are brought to bear on the present and are impacted by the present. “The act of reactivating a representation can allow it to be stored again in a modified form” (Siegel 1999, 42). These episodic memories are more likely to have associated emotion and deeper meaning, which, as we will see later, increase the power of the memory (Deeley 2004, 257).

Siegel also describes what he calls “narrative memory” (Siegel 1999, 60). In narrative memory, the individual stores and recalls experienced events in story form (Siegel 1999, 60). These narratives help to form and shape the identity and ways of thinking of the individual. During development of children, it is the child’s internalization of experiences with his or her parents that creates thought (Neisser and Fivush 1994, 138). Siegel opines: “Personal processes, such as thought or even self-reflection, may have their origins as interpersonal communication” (Siegel 1999, 60). As parents talk through narratives and life-stories with their children, they are activating specific neural pathways in the brain of the child. As the child continues to grow and develop, those pathways influence and shape how the child structures his or her thoughts. By going through these narrative enactments, patterns of behavior, relating, and decision making emerge, all of which influence the course of an individual life (Siegel 1999, 63). This creates a sense of coherence that unifies the disparate aspects of memory in an individual. Siegel writes:

Narratives reveal how representations from one system can clearly intertwine with another. Thus the mental models of implicit memory help organize the themes of how the details of explicit autobiographical memory are expressed within a life story. (Siegel 1999, 63)

The autobiographical narrative process is directly influenced by both implicit and explicit memory (Siegel 1999, 65).

This description of the role of narrative in the development of the brain of a child seems so clearly related to the biblical texts of Exodus 12:26-27 and Joshua 4:6-7. As the parents are telling their children of the acts of their God, not only are they imparting explicit memories (the facts of the event), they are also shaping the neural structuring of the children’s brains, impacting the ways their brains process information and interact with the world. In the context of Christian marriage, these same principles apply in that even though the adult brain is developed, it has great plasticity. The more a couple describes their narrative, the more they activate those neural pathways. The more

those neural pathways have been activated, the likelihood that those pathways will activate in the future increases. These interactions shape not only the explicit memories of the couple, but also the implicit memories and the impacts of both on emotions, cognitions, and actions.

Explicit and implicit memories have an interconnected relationship. At times, implicit recollection in the form of nonverbal sensations or behavioral impulses can lead to an explicit recollection (Siegel 1999, 42). At other times, the repetition of explicit recollections can lead to deeper, implicit memory impacts that no longer need conscious attention. Repetition transforms explicit memory into implicit memory (Kandel 2006, 132). In the intersection of the implicit and explicit we find a form of “heart writing” as discussed in chapter 2.

This section has described a number of the structures involved in the appropriation and recollection of memories. By understanding the interaction between the external world and the human brain, it becomes easy to see how the brain is physically influenced by experiences. However, not all experiences impact the brain equally. According to Siegel: “Repeated experiences and emotionally arousing experiences have the greatest impact on the connections within the brain” (Siegel 1999, 47). The more times an experience is repeated, the deeper the neural pathways are etched and more likely they are to fire in the future. At the same time, experiences that are accompanied by emotional arousal of the amygdala generate value-laden explicit and implicit memories, both of which influence present life and future plans and anticipations. These “value systems in the brain function by way of increasing states of arousal” (Siegel 1999, 137) which in turn can also be the stimulus for information processing and memory creation. In the following section, we will take a closer look at emotions and their role in remembrance.

Emotion and Memory

Given that emotion and memory systems have substantial overlap in brain structures, it is not surprising that the two are deeply intertwined (Eliot 1999, 298). Studies have demonstrated numerous interactions between memory and emotion. At times, emotions seem to increase one's ability to recall information, while at other times, intense emotion can inhibit the storage or recall of long-term memories (Siegel 1999, 47). More specific studies have found that the greater the emotional arousal, the better the long-term memory but the worse the short-term memory. At the same time, low emotional arousal has been associated with good short-term memory but poor long-term memory (Grings and Dawson 1970, 100). Due to the deep connection between emotion and memory, this study of narrative, symbol, and ritual in the context of Christian marriage can clearly benefit from a closer look at emotion.

Researchers from various fields take different approaches at understanding what emotions are and where they come from. From a physiological and cognitive psychological perspective, emotions originate within an individual. In contrast, social psychologists and cultural anthropologists describe emotions as having external, interpersonal origins that are then internalized by the individual (Siegel 1999, 122).

Early in the formalized study of psychology, key figures disagreed over the origin of emotions. William James, one of the most influential, early psychologists known for his theories about human experience and the psychology of religion, proposed that emotions arise out of an awareness of physiological changes (James 1884, 195; cf. Hugdahl 1995, 5). This interactionist view argues that physiological changes exert a causal influence in determining the subjective experience of an emotion. In James's words: "My thesis...is that the bodily changes follow directly the *perception* of the exciting fact, and that our feeling of the same changes as they occur *is* the emotion" (James 1994, 254). He goes on to write:

The more closely I scrutinize my states, the more persuaded I become, that whatever moods, affections, and passions I have, are in very truth constituted by, and made up

of, those bodily changes we ordinarily call their expression or consequence. (James 1884, 259)

For instance, after barely missing having an automobile accident, a person becomes aware of his or her racing heart, increased breathing rate, increased body temperature, and increased perspiration, and based on those changes, thinks to oneself, "I am afraid." The contrasting view, as proposed by Walter Cannon, argues that psychological experiences of emotion have as their by-products physiological processes (Hugdahl 1995, 5). Cannon demonstrated that even if all organs from the autonomic nervous system, which controls the physiological activity described by James, were removed, emotions are still experienced (Cannon 1927, 273). He then went on to demonstrate that artificially manipulating the autonomic nervous system did not result in the subjective experience of emotion (Cannon 1927, 278). This parallelist view of emotion would take the previous example and describe it by saying that the emotion of fear for one's life caused the physiological reaction of racing heart, increased respiration, increased perspiration, and increased body temperature. As we have come to understand physiology, psychology, and emotion better, it appears that both the interactionist and parallelist views were partially correct. Emotion does not appear to be purely physiological, nor does it appear to be purely psychological. Dodge summarized this by writing, "All information processing is emotional, in that emotion is the energy that drives, organizes, amplifies, and attenuates cognitive activity and in turn is the experience and expression of this activity" (Dodge 1991, 159).

Early in the study of the brain, researchers attempted to pinpoint the specific regions that controlled emotion. The limbic system clearly plays a very important role. However, as study continued, scientists have had a more difficult time limning these structures. Brain structures tend to have much more overlap and multiple functionality than other bodily structures. For instance, when describing the circulatory system, one can point to the heart and various blood vessels and describe how they function to move blood throughout the body. However, when it comes to brain structures and a theoretical

emotion system, we find that each structure plays multiple roles, some of which lie outside the theoretical realm of emotion. Siegel argues:

The essential point here is that emotion is *not* limited to some specifically designed circuits of the brain that were once thought to be the center of emotion. Instead, these same ‘limbic’ regions appear to have wide-ranging effects on most aspects of brain functioning and mental processes (Siegel 1999, 122).

To continue with the circulatory system analogy, it would be as if the heart were not only the primary mover of blood through the body, but also played a direct role in digestion and respiration.

Regardless of the controversy among the physiological, psychological, and sociological communities in describing emotions, some common themes do appear. All agree that “emotion involves complex layers of processes that are in constant interaction with the environment” (Siegel 1999, 123). Minimally, these various interactions include cognitive processes (such as evaluating meaning) and physical changes (such as autonomic changes), which together may demonstrate some pattern over time (Siegel 1999, 123). Siegel argues that emotion is a multifaceted phenomenon that involves neurobiological, experiential, and expressive components (Siegel 1999, 123). Sroufe adds that emotions involve “a subjective reaction to a salient event, characterized by physiological, experiential and overt behavioral change” (Sroufe 1996, 15). Sroufe’s description of emotion seems to directly parallel the biblical idea of remembrance in that both involve an internal experience with external implications. Siegel takes this idea farther when he writes: “Emotional processing prepares the brain and the rest of the body for action” (Siegel 1999, 124).

With the understanding that delineating the precise structures of emotion is not possible at this time, we will turn our attention to describing what we do know about the physiological structures that play a role in the experience of human emotion.

Overview of Emotion Structures

The experience of emotions in humans occurs by a joint effort of the central and peripheral nervous systems. Within the brain, the chief organ of the central nervous system, the limbic system clearly plays an important role in emotions. From there, the rest of the body experiences emotions through the autonomic nervous system, a part of the peripheral nervous system. In order to better understand these two systems and how they work together, each will be briefly described.

The Limbic System

Within the central nervous system, the limbic system controls emotion. The limbic system, a small, doughnut shaped organ deep in the brain, includes the amygdala, hippocampus, hypothalamus, orbitofrontal cortex, and anterior cingulate (Siegel 1999, 10). Each of these structures work together to regulate and create the experience of emotion. According to Newberg, d'Aquili, and Rause, the limbic system "interweaves emotional impulses with higher thoughts and perceptions to produce a broad, flexible repertoire of highly complex emotional states such as disgust, frustration, envy, surprise, and delight" (Newberg, d'Aquili, and Rause 2001, 42). One of the major factors influencing the functioning of the limbic system is sensory input. Studies have shown a direct and strong relationship between amount of sensory input and amount of impact on the limbic system. The more the sensory input, the more the impact on the limbic system (Newberg, d'Aquili, and Rause 2001, 88).

The Hippocampus

As discussed earlier, the hippocampus functions in conjunction with the amygdala to function as a gatekeeper to short-term/working memory. Just as the hippocampus works to regulate what stimuli necessitate attention, it works to regulate emotional responses. While it does not generate emotion directly, by influencing other structures, the hippocampus mediates emotion (Newberg, d'Aquili, and Rause 2001, 46).

As a regulatory body, the hippocampus can also influence the parasympathetic branch of the autonomic nervous system (which will be discussed later), preventing extreme arousal states. The hippocampus does not act directly as an autonomic nervous system activator, but it does function to moderate it and reestablish homeostasis (Newberg, d'Aquili, and Rause 2001, 46).

The Amygdala

Together with the hippocampus, the amygdala works constantly to assess stimuli for the need of attention. That attention then influences both memory and emotion. The assessment leads to the stimulus being assigned an emotional value or priority level. When something goes bump in the night, it is the amygdala that drew your attention to it and labeled that stimulus as something you should possibly be concerned about. Additionally, the amygdala functions to mediate what researchers consider to be “higher-order emotions.” These emotions are nuanced versions of what are considered basic emotions. Instead of a generic positive emotion, the amygdala helps to assign stimuli with the emotion of affection instead of love or friendliness (Newberg, d'Aquili, and Rause 2001, 44). While all three of these are related, each takes on a slightly different aspect of positive emotion toward a person. As emotional events occur, the amygdala then influences the creation of explicitly accessible, episodic memories (Ochsner and Barrett 2001, 44). It does this by stimulating the release of norepinephrine and glucocorticoids which signal to the hippocampus that what is being experienced needs to be remembered (Cozolino 2002, 93).

The Hypothalamus

As the hippocampus and amygdala do the gate keeping in the brain, the hypothalamus acts as the mediator between the brain and the rest of the body. Both the hippocampus and amygdala influence the hypothalamus, which in turn regulates the autonomic nervous system (Newberg, d'Aquili, and Rause 2001, 43). Not only does the

hypothalamus regulate the physiological expressions of emotions, it also mediates all low-order emotions, such as pleasure or pain. The amygdala then nuances those emotions to form complex, higher-order emotions such as love, hate, like, and dislike. The primary role of the hypothalamus in emotionality lies in its influence over both branches of the autonomic nervous system. Additionally, the hypothalamus influences the endocrine system through stimulating the release of hormones via the pituitary gland, which in turn influences the release of hormones by other endocrine glands (Hugdahl 1995, 9). While the endocrine system does have a direct role in emotionality by hormonally influencing neurological functioning, measuring levels of various hormones in the blood in real-time is practically impossible. However, it is possible to measure the immediate results of some hormones by measuring physiological changes associated with that hormonal cocktail. A full discussion of the neuroendocrine system is beyond the scope of this study; however as we look at the autonomic nervous system, hormones that play a role in the expression of emotion will be described.

The Orbitofrontal Cortex and Anterior Cingulate

While the orbitofrontal cortex and anterior cingulate lie outside of what has traditionally been labeled the limbic system, they both play an important role in regulating limbic system activity. Together with the amygdala, the orbitofrontal cortex and anterior cingulate play a key part in the appraisal process. Amygdala, hippocampus, and hypothalamus work together at the moment of initial appraisal. For instance, many people have experienced walking down a path in a forest and have mistakenly jumped when they see a stick that looks like a snake. The initial fear is driven by the amygdala and hippocampus assessing the situation and calling to attention that something could be dangerous. Even before we are conscious of determining if it is really a snake or just a stick, the hypothalamus has engaged the sympathetic branch of the autonomic nervous system, which increases heart rate and respiration in order to make the body ready to run.

At this point, the orbitofrontal cortex and anterior cingulate function to assess further the situation. After making note that the stimulus was merely a stick, the orbitofrontal cortex and anterior cingulate begin the process of regulating the fear that arose from the limbic system. Where the initial experience of fear occurred without the conscious awareness of a snake, the orbitofrontal cortex and anterior cingulate bring the stimulus to consciousness for cognitive assessment (Siegel 1999, 131).

Not only do the orbitofrontal cortex and anterior cingulate help to regulate emotional expression of the limbic system, they are actually the originating point of conscious, emotional experience (Eliot 1999, 294). “It is through these structures that the amygdala informs the conscious mind about the emotional state it has generated in the lower brain” (Eliot 1999, 294). As with the rest of the brain, the orbitofrontal cortex and anterior cingulate do seem to display some level of asymmetry. While the idea of left- and right-brained people has been overstated by popular psychology, there are some functional differences between the two hemispheres in the brain. This asymmetry also manifests itself in the orbitofrontal cortex and anterior cingulate. Again, this asymmetry can be easily overstated, but in general, the left side is where positive/good emotions are consciously experienced while the right side is where negative/bad emotions are consciously experienced (Eliot 1999, 296).

The Autonomic Nervous System

Where the limbic system controls the mental experience of emotion, the autonomic nervous system controls the physiological response to and the physical experience of emotion. As the limbic system appraises a situation and evokes an emotion, the hypothalamus engages the autonomic nervous system. Memories marked by an accompanying activation of the autonomic nervous system call for special memorial processing when retrieved (Philippot and Alexandre 2001, 84). When dealing with that emotion, the autonomic nervous system has two pathways that control the

physical experience of the emotion, whether conscious or not. The sympathetic nervous system engages what has come to be known as the “fight or flight” response, whereas the parasympathetic nervous system has an opposite, calming effect.

Sympathetic Nervous System

Activating emotions, such as fear, anger, and extreme happiness, results in the hypothalamus engaging the sympathetic nervous system. The sympathetic nervous system signals for the release of a cascade of hormones, including epinephrine from the adrenal glands, and a number of neurotransmitters, such as norepinephrine, dopamine, and acetylcholine, in the brain (Cozolino 2002, 73). This “wet” signal (as compared to a “dry” signal transmitted electrically via neurons) travels throughout the body at an amazing speed, resulting in many physiological changes (Hugdahl 1995, 9). Results of activation of the sympathetic nervous system include increased heart rate, increased blood pressure, increased respiration, decreased blood flow to the extremities, and increased perspiration.

Activation of the sympathetic nervous system also influences the mix of chemicals within and between neurons in a way that increases long-term potentiation, neural plasticity, and possibly even the creation of new neurons (Cozolino 2002, 93). These influences increase both implicit and explicit memory abilities. As with most body systems, the sympathetic nervous system has more potential states than “on” and “off.” Various levels of sympathetic activation determine the degree and duration of system wide changes. These changes also impact memory functioning. With extremely high sympathetic activation, memory systems are inhibited, while moderate levels of sympathetic activation improve memory.

Parasympathetic Nervous System

The parasympathetic nervous system typically responds as a counterbalance to the sympathetic nervous system. As the need for sympathetic arousal decreases, the

parasympathetic nervous system comes on line to bring the body back to a pre-arousal state. Among other things, heart rate, blood pressure, and respiration decrease, while blood flow to the extremities returns to normal. The parasympathetic nervous system can also engage in times where the sympathetic is hyper-activated in order to keep the body from doing damage to itself (Newberg, d'Aquili, and Rause 2001, 87). Additionally, this activation of the parasympathetic nervous system helps to slow down the amount of information being sent to the area of the brain that controls spatial orientation. This area helps a person distinguish the self from the rest of the world and helps to orientate the self within space (Newberg, d'Aquili, and Rause 2001, 87). The activation of this area by the sympathetic nervous system creates the feeling of tunnel vision in the midst of great stress.

One of the primary hormones used by the parasympathetic nervous system is acetylcholine (although, acetylcholine also plays a role in the sympathetic nervous system). This hormone communicates to the SA node (the pacemaker) of the heart to decrease the heart rate (Papillo 1990, 466). Acetylcholine also plays a role in promoting memory. Studies have shown that people suffering from Alzheimer's produce much less of this chemical (Eliot 1999, 333).

In times where the parasympathetic nervous system is engaged alone, signals to the orientation areas of the brain are slowed down to a below normal rate. At these times, there is less of a sense of self within space. As Newberg, d'Aquili, and Rause wrote: "The likely result of this deafferentiation is a softer, less precise definition of the boundaries of the self" (Newberg, d'Aquili, and Rause 2001, 87).

Mediating Factors on Emotion

While emotion has a very strong physiological component, we find one of the initial factors in influencing emotion in the appraisal process. While some aspects of appraisal are "hard wired" into the brain, much of this process is socially influenced. As

the brain develops, social interactions shape the value-appraising process (Siegel 1999, 123). So, while the experience of emotion may be universal, experiences that evoke emotion are socially and developmentally influenced to some extent. Given this understanding, we must question the popular idea that one has little to no control over how he or she feels or what emotions he or she has. If emotions are directly influenced by the appraisal system, and the appraisal system is a plastic neural network that is influenced by qualities and quantities of interaction, then humans can influence and ultimately alter “gut reaction” emotions. It is possible that Scripture’s use of narrative, symbol, and ritual and the concept of “heart writing,” among other things, serves to alter the neural networks of the appraisal system. By taking these methods and applying them to Christian marriages, we become equipped with one more way of building and deepening those relationships.

Physiological Manifestations of Emotion

On a basic level, studies have found that greater emotional arousal is associated with increased long-term memory but decreased short-term memory (Grings and Dawson 1978, 100). Additionally, studies have found lower emotional arousal associated with increased short-term and decreased long-term memory (Grings and Dawson 1978, 100). Based on these and similar findings, this study will utilize physiological measurements to assess the degree of emotional arousal participants experience while discussing their marital history and use of common symbols and rituals.

Grings and Dawson list eleven typical physiological responses that accompany emotional arousal: heart rate, blood pressure, blood volume, electrodermal responses, muscle potentials, electroencephalogram, respiration, temperature, salivation, pupil size, and gastric motility (Grings and Dawson 1978, 12 and 23). Many of these physiological responses are either impractical or inconvenient for use in this study. In order to attempt to assess levels of emotional arousal, this study will use measures of heart rate (IBI),

electrodermal activity (SCR/SRR), and skin temperature. Ideally, this study would be greatly enhanced by being able to discern not only levels of emotional arousal, but what emotion the participant is experiencing. Research has been done on distinguishing among emotions based on various physiological measurements, however none have yet been conclusive enough to label all emotions with precision (Fredrickson and Branigan 2001, 124). Schwartz and Weinberger conducted a study attempting to distinguish among happiness, sadness, anger, and fear based on cardiovascular measurements, but were only able to differentiate between fear and anger which needed the use of both heart rate and blood pressure measurements (Schwartz and Weinberger 1981, 344). In order to record a continuous blood pressure, an intravenous device must be used which is more invasive than the scope of this study. Therefore, emotional arousal levels alone will be assessed without attempting to describe precisely what emotion the participant is experiencing.

Measuring Emotion

Given the intertwined relationship between remembrance and emotion, being able to measure emotion on some level becomes important as this study attempts to discern the impacts of narrative, symbol, and ritual on Christian marriages. Relying on self-report would not give enough precision or accuracy. Currently, it is impossible to measure directly emotions, but it is possible to measure the impacts of emotion on various physiological indices. Emotions influence various physical factors outside of the brain, many of which can be empirically measured and statistically analyzed. Hugdahl opined: “The recording of psychophysiological responses may be regarded as a ‘window’ into the brain and mind” (Hugdahl 1995, 3).

This study will utilize the physiological indicators of autonomic nervous system activity as indicators of emotional engagement in the process of discussion narratives, symbols, and rituals in the marriages of participant couples. These methods

do not measure memory or heart writing directly. However, since memories tagged with emotion are easiest to access, it will be assumed that emotional memories are being presented. When couples recall those memories, theoretically, they emotionally relive the moment and should have the accompanying physiological responses. Quantity and quality of these emotional responses should give some indication of the degree of heart writing when looking at the relationship.

In recent years, researchers including Paul Ekman, have been able to accurately assess emotional states based on a complex system of facial expression analysis (Ekman 2005, 3). At this time, the author of this study on narrative, symbol, and ritual in the context of Christian marriage has not been trained or certified in Ekman's Facial Affect Coding System (FACS). However, he is familiar enough with the system to determine congruence of facial expression with physiological indicators of emotion as a result of autonomic nervous system activity. For the purposes of this study, identifying the presence and intensity of an emotion is more important than being able to give each emotion a precise label. For future research, full utilization of the FACS will give greater insight into the role of particular emotions on remembrance in marriage.

Three physiological responses have been selected for the measurement of emotionality during the interview process. These have been selected for ability to assess autonomic nervous system activity, low level of invasiveness, and ease of use. In the methods section of chapter 4, the empirical methodology used for the evaluation of these indices will be described. Here, we will look at the generalities of these indices as related to measuring emotion.

Cardiovascular Responses

Changes in heart rate can be influenced by a myriad of sources. In this study, we will be focusing on changes in heart rate because of emotional changes. Even though heart rate is relatively easy to measure and is directly tied to the autonomic nervous

system, it is difficult to determine which branch (sympathetic or parasympathetic) is causing change in the heart rate. Acceleration of heart rate (tachycardia) typically is associated with engagement of the sympathetic nervous system. At the same time, tachycardia can result from a disengagement of the parasympathetic nervous system. A third possibility is that both sympathetic and parasympathetic nervous systems are engaged, but the sympathetic is engaged slightly more (Papillo 1990, 466). On the other hand, deceleration of heart rate (bradycardia) can result from an increase in parasympathetic activity, decrease in sympathetic activity, or even activity from both but slightly more parasympathetic activity (Papillo 1990, 466). It is clear that looking at heart rate alone is not the best indicator to determine levels of activation in the autonomic nervous system. Change in heart rate may not be able to discern sympathetic from parasympathetic activity, however the rate can be interpreted as reflecting the net result of the interaction between the two (Papillo 1990, 467). In this study, differentiation between parasympathetic and sympathetic is not essential since the primary purpose is to measure the presence of autonomic activity with that being an indicator of generic emotion. Whether the emotion is happiness, anger, fear, or stress, heart rate tends to climb. Differentiation of exact emotions is not the goal of this study. Being able to discern if the individual is having some sort of emotional response to the various components of the interview process is the important thing.

Electrodermal Responses

In contrast to the cardiovascular system, which is influenced by both the sympathetic and parasympathetic nervous systems, eccrine sweat glands are entirely under the control of the sympathetic nervous system (Dawson 1990, 310). As the sympathetic nervous system engages, eccrine sweat glands in the skin receive a signal to increase perspiration. This perspiration differs from sweating due to temperature or exertion. Psychophysicologists call eccrine sweat “emotional sweat” (Hugdahl 1995,

102). By measuring the skin's ability to conduct electrical current, we are able to describe the change in eccrine sweat gland activity. Electrodermal Activity (EDA) provides a window into sympathetic nervous system activity. According to Hugdahl, "A recording of EDA as a function of emotional or cognitive activation is still one [*sic*] the most sensitive physiological indicators of psychological phenomena, both in the laboratory and in the clinic" (Hugdahl 1995, 102).

Additionally, body movement, breathing, and heart rate (which may be influenced from multiple causes) have little influence on EDA (Dawson 1990, 310). This gives us a direct and undiluted representation of sympathetic activity. As a bonus, EDA even responds apart from conscious awareness. Individuals lacking the ability to access memories were shown pictures of faces while researchers monitored EDA. When faces were shown a second time, EDA activity was consistent with the faces being familiar, not novel, even though the people declared they had never seen the faces before (Dawson 1990, 313).

While EDA is a powerful indicator of sympathetic nervous system activity, it does not indicate exactly what emotion is being experienced. EDA indicates that emotion is present but does not differentiate among emotions (Edelberg 1972, 405). In this study, there is no need to differentiate among the emotions, so EDA suits our purposes nicely.

Thermodermal Responses

Local skin temperature also gives some indication of sympathetic nervous system activity. The sympathetic division of the autonomic nervous system controls vasoconstriction and vasodilation. Vasoconstriction manifests itself with measurable localized temperature decrease while vasodilation manifests itself through measurable localized temperature increase (Grings and Dawson 1978, 23). If skin temperatures change notably at key moments in the interview process, it will indicate some level of emotional engagement.

Implications for Memory on Understanding of Narrative, Symbol, and Ritual

It now becomes important to bring this brief overview of current understandings of memory and emotion to bear on this study of narrative, symbol, ritual, and memorial in Christian marriages. Each of these individually as well as when combined pull together sensory, emotional, and memory elements, all of which activate the amygdala and orbitofrontal cortex, creating a holistic experience (Deeley 2004, 254). For each of these, emotion seems to be one of the main mediating factors between the activity and memory. In order to aid thoroughness, each will be examined separately in light of memory.

Narrative and Memory

Narrative functions in multiple ways to promote memory and ultimately heart writing. At a basic level, the repetition of a story a number of times spaced out over time helps to create stronger neural pathways and networks making up that memory. Since a narrative utilizes multiple types of information (the visual information of an event, the smells of a journey, the sounds of that phase of life, the meaning of the interactions), multiple brain regions are activated in the retelling of a narrative. As discussed in depth processing, by involving multiple brain regions, the memory of that relationship is encoded at greater depth. That narrative encapsulates an entire relational history, permeating it with deep meaning.

All the while the emotional experience of that relationship also comes into play. With each event, the various emotions originally experienced are recalled from long-term implicit emotional memory in the amygdala while the long-term explicit feeling states are recalled from the various regions of the brain originally stimulated. This recalling and retelling of a relational history is an experience in itself, and as the person recounts the narrative, this narrative is once again tagged with emotional

significance and re-encoded into long-term implicit and explicit memory systems (Philippot and Schaefer 2001, 85).

By utilizing narratives that take into account a relational history and recounting that history perpetually, the explicit memories of facts, places, and events are slowly changed to implicit memories that pull together the emotional climate and nature of the relationship. As the explicit and implicit memories work together, they impact neural structure and function, writing that relational history on the heart of the narrator. These changes not only help the person remember information, but also alter his or her emotional responses and behaviors. These narratives help to turn relational and spiritual stories into relational and spiritual experiences. They go from something you believe in your mind into something you feel (Newberg, d'Aquili, and Rause 2001, 91).

Symbol and Memory

Just as words with meaning can be stored with greater depth than nonsense words, objects with meaning help with depth encoding. Symbols take on greater meaning than the object alone. Either by temporal, spatial, or contextual association, a symbol takes on greater meaning, aiding in writing that meaning deeper into one's heart. Repetition also helps to create stronger neural pathways by repeated encounters with that symbol. The stronger the neural pathways, the easier the information is to recall. At the same time, with enough repetitions and powerful meaning, the explicit memories about the meaning of a symbol can move to implicit memory, unconsciously impacting behavior and emotions. Additionally symbolic mental representations regularly acquire emotional associations and function to reinforce the power of the symbol (Deeley 2004, 254). These mental representations engage the visual cortex along with meaning making and emotional centers. By engaging multiple brain regions and multiple neural networks, the meaning of the symbol has been written deeper on one's heart.

Ritual and Memory

Repetitive behaviors directly influence neural functioning, impacting both explicit and implicit memories (Deeley 2004, 257). By repeating a ritual, the repeated activation of neural pathways and networks increases efficiency of functioning and increases the likelihood of future activation. These strengthened pathways influence future behavior, emotions, and even the appraisal process.

As with any explicit memory, repetition and rehearsal increase the brain's ability to access and recall that information. However, this is not directly the kind of memory that Scripture describes as being so important. As Christ observed, the Pharisees cognitively knew the Law (explicit memories), but their hearts had not been impacted and changed by that Law. The power of ritual in Christian marriage does not lie in the fact that it helps create explicit memories. While it does this, and explicit memories within the relationship are important, the real power of ritual comes when it taps into both explicit and implicit memory.

By creating implicit and explicit memories, rituals help create the content of a person's memory and influence its outward expression. When people are truly engaged in ritual, it generates an emotional discharge, and can even produce some level of spiritual transcendence (Newberg, d'Aquili, and Rause 2001, 86). This feeling of transcendence probably results from the activation of the parasympathetic nervous system and its influence on the orienting regions in the brain.

Rituals have been found to lower blood pressure, heart rate, and respiration, all of which are regulated by the hypothalamus, which regulates the autonomic nervous system. Rituals help people connect to the emotional experiences stored in memory and have an impact on their present physiological functioning and behavior (Newberg, d'Aquili, and Rause 2001, 86). The powerful rituals effectively engage all parts of the brain and body, and merge behaviors and idea (Newberg, d'Aquili, and Rause 2001, 90). According to Deeley: "Rituals typically employ many stimuli to enhance attention,

arousal, emotion, and hence semantic evocation and memory formation. The salience of these stimuli is derived from their composite nature” (Deeley 2004, 257).

Ritual also adds a facet to internalization left out by narrative and symbol by involving physical actions. These actions engage areas of the brain and neural networks left untouched by narrative and symbol. The effectiveness of ritual can work in a bottom-up (physical activity to mind) or top-down (mind to physical activity) direction (Newberg, d’Aquili, and Rause 2001, 97).

Ritual frequency and intensity also play a role in internalization. High frequency rituals promote the “extraction of semantic memories and associated emotions through repeated participation and exposure” (Deeley 2004, 245). At the same time, low frequency rituals promote the extraction and creation of episodic memory (Deeley 2004, 245). Both play an important role in internalization.

Memorial and Memory

With each of the memorial elements just discussed, they brought to the table a slightly different power that aided in the process of internalization. Each relied on explicit and implicit memory and the repetitive activation of various neural networks. However, each had a strength over the others. The power of Memorial comes in that it combines all three memorial elements, intensifying the internalization process exponentially. As we learned with depth processing, the more neural networks involved in the process, the greater the power for internalization. Memorials tap into implicit and explicit memories. Memorials emotionally reengage the person. Memorials involve visual, auditory, tactile, semantic, and motor brain regions. These elements synergistically interact to create the most powerful method of heart writing that not only increases the ability to remember information, but with repetition and heightened emotional engagement, reconfigures neural networks to influence future emotions, thoughts, and actions.

Memory, Emotion, and Heart Writing: Conclusion

This overview of memory and emotion has demonstrated repeatedly that God has created humans as amazingly complex creatures. As embodied-souls, our physiology influences our emotions and behaviors, our emotions influence our behaviors and physiology, and our behaviors influence our physiology and emotions. From chapter 2, we described heart writing as a way of internalizing one's relationship with God in such a way that it affects his or her thoughts, feelings, and actions. Scripture described various methods of heart writing involving this researcher's categorization of Memorials and memorial elements. By bringing the texts from contemporary research to bear on this discussion, we begin possibly to get a glimpse of how these methods reflect God's design in human physiological and neurological functioning. An empirical study of Christian couples has been designed as a means of beginning to assess the veracity of these ideas. This study has been designed as a basic introductory study to see if we are "barking up the right tree." If this study gives any indication that utilizing Memorials and memorial elements in Christian marriages seems to be associated with stronger marriages, a theoretical manifestation of this researcher's understanding of heart writing, it would be worthwhile for this line of research to be continued on a larger scale.

CHAPTER 4

RESEARCH METHODOLOGY

In order to describe the relationships among memorials, internalization, and marital functioning a quasi-experimental research design was developed. This research for this dissertation was conducted in two phases. In the first phase, a pool of potential participant couples was collected, assessed for possible inclusion in the study, and assigned to one of two groups based on the assessment. In the second phase, the selected couples completed several assessments measuring marital functioning and a video recorded interview that attempted to physiologically discern emotional engagement.

Phase 1

The first phase of the study involved enlisting volunteers from a local church to participate in the study. The pool of volunteers completed a screening survey that collected basic demographic information and assessed the number and types of memorials and memorial elements the couple experience together in their marriage. The data from the initial survey was used to form two groups for comparison. The groups differed in their use of narrative, symbol, ritual, and memorial while being as similar as possible in a number of other factors.

Participants

A pool of 55 participant couples was collected from Highview Baptist church, a Southern Baptist congregation in Louisville, Kentucky. Highview averaged 3020 people in attendance at weekend worship services during 2005.

Apparatus

The researcher created a screening survey to assess qualitatively couples' use of narrative, symbol, and ritual in their marriages. This open response, paper and pencil survey also asked for basic demographic information (including: previous marriages, age, years saved, years living as a Christian, church background, number of children, age of oldest child, age of youngest child, seminary attendance, and campus attends) and was attached to an explanatory and contact form. Both of the two pieces of paper had a random, unique, four-digit identification number consisting of alternating numbers and letters (See Appendix 1).

Procedure

Collect Participant Pool

The participant pool was collected from Highview Baptist church during weekend services on October 8 and 9, 2005. That weekend 3052 people attended worship services. Many churches have multiple services on Sunday mornings and even on Saturday evenings. Highview is somewhat unusual because in addition to its multiple services, it has two locations in two different parts of the city. Each weekend, the senior pastor preaches the same sermon at five services. Participants from this study were taken from each of the five services. At the end of each service, the pastor included a comment about an opportunity for couples in the service to participate in this study while giving his usual closing announcements. The pastor was asked to use the following as an example for what to say:

Josh Creason, one of the counselors at our counseling center and Doctoral student at Southern Seminary is looking for couples who would be willing to participate in a study on Christian marriages. If you and your spouse think you may be open to it, stop by the table set up in the lobby on your way out to sign up.

A researcher was stationed at a table in the main lobby for each of the five services. Couples were given an explanatory and contact information form that was stapled to a brief introductory survey. Once the survey was completed, the researcher

detached it from the contact form and placed the separate sheets in two different envelopes in order to add a level of anonymity for the participant. This also kept the researcher from being influenced by any experiences with the couples and associating that experience with a participant ID number. A total of 55 surveys were completed by Highview members. Three couples submitted the surveys after several of days had lapsed and were not used for the study. Additionally, four data sets were excluded from the study because the researcher was able to discern that those couples did not complete the survey together.

Score Surveys

The surveys were qualitatively analyzed by the researcher using a weighted coding system. The coding system was developed by creating a raw list of all responses for each category. Similar to the open coding phase of grounded theory (Creswell 1998, 57), responses were grouped into like items (see Appendices 3, 4, and 5). For instance, if three couples listed, “when we first met,” “talking about the funny way we were introduced,” and “first meeting” for the narrative item, the three would be grouped into the label, “First Meeting.”

After distilling all responses, each response was assigned a weighted value based on a theoretical categorization of narrative, symbols, and rituals designed by the researcher based on the research presented in the previous chapters. Each of these memorial elements was also given greater nuance by sub-categorization. These subcategories can be seen in Tables 1-3.

Table 1. Memorial assessment narrative scoring

		Axis 1	
		Event	Phase
Axis 2	Occasional	2	3
	Developmental	4	6

Table 2. Memorial assessment symbol scoring

	Axis 1	Momentary	Perpetual
Axis 2			
Coincidental		2	6
Developmental		3	9
Intentional		5	15

Table 3. Memorial assessment ritual scoring

Day-to-Day	Commemorative	Mental Room	Repetitive Event
2	5	3	4

The researcher divided marital narratives into a dual axis system. For the first axis, narratives were categorized as either an event or phase. A narrative event is a particular occurrence such as “when we met” or “when we got married” compared to a narrative phase such as “when we were dating” or “before we had kids.” The second narrative axis adds nuance to the event or phase by describing it as part of the natural progression in marriage or life, or as an event unrelated to any particular stage of life. For examples of each of the resulting four narrative subcategories and their assigned weights, see Table 4.

Table 4. Memorial assessment narrative scoring examples

	Axis 1	Event	Phase
Axis 2			
Occasional		A Romantic Moment	A Special Date Before Kids
Developmental		Birth of First Child	Courting

Marital symbols were subcategorized into a two-axis system. The first axis differentiates the duration of the symbol. A momentary symbol is only experienced once. Momentary symbols are typically symbols in the broader sense in that they are often not physical and exist in memory. Because of this, there are few, if any, purely momentary

symbols. Once the couple is beyond that moment, that symbol also takes on narrative traits because it is now woven into and associated with a story or narrative. For instance, the wedding of one's child has symbolic meaning in that it can be a transitional moment of one's self-perceptions. Perpetual symbols are typically physical symbols that are re-experienced because of their continuation in time. The second axis of marital symbols differentiates among occasional, intentional, and developmental symbols. An occasional symbol does not have an initial intentionality to it. For instance, if a couple were to walk by a particular tree on their way out on their first date, that tree may then come to evoke memories of that first date each time they see it, think about it, or talk about it. In contrast, an intentional symbol involves a selection and association of an experience with a particular symbol. A couple purchasing a Christmas ornament from the place they stayed on their honeymoon creates an intentional symbol. A developmental symbol is slightly different in that the symbol occurs naturally in the progression of the relationship, whereby it becomes associated with an experience. A wedding band is a symbol that is typically part of a couple's development in marriage. For examples of each of these subcategories of marital symbols, see Table 5.

Table 5. Memorial assessment symbol scoring examples

Axis 2 \ Axis 1	Momentary	Perpetual
Coincidental	Monthly Bills (reminding of God's provision)	Tree the couple passed often while dating
Developmental	Granddaughter's Wedding	Souvenir from Honeymoon
Intentional	Burning Legal Separation Papers	Wedding Rings

Marital rituals were categorized into a single axis system, resulting in four subcategories. Day-to-day rituals are woven into the fabric of the couple's life. This

weaving would have a strong impact based on the researcher's understanding of rituals, but since they are small things that happen many times, the given weight for each occurrence is low but the combined weight of the day-to-day rituals is strong. These rituals can be very simple and frequent such as a husband calling home from work every day during his lunch break. Commemorative rituals are built around a memory of a shared experience and are celebrated regularly (most often yearly). An example of a commemorative ritual is a couple going out to eat every year on the anniversary of their wedding. Rituals that involve "mental room" revolve around using an intimate knowledge of one's spouse in a regular fashion. For instance, a husband bringing home lilies, his wife's favorite flower, occasionally would be a ritual that demonstrates thoughtfulness and a "working map" of one's spouse's likes and dislikes yet is not particularly associated with a specific date or occasion. Finally, a repetitive ritual is not necessarily connected to a particular past shared event, is not done daily, is not reflective of knowledge of one's spouse, but is based on a particular activity done together over the years. This can be seen in a holiday tradition such as reading a particular Christmas story together on Christmas Eve or having a particular meal at Easter. These rituals may be attached to an external event or celebration (a holiday), but are not attached to a milestone in the relationship, such as an anniversary. Rituals involving milestones function to encourage a couple to remember and reflect on that moment and draw their power from that time, while the power of these repetitive rituals comes from the sharing of ritual moments together year after year. For more examples, see Table 6.

Table 6. Memorial assessment ritual scoring examples

Day-to-Day	Commemorative	Mental Room	Repetitive Event
Call home during lunch every day	Go out to eat on anniversary	Buy a particular type of flower for spouse	Bake gingerbread cookies together every Christmas

Each response for each category was listed and assigned a numeric weight by the researcher based on his hypotheses concerning narratives, symbols, and rituals. For responses that involved multiple memorial aspects, the weight was given a multiplication factor. Responses that involved two memorial components were weighted individually, added together, and multiplied by 1.25. Responses that involved all three memorial components were weighted individually, added together, and multiplied by 1.5.

Two additional theoretical facets of memorials were also considered and factored in. If couples shared the narrative, ritual, symbol, or memorial with someone else, the score was multiplied by 1.25. For instance, a couple may have a yearly ritual that they get out their wedding album and show it to someone else while telling the story of how they met and got together. This would be scored by adding the values for the narrative, ritual, and symbol elements, multiplied by 1.5 because it involves all three and is a memorial, and then multiplied by 1.25 because they are sharing that experience with someone else. The final theoretical facet factored into scoring the Memorial Survey was the spiritual content. When a memorial component or memorial revolved around spiritual matters, it was multiplied by 1.5.

Based on this weighting system, each response on the Memorial Survey was given a value. Numerical responses to “How many times . . . ?” were not used in the calculation of scores due to most couples not responding with numbers but with generalities such as “lots” or “several.” All categories were combined to create an overall scale score used to sort the pool of volunteers into participant groups. See Figure 1 for the scoring equation; for scoring examples using the weighting system, see Figures 2-3.

Group Creation

Couples who did not meet the proper inclusion criteria were removed from the study before the participating couples were separated into groups for comparison.

$$(((NS + SS + RS) * MCM) * SWOM) * SM = \text{Memorial Element Score}$$

NS – Narrative Score

SS – Symbol Score

RS – Ritual Score

MCM – Multiple Category
Multiplier

SWOM – Share with Others

Multiplier

SM – Spiritual Multiplier

Figure 1. Memorial element score equation

A couple describes getting their wedding album out every anniversary, finding another couple to share it with, and describing how God brought them together.

$$(((4 \text{ [Developmental Event Narrative]} + 15 \text{ [Perpetual and Intentional Symbol]} + 5 \text{ [Commemorative Ritual]}) * 1.5 \text{ [Three Memorial Elements]}) * 1.25 \text{ [Telling another couple]}) * 1.5 \text{ [Spiritual focus]} = 67.5$$

Figure 2. Memorial element score example 1

A couple describes how they sometimes talk about romantic moments.

$$(((2 \text{ [Day-to-Day Narrative]} + 0 \text{ [No Symbol]} + 0 \text{ [No Ritual]}) * 1 \text{ [One Memorial Element]}) * 1 \text{ [Only involves that couple]}) * 1 \text{ [No explicit spiritual content]} = 2$$

Figure 3. Memorial element score example 2

Qualifications for the study included: both spouses were self-proclaimed Christians for more than three years, the couple had been married more than five years if it was their first marriage and more than 15 if it was their second marriage.

Once qualifying couples were scored based on the memorial coding system, they were rank ordered from highest to lowest scoring. The top twelve and bottom twelve scoring couples were selected to participate from the qualifying volunteer pool of 37 couples.

While the new Memorial Survey score has not been validated or demonstrated any reliability, it provides a good starting place for group creation. Later in the study, participants completed other inventories and scales that have demonstrated some validity and reliability. When this new Memorial Survey score was compared to these existing

scales using a Mann-Whitney U test (a non-parametric test with an alpha level of 0.15 was used due to the small sample size of 18 participating couples), it was found that participants in the high scoring group differed significantly on scores for the Perceived Sacred Qualities ($p=0.019$, $Z=-2.342$), Joint Religious Activities ($p=0.122$, $Z=-1.547$), and Manifestation of God in Marriage ($p=0.030$, $Z=-2.176$) scales from the participants in the low scoring group. This demonstrates some level of concurrent criterion validity. We can assume that this scale is measuring one or more constructs. For future use, this survey would need refinement. Some of these refinements will be discussed in chapter 6.

Contact Selected Participants

Selected couples were contacted first by their requested contact method as indicated on their Memorial Survey. Participants who requested email or mail via the US postal service received a letter concerning the study. See Appendix 6 for a copy of the letter.

Participants who chose to be contacted via phone were called by the researcher who covered all the same information given in the written text to potential participants. Due to scheduling conflicts, participant attrition, and illness, couples from the participant pool had to be added to the study groups to maintain group size and characteristics.

Phase 2

Participants

Out of the initial pool of participants, two groups of 12 couples were selected to participate. Nine couples were lost due to declining to participate or scheduling conflicts. Other participants were selected from the pool to replace those that were lost. Upon the completion of the study, 19 couples participated. One couple was dropped from the sample in order to maintain demographic similarity between the two groups, resulting in two groups of nine couples.

The high scoring group averaged a score of 60.69 ($SD=22.46$) on the Memorial Survey while the low scoring group averaged a score of 24.89 ($SD=8.00$). On all other demographic factors, the groups did not differ significantly. See Tables A5-A8 in Appendix 8 for means, standard deviations, and significance levels for each factor.

Apparati

Computer Based Surveys

Computer Hardware and Software

Standard paper and pencil surveys were converted to a computer based survey. Two identical computers (Pentium III 733 with 256mb of RAM) were loaded with a Linux operating system, Apache web server (2.0.54), PHP (5.0.4), and MySQL database (4.1.13). These computers were not connected to the internet. The surveys were converted to a format to be displayed in a web browser (Mozilla 1.0) by using a highly modified version of Radoslaw Kmiecicki's open source PHP script, Marketing Survey Tool 1.2.04. Responses were stored in a database which also recorded the participant identification number (plus H or W to distinguish between the husband's and wife's responses), and number of seconds the participant took to respond to each item. The computers and data were encrypted and protected by multiple alphanumeric passwords.

The surveys were prefaced with the following text:

Thank you for your willingness to participate in this research on Christian Marriages. Please answer all of the following items to the best of your ability. The directions for each item can be found at the bottom of the screen. Once you have selected your response by clicking on the appropriate bubble, click "Continue." Once you have clicked "Continue," you will be unable to change your response. Please do not speak with your spouse while completing these items. Your responses are confidential and will not be discussed with your spouse.

Items were displayed on the computer screen individually. Participants used a computer mouse to click on radio buttons (which limit participants to one response per item) and check boxes (which allow multiple responses per item). Two items required the use of the computer keyboard to type a brief response. Once the participant had

responded to the item, he/she click on a button labeled “continue” which produced the next item. Participants were unable to change their responses after they had clicked continue. The screen also displayed what percentage of the survey packet the participant had completed so far. All items and scales that made up the computerized survey were presented in the same order for all participants. Upon completion of the surveys, a message was displayed on the computer screen thanking participants for their time and instructing them to wait quietly for the researcher’s instructions. See Appendix 10 for a printed version of the computerized survey. The site background was black with a white space for text top and bottom flanked by burgundy.

Surveys

The computerized surveys included two well-established marital scales developed by secular researchers, three scales developed by faith-based researchers that measured selected spiritual facets of marriage, and some more extensive demographic information not collected by the initial Memorial Survey.

The Four Horsemen. John Gottman’s research team has developed a questionnaire to assess couples’ subjective experience of key negative interaction styles as identified by their research. This scale consists of 33 true-false items. Researchers have been able to predict with 98% accuracy the divorce rate within five years by utilizing this same construct (Gottman et al. 2002, 6). The self-assessed inventory version of this construct helps to identify “patterns of interactive behavior that characterize ‘dysfunctional’ relating between partners” (Gottman 1999, 68). In this study, this construct will be used to compare with measures of memorial and memorial element usage and to serve as a comparison to scores on the MAT to demonstrate that the groups are “normal” in that higher scores on the MAT are found with lower scores on the Four Horsemen and vice versa (Gottman 1999, 120). For a listing of the items in the Four Horsemen Questionnaire, see Appendix 11.

Locke-Wallace Marital Adjustment Test. The Locke-Wallace Marital Adjustment Test has been used for nearly fifty years to quickly assess levels of marital satisfaction in couples (Locke and Wallace 1959, 252). It continues to be one of the most widely used inventories due to its brevity (16 items), ease of use, and ease of scoring. The MAT measures both marital satisfaction and levels of agreement or disagreement on several facets of marital interaction (Freeston and Plechaty 1997, 420). Higher scores on the MAT represent higher levels of marital satisfaction. Given the nearly fifty-year history of the MAT, many have questioned its continued validity. Freeston and Plechaty have done extensive studies on the validity of the MAT and have concluded that it “seems to be an empirically adequate measure but it may not be conceptually adequate, depending on the desired construct and the purpose of measuring it” (Freeston and Plechaty 1997, 432). For now, there are no scales that come close to the power of the MAT with so few items. For instance, the Dyadic Adjustment Scale correlates with the MAT at a level of .93, indicating it is measuring a very similar construct, yet takes twice as many items (Freeston and Plechaty 1997, 432). The MAT was included in this study because of its reputation to reliably and validly distinguish between happily and unhappily married couples (Gottman et al. 2002, 180). For a listing of the items in the MAT, see Appendix 12.

Joint Religious Activities. Joint Religious Activities (JRA) scale was developed to assess how often couples participated in religious or spiritual activities together. These activities range in scope from private to public, and from formal to informal (Mahoney et al. 1999, 326). This thirteen-item scale has been used in research on the role of shared religious activities in marital functioning. Mahoney et al. found that higher scores on the JRA were associated with higher scores on the LWMAT (Mahoney et al. 1999, 326). The JRA scale demonstrates a high level of internal consistency ($\alpha=0.91$) (Mahoney et al. 1999, 327). This scale has been included in this study to help

establish some level of concurrent criterion validity since it would seem to measure some of the same constructs from the Memorial Survey. For a listing of the items in the JRA, see Appendix 13.

Manifestation of God – Marital Scale. The Manifestation of God (Marital Scale) (MOG) was developed to assess couples' perceptions of God's role in their marriages. This fourteen-item scale quantifies how a couple views their marriage as set apart by God and his actions within their marriage. Mahoney et al. have found that couples who score high on the MOG tend to also score high on the LWMAT (Mahoney et al. 1999, 328). The MOG scale demonstrates a very high level of internal consistency ($\alpha=.97$) (Mahoney et al. 1999, 327). This scale has been included in this study to help establish some level of concurrent criterion validity since it would seem to measure some of the same constructs from the Memorial Survey. For a listing of the items in the MOG, see Appendix 14.

Perceived Sacred Qualities. While the MOG assess the couple's view of God's activity within the marriage, the Perceived Sacred Qualities scale (PSQ) measures a more broad view of the sacredness of marriage. Instead of measuring sanctification (or set-apartness) from a theocentric view, as does the MOG, the JRA measures couples' view of their marriage as sacred apart from a specific religious context. The measure was developed to assess levels of sanctification in marriage for the purpose of studying its role in marital functioning. High scores on this scale have been found to be associated with higher levels of marital adjustment as assessed by the LWMAT (Mahoney et al. 1999, 328). The PSQ scale demonstrates a high level of internal consistency ($\alpha=.87$) (Mahoney et al. 1999, 327). For a listing of the items from the PSQ, see Appendix 15.

Demographic information. In order to attempt to control for as many factors as possible that may have inadvertently occurred at higher levels in one group or the

other and to look for any medical factors that could greatly influence the psychophysiological measurements, various demographic data were collected from each spouse. This information included: income, highest level of education, race, height, weight, basic medical history, and current medications.

Memorial History Interview

Ken Hollis, Ph.D., conducted the interviews. Prior to conducting these MHIs, he had interviewed over fifty couples using Gottman's Oral History Interview and the accompanying techniques (Gottman 1999, 398). Hollis had no knowledge of the nature of the research topic or specific research questions for this study. He was also unaware that the couples had been divided into two groups. The only thing that he knew about the study was the content of the MHI and that it involved recording physiological data.

Digital Video Recording

Couples were video recorded during the interview process of the second phase of the study. A Sony TRV-900 digital video camera was used. Custom white balance settings were used to get proper color. The background was simplified leaving a white wall behind the couple. This allowed for greater contrast so that their faces were easier to see and to allow for greater video compression when the videos were converted to MPEG2 video. The video camera recorded in a wide-screen, 16x9 format in order to fill more of the playback screen with the couples' faces. The researcher used an overhead fluorescent light, two pole standing halogen lights directed at the ceiling, and two shaded incandescent light sources (one placed on the ground in front of the couple) to properly light the couple's faces. The husband was always positioned to be on the right side from the camera's perspective and wore a lapel microphone that was recorded into the right audio channel on the video recording. The wife was always positioned to sit on the left side of the love seat. She also wore a lapel microphone which was recorded into the left audio channel on the video recording. The audio was recorded as 16bit stereo PCM

audio on the miniDV tape. In order to prevent any grounding issues (which would result in a loud hum in the audio) and to decrease the likelihood that a power shortage would disrupt the video recording, the video camera ran off of its built-in battery power during the interviews.

In order to aid in synchronizing the recorded video with the recorded physiological data, the researcher designed and constructed a remote controlled light based marking system. The interviewer held a small remote control in his hand with two color coded buttons. The buttons controlled a red and green LED (light emitting diode) behind the participating couple's heads and emulated a left mouse click in the physiological recording software that created a marker. As the interviewer began each interview question, he pressed the red button which created a visual mark on the video and a time marker in the physiological recording on the computer. Using these two markers, the researcher was able to synchronize the video recording and physiological data for analysis.

After the completion of the interviews, the miniDV tapes were converted to MPEG2 video and Dolby Digital AC3 audio (the same video and audio encodings used in commercially available movie DVDs) with markers set to each of the eight MHI questions. When the videos were encoded, they were also synchronized with the timing of the physiological data. The remote marker basically served the function of a researcher using a pen to mark a stimulus on an analog, scrolling paper readout used in older physiological measuring devices.

Physiological Measures

While the couple was interviewed by Hollis, they were connected to various physiological recording devices. These sensors were controlled by the J+J Engineering I-330-C2+6 instrument. The instrument connects up to six channels of data to a computer through a USB connection. Each input accepts three bi-polar amplifier compatible leads

with a maximum bandpass of .5 to 400Hz. Additionally, the inputs have two resistance voltage amplifiers with a bandpass of D.C. to 30Hz. The I-330-C2+6 instrument was powered by four AA batteries and was not connected to any external power sources (J&J Engineering 2004, 3). See Appendix 18 for complete I-330-C2+6 specifications (J&J Engineering 2004, 5).

The I-330-C2+6 instrument was connected to a PC laptop (Pentium III 1133MHz, 256mb RAM, Windows XP Home Edition, Service Pack 2) running WindowsXP Home Edition with Service Pack 2 and USE3 Physiolab 1.0 software. USE3 is a scripted language designed to manage incoming physiological data from various sensors. The Physiolab software did not come with an application that met the researcher's needs, so the company was contacted and they custom designed an application for the Physiolab software. This application used channels 1, 2 and 3 on input A from the I-330-C2+6 to record skin temperature, skin conductance, and heart rate data from the wife and channels 4, 5, and 6 on input B to record skin temperature, skin conductance, and heart rate data from the husband.

Skin Conductance

The measurement for SC was taken using a MC-6SY sensor. The two leads were attached with button straps to the left pointer and left middle fingers. The USE3 software recorded the skin conductance in μs every one-tenth of a second.

Skin Temperature

Skin temperature was measured with a thermister bead attached to the MC-6SY sensor. The sensor had a calibrated temperature range of 60°F to 100°F. The temperature thermister measures heat loss to the room, leading to less accurate readings in colder rooms (J&J Engineering 2004, 16). The setting for the actual study tended to have warmer than usual temperatures, leaving a greater potential for readings to be

impacted by increasing body temperature instead of being impacted by the room being too cold.

ECG

ECG readings were measured using MC-5D gel-free wrist sensors. These wrist-to-wrist electrodes measured R-waves, heart rate, and heart rate variability. Heart rate numbers were converted into interbeat interval (IBI) numbers using the formula $IBI = (1/HR) * 60,000$ (Gottman et al. 2002, 255).

Procedure

Greeting and Consent Form

Couples were greeted by the researcher as they arrived at their agreed upon times. The primary researcher was unaware of which group participants belonged to. The participants were then taken into the first room where the researcher thanked them for coming and gave a brief overview of their role in the research process. The following is a close approximation of the researcher's wording:

Thank you so much for investing some of your precious time in this study. Lord willing, this study will have an impact on marriages throughout the Kingdom. Tonight, we will begin in this room with a brief set of surveys on these computers. After you are done, we will go next door and Dr. Ken Hollis will conduct an interview. The interview will be video recorded and you will be connected to a few basic physiological monitors. These monitors are not lie detectors, nor will they shock you if you give the wrong answer (or for any other reason). Your responses to the surveys and in the interview will be confidential. No one will see the recorded video or your responses. In fact, even when I see your responses, they will not have your names associated with them. Dr. Hollis will also keep your confidence as you speak with him during the interview. Do you have any questions before we begin? Please take a moment to read over and sign this consent form as we begin.

See Appendix 9 for a copy of the consent form.

Computer Based Surveys

Once the couple had read and signed the consent form, they were placed in front of their respective computers. The husbands were always placed in front of the

same computer. All wives were placed in front of a second computer. The two computers backed up to each other so that it was impossible for the spouses to see each other's answers or even what item he or she was on. The couples were instructed to use the computers to complete the surveys with the researcher saying something like,

Use the mouse and left mouse button to select your answer for each item. Once you have selected your answer, click on the button labeled "Continue" to go on to the next item. On the majority of the items you will be able to select one response. On two items you will be able to select multiple responses by clicking on check boxes. Two items will require you to use the keyboard to type a brief response. Please do not talk to each other during this time. We will not share your responses with your spouse. You may talk together about these surveys after this is all over but not while you are completing them.

The researcher also adjusted the screen font size to a comfortable point for each participant. Out of all the participants, only two were not familiar with using a computer. The first took fifty minutes to complete the surveys compared to the average completion time of 20 minutes. The second was unwilling to try to use the computer mouse, so the researcher used the mouse to select each answer for the participant. The participant was instructed to point to his or her desired response without using any spoken words and was told that the researcher was not reading the current question to which the participant was responding.

Physiological Equipment Setup

After both the husband and wife had completed their computer based surveys, they were escorted into the interview room and introduced to Hollis. Both were connected to the I-300-C+6 physiological recording instrument. First, the participant's left pointer and left middle fingers and both wrists were cleaned with alcohol on a cotton ball. In the course of the study, it was discovered that women who used heavy hand lotion beyond their wrists tended to have less stable ECG readings, so extra care was taken to ensure women's wrists were as clean as possible. Finger electrodes for the galvic skin response sensors were dabbed with isotonic paste and placed on the left pointer (the positive electrode) and left middle (negative electrode) fingers. The skin

temperature sensor was placed on the left ring finger and taped down the finger lengthwise in order to ensure that normal circulation was not being impacted by tape wrapped around the finger.

Once the finger electrodes were in place, wrist bands were slid down onto the participant's wrists. These wristbands resembled athletic sweatbands. The ECG wrist sensors were placed under the wristbands perpendicular to the arm. The researcher checked all readings and made sensor adjustments when necessary.

Finally, the lapel microphones were placed on each of the participants. Audio levels were checked and adjusted on the video camera to ensure proper audio recording. The lead researcher then started the video camera recording and left the room.

Acclimation Period and Baseline Establishment

The interviewer began the interview by initiating the recording of the physiological data and asking the couple to sit silently with their eyes closed. Simultaneously, he used the remote marking device to mark the video recording and physiological data. After two minutes elapsed, the interviewer asked the couple to open their eyes and sit without speaking and used the remote marking device to mark the video recording and physiological data. The first two-minute period served to allow the couple to acclimate to the setting, bringing their physiological states closer to normal. The data for the second two-minute period were used to create a baseline level for each physiological factor for comparison to readings recorded during the interview. Gottman et al. found that physiological readings during a two-minute period with eyes closed resulted in consistently lower levels of arousal than a two-minute period with eyes open (Gottman et al. 2002, 255). By forming the baseline from the eyes opened period, the arousal levels due to visual stimuli were decreased.

Video Recorded Interview

After completing this synchronizing and establishing a physiological base-line, the interviewer began the MHI. For each of the eight questions, the interviewer used the remote control to mark the video recording with the red light and mark the physiological data. The interviewer used the second button on the remote control to light the green LED to give a visual reference for each of the sub-questions in the MHI.

At the end of the final question, the interviewer used the remote control to mark the end of the video recording and physiological data. The lead researcher reentered the interview room to remove the physiological sensors from the participating couple. The couple was thanked by both the lead researcher and interviewer as they left.

Data Processing

A study like this generates mountains of data. The average interview contained over 98,000 physiological data points (3 physiological factors for each spouse taken at $1/10^{\text{th}}$ of a second intervals over the average interview length of 27.25 minutes), for a total of over 1.75 million data points when all 18 couples are added together. It becomes important to describe the procedures for distilling this data into manageable pieces and processes for analyzing the resulting measures in a way that is statistically rigorous.

Following the methods of other researchers, such as John Gottman, this study averaged the physiological data into 1-second intervals. For the purposes of this study, the high resolution of $1/10^{\text{th}}$ of a second was overkill. For each physiological factor, a baseline mean and standard deviation was calculated (Husbands: IBI $M=808.23$, $SD=48.24$; ST $M=89.44$, $SD=0.32$; SC $M=10.33$, $SD=0.37$; Wives: IBI $M=764.86$, $SD=61.56$; ST $M=86.15$, $SD=.59$; SC $M=11.42$, $SD=0.59$). For IBI and SC, these baseline SD scores were used to create a normality band to attempt to distinguish between normal physiological changes and physiological changes due to the interview process (Gottman et al. 2002, 255; Levenson and Gottman 1988, 592). Any time the change in

the physiological measure was greater than two standard deviations from the baseline, an interview induced physiological change was recorded. Any time the change in the physiological measure was greater than three standard deviations, it was considered an artifact due to movement or instrument error. Because many individuals had little to no variation in skin temperature during the baseline, new baselines were calculated for each question, which provided a better estimate of skin temperature changes. The same method was utilized except instead of using the two-minute baseline period, the five-seconds prior to the question were used (Gottman et al. 2002, 255).

Six questions were selected from the MHI for statistical use in this study. Each question related closely to the use of narrative, symbol, ritual, or memorial in marriage. These questions were: “What were some of the highlights?” (of the dating period); “Do you ever revisit special places from this time?” (the dating period); “Of all the people in the world, what led you to decide that this was the person you wanted to marry?”; “Did you exchange rings? What did your ring mean to you back then? What does your ring mean to you today?”; “Tell me about your vows. Did you write your own? Do you remember what you felt physically or emotionally while you were hearing or saying your vows?”; “Describe for me a time when both of you sensed God at work in your relationship. How have you seen your individual relationship with God impact your marriage?” By looking at questions that most directly dealt with the application of these principles in marriage, it helped to hone in on the level of emotional engagement in the discussion of these topics. This research has made the case that greater physiological engagement is a measurable indication of implicit and explicit memory activation as a function of heart writing or internalization. The number and type of physiological responses for each question were counted, with a response being defined as a change (positive or negative) between two and three standard deviations from appropriate baseline (whether the initial baseline in the case of IBI and SC or the five-second, pre-question baseline for ST). For each individual, these three totals were divided by the

number of seconds the couple responded to the question and then added together. This final number served as an indication of emotional engagement during that particular question with larger numbers representing more emotional engagement. Due to the inability to absolutely distinguish between positive and negative emotions, this grand total approach only gives a feel for total emotional fluctuation, presumably due to one's own responses to the question or to one's spouse's responses to the question. A total emotional engagement score for each individual was also calculated by adding up the scores for each item. A total couple score was created by adding the husband's and wife's total emotional engagement scores for all of the selected questions.

CHAPTER 5

RESULTS AND CRITIQUE

Given the exploratory nature of this study, the results will be presented in three sections. First, some basic descriptive data will be presented to give the feel for the participating couples. Second, each research question will be statistically addressed separately. Finally, this chapter will be concluded with a discussion of possible problems with the research design and procedures.

Descriptive Data

Before addressing the individual research questions, the basic descriptive information about the collected data will be presented.

Income for the couples ranged from \$12,000 to \$300,000 ($M=\$88,0000$, $SD=\$68,811.76$, Figure A1 in Appendix 20). Husbands' heights ranged from 63" to 76" ($M=70.33"$, $SD=2.99"$) and weights ranged from 130lbs to 400lbs ($M=209.72$ lbs, $SD=62.20$ lbs). For wives, heights ranged from 59" to 71" ($M=65.06"$, $SD=3.00$) and weights ranged from 115lbs to 260lbs ($M=162.22$ lbs, $SD=44.50$ lbs).

Scores for the Four Horsemen inventory ranged from 0 to 26 ($M=6.78$, $SD=6.05$). On scores of the MAT, one husband and two wives in the low group and two wives in the high group scored below 100. Scores below 100 on the MAT indicate marital distress (Mahoney et al. 1999, 328). Scores ranged from 79 to 145 ($M=121.92$, $SD=16.86$). For the PSQ, scores ranged from 31 to 60 ($M=47.94$, $SD=7.10$). Scores for the JRA ranged from 31 to 78 ($M=55.11$, $SD=10.54$). On the MOG scale, scores ranged from 58 to 84 ($M=77.83$, $SD=7.73$).

For total emotional responsiveness across the key MHI questions, scores ranged from 0.0340 to 0.4291 ($M=0.1464$, $SD=0.0789$). The number of seconds couples responded to these key MHI questions ranged from 235 seconds to 878 seconds. For emotional responsiveness during the narrative questions, scores ranged from 0.0720 to 1.7598 ($M=0.4622$, $SD=0.3450$). Couples responded to these MHI questions from 105 to 378 seconds ($M=255.83$, $SD=67.70$). Scores of emotional responsiveness during the MHI questions relating to symbols ranged from 0.0000 to 0.5352 ($M=0.1573$, $SD=0.1384$). Couples responded to this item from 17 to 165 seconds ($M=82.83$, $SD=45.02$). For the item addressing ritual in the MHI, scores of emotional responsiveness ranged from 0.0000 to 0.6944 ($M=0.1792$, $SD=0.1754$). Couples discussed this item from 14 to 186 seconds ($M=56.06$, $SD=40.17$).

Research Questions

Question 1

The first research question sought to discern the relationship between marital satisfaction and the presence of Memorials or memorial elements in a marriage. Based on the discussions from chapters 2 and 3, the researcher hypothesized that there would be a difference in levels of marital satisfaction between the two groups. Due to the small sample size and violations of assumptions for parametric statistical methods, the nonparametric Mann-Whitney U test was used when addressing this question. In order to arrive at a couple marital satisfaction score, the marital satisfaction scores for the husband and wife were averaged.

The null hypothesis for this research question is as follows: Couples in the high Memorial Assessment score group do not differ from couples in the low Memorial Assessment score group on self-assessed scores of marital satisfaction.

Due to the small sample size, the use of a non-parametric test, and the exploratory nature of this study, a confidence level of 0.15 was selected. This level has

been suggested by studies such as those conducted by Stevens (1996, 6). While this increases the likelihood of a Type 2 error, it also counterbalances the insufficient power as a result of small sample size, reducing the likelihood of a Type 1 error.

A Mann-Whitney U test resulted in a Z value of -5.84 (2-tailed $p=0.559$). With the significance level well above the selected alpha level, the null hypothesis was accepted. There is no significant difference on scores of marital satisfaction between the two groups. For a visual representation between these factors, see Figure A2 in Appendix 21.

Question 2

The second research question refined question one to attempt to discern the role of gender in the relationship between marital satisfaction and Memorial Assessment score grouping. Studies have shown that husbands and wives often score quite differently on measures of marital satisfaction (Gottman 1999, 120). Could examining genders separately reveal a difference between the groups on scores of marital satisfaction?

Husbands

The null hypothesis for the first subquestion of research question number two is as follows: Husbands in the high Memorial Assessment score group do not differ from husbands in the low Memorial Assessment score group on self-assessed scores of marital satisfaction.

A Mann-Whitney U test ($\alpha=0.15$) resulted in a Z value of -1.692 (2-tailed $p=0.091$). Given the significance level, the null hypothesis was rejected. Scores on self-assessed marital satisfaction differ significantly between the two groups of husbands.

With the knowledge that this difference is likely to be actual, a standard correlation statistic (marital satisfaction X group [high Memorial Assessment = 1, low Memorial Assessment = 2]) was run to describe this difference. The null hypothesis was

as follows: Husbands in the higher scoring group will tend to have lower self-assessed scores of marital satisfaction ($\alpha=0.15$). A significant (2-tailed $p=0.076$) negative correlation of moderate power was found ($r=-0.429$). The null hypothesis was rejected. In this study, husbands who were in the high Memorial Assessment scoring group tended to also have slightly higher levels of marital satisfaction.

Wives

The null hypothesis for the second question is as follows: Wives in the high Memorial Assessment score group do not differ from wives in the low Memorial Assessment score group on self-assessed scores of marital satisfaction.

A Mann-Whitney U test ($\alpha=0.15$) resulted in a Z value of -0.615 (2-tailed $p=0.539$). Given the significance level, the null hypothesis was accepted. Scores on self-assessed marital satisfaction do not differ significantly between the two groups of wives. For a visual representation of the above findings, see Figure A3 in Appendix 22.

Question 3

The third research question in this study addresses the relationship between the marital negativity and the two test groups. Do the two groups score significantly different on self-assessed scores of marital negativity? Based on discussions in chapters 2 and 3 and findings of other studies (marital satisfaction and marital negativity have been found to be inversely related; Gottman 1999, 120), it was hypothesized that there would be a significant difference between the groups and that further studies would show an inverse relationship between marital negativity and the use of Memorials and memorial elements. For this question, the average of the husband's and wife's scores on the Four Horsemen scale was used to assess marital negativity.

The null hypothesis for this question is as follows: The high and low Memorial Assessment scoring groups do not differ in scores of marital negativity.

A Mann-Whitney U test ($\alpha=0.15$) resulted in a Z value of -0.312 (2-tailed $p=0.796$). Since the significance level is above the alpha level, the null hypothesis was accepted. The two groups do not differ from each other in scores on a measure of marital negativity. To put it another way, couples who describe themselves as using more and more powerful Memorials and memorial elements in their marriages have no more or no less negativity in their marriages than couples who describe themselves as using fewer and less powerful Memorials and memorial elements.

Question 4

Research question 4 brings gender into the discussion as it examines the relationship between the presence of Memorials and memorial elements and marital negativity.

Husbands

The null hypothesis for the first subquestion of research question four is as follows: Husbands in the high Memorial Assessment score group do not differ from husbands in the low Memorial Assessment score group on self-assessed scores of marital negativity.

A Mann-Whitney U test ($\alpha=0.15$) resulted in a Z value of -0.581 (2-tailed $p=0.589$). Given the significance level, the null hypothesis was accepted. Scores on self-assessed marital negativity do not differ significantly between the two groups of husbands.

Wives

The null hypothesis for the second question is as follows: Wives in the high Memorial Assessment score group do not differ from wives in the low Memorial Assessment score group on self-assessed scores of marital negativity.

A Mann-Whitney U test ($\alpha=0.15$) resulted in a Z value of -0.615 (2-tailed $p=0.739$). Given the significance level, the null hypothesis was accepted. Scores on self-assessed marital negativity do not differ significantly between the two groups of wives. For a visual representation of these findings, see Figure A4 in Appendix 23.

Question 5

The fifth research question seeks to explore the relationship between spiritual dimensions of marriage and the grouping of high and low scores on the Memorial Assessment. Do the two groups differ in scores on existing measures of spiritual dimensions of marriage? This question will be answered in three parts, each looking at one spiritual dimension of marriage.

JRA

The Joint Religious Activities survey seeks to assess the individual's view of the types of religious activities the couple engage in together. A combined couple score for the JRA was calculated by averaging the scores of the husband and wife together. Since religious activities commonly include memorial elements and Memorials, it would follow that groups composed of couples who practice more or more powerful Memorials and memorial elements would identify themselves as participating in religious activities together at a different rate than those who practice fewer or less powerful Memorials and memorial elements.

The null hypothesis for this research question is as follows: The two test groups do not differ significantly on scores of joint religious activities. A Mann-Whitney U test ($\alpha=0.15$) was completed resulting in a Z value of -1.547 (2-tailed $p=0.141$). Due to the significance value being less than the alpha, the null hypothesis was rejected. The two groups differ significantly on scores of joint religious activities.

To ascertain the type of relationship that exists between scores on the JRA and scores on the Memorial Assessment, a standard correlation was run resulting in a

moderately weak, ($r=0.427$) direct, significant ($p=0.077$) relationship between scores of JRA and scores on the Memorial Assessment. Couples who scored higher on the Memorial Assessment tended to also score higher on the JRA inventory. Put another way, couples who describe themselves as utilizing more or more powerful Memorials and memorial elements also tended to describe themselves as participating in more religious activities together. For a visual representation of these findings, see Figure A5 in Appendix 24.

PSQ

The Perceived Sacred Qualities survey seeks to assess the individual's view of the sacredness of his or her marriage. A combined couple score for the PSQ was calculated by averaging the scores of the husband and wife together. If one of the results of using Memorials and memorial elements in marriage is the formation of a marital identity in relationship with God, it would follow that perceiving the marriage as sacred would be related to the use of Memorials and memorial elements. Do the two test groups differ on their scores on the PSQ inventory?

The null hypothesis for this research question is as follows: The two test groups do not differ significantly on scores of sacred perception of their marriage. A Mann-Whitney U test ($\alpha=0.15$) was completed resulting in a Z value of -2.342 (2-tailed $p=0.019$). Due to the significance value being less than the alpha, the null hypothesis was rejected. The two groups differ significantly on scores of perceived sacred qualities of the marriage.

To ascertain the type of relationship that exists between scores on the PSQ and scores on the Memorial Assessment, a standard correlation was run resulting in a strong, ($r=0.746$) direct, significant ($p<0.001$) relationship between scores of PSQ and scores on the Memorial Assessment. Couples who scored higher on the Memorial Assessment tended to also score higher on the PSQ inventory. Put another way, couples who describe

themselves as utilizing more or more powerful Memorials and memorial elements also tended to describe themselves as viewing their marriages as sacred. For a visual representation of these findings, see Figure A6 in Appendix 25.

MOG

The Manifestation of God in Marriage survey seeks to assess the individual's view of God being at work within the marriage. A combined couple score for the MOG was calculated by averaging the scores of the husband and wife's scores together. If one of the results of using Memorials and memorial elements in marriage is the formation of a marital identity in relationship with God, it would follow that experiencing God at work in the marriage would be related to the use of Memorials and memorial elements. Do the two test groups differ on their scores on the MOG inventory?

The null hypothesis for this research question is as follows: The two test groups do not differ significantly on scores of experiencing God at work in their marriages. A Mann-Whitney U test ($\alpha=0.15$) was completed resulting in a Z value of -2.176 (2-tailed $p=0.034$). Due to the significance value being less than the alpha, the null hypothesis was rejected. The two groups differ significantly on scores of experiencing God at work in their marriage.

To ascertain the type of relationship that exists between scores on the MOG and scores on the Memorial Assessment, a standard correlation statistic was run resulting in a moderately strong, ($r=0.547$) direct, significant ($p=0.019$) relationship between scores of MOG and scores on the Memorial Assessment. Couples who scored higher on the Memorial Assessment tended to also score higher on the MOG inventory. Put another way, couples who describe themselves as utilizing more or more powerful Memorials and memorial elements also tended to describe themselves as experiencing God at work in their marriages. For a visual representation of these findings, see Figure A7 in Appendix 26.

Question 6

The sixth research question attempts to discern if there is a relationship between emotional engagement and the couple groupings. Chapter 3 argued that the power of Memorials and memorial elements comes from reliving (cognitively and emotionally) the experiences. By reliving relational experiences, they become stored deeper in explicit memory and over time become a part of implicit memory. Based on the discussion of various ways of measuring emotion in chapter 3, this study will utilize physiological measurements. While these types of measurements do not represent a one-to-one relationship with particular emotions, the measurements of physiological activity can give a glimpse of some level of emotional response to the retelling of the couples' experiences with various Memorials or memorial elements. Studies have shown that men and women tend to have different levels of emotional responsiveness in general, so all statistical tests will attempt to account for gender differences. These questions concerning emotional responsiveness and Memorial and memorial element usage will be addressed first by looking at total emotional responsiveness and then by looking at emotional responsiveness while discussing various memorial elements.

Total Emotional Responsiveness

Total emotional responsiveness was calculated by combining the emotional responsiveness scores for all of the key questions in the MHI. Do the groups as formed by scores on the Memorial Assessment differ on scores of total emotional responsiveness when accounting for gender differences? For this question, the null hypothesis is as follows: When accounting for gender differences, the groups do not differ in scores of total emotional responsiveness. Scores of total emotional responsiveness were compared with group assignment while accounting for gender differences. Due to the small sample size, the nonparametric Kruskal-Wallis test was used and a confidence level of 0.15 was selected. The Kruskal-Wallis test resulted in a significant ($p=0.052$) chi squared of 7.721. In this sample, the two groups do differ in levels of total emotional responsiveness

when accounting for gender differences. The null hypothesis was rejected. The nonparametric Kruskal-Wallis test utilizes a rank order approach to calculate difference levels. The mean rank for husbands in the high group was 20.78. For the high scoring wives, the mean rank was 19.33. For low scoring husbands, the mean rank was 10.44, while the low scoring group of wives had a mean rank of 23.44. For comparison, the researcher also compared the groups without accounting for gender differences, and a Mann-Whitney U test showed no significant differences between the groups on scores of total emotional responsiveness ($\alpha=0.15$, $p=0.20$, $Z=-1.280$). Chapter 6 will discuss some possible implications for these results. For a visual representation of these findings, see Figure A8 in Appendix 27.

Memorial Element Emotional Responsiveness

The key questions from the MHI were selected based on their parallels with narrative, symbol, and ritual as discussed in chapter 2. The questions concerning highlights from the dating period, spouse selection, and exchanging of vows were connected with the idea behind *zēker* (narrative). The question about wedding rings comes closest to fitting the idea behind *zikkārôn* (symbol). The question about revisiting special places taps into the idea behind *'azkārâ* (ritual). The relationships between group assignment and emotional responsiveness to the various memorial element questions will be addressed individually.

Zēker

A combined narrative emotional responsiveness score was created by adding the emotional responsiveness scores from the three MHI questions that connected with the idea behind *zēker*. “What were some of the highlights [during the time you were dating]?” prompts the couple to talk about some of significant moments in their relational history. The second narrative question, “Of all the people in the world, what led you to

decide that this was the person you wanted to marry?” prompts each spouse to encapsulate into very few words what makes their spouse who they are and what makes them so special. This usage is similar to the *zēker* of God. It is a reputation, a relational history, and a distillation of character. The total narrative emotional response score also included the question, “Tell me about your vows. Did you write your own? Do you remember what you felt physically or emotionally while you were hearing or saying your vows?” This question prompts the couple to think and talk about one of the most foundational moments in their marital history that continues to have an impact on the present. This connects with this dissertation’s use of *zēker* as well.

Is there a relationship between groupings based on Memorial Assessment scores and emotional responsiveness while discussing questions connected with the idea of *zēker* when accounting for gender differences? The null hypothesis for this question is as follows: Accounting for gender differences, the groups do not differ on scores of narrative emotional responsiveness.

A Kruskal-Wallis test ($\alpha=0.15$) resulted in a significant ($p=.087$) chi squared of 6.576, prompting a rejection of the null hypothesis. When taking into consideration gender differences, the groups formed based on scores on the Memorial Assessment scored differently on narrative emotional responsiveness. Ideally, this question would better be addressed by a two-way, between-groups ANOVA, but given the sample characteristics, any results would be questionable. However, for the sake of curiosity, the researcher performed this test as well. The results indicated that gender had a significant main effect ($\alpha=0.050$, $F=4.162$) in accounting for variance in scores of narrative emotional responsiveness. The interaction effect of group assignment and gender did not reach statistical significance ($p=0.598$). For a visual representation of these findings, see Figure A9 in Appendix 28.

A follow-up linear regression was also calculated to get a feel for how much variance in group assignment (without gender considerations) could be accounted for by

narrative emotional responsiveness scores. Together, emotional responsiveness scores on the three narrative questions were able to account for 46% of the variance in group assignment ($\alpha=0.15$, $p=0.031$). Together, highlights from the dating experience ($t=2.176$, $p=0.047$), spouse selection ($t=-3.019$, $p=0.009$), and exchanging of vows ($t=2.793$, $p=0.014$) are powerful predictors of group assignment (1=high group, 2=low group) in this sample.

Zikkārôn

The two questions dealing with this study's use of the word *zikkārôn* asked about the lighting of a unity candle and the ring exchange. The majority of couples did not light a unity candle, so the symbol emotional responsiveness score is the same as the emotional responsiveness for the single question about the ring exchange. Wedding rings fit well within the idea of *zikkārôn* in that they are tangible objects that point to a relational event. These objects were also present at the time of the event (the creation of the marriage) and the couples intentionally sought out these objects for this role.

Do these groups differ from one another on symbol emotional responsiveness scores when accounting for gender differences? The null hypothesis for this question is as follows: After accounting for gender differences, the groups as created based on Memorial Assessment scores do not differ on scores of symbol emotional responsiveness.

A Kruskal-Wallis test ($\alpha=0.15$) resulted in an insignificant ($p=0.336$) chi squared of 3.384. Interestingly, husbands in the high group and wives in the low group had comparable mean ranks (21.89 and 21.50 respectively) while husbands in the low group and wives in the high group had comparable mean ranks (15.94 and 14.67 respectively). Due to these interesting mean ranks, a two-way, between-groups ANOVA was run, resulting in a nonsignificant main effects for gender ($p=0.716$) and group assignment ($p=0.633$) individually, but a significant interaction effect ($p=0.031$, $F=5.117$). Together, gender and group assignment account for 14.6% of the variance of

symbol emotional responsiveness scores. Husbands who had high symbol emotional responsiveness scores tended to be found in the high Memorial Assessment group while wives with high symbol emotional responsiveness scores tended to be found in the low Memorial Assessment group. This interesting finding will be discussed in chapter 6. For a visual representation of these findings, see Figure A10 in Appendix 29.

'Azkārā

Only one question in the MHI directly addressed the presence of rituals within the marriage. By asking the couple if they revisit any special places, the idea of *'azkārā* was addressed. When accounting for gender differences, do the groups formed from scores from the Memorial Assessment differ in ritual emotional responsiveness scores? The null hypothesis for this question was as follows: After accounting for gender differences, groups based on Memorial Assessment scores do not differ on scores of ritual emotional responsiveness.

A Kruskal-Wallis test ($\alpha=0.15$) resulted in an insignificant ($p=0.794$) chi squared of 1.032. Scores of ritual emotional responsiveness do not differ between the groups after accounting for gender differences. For a visual representation of these findings, see Figure A11 in Appendix 30.

Design Critique

As this study has attempted to explore the potential interactions of Memorials, memorial elements, emotional responsiveness, and marital functioning, a number of factors have surfaced that have clouded the issues making it more difficult to clearly discern the nature of these potential relationships. While every attempt was made to control for extraneous factors, it is impossible to eliminate error and account for every factor in any kind of relationship. In order to look at some of the many possible sources of influence on this research, the two phases of the study will be examined separately and be followed by suggestions for future research.

Study Phase 1

The first phase of this study divides up into three major parts, all of which form a foundation for the second phase: participant recruitment, Memorial Assessment form, Memorial Assessment scoring.

Participant Recruitment

In the course of participant recruitment, the researcher attempted to control for as many potential confounding variables as possible, but these tight controls could have also biased the process. Asking couples to complete a short survey together when leaving a worship service adds numerous complications. First, couples with children had to go pick up their kids from childcare, return to the survey desk, and complete the surveys while the children waited. This is quite a hassle. Second, people typically are ready to go to lunch or continue on to their Bible Fellowship classes when worship services end, greatly reducing the number of couples willing to complete a survey if they are required to complete it then and there. A study such as this may gain more by having slightly less stringent survey completion restrictions leading to a larger pool of participants to select from when forming study groups. One possible way to do this would be to allow couples to take the surveys home and bring them back the next week. While this does introduce a multitude of potential new influencing factors, those factors would probably be randomly distributed among the entire participant pool. Within a congregational setting, it can be difficult to recruit participants while balancing the need for high research design standards, consideration of the participants, and at the same time, not turning a worship service into a science project that inhibits the worship of God, the growth of believers, or the evangelization of the lost.

Memorial Assessment Form

The Memorial Assessment tool was designed explicitly for this study as a way to quickly classify couples as either utilizing high levels of Memorials and memorial

elements or utilizing low levels of Memorials and memorial elements with minimal effort on the part of the participant. Future versions of this assessment may benefit by utilizing true-false items instead of asking couples to list numbers and examples. By asking couples to enumerate and list Memorials or memorial elements the assessment could become an assessment of memory functioning. Additionally, the couples must read into the researcher's ideas behind narrative, symbol, and ritual when responding to the open-ended questions. The open-ended nature of the current Memorial Assessment items also introduces the difficulty of participants responding with non-numeric answers. For instance, instead of putting a number in the blank, they wrote responses such as: "several," "lots," "tons," "now and again," "all the time all [*sic*]." By using some objective format, all of these factors are reduced. However, assessment length would most likely increase. The categories obtained from the open coding categorization could be useful in narrowing down the number and types of items necessary for a comprehensive Memorial Assessment.

Memorial Assessment Scoring

While this tool did go through several versions and was tested with a pilot group, these refinements do not bring this tool into the realm of being statistically valid or reliable. At most, it has face validity based on the researcher's understandings of Memorials and memorial elements, and it has been found to have some level of concurrent criterion validity. The researcher attempted to create a multifaceted, complex assessment of Memorial and memorial element usage. However, this process was done without establishing any sort of intra- or inter-rater reliability in the coding of the various responses. This problem could be addressed by moving to a more objective form of assessment or by training others in the coding procedures and fine-tuning the coding process. The development of a more objective form of the assessment would most likely need to begin with a larger pool of open responses that could go through a similar open

coding process and from there a true-false, multiple choice, or Likert scale type assessment could be developed.

Study Phase 2

The second phase of the study attempted to detect various differences between the two groups on measures of emotional engagement and marital functioning. By addressing the concerns mentioned in the previous section, the second phase of the study would benefit by beginning with larger groups of couples who are more likely to differ more significantly in their usage of Memorials and memorial elements while being basically identical in as many other controllable factors (education, income, age, years married, etc.). This better foundation would allow the second phase to have more power in discerning the existence or nonexistence of any group differences. The second phase of the study had three major components that will be examined individually.

Computer-Based Surveys

The computer-based surveys attempted to assess marital functioning through looking at marital conflict, marital adjustment, marital satisfaction, and three spiritual factors. All three of the spiritual assessments need further validation and reliability research. The Joint Religious Activities scale could probably be dropped from the survey set since the items seem to be measuring many of the same constructs measured by the Memorial Assessment and the data seems to support this. It could be replaced by another survey that assesses the inverse of the Four Horsemen questionnaire. A survey such as Gottman's Repair Attempts Questionnaire could be a good fit.

The use of the computer-based surveys went very smoothly. This method decreased time for researcher data entry, decreased data entry error, and decreased time required for survey completion (except in the case of two people who had never used a computer mouse before). In order to better accommodate folks who are unfamiliar, uncomfortable, or afraid of computers, a slightly more accessible version could be

developed utilizing a touch-screen interface, eliminating the need for the use of a computer mouse.

Memorial History Interview

For this first use of the Memorial History Interview (MHI), it did not vary greatly from Gottman's Oral History Interview. As this area of research continues, it may be helpful to tailor more of the items to concentrate explicitly on the use of Memorials and memorial elements while eliminating some of the items that are less connected with the use of Memorials and memorial elements. This would probably lead to an interview of about the same length. Most couples took from one to one and a half hours to complete the surveys and Memorial History Interview. Much longer than this and fatigue may begin to set in, particularly since many busy couples can only schedule for that amount of time in the evenings. By keeping the interview process (approximately 20 to 40 minutes) around the same length yet adding more Memorial and memorial element content, the Memorial History Interview may prove to be more fruitful.

Measurement of Emotion

Chapter three argued that emotional response accompanies not only the creation of stronger explicit and implicit memories, but it also accompanies the retrieval of those same memories. In the second phase of the study, physiological measurements were used to attempt to assess emotional responsiveness while discussing Memorials and memorial elements. The most significant drawback to this method is that there is no one-to-one relationship between a particular set of physiological measures and a particular emotion. At best, the measures used in this study indicated a basic measure of emotional responsiveness. That responsiveness could have been positive or negative. There was no way to distinguish whether a decrease in interbeat interval (which is an increase in heart rate) meant that the individual was getting excited remembering some special event in the

past or was getting angry at his or her spouse's words. Additionally, it was not possible in this study to determine if decreases in the physiological measures were related to the body's tendency to return to its resting rate or if the memories of the past were leading to feelings of security and peacefulness. Future research in this area would be enhanced by utilizing a second measure of emotionality that at minimum could distinguish between positive and negative emotions. By adding another measure of emotions, such as Ekman's Facial Affect Coding System, the physiological measures could be given greater context for analysis. This would be particularly helpful in attempting to explain why wives in the low group tended to be the most emotionally responsive while husbands in the low group tended to be the least emotionally responsive.

The measurement of emotions in this type of research could also be improved by modifying the procedure slightly. Increasing the initial adjustment period at the beginning, prior to the baseline, would probably help create a more accurate baseline measure of physiology. Additionally, in order to better isolate the emotional and physiological responses to the MHI questions, a resting time between each item could be introduced. During this time, the couple could be given a neutral stimulus to focus on, helping them to mentally leave the previous item behind and bring their physiological and emotional states back to a neutral level. This would help the items have less influence on each other and increase the likelihood that emotional or physical responses occurring while discussing a particular item on the MHI are related to that item instead of an outside factor. In addition, this time could be used to create a solid baseline for the next item, again helping to isolate the physiological and emotional responses from other factors. Unfortunately, adding these extra baselines and resting times could greatly increase the duration of the interview. As the MHI is honed into a more defined tool, it can be streamlined so that only a few, very powerful questions remain.

Conclusion

This chapter has presented the results from the empirical exploration of narrative, symbol, and ritual in Christian marriages and critiqued the methodologies used in that exploration. While this study has numerous problems and areas for improvement, the results seem to, at minimum, warrant future research. The results also indicate that there seems to be some indication that there is a relationship among levels of Memorial and memorial element usage, emotional responsiveness, measures of marital functioning, and gender. Future research needs to be done to better delineate and understand the nature of these relationships.

The next chapter will bring together the discussion of Scripture's concept of "heart writing" from chapter 2, current understandings of memory and emotion's role in the creation and accessing of implicit and explicit memories from chapter 3, and the results presented from this chapter. These conclusions will also be compared and contrasted with the work of other researchers and clinicians who study marriage, narrative, symbol, and ritual.

CHAPTER 6

CONCLUSION

This dissertation has started with a view of marriage that sees it as created by God for the purpose of giving people a picture of his relationship with his people. From that point, it has been argued that principles God revealed in Scripture for building that relationship with him could also be applied within the context of Christian marriages. This dissertation has examined Scripture's use of "remembrance" and from that discussion proposed three elements involved in the creation of Memorials to aid in what Scripture calls "heart writing." The author's use of the term 'Memorial' implies a complex, multifaceted experience involving symbols, narratives, and rituals that work together to strengthen the relationship, build intimacy, and prevent relational stagnation. Research in memory and physiological added to the discussion by giving a possible theoretical and physiological basis for heart writing through the creation and impact of implicit memory and related emotional arousal. As a way to explore this possible basis, this dissertation presented an empirical study that looked at Memorials, memorial elements, and emotional arousal in the context of Christian marriages. In this concluding chapter, the statistical results presented in the previous chapter will be discussed and applied. This will be followed by a discussion and application of findings presented in chapters 2, 3, and 5 in the context of Christian marriages. This chapter will then be concluded with several areas of future research in this area.

Discussion of Results

Each of the primary research questions for the empirical study will be examined independently or in closely related groups, followed by a summary of the research findings and implications.

Questions 1 and 2

Based on the discussions from chapters 2 and 3, the researcher hypothesized that the data would suggest a difference in levels of marital satisfaction between the two groups formed by levels of Memorial and memorial element usage. The research findings did not support this hypothesis. The possible explanations for this cannot be counted. The most obvious explanation is that marital satisfaction and using Memorials and memorial elements are just not related. The Memorial Assessment was designed to tap into some of the tools couples could use for the promotion of Heart Writing or the creation and reinforcement of implicit memories that strengthen the marriage. It is possible (and somewhat likely) that the Memorial Assessment is either an inadequate measure of Memorial and memorial element usage or that Memorials and memorial elements are only tapping into some of the factors involved in Heart Writing. The reality of Heart Writing could be made up of multiple factors with Memorials and memorial elements making up a small percentage of variability in Heart Writing. The totality of Heart Writing is beyond the scope of this dissertation, which focuses primarily on a subset of Heart Writing methods (Narrative, Symbol, and Ritual) and their physiological bases.

The research finding of marital satisfaction and Memorial and memorial element usage having no relationship could also be explained by what the construct of marital satisfaction really is. The assessment for marital satisfaction came from directly asking people how happy they were with their marriages. No explanation for what was meant by “happy,” leaving the individual to interpret its meaning. “Happy” in this context could mean personal fulfillment, pleasure in the spouse’s actions, or even

contentment with the state of the relationship. If the participant takes “happy” as “content with the state of the relationship,” it would not be surprising that some people would score themselves low even though they may have a great marriage. It is the author’s belief that the marriage relationship often reflects our spiritual lives. In our spiritual lives, it is a truism that the more mature and holy one grows to be, the more aware one becomes of remaining sin and the magnitude of the impacts of that sin. In the context of marriage, it is possible that the more mature and healthy a marriage and the individuals that make it up, the more aware they are of the marital growth that remains. Hollis interpreted research findings of decreased marital satisfaction following a 14-week marital enrichment program as indicating a deeper awareness of the remaining sin in the marriage and an awareness of the need for growth (Hollis 2003, 174). It is possible that couples who engage in fewer Heart Writing activities are just as satisfied with their marriages as couples who engage in more because those who engage in fewer lack the investment in the marriage to truly be aware of the current health of their marriage. Correlational statistics for this study could imply that couples responded to the marital satisfaction item in an unusual way. Studies previously have found that marital satisfaction and the presence of marital negativity (Four Horsemen inventory) have a strong inverse relationship. When looking at husbands and wives from each group, this relationship was only found in the group of high scoring husbands ($r=-0.700, p=0.036$; high wives: $r=-0.564, p=0.114$; low husbands: $r=-0.604, p=0.085$; low wives: $r=-0.481, p=0.190$). Results were similar for the full LWMAT scale in relationship with marital negativity except both husbands and wives in the high group demonstrated a strong inverse relationship between the two while neither husbands nor wives in the low group did (high husbands: $r=-0.850, p=0.004$; high wives: $r=-0.835, p=0.005$; low husbands: $r=-0.646, p=0.060$; low wives: $r=-0.543, p=0.131$). However, when looking at all 36 individuals in the study as one group, the relationship between marital satisfaction and

marital negativity was as expected ($r=-0.563, p<0.001$) as was the relationship between marital adjustment and marital negativity ($r=-0.714, p<0.001$).

As with any self-assessment that has face validity, the possibility of deception or self-deception enters the picture. Based on several graphs of data taking into account gender, grouping, and marital satisfaction with various other mean scores, there seems to be a trend of scores of marital satisfaction over 25 (5 on the Likert scale) not lining up with typical trends. This change at times shows up in both groups and at other times only in the low group. For instance, when graphing marital satisfaction with mean scores on the Four Horsemen inventory, all four groupings (high husbands, high wives, low husbands, low wives) indicate a very clear inverse relationship (see Figure A13 in Appendix 32). However, once scores reach 25, the relationship between marital satisfaction and mean scores on the Four Horsemen inventory changes to a direct relationship in the low groups (low husbands and low wives) while it remains an inverse relationship with the high groups (high husbands and high wives). The direct relationship above scores of 25 for the low groups flies in the face of both previous research findings and common sense. Higher levels of negativity do not usually go with higher levels of satisfaction. One interpretation of this is that the low husbands and wives are either fooling themselves into thinking they have a better marriage than they really do or they desire to look good on paper. Another example of this can be found in comparing the groups on mean total emotional responsiveness across the three key question areas and scores of marital satisfaction (see Figure A 12 in Appendix 31). While the details and implications of this graph will be addressed later, it provides further evidence that scores over 25 on the marital satisfaction assessment are associated with a change in trends. Please note that neither of these two graphs indicate any statistical significance or prove that deception is or is not going on, but they do suggest the need for further research in understanding how Christian couples may interpret and respond to direct self-assessments of marital satisfaction.

Closely related to the first research question, the second research question introduces gender as a factor along with marital satisfaction and grouping. Since other studies have found that husbands and wives in the same couple can have significantly different scores of marital satisfaction, it stands to reason that gender could be a factor that needs to be accounted for when comparing scores of marital satisfaction between the two groups. The statistical analysis found that the group of high husbands differed significantly from the group of low husbands when comparing scores of marital satisfaction. This was not the case for wives in the high group and wives in the low group. These results could be interpreted in a myriad of ways. It is possible that the use of Memorials and memorial elements could have more impact on heart writing on husbands than they do on wives. Since the husband and wife in each couple were assigned one Memorial Assessment score, it is not possible to discern if the relationship has the opposite direction (i.e., happier husbands tend to utilize more Memorial and memorial elements in their marriages). What can be said with some level of certainty is that gender does play a significant role in marital satisfaction and the use of Memorials and memorial elements.

To be certain that there is truly no relationship between marital satisfaction and Memorial and memorial element usage future studies need to better define the construct of marital satisfaction and reassess and refine the Memorial Assessment. In addition, it may be a good idea to have each individual in the marriage complete the Memorial Assessment instead of beginning with one combined score. It remains the researcher's conviction that in reality there is a relationship between marital satisfaction (in the sense of fulfillment and enjoyment) and higher levels of Heart Writing. Whether we will ever be able to accurately measure levels of Heart Writing remains to be seen.

Questions 3 and 4

Just as both questions 1 and 2 were similar, where one focused on each couple as a whole and the other included gender, questions 3 and 4 share the same kind of relationship. Both questions 3 and 4 indicated that the groups did not differ in their scores of marital negativity, whether or not gender was taken into consideration. It would seem to make sense that couples who participate in more Heart Writing would have fewer negative marital interactions. However, the data does not support this idea. Without further data, little can be projected about this result. In future research, a measure of repair attempts should be incorporated. This companion to the Four Horsemen inventory measures how couples attempt to repair the relationship when negativity does occur. It is possible that while both groups basically have the same scores on marital negativity, the high group may be better at repairing the damage done. This could explain how husbands in the two groups have significantly different scores on marital satisfaction yet do not have significantly different scores on measures of marital negativity while the two are strongly, inversely related ($r=-0.612, p=0.007$). It would be consistent with the theory presented in chapter 2 that couples who utilize Memorials and memorial elements in their marriages for remembrance are better at reconciliation than couples who do not, since according to Scripture, remembrance of one's own sin is a part of the path of reconciliation (Ps 78).

Question 5

The fifth research question compared the two groups on scores reflecting some of the spiritual dimensions of marriage. Each of these will be discussed separately.

JRA

The data indicated that the two groups differed significantly on scores on the Joint Religious Activities (JRA) scale. While this finding is not surprising since the JRA measures some of the same types of behaviors included in the Memorial Assessment, it

does contribute some concurrent criterion validity to the new Memorial Assessment measure. The follow-up statistics to better describe the relationship indicated a moderate to moderately weak direct relationship between scores on the Memorial Assessment and scores on the JRA scale, as would be expected. These correlational data do not give any causation information, so it not possible to say that more Memorial and memorial element usage leads to increased joint religious activity or vice versa. This direct relationship serves to give some support to the validity of the Memorial Assessment score. While this is helpful and should be included in future development and assessment of the Memorial Assessment tool, it could be dropped once that tool has been well established unless it is found to be measuring a separate, yet related, construct.

PSQ

When comparing the two groups on scores of Perceived Sacred Qualities of the Marriage, the data indicated a significant difference. Further correlational statistics indicated a strong direct relationship between scores on the Memorial Assessment and scores on the PSQ questionnaire ($r=0.746, p<0.001$). Whether this means that couples who increase in usage of Memorials and memorial elements will also increase in how they perceive the sacredness of their marriage or vice versa cannot be determined from these statistical procedures. It is also possible that there is a third or multiple mediating factors influencing both PSQ and scores on the Memorial Assessment. All that can be said with certainty is that the couples who utilize more Memorials and memorial elements are the same couples who perceive their marriages as more sacred and sanctifying.

Based on the theory presented in chapter 2 that Memorials and memorial elements function as a means of writing the marital covenant (with each other and with God) on the hearts of those in the marriage, it would follow that those who engage in more of these Heart Writing activities would experience marriage as a more sacred

relationship that functions in producing greater levels of holiness. While the data from this study does not directly indicate this, it does give enough support for the idea to warrant further study to better understand and describe the relationship between the utilization of Memorials and memorial elements for the purpose of writing the relationship on hearts resulting in greater perception of the marriage as a sacred, set-apart relationship.

MOG

Data from this study indicated that the two groups differed significantly in their scores of experiencing God manifesting himself within the context of the marriage. Further statistical analysis indicated a moderate, direct relationship between scores on the Marital Assessment and scores on the Manifestation of God (MOG) scale ($r=0.547$, $p=0.019$). As with the Memorial Assessment and PSQ scores, it is not possible to project any causal properties to either construct based on these statistics. However, it would be consistent with the author's interpretation of Scripture's description and use of narrative, symbol, and ritual within the context of a covenant relationship for the purpose of Heart Writing. The usage of Memorials and memorial elements creates an environment that is intentional about looking at the covenantal relationship between each other and God. With this intentionality, it follows that the couple would be more sensitive to the work of God within their marriage. For both the PSQ and MOG it would be useful to do some sort of pretest-posttest research design with an intervention that included teaching and helping couples to implement Memorials and memorial elements within their marriages. This kind of study, with adequate numbers, a control group, and a better measure of Memorial and memorial element usage, could begin to establish the presence or non-presence of a causal relationship between Heart Writing and perceiving one's marriage as sacred and sanctifying and experiencing the work of God in one's marriage.

Question 6

As chapter 3 presented, the formation of both implicit and explicit memories are related to emotional responsiveness. It also argued that implicit and explicit memory together seem to approximate a large portion of what Scripture may be referring to as Heart Writing. Based on this idea, the sixth research question looked at emotional responsiveness as a measure of both accessing memories and emotional engagement with the current situation, which would lead to greater Heart Writing. The two groups were compared on levels of emotional engagement across all key items from the interview and the individual key item subsets that approximated narrative, symbol, and ritual in the interview while accounting for gender differences.

Total Emotional Responsiveness

The four groups, made up of husbands from the high group, wives from the high group, husbands from the low group, and wives from the low group, differed significantly on total scores of emotional responsiveness during all the key interview questions that discussed memorial elements. When gender differences were ignored and the high group and low group were compared on scores of total emotional responsiveness, no real difference was found. When looking at a graphical representation of the data (Figure A8 in Appendix 27), it would appear that the husbands from the low scoring group were the least physiologically engaged by far. The low group scoring lower on emotional responsiveness fits the researcher's hypothesis; however the emotional responsiveness of wives in the low group does not fit this pattern. When considering the graphical representations of marital satisfaction, mean emotional responsiveness, grouping, and gender (Figure A12 in Appendix 32), a possible explanation comes to mind. Of the wives in the low group, the highest emotional responsiveness scores occurred with the lowest marital satisfaction scores. Since this study had no way of discerning positive emotional responses from negative emotional responses, it is possible that the high levels of emotional responsiveness found in the

wives from the low Memorial and memorial elements group stems from negative emotions during the interview. For instance, it would not be surprising if a wife who was hearing something like, “I did not choose my wife because I loved her or that she was anything special. I chose her because I felt she was who God wanted me to marry,” from her husband would experience negative emotional responsiveness (please note, the researcher does not know which group this couple was in nor their scores of marital satisfaction, but gives this as an illustration of the types of things that could be said in a MHI that could possibly result in negative emotional responses). This researcher proposes that couples who scored lower on scales of marital satisfaction probably had a greater number of negative emotional responses in the course of the interview. Future research on this topic should include some differentiation of positive and negative emotions in order to better discern the presence or lack of difference between the two groups on scores of emotional responsiveness and of the possible relationship between marital satisfaction and emotional responsiveness during the course of a MHI.

***Zēker* Emotional Responsiveness**

The data indicated that the groups based on Memorial Assessment scores and gender differed significantly on emotional responsiveness while discussing key MHI questions that dealt with ideas parallel to that of Scripture’s use of *zēker*. When looking at the data graphically (see Figure A9 in Appendix 28), it is notable that individuals in the high group tended to score more similarly while wives in the low group scored significantly higher than husbands in the same group. This finding could be related to the researcher’s idea that negative emotional responsiveness played a major role in the emotional responsiveness scores for wives in the low group. This would probably be most apparent in scores of *Zēker* Emotional Responsiveness since the questions often dealt directly with the husband talking about his wife while the *Zikkārôn* and *’Azkārâ* Emotional Responsiveness questions would lend to the husband discussing more external

factors. Emotional responsiveness while discussing *zēker* elements would be greatly assisted by the ability to discern positive from negative emotions during the course of the interview.

***Zikkārôn* Emotional Responsiveness**

Assessments of group and gender differences on scores of emotional responsiveness while discussing MHI questions related to Scripture's use of *zikkārôn* revealed no significant difference. However, further statistical analysis pointed to a possible interaction effect between group assignment and gender, with the two together accounting for nearly 15% of the variance of scores of *Zikkārôn* Emotional Responsiveness. This leaves quite a bit of variance to account for in scores of *Zikkārôn* Emotional Responsiveness. The interaction of gender and grouping could be influenced by basic physiological differences in emotional responsiveness between men and women, women's anecdotal tendency toward greater emotional lability, or the measure's inability to distinguish between positive and negative emotions.

'*Azkārâ* Emotional Responsiveness

When comparing the groups and genders on scores of emotional responsiveness while discussing MHI question that related to Scripture's use of '*azkārâ*, no significant differences were found. In order to conclude that there really is no relationship with more certainty, more items that discuss rituals would need to be added to the memorial history interview. The one item that did discuss it asked specifically about revisiting special places from the time the couple was dating. Adding a question or two that specifically address a type of ritual common in marriages may give more data to look at for better discerning this relationship. The addition of the ability to distinguish positive from negative emotions could also help be more certain about this finding that seems to not support the researcher's hypotheses.

Conclusion of Results Discussion

The main conclusion from this study is that more research needs to be done with a better assessment tool for the use of Memorials and memorial elements and the ability to distinguish positive from negative emotions. This implies that the results are strong enough to warrant future research to better discern the relationships between the use of Memorials and memorial elements and other measures of marital functioning. The data does give some indication that the author's interpretation of Scripture's use of narrative, symbol, and ritual in Christian marriages may be on the right track. Given the idea that this is a good direction in which to continue, this concluding chapter will present some ideas for direct application of these principles in Christian marriage.

Heart Writing in Christian Marriage

Just as "remembrance" implies both an internal state with external implications, this dissertation is an academic exercise with real world application. This section will synthesize the contents from previous chapters and translate the principles for life application. Given this dissertation's presupposition that God designed marriage with the intention of creating a place for individuals to experience a glimpse of relationship with him, many of the applications take principles presented in Scripture for the building of the relationship between God and his people and translate them into a marital context.

Marital Identity Formation

As previously discussed, remembrance and Heart Writing lead to a form of identity formation. Through this heart writing process, God perpetuates the covenant identity of his people. "Israel was constantly called to remember, in essence, 'to become who they already were.' They were a covenant people; they had to continually be a covenant people" (Koopmans 1985, 180). In the context of Christian marriage, Heart Writing through the use of narrative, symbol, and ritual not only impacts the formation of implicit and explicit memories in each individual in a marriage, but also plays a role in

the creation of a marital identity, much like it created an ethnic and cultural identity for the people of Israel. This unique, shared identity helps to create a textual metaphor that enables couples to quickly understand each other and their emotional states in a resonant way, impacting how they relate as a couple (Singer 2004, 198). Studies have found that these self-defining memories played a role in success or failure of goal attainment of individuals (Singer 2004, 198), and it follows that this marital identity formation could also function to foster success in the creation of a marriage that day-by-day grows in its ability to form a picture of the relationship between Christ and his bride, the church. Singer goes on to connect this identity formation with the formation of implicit and explicit memories and related emotional engagement:

A self-defining memory is a highly significant personal memory that expresses central themes or conflicts of one's sense of identity. It is a memory that can be characterized by the following properties. It evokes strong emotion, not merely at the time of its occurrence but in its current recollection. It is vivid in the mind's eye, filled with sensory detail, like a snapshot or video clip. We return to this memory repeatedly. It becomes a familiar touchstone in our consciousness that we consciously retrieve in certain situations or that returns to us unbidden. It is representative of other memories that share its plotline, emotions, and themes. Although it is the most central one in our collection, it is highly linked to related memories. Finally, self-defining memories revolve around the most important concerns and conflicts in our lives: unrequited loves, sibling rivalries, our greatest successes and failures, our moments of insights, and our severest disillusionments. (Singer 2004, 195)

In the course of marriage, the couple experiences ups and downs, significant events and seemingly insignificant events. Each of these stories works together to build a joint marital identity whether or not the couple is intentional about the process. The major events that evoke emotions get etched into the hearts of the individuals. Couples who are intentional about marital identity formation would have the opportunity to select which relational events are preserved and added to that marital identity. These couples also can be more intentional about placing God as a central component of their marital identity. Actual life-based applications for methods of this type of marital identity formation will be discussed in subsequent sections.

What to Remember

Chapter two included a discussion of themes of remembrance in Scripture. These themes give us a starting point for important concepts and ideas to remember within the context of Christian marriage. Again, the idea of ‘remember’ here goes beyond cognitive knowledge and implies an internal concept that informs and necessitates external implications. As previously discussed, God describes his relationship to his people in a number of ways. While it is possible that themes of remembrance may be intended to deepen God’s relationship with his people as his children, his vassals, or any of the other relational descriptors, it is this author’s conviction that these themes are particularly important in the spousal context. While Scripture’s use of these themes typically involves one context (the relationship between God and his people), two contexts must be emphasized within Christian marriage. First, and primarily, there is the relationship between God and the couple, a union of two individuals. Second, there is the relationship between the husband and wife.

It is the responsibility of the couple as a single unit, as two who have become one, to be intentional about the themes of remembrance in the couple’s relationship with God. In context of the husband-wife relationship, the burden falls on the individual. In a sense, this discussion is implying that a husband treat his wife as if she were God and that a wife treat her husband as if he were God. This may seem like idolatry at first, but idolatry would be the perversion of this idea on one end of the spectrum with murder on the other end. We must not worship the creation, and at the same time we must not disrespect the creation that bears God’s image either. By virtue of being created in the image of God, humans deserve honor and respect (Gen 9:6). God created both husband and wife in his own image and each functions as his representative to the other. As a husband, it is my responsibility to image God to my wife in a way that embodies his love for her. At the same time, I must love and honor my wife in a way that acknowledges the ways she images God to me.

In order to explore the themes of remembrance, each will be discussed in the context of the relationship between God and couple as well as husband and wife.

Covenant

The people of Israel were called to remember the covenant God had made with them and that they had made with God (1 Chr 16:15-18, Deut 4:23, 2 Kgs 17:38).

Multiple covenants are involved in these verses. Some begin with God covenanting with Abraham or David to fulfill what he has promised regardless of the actions of the recipient of the covenant. Others refer to Israel's covenanting with God to be obedient to his laws. Both of these directions form important themes of remembrance within the marriage.

God-Couple

Just as God's people remembering their covenant with him (the Mosaic covenant) enabled them to remain faithful to him, a couple remembering their covenant to him enables their faithfulness. The vast majority of weddings include an exchange of vows, most of which include the couple covenanting with God. The vows do not only bind husband and wife to each other but the couple to God. Christian couples will strengthen their marriages by implementing ways of remembering the vow and covenant they made together to their God. Their true remembrance will prompt an outward expression that will demonstrate the depth of internalization of the covenant.

Husband-Wife

When couples covenant with God on their wedding day, they also covenant with each other. It is up to the individual to remember the covenant he or she made. The marital covenant is not a bilateral, conditional covenant between two people. It is really four unilateral covenants with each covenanting to do certain things with no conditions or escape clauses and each also covenanting the same with God. Husbands must work to

remember their covenants with both their wives and with God. They have covenanted to love, to cherish, in sickness and health, etc. The covenant does not include, “but if you gain weight, I can stop loving you.” The covenant is not conditional. Both the husband and wife are responsible to build ways to remind themselves individually of this covenant. In this example, the individual acts like Israel and like God. Just as for Israel, remembering the Mosaic covenant meant they would obey it, the individual remembering his or her marital covenant means that he or she will remain faithful to it. At the same time, the individual functions like God by remaining faithful to the covenant regardless of the unfaithfulness of the spouse (where unfaithfulness includes not only sexual fidelity but also being faithful to fulfill his or her own covenant).

Even though humans are created in the image of God, that image has been marred by the fall. Because of this tainting of the image, we have a bent toward sin that can influence all emotion, will, and action. This tendency to having sinful motives makes it very risky to think of oneself as “like God” in a relationship. In order to help ensure that one does not go too far with this aspect of embodying God to one’s spouse, it is a good idea to not perpetually say to one’s spouse, “Remember my covenant with you” (parallel to 1 Chr 16:15). While the spouse should remember that and should make steps to write that on his or her heart, a constant external reminder from his or her spouse will likely be counter productive. The embodying of God between spouses includes God’s covenant love and mercy, not God’s judgment and wrath.

By working to write one’s spouse’s covenant on one’s heart, the power of the covenant for relational change increases. An unconditional covenant creates a safe place for deep intellectual, emotional, spiritual, and physical intimacy. When fear of a spouse’s rejection diminishes, the safety of the relationship opens up an area for deeper union.

Character

God calls for Israel to remember his character (Isa 46:9; Deut 8:14, 18-19). This remembrance goes beyond listing God's attributes. Remembering experiences of God's character within the marriage and working to remember one's spouse's character are important within Christian marriages.

God-Couple

As a couple lives together within their covenant to the Lord, they will share experiences where different aspects of God's character become apparent. Experiences of God's provision, instruction, and other action over the years of their marriage as an indication of his sovereignty, love, and other character traits must be intentionally remembered and embedded in their marital identity. It is these personal experiences of God that can deeply impact a couple in ways that compliment and deepen what they have read about God's character in Scripture. Couples should work to implement ways to help them remember the ways God has expressed his character to them within their marriage

Husband-Wife

Typically, people do not marry someone whom they think has an awful character and has no integrity. They realize that the person they are marrying is not perfect, but it is likely that they have experienced their spouse in a way that communicates a depth of character. Husbands need to work to keep at the forefront of their minds the character of their wives and vice versa. Just as God told Israel to remember him, his faithfulness, and other facets of his character, each spouse needs to work to do the same of his or her spouse. Human marriages differ from the marriage between God and Israel in that both humans are fallen creatures, twisted by sin. Neither one is perfect nor has a spotless character. In the human marriage context, each spouse must work to remember the character strengths and positive history. However we remember and write on our hearts the character of our spouses will influence how we

interact with them. If we have written on our hearts all our spouses' flaws, we will only see his or her flaws. This is different than being ignorant about the spouse's flaws. It is one thing to have intellectual knowledge of one's spouse's shortcomings while it is another to remember them (i.e., write on your heart in a way that influences your actions).

Actions

Actions often flow out of character or stand as demonstrations of character. God directs Israel to remember his actions on several occasions (1 Chr 16:12; cf. Ps 77:11), sometimes focusing on his actions with people outside of the covenant while at other times focusing on his actions with his covenant people. This theme of remembrance can also be translated to the relationship between God and a couple and between the husband and wife in the couple.

With Covenant Partner

God-couple. As a couple experiences God's actions, they have the opportunity to commemorate his direct involvement in their marriage. Just as Israel needed to remember all God had done for them (brought out of slavery, provision of manna, etc.), couples need to remember the times where God's actions were clear and personal. These times may include miraculous financial provision, God's surpassing peace in the midst of tragedy, or the gradual revelation of his day-to-day sovereign actions in a particular area over the course of a number of months or years. By working to remember the things God has done for the couple, they not only build their marital identity on a firm foundation, but they also sensitize themselves to be more aware of his future actions in their lives.

Husband-wife. In the context of the husband-wife relationship, each will act in various ways toward the other. Husbands need to keep track of the many things their

wives do to show them love, whether big or small and vice versa. Again, this internalized list of actions needs to be limited to the positive experiences because remembering in this way prompts a response. This is not a directive to keep a list of one's spouse's wrongs. We cannot literally forget their wrongs, but we need to keep the knowledge of those things in the realm of intellectual knowledge not heart knowledge. Additionally, the purpose of the remembrance of one's spouse's actions toward oneself is not to keep score. Looking for and remembering all one's spouse's actions that demonstrate his or her faithfulness to oneself and his or her covenant to oneself helps to prepare for the normal down times in marriage. It is during those times that an inventory of all those good things can help strengthen dedication and commitment. Furthermore, by being intentional to remember these actions, it aids in one's ability to recognize and remember good future actions. Holmberg, Orbuch, and Veroff describe this by writing: "Our history, prior beliefs, emotions, values, and cultural perspectives profoundly color the way we observe even the simplest events in the world around us" (Holmberg, Orbuch, and Veroff 2004, 9). By remembering those actions, one becomes more sensitized to observing those actions in the future. This can feed into John Gottman's description of positive sentiment override in marriage (Gottman 1999, 107). The more positive interactions within the marriage, the more likely the couple is to see the rest of the marriage through a positive "filter" that tints everything with a positive light.

With Others

God-couple. Remembering God's actions with others that the couple knows can also help to build the couple's relationship with God. Most examples of this would include looking for ways that God is at work in the lives of others or being open to others sharing their stories of how God has been at work in their lives. These actions are the least likely candidates for the creation of formal or informal symbols and rituals but can fit well with narratives that are transmitted from one couple to another. While hearing of

God's actions is not always as powerful as experiencing God's actions first-hand, hearing the excitement of an individual or couple who have just experienced God at work can be contagious.

Husband-wife. Most of the instances of Israel remembering God's dealings with others involved God's wrath and judgment. There will be few instances where a husband will need to remember and internalize how his wife poured out the wrath of God on the next-door neighbors. However, the principle behind this is the way God actively protected his people from outsiders. In the same way, a wife should take notice of how her husband has defended her to others or acted in ways that protected the marriage. For instance, if a salesman disrespects her in the mall, it would be appropriate for the husband to talk to him, ask for an apology, etc. Another example can be found in how a husband responds to his own children disrespecting his wife (their mother). By him disciplining them and rearing them to respect her, he demonstrates actions toward others that a wife needs to seek to remember, internalize, and be influenced by. A husband could also demonstrate his protection of the marital relationship by choosing to forgo overtime at work, which could anger his boss, in order to spend more time with his wife. These dealings with others outside of the marital covenant may not always need to be memorialized but do need to be looked for and remembered.

Your Own Unfaithfulness

God called for his people to remember their unfaithfulness to him and their covenant with him (Num 5:15; Deut 9:7; Ezek 20:42-44, 36:31-33). For Israel, this remembrance served to prompt humility, reconciliation, and future holiness. The remembrance theme of personal unfaithfulness can also play a significant role in the building of the relationship between God and a couple and the relationship between spouses.

God-Couple

As God calls Israel to remember her own unfaithfulness, God calls couples to remember how they (husband and wife together) have not been faithful to him as they should. Is their marriage illustrating the relationship between Christ and his bride, the church, the way it should be? Are they loving their children in a way that demonstrates God's love to them? Couples must examine their marriage and take to heart their own shortcomings. As they do this, it should lead to humility, reconciliation, and change.

Husband-Wife

The remembrance theme of personal unfaithfulness has great potential for misuse within the husband-wife context. The main thrust here is to remember one's own unfaithfulness while not keeping track of one's spouse's unfaithfulness. By wives fully remembering their own sin, they are better able to experience their husband's forgiveness (this is assuming the husband is embodying God's forgiveness to his wife). Just as God chose to love and accept Abraham apart from anything Abraham did, a husband or wife's covenantal love should be the same. In the context of this unconditional love, an awareness of one's own unfaithfulness becomes intensified. By him or her remembering that unfaithfulness, there is a real motivation and need for change. This can be distinguished from a self-pity or false humility in that remembering one's own shortcomings is not an end in itself but a motivation for change. Self-pity and false humility get stuck at awareness and do not utilize the awareness of sin as a catalyst for change. Additionally, remembering one's own unfaithfulness appropriately helps one to experience the depth of one's spouse's love and commitment. "Wow, she really still loves and accepts me even though I really let her down." This kind of encounter promotes the experiences of the embodiment of Christ's forgiveness to the individual.

How to Remember

Now that the themes of remembrance from God's relationship with Israel have been translated to the relationship of the couple to God and the husband and wife to each other, it becomes important to talk about the method for how to remember or write these realities on one's heart. Not all remembering and heart writing means setting up a pillar or sacrificing an animal. Applying Memorials and memorial elements in a marriage to aid the internalization of the themes of remembrance can take many forms. Each of the memorial elements and Memorials will be discussed individually with a presentation of several examples of possible applications within the context of Christian marriages.

***Zēker*/Narrative Discussion and Application**

As discussed in chapter 2, the memorial element of *zēker* as shaped by Scripture's use of the term points to a relational history. These narratives weave together to create a coherent story of the couple's relationship. Holmberg, Orbuch, and Veroff write: "Stories allow us to search for meaning or understanding about events, relationships, and other people. They help us make sense of our daily experiences, sometimes for our own benefit, and sometimes for the benefit of those we select as our audience" (Holmberg, Orbuch, and Veroff 2004, 4). The use of the memorial element *zēker* helps to create a marital plot, which can "connect the beliefs, emotions, and behaviors together" (Holmberg, Orbuch, and Veroff 2004, 11). Holmberg, Orbuch, and Veroff go on to write: "Once couples tell their stories with certain contents, once they speak out loud about their lives in certain ways, these images can become guideposts for their future adjustments as a couple" (Holmberg, Orbuch, and Veroff 2004, 89). This quote complements the imagery from Jeremiah 31:21 ("Set up for yourself roadmarks, place for yourself guideposts; direct your mind to the highway, the way by which you went. Return, O virgin of Israel, return to these your cities.") This passage literally speaks of Israel's physical return from captivity but could also be applied spiritually

through setting up reminders of previous relational highlights with God in order to get back to those places if spiritual lapse occurs. This same principle fits within marriage as well. Holmberg, Orbuch, and Veroff put it: “The narrative is not a direct causal agent of future adjustment, but is reflective of dynamic aspects of the couple's ongoing adjustments to one another, which in some complex way might set into motion future adjustments” (Holmberg, Orbuch, and Veroff 2004, 89). With an understanding of the importance of utilizing the memorial element *zēker* it becomes important to present a number of examples of how this element can be intentionally used in marriages for the writing of the relationship on hearts.

In the Old Testament, God's covenant name is often referred to as his *zēker* (Exod 3:15). His memorial name encapsulates his relational history with his people as well as calls to mind his character traits and actions. A simple use of the memorial element *zēker* in Christian marriages can be something as simple as a pet-name for one's spouse. Pet-names often stem from a shared event or an attribute of the recipient of the name. As an example, the author knows a couple in which the husband calls his wife “Kate” even though this is not her name. While the couple was dating, they went to a movie adaptation of Shakespeare's *Taming of the Shrew*. At the end of the movie, the future husband looked at her and said, “Kiss me, Kate.” Not only does that pet-name remind the couple of an event early in their relationship when they were in the early stages fresh love, it has traversed the thirty-seven years of their marriage, weaving into the fabric of their marriage. Not only does it point to the early good times in their relationship and to a relationship spanning multiple decades, but it also prompts others to ask the husband, “Why do you call her ‘Kate’ when that's not her name?” giving him an opportunity to verbalize a piece of their relational history, embedding it deeper in his own explicit and implicit memory. This illustration, while not directly spiritual, has spiritual elements if the couple were to think of it as a name that demonstrates God's faithfulness to preserve their marriage over the course of nearly four decades. This example also

reminds us that Memorials and memorial elements need not be big events, but can be small things woven into the marriage day by day.

Inside jokes can also be a form of the *zēker* memorial element. Inside jokes point back in time to a previous shared relational experience. These shared experiences create a unity and bonding when brought up in the present. Again, this is a simple illustration without any formality to it, but as a simple *zēker* it can easily be incorporated into the day-to-day life of the couple. The more often these kinds of memories are accessed, the more solidly the neural networks are formed and the more likely the explicit memories will begin to be translated into implicit memories that shape action and emotion without the need for conscious awareness of the reality. In this case, it is the implicit memory of unity and a shared life that becomes implanted in the implicit memory in a way that influences cognition and behavior.

The memorial element *zēker* often coexists with other memorial elements, particularly when the stories are revisited regularly. For instance, a couple talking about how they first met every year on the anniversary of that meeting pulls together the narrative of how they met with the ritual of talking about it yearly. By adding the memorial element *'azkārā* to the *zēker*, a more powerful Heart Writing experience occurs. The couple is not leaving the timing of the discussion of how they met to chance. They create a ritual out of it, making sure the discussion takes place. Other examples could also incorporate *zikkārōn* memorial elements to aid in the story telling. For instance, seeing a sign for a national chain restaurant could prompt the couple to talk about how they used to go to that restaurant together regularly while dating.

Zēker memorial elements need not only involve the relational history during the dating time. It could also include the time of their marriage prior to having children or after the children have left the parents' home. Regularly and intentionally talking about various life phases help to weave a coherent relational narrative for the couple to build their marital identity.

Zikkārôn /Symbol Discussion and Application

The memorial element *zikkārôn* typically utilizes physical objects to aid in the remembrance of relational events or phases. These objects take on meaning beyond face value. The symbolic value of the object may make little to no sense to those outside of the marriage. John Gottman's Sound Marital House Theory parallels many facets of remembrance (cognitive room, turning toward versus turning away, and positive sentiment override in particular, Gottman 1999, 105), and at its pinnacle is the creation of shared symbolic meaning (Gottman et al. 2002, 301). While Gottman's use of shared symbolic meaning is slightly different than the idea behind the memorial element *zikkārôn*, it is closely related. Together the couple creates a shared meaning for various symbols. When those symbols are encountered, memories of events or phases are evoked.

The following is one example of the memorial element *zikkārôn* being utilized in a marriage for Heart Writing. During the early phase of a couple's relationship, they share their first kiss on a bridge in a forested area. Later in their relationship, the soon-to-be husband takes them back to that bridge to propose to the future wife. That bridge points back to two significant relational events. After the couple marries, they purchase a painting of a bridge in a forested area as a reminder of those two relational events and the entire dating phase of their relationship. By seeing that painting each day, the couple has the opportunity to recall and once again be influenced by those memories.

A couple planting a tree together after miscarrying a child can be another type of *zikkārôn* memorial element. This example closely parallels Abraham's tamarisk tree in Genesis 21:33. Each time they see that growing tree, they are reminded of that difficult time together, God's faithfulness in comforting them, and that they will see their child one day in eternity.

Symbols also can be very simple. They can be as simple as a rock on the side of the road where a couple broke down and had a special time talking and sharing with

each other while waiting on the tow truck. All these little memories and symbols add up to bind the relationship together more and more.

'Azkārâ/Ritual Discussion and Application

The idea of rituals within a marriage may at first glance seem the most foreign. Rituals in marriage do not need to be sacrificing animals or keeping a candle burning at all times. The power of the *'azkārâ* memorial element can be found in its repetitive nature. The repeated activation of the neural pathways around those memories helps to make the jump from explicit memory to implicit memory. Not only does the use of rituals in marriage build those memories which lead to Heart Writing, but ritual can provide a taste of spiritual union (Newberg, d'Aquili, and Rause 2001, 97).

While the idea of a mystical experience and transcendence may seem out of place to some in a work about Christian marriage, this author believes that the experience of marriage is designed by God to have transcendent qualities. God alone is truly transcendent, standing above all times, places, laws, and people. At the same time, humans are created in the image of God, and as a function of imaging him, we have some of his attributes in diminished capacities. For instance, his image bearers are to rule over creation (Gen 1:28). This ruling is in no way as complete as God's ruling over the earth, but as his image bearers, we fulfill this in some diminished capacity. Another example of this can be found in the relational capacity of humans. God, as trinity, illustrates perfect union and perfect relationship between individuals. This relational aspect of God can possibly be found in the relational capacity of humans. However, since we are mere images of God, our relational capacity is far diminished from his perfect union. Within the Body of Christ we experience some level of union (John 17:11). However, in the context of marriage union becomes a primary theme (Matt 19:6). By experiencing unity within marriage, we are given a glimpse of union with God in eternity that awaits those who have received Christ as Savior. Physical union, as one of many aspects of union in

the context of marriage, gives an experiential glimpse of the feeling of the loss of self within the other resulting in a paradoxical awareness of self. Physiologically, one of the results of orgasm is the simultaneous activation of the sympathetic and parasympathetic branches of the autonomic nervous system (Newberg, d'Aquili, and Rause 2001, 125). During these moments when the parasympathetic nervous system is highly activated, information sent to the orientation associate area of the brain is decreased, which helps distinguish the individual from the world and orients the individual within space. According to Newberg, d'Aquili, and Rause: "The likely result of this deafferentation is a softer, less precise definition of the boundaries of the self" (Newberg, d'Aquili, and Rause 2001, 87). Just as in union with Christ our identity or self is not lost, within sexual union and orgasm, self is not lost, but is experienced as more diffuse. These neural pathways are also activated by the use of rituals (Newberg, d'Aquili, and Rause 2001, 125).

Rituals in marriage can range from large to small. Small rituals range from kiss and saying, "I love you" each time the couple parts ways, to always going to bed together at the same time and getting up in the morning at the same time. These small rituals intentionally weave throughout the marriage as connection points in the relationship that are constant reminders of each other. Large rituals may include yearly trips back to where a couple's first date occurred or revisiting the place where they honeymooned as newlyweds. However, the moment the rituals become something the couple does just because that is how they have always done it, it begins to lose its meaning. Just as the Pharisees were obedient to the Law without their hearts being in the right places, couples can go through the motions of marital rituals without tapping into the intentionality of using the memorial element *'azkārâ*.

Memorial Applications

As discussed previously, the author uses the term Memorial to indicate the culmination of all three memorial elements to create a powerful Heart Writing experience. Just as using multiple senses when studying information for a test aids in the memory of the content, utilizing multiple memorial principles aids in the Heart Writing process. A Memorial in marriage does not need to be as involved as the Passover or the Lord's Supper, but will have comparable elements. For instance, the Lord's Supper includes a connection to the past calling us to remember the sacrifice of Christ, a connection to the present by prompting self-examination, and a connection to the future by pointing to a time when believers will feast with Christ in his Kingdom. A good marital Memorial will incorporate past, present, and future elements. Likewise, the Lord's Supper incorporates a narrative or *zēker* memorial element by causing participants to recall the sacrifice of Christ and his atoning work bringing believers into relationship with the Father, a symbol or *zikkārôn* memorial element in the bread and wine that bring memory of Christ's broken body and shed blood, and the ongoing celebration of the Lord's Supper as a ritual or *'azkārâ* memorial element that helps to write the relationship on the hearts of believers. A powerful marital memorial will incorporate all three memorial elements in a similar way.

A simple Memorial for use in marriages could combine the story (narrative) of a couple's wedding with pictures or video (symbols) of the event and the ritual of talking about the story and looking at the pictures or video every year on their anniversary. This could be made even more powerful by revisiting their vows to each other and to God during this time.

Future Research

This dissertation only touches the tip of the iceberg in its address of Scripture's use of narrative, symbol, and ritual as means of building Christian marriages. Each chapter could be an entire dissertation in itself. While each chapter may not be a unique

contribution to the various fields addressed, together the chapters point to what could be a very fruitful path of future research. This future research falls into two major realms: research in Scripture and empirical research.

Scriptural Research

As mentioned previously, narrative, symbol, and ritual possibly only tap into a small portion of the entirety of what Scripture has to offer as means of Heart Writing. Future study should seek to better understand the fullness of what Scripture describes as Heart Writing and explore other possible methods for the personal responsibility side of the equation.

Additionally, this dissertation only looked at a small selection of Scripture's uses of *zēker*, *zikkārôn*, and *'azkārâ*. A future project that sought to exhaustively examine each of these memorial elements as well as Memorials could not only help build and broaden an understanding of narrative, symbol, and ritual, but could also provide more ideas for ways couples could translate those principles into their every-day lives.

This author is in no way an expert in the biblical languages. Future research in the area of narrative, symbol, and rituals in Scripture could be greatly aided by someone with a deeper understanding of the original languages. An expert understanding of the languages and their uses could help to refine this author's ideas about *zēker*, *zikkārôn*, and *'azkārâ* which at times could go beyond or overly limit the original intent in the uses of the words.

Empirical Research

While every effort was made to create an empirical study with enough statistical power to make appropriate conclusions, this study only laid a foundation indicating that future, more in-depth studies need to be done. For instance, a more powerful, longitudinal, experimental (not quasi-experimental) approach may be more helpful in addressing some of these research questions. This could be done by randomly

assigning newly wed couples into two groups and then giving one group training in the importance and use of Memorials and memorial elements in marriage and then studying these two groups over the course of twenty-five years. However, this kind of study will take vast time and resources, many of which would remain unavailable until more groundwork has been done in building a case for the importance of this kind of research. This current study has begun this process, but by itself has not demonstrated conclusively that a study of such magnitude is warranted.

As future studies are planned, it will become important to utilize findings from further biblical scholarship and statistical development of a better Memorial Assessment tool or even a tool to assess intentional Heart Writing as defined by Scripture. These improved tools should go through multiple stages of development. An objective, multiple choice, true-false, or Likert scale assessment could be developed based on the open coding of items from an expanded list of open response items about Memorials and memorial elements.

One of the major difficulties in this study was in the inability to distinguish positive from negative emotions during the course of the interview. By including Paul Ekman's Facial Affect Coding System (Ekman 2005) as a measure of emotion, the emotional responsiveness of couples could be more appropriately labeled. Currently computer software and hardware is able to recognize facial movements through video on some level. As the technology begins to develop, it could be utilized to automate the FACS, reducing variance due to intra- and inter-rate unreliability.

Future studies in this area could also benefit from more sophisticated data analysis such as time-series analysis. These statistical procedures take into account the moment-by-moment emotional states of the individuals in relationship to each other. It would be interesting to study emotional correspondence while a couple talks together about how they met, got together, and their first impressions of each other.

Conclusion

A study such as the one contained in these pages is a strong reminder that as humans, we are embodied-souls. Our cognitions, behaviors, and emotions all interact with each other, influencing the function of the others. As Siegel wrote: “Neural processes and social relationships both contribute to the creation of mental life” (Siegel 1999, 131). God has created people in such a way that every facet of our lives impacts and influences the others. As Christians engage each other in marriages, we have a unique opportunity of not only a glimpse of the union he desires with each of us, but also a place for personal development and increased sanctification in this life. Through the use of narratives, symbols, and rituals Christian couples have some of the tools to help write that relationship on their hearts in a way that impacts their thoughts, feelings, and actions in a way that reflects Christ to their spouses, children, and unbelievers.

APPENDIX 1

STUDY PHASE 1 INITIAL SURVEY

*An Empirical Exploration of the Use of Narrative,
Symbol and Ritual in Creating Christian
Marital Memorials*

Agreement to Participate

A group of couples selected from all completed surveys will be invited to participate in the second phase of this study. By your completing this survey, you are indicating willingness, but not commitment, to participate in the second phase. Couples selected to participate in the second phase will be contact by October 21, 2005 to schedule an appointment.

The second phase of this study will involve a series of brief questionnaires and a video-recorded interview. Rev. Kenneth Hollis, Ph.D., the director of the Highview Christian Counseling Center, will conduct the interview which focuses on the history of your marriage. During the interview, basic physiological information will be recorded. The entire process should take less than two hours. Any information you provide, whether in the interview or in the surveys, will be held strictly confidential. At no time will your names be associated with the information.

Please provide the following information.

Names _____

Address _____

Phone Number _____

Email _____

Preferred contact method _____

The research in which you are about to participate is designed to study the use of narrative, ritual, and symbol in Christian marriages. This research is conducted by Joshua A. Creason for the purpose of completing a dissertation toward the degree of Ph.D. from the Southern Baptist Theological Seminary. In this phase of the research, you will answer the following twelve questions in writing. Any information you provide will be held *strictly confidential*, and at no time will your name be reported, or your name identified with your responses. *Participation in this study is voluntary and you are free to withdraw from the study at any time.* By your completion of this questionnaire, you are giving informed consent for the use of your responses in this research.

6J4Q

*An Empirical Exploration of the Use of Narrative,
Symbol and Ritual in Creating Christian
Marital Memorials*

Initial Survey

Thank you for your willingness to participate in this study. I pray the Lord will bring great returns for your investment.

Directions

Please answer all of the following questions *together* to the best of your knowledge.

1. How many times in the past year have you and your spouse discussed special memories from your history *together*? (including telling others together about these things)

Examples: the excitement of new love, your first kiss, that special vacation you took together

_____ Please list examples: _____

2. How many times in the past year have you and your spouse shared a tradition or ritual *together*?

Examples: recreating your first date, celebrating your wedding anniversary in a particular way, always kissing after prayer at meals, calling each other pet names from early in your relationship

_____ Please list examples: _____

3. How many times in the past year have you and your spouse reflected *together* on a symbol as a reminder of a shared memory?

Examples: your wedding rings, a tree you planted when a child miscarried, a souvenir from your honeymoon

_____ Please list examples: _____

4. How many times in the past year have you and your spouse *together* shared your story/joint testimony with someone else?

5. How many times in the past year have you, *as a couple*, intentionally done one of the above things as a way of remembering what God has done in or through your relationship?

_____ Please list examples: _____

6. How many years have you been married?

7. Have either of you been married before? (Circle one)

Yes

No

8. What are your ages, how long have each of you been born again and living a Christian life?

Husband	Wife
Age _____	Age _____
Years Saved _____	Years Saved _____
Years living as Christian * _____	Years living as Christian * _____

**For instance, some people are saved in elementary or middle school yet live as if they were lost until they have children.*

9. What church background do each of you come from? (Circle one for each)

Husband	Wife
Southern Baptist	Southern Baptist
Other Baptist	Other Baptist
Methodist	Methodist
Christian Church	Christian Church
Catholic	Catholic
Presbyterian	Presbyterian
Episcopal	Episcopal
Other Non-Evangelical	Other Non-Evangelical
Other Evangelical	Other Evangelical
None	None

10. How many children do you have and what is their age span? (write N/A if "Not Applicable")

Number of Children	Age of Oldest Child	Age of Youngest
_____	_____	_____

11. Have you ever or do you currently attend seminary? (Circle one for each)

Husband	Wife
No	No
In the Past	In the Past
Currently	Currently

12. Which Highview Baptist Church campus do you typically attend? (Circle one)

Fegenbush

East

Please feel free to contact the researcher if you have any questions or concerns.

Joshua Creason, Ph.D. (Cand.)

502-742-1583

jcreason@highviewbaptist.org

APPENDIX 2

PARTICIPANT POOL DESCRIPTIVE STATISTICS

Table A1. Participant pool descriptive statistics

	<i>Mean</i>	
Years Married	25.06	<i>SD</i>
Previous Marriage	<i>6 previously married, 29 first marriages</i>	15.29
Number of Children	2.49	
Age of Oldest Child	26.44	1.29
Age of Youngest Child	20.33	14.62
Service	<i>2 Saturday 5:30pm, 1 Sunday 8:30am, 9 Sunday 9:45am, 15 Sunday 10:30am, 8 Sunday 11:15am</i>	N/A
Campus Attends	<i>27 Fegenbush, 8 East</i>	
Total Memorial Score	41.96	

Table A2. Participant pool descriptive statistics divided by gender

	Husbands		Wives	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Age	49.89	14.73	47.31	13.73
Years Living Christian	29.73	18.75	30.26	16.71
Seminary Attendance	<i>29 never attended, 2 currently attend, 4 attended in past</i>		<i>32 never attended, 1 currently attended, 1 attended in past</i>	

APPENDIX 3

CLUSTERED NARRATIVE RESPONSES

Adventure trips monthly	Remodeling a past home in light of present project
Asking her father to marry	Romance
College experiences together	Serving others
Comparing now to difficult first year	Share our love affair
Courting/Dating	Something we did that week
Dates before kids	Special Cards
Dreams	Stories about children
Driving around Frisches'	Telling others how met
Engagement	Travels
Excitement	Trips
Family Gatherings	Vacations
First apartment	Very romantic moments
First Asked Out	When our children were born
First Date	High School encounter
First Kiss	Wedding
First Meeting	Talking to Kids about Kissing
Funny moments	Wedding Pictures on Anniversary
Having kids	Anniversary Celebration
High School Encounters	Reflect weekly on special memories to remind us how blessed we are
Holidays	Trip on 15th anniversary
Home purchased together	Repeat getaway each year
Honeymoon	Cards
How God brought us together	
How God speaks to us	
How we started dating	
Joke about date of first date	
Journals	
Life in military	
Look at wedding pictures on anniversary	
Love Notes	
Meeting in College	
Meeting parents	
Moving	
Nursing Home Ministry	
Proposal	
Raising children	
Recent golf game	

APPENDIX 4

CLUSTERED SYMBOL RESPONSES

\$100 – how far it went on honeymoon	Songs
Bills	Souvenirs from trips
Bird bath	Squirrel Nut-Cracker
Bird feeder	The years in the ministry
Children	Treasure chest with journal
Christmas ornament	Tree planted as a gift
Cross	Tree planted when finished chemo
Dogs have special meaning	Trips on anniversaries
Each child carried in home from hospital by Dad	Wear wedding dress each year
First cards	
First date	
First Granddaughter's Wedding	
God	
High School encounter	
Home Improvements	
Love	
Memories about family	
Music	
Pansies in memory of lost child	
Pictures from events	
Pictures of people and places	
Planted a rose bush in the spring	
Poems	
Prayer	
Rings	
Rings – only remove each other's, not own	
Rock grave for miscarried child	
Share wedding pictures with someone else on anniversary	

APPENDIX 5

CLUSTERED RITUAL RESPONSES

Anniversary (dinner)	Music
Anniversary (travel)	Particular gift
Anniversary of adopting child	Perfume
Anniversary ritual	Pet names
Birthday surprises	Phone calls from work
Call home every day on the way home from work	Praying together
Call home every morning from work	Recreating our first encounter
Carve pumpkins	Saying "I love you" and kissing upon waking and at going to bed
Celebrate 6-month anniversary	Saying "I love you" when parting
Celebrated on date of first meeting	Send flowers
College socials	Silly things we did
Cut down Christmas tree	St. Louis baseball games
Date planned by family for parents	Sunday lunches
Evolution of relationship	Sunday naps
Family Dinners	Talk about the days events
First date	Trip with kids
First dinner	Watch wedding video on anniversary
Holding hands during car travel	Wedding anniversary (eat out daily for a week)
holding hands during meal-time prayers	Weekends totally together
Holding hands for prayer at mealtimes	
How we think so much alike	
How we work together	
Hug in the morning	
Increase in pay	
Kiss	
Kiss after prayer at meals	
Kiss after prayer at night	
Making gingerbread house	
Monthly date night	

APPENDIX 6

STUDY PHASE 2 CONTACT LETTER

Joshua Creason
10303 Chimney Ridge Ct.
Louisville, KY 40299
(502) 742-1583
jcreason@highviewbaptist.org

Dear Mr. and Mrs. Participant,

I am Joshua Creason, a counselor at Highview Christian Counseling Center and Doctoral student at the Southern Baptist Theological Seminary. Thank you for taking the time to volunteer to participate in the study on Christian marriages. I am currently arranging times for the interview portion of the study.

The second phase of this study will involve a series of brief questionnaires and a video-recorded interview. Rev. Kenneth Hollis, Ph.D., the director of the Highview Christian Counseling Center, will conduct the interview which focuses on the history of your marriage, at the Counseling Center at Fegenbush Campus. During the interview, basic physiological information will be recorded. The entire process should take less than 1.5 hours. Any information you provide, whether in the interview or in the surveys, will be held strictly confidential. The interviews will be held the week of Oct. 31 through Nov. 4. What days or times (morning, afternoon, evening) are the most convenient for the two of you? Please feel free to contact me via phone (742-1583) or email (jcreason@highviewbaptist.org).

Again, thank you for your willingness to participate and I look forward from hearing from you.

Thank you,

Joshua A. Creason

APPENDIX 7

STUDY PHASE 1 PARTICIPANT DESCRIPTIVE STATISTICS

Table A3. Study phase 1 participant descriptive statistics

	Participants	
	<i>Mean</i>	<i>SD</i>
Years Married	22.28	13.10
Previous Marriage	<i>2 previously married, 16 first marriages</i>	
Number of Children	2.61	1.58
Age of Oldest Child	24.13	12.74
Age of Youngest Child	18.27	12.71
Service	<i>0 Saturday 5:30pm, 1 Sunday 8:30am, 6 Sunday 9:45am, 8 Sunday 10:30am, 3 Sunday 11:15am</i>	
Campus	<i>15 Fegenbush, 3 East</i>	
Total Memorial Score	42.79	24.63

Table A4. Study phase 1 participant descriptive statistics divided by gender

	Husbands		Wives	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Age	47.67	12.41	45.56	12.67
Years Living Christian	26.83	16.92	27.88	15.92
Seminary Attendance	<i>15 never attended, 1 currently attended, 2 attended in past</i>		<i>16 never attended, 1 currently attended, 1 attended in past</i>	

APPENDIX 8

STUDY PHASE 1 GROUP DESCRIPTIVE STATISTICS

Table A5. Study phase 1 group descriptive statistics

	High Group		Low Group	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Years Married	18.89	11.67	25.67	14.23
Previous Marriage	<i>2 previously married, 7 first marriages</i>		<i>9 first marriages</i>	
Number of Children	2.22	1.79	3.00	1.32
Age of Oldest Child	25.57	11.06	23.00	14.47
Age of Youngest Child	20.71	12.12	16.13	13.64
Service	<i>0 Saturday 5:30pm, 1 Sunday 8:30am, 1 Sunday 9:45am, 5 Sunday 10:30am, 2 Sunday 11:15am</i>		<i>0 Saturday 5:30pm, 0 Sunday 8:30am, 5 Sunday 9:45am, 3 Sunday 10:30am, 1 Sunday 11:15am</i>	
Campus	<i>7 Fegenbush, 2 East</i>		<i>8 Fegenbush, 1 East</i>	
Total Memorial Score	60.69	22.46	24.89	8.01

Table A6. Study phase 1 group descriptive statistics by gender

	Husbands		Wives		Husbands		Wives	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Age	46.67	12.51	44.11	12.52	48.67	12.97	47.00	13.67
Years Living Christian	25.33	18.15	25.78	17.25	28.33	16.55	30.88	15.06
Seminary Attendance	6 never attended, 1 currently attended, 2 attended in past		7 never attended, 0 currently attended, 1 attended in past		9 never attended, 0 currently attended, 0 attended in past		9 never attended, 1 currently attended, 0 attended in past	

Table A7. Study phase 1 group comparisons

	Group Comparisons
	<i>p</i>
Years Married	0.258
Previous Marriage	0.436
Number of Children	0.297
Age of Oldest Child	0.536
Age of Youngest Child	0.397
Service	0.34
Campus	0.73
Total Memorial Score	<0.001

Table A8. Study phase 1 group comparisons by gender

	Husbands	Wives
	<i>p</i>	
Age	0.931	0.605
Years Living Christian	0.703	0.606
Seminary Attendance	0.258	0.963

APPENDIX 9

STUDY PHASE 2 CONSENT FORM

*An Empirical Exploration of the Use of Narrative,
Symbol and Ritual in Creating Christian
Marital Memorials*

CONSENT FORM

Investigator

Joshua A. Creason, Ph.D. (Cand.)
The Southern Baptist Theological Seminary
(502) 742-1583

Agreement to Participate

The research in which you are about to participate is designed to begin to understand the role of narratives, rituals, and symbols in Christian marriages. This research is being conducted by Joshua A. Creason for purposes of completing the degree of Doctor of Philosophy at the Southern Baptist Theological Seminary. In this research, you will complete a series of questionnaires on a computer and participate in a video recorded, guided discussion of the history of your marriage. During this process, the researcher will record various physiological measurements (heart rate, skin conductivity, and skin temperature). Any information you provide will be held *strictly confidential*, and at no time will your name be reported, or your name identified with your responses. *Participation in this study is totally voluntary and you are free to withdraw from the study at any time.*

By your completion of these questionnaires and interviews, and signing your name below, you are giving informed consent for the use of your responses in this research.

Participants' Statement

The study described above has been explained to me. I voluntarily consent to participate in this activity. I have had an opportunity to ask questions. I understand that future questions I may have about the research or about my rights as a research participant will be answered by the investigator listed above.

Husband

Name _____
Signature _____
Date _____

Wife

Name _____
Signature _____
Date _____

APPENDIX 10

COMPUTERIZED SURVEY FORM EXAMPLES

Christian Marital Memorial Research Surveys

Participant ID

Christian Marital Memorial Research Surveys

Thank you for your willingness to participate in this research on Christian Marriages. Please answer all the following items to the best of your ability. The directions for each item can be found at the bottom of the screen. Once you have selected your response by clicking on the appropriate bubble, click "Continue". Once you have clicked "Continue," you will be unable to change your response. Please do not speak with your spouse while completing these items. Your responses are confidential and will not be discussed with your spouse.

Christian Marital Memorial Research Surveys

I feel attacked or criticized when we talk about our disagreements.

True

False

[Continue](#)

Read the statement above and click the appropriate TRUE or FALSE bubble.

0% Completed

Christian Marital Memorial Research Surveys

Handling family finances

*Always
Agree*

*Almost Always
Agree*

*Occasionally
Disagree*

*Frequently
Disagree*

*Almost Always
Disagree*

*Always
Disagree*



[Continue](#)

The item above represents an area that couples may disagree about. Please read it carefully and click the bubble of the descriptor that best indicates the EXTENT TO WHICH YOU AND YOUR SPOUSE DISAGREE OR AGREE.

36.26% Completed

Christian Marital Memorial Research Surveys

Click the bubble which best describes the degree of happiness everything considered of your present marriage. The far left of the scale represents the degree of unhappiness experienced by those few who are very unhappy in marriage. The far right of the scale represents the degree of happiness experienced by those few who find extreme joy in marriage. The middle point "happy" represents the degree of happiness which most people get from marriage.

Very Unhappy _____ Happy _____ Perfectly Happy

○ ○ ○ ○ ○ ○ ○

[Continue](#)

Please select the appropriate answer for the above item by clicking the corresponding bubble.

52.75% Completed

Christian Marital Memorial Research Surveys

My spouse and I pray together.

Never _____ Sometimes _____ Very Often

○ ○ ○ ○ ○ ○ ○

[Continue](#)

Please indicate how often you and your spouse do the above by clicking the corresponding bubble.

53.85% Completed

Christian Marital Memorial Research Surveys**Holy**

Does Not Describe at All _____ *Neutral* _____ *Very Closely Describes*



Continue 

Please rate the degree to which the above adjective describes your marriage by clicking the corresponding bubble.

81.32% Completed

Christian Marital Memorial Research Surveys

Please click on the appropriate bubble to indicate your approximate height in feet and inches. (scroll down to see all options)

under 4'

4'0"

4'1"

4'2"

4'3"

4'4"

4'5"

4'6"

4'7"

4'8"

4'9"

4'10"

4'11"

5'0"

5'1"

5'2"

5'3"

5'4"

5'5"

5'6"

5'7"

5'8"

5'9"

5'10"

5'11"

6'0"

6'1"

- 6'2"
- 6'3"
- 6'4"
- 6'5"
- 6'6"
- 6'7"
- 6'8"
- 6'9"
- 6'10"
- 6'11"
- over 7'

[Continue](#)

92.31% Completed

Christian Marital Memorial Research Surveys

Please list the names of any medications you are currently taking. If you are unable to remember what the medication is called, list what you are taking it for and your best guess at the name. If you are taking no medications, please type "NA."

[Continue](#)

95.6% Completed

Christian Marital Memorial Research Surveys

Please click the appropriate box(es) to indicate your highest levels of education.

- Less than high school
- Finished high school or equivalent
- Some college
- Two years of college
- Associate of Arts Degree
- M.F.A. Degree or equivalent
- Finished college (BA/BS Degree)
- Some graduate education
- Professional Degree (e.g. Law)
- Master's Degree
- Ph.D.
- Ed.D.
- Other advanced degree

[Continue](#)

96.7% Completed

Christian Marital Memorial Research Surveys

Thank you for taking the time to participate!

This survey has been created with Marketing Survey Tool
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APPENDIX 11

THE FOUR HORSEMEN QUESTIONNAIRE

Read each statement and fill in the appropriate TRUE or FALSE bubble.

1. I feel attacked or criticized when we talk about our disagreements.
2. I usually feel like my personality is being assaulted.
3. In our disputes, at times, I don't even feel like my partner likes me very much.
4. I have to defend myself because the charges against me are so unfair.
5. I often feel unappreciated by my spouse.
6. My feelings and intentions are often misunderstood.
7. I don't feel appreciated for all the good I do in this marriage.
8. I often just want to leave the scene of the arguments.
9. I get disgusted by all the negativity between us.
10. I feel insulted by my partner at times.
11. I sometimes just clam up and become quiet.
12. I can get mean and insulting in our disputes.
13. I feel basically disrespected.
14. Many of our issues are just not my problem.
15. The way we talk makes me want to just withdraw from the whole marriage.
16. I think to myself, "Who needs all this conflict?"
17. My partner never really changes.
18. Our problems have made me feel desperate at times.
19. My partner doesn't face issues responsibly and maturely.

20. I try to point out flaws in my partner's personality that need improvement.
21. I feel explosive and out of control about our issues at times.
22. My partner uses phrases like "You always" or "You never" when complaining.
23. I often get the blame for what are really our problems.
24. I don't have a lot of respect for my partner's position on our basic issues.
25. My spouse can be quite selfish and self-centered.
26. I feel disgusted by some of my spouse's attitudes.
27. My partner gets far too emotional.
28. I am just not guilty of many of the things I get accused of.
29. Small issues often escalate out of proportion.
30. Arguments seem to come out of nowhere.
31. My partner's feelings get hurt too easily.
32. I often will become silent to cool things down a bit.
33. My partner has a lot of trouble being rational and logical.

APPENDIX 12

THE MARITAL ADJUSTMENT TEST

1-8: The items below represent areas that couples may disagree about. Please read each one carefully and fill in the bubble of the descriptor that best indicates the EXTENT TO WHICH YOU AND YOUR SPOUSE DISAGREE OR AGREE. Respond to each item listed.

Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
1	2	3	4	5	6

1. Handling family finances
2. Matters of recreation
3. Demonstrations of affection
4. Friends
5. Sex relations
6. Conventionality (e.g. right, good or proper conduct)
7. Philosophy of life
8. Ways of dealing with in-laws

9-15: Please select the appropriate answer for each of the following:

9. When disagreements arise, they usually result in (Husband giving in, Wife Giving in, Agreement by mutual give and take)
10. Do you and your mate engage in outside interests together? (All of them; Some of them; Very few of them)
11. In leisure time, do you generally prefer: (To be on the go; To stay home)
12. In leisure time, does your mate generally prefer: (To be on the go; To stay at home)

13. Do you ever wish you had not married? (Frequently; Occasionally; Rarely; Never)
14. If you had your life to live over again, do you think you would: (Marry the same person; Marry a different person; Not marry at all)
15. Do you ever confide in your mate? (In everything; In most things; Rarely; Almost never)
16. Fill in the bubble which best describes the degree of happiness everything considered of your present marriage. The far left of the scale represents the degree of unhappiness experienced by those few who are very unhappy in marriage. The far right of the scale represents the degree of happiness experienced by those few who find extreme joy in marriage. The middle point "happy" represents the degree of happiness which most people get from marriage.

Very Unhappy			Happy			Perfectly Happy
1	2	3	4	5	6	7

APPENDIX 13

JOINT RELIGIOUS ACTIVITIES

Please indicate how often you and your spouse do each of the following:

- | Never | | | Sometimes | | | Very Often |
|-------|---|---|-----------|---|---|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |
| 6. | | | | | | |
| 7. | | | | | | |
| 8. | | | | | | |
| 9. | | | | | | |
| 10. | | | | | | |
| 11. | | | | | | |
| 12. | | | | | | |
| 13. | | | | | | |
1. My spouse and I pray together.
 2. My spouse and I pray for each other.
 3. My spouse and I talk together about how to live out God's will.
 4. My spouse and I talk about our personal moral and spiritual issues.
 5. My spouse and I attend church together.
 6. My spouse and I go to religious education classes together.
 7. My spouse and I go to Bible study together.
 8. My spouse and I go on spiritual or religious retreats together.
 9. My spouse and I read books or articles about religious or spiritual topics.
 10. My spouse and I participate in volunteer work through our religious organization.
 11. My spouse and I talk about God's role in our marriage.
 12. My spouse and I celebrate religious holidays together.
 13. My spouse and I engage in religious rituals together (e.g., fasting, meditation).

APPENDIX 14

MANIFESTATION OF GOD IN MARRIAGE

Please indicate the degree to which you agree or disagree with each of the following statements.

Strongly Disagree			Neutral				Strongly Agree
1	2	3	4	5	6		7

1. God played a role in the development of my marriage.
2. God is present in my marriage.
3. My marriage is a reflection of God's will.
4. My marriage is an expression of my spirituality or religiousness.
5. My marriage is consistent with my spiritual or religious identity.
6. I experience God through my marriage,
7. My marriage reflects my image of what God wants for me.
8. My marriage is influenced by God's actions in our lives.
9. My marriage is a holy bond.
10. My marriage represents God's presence in my life.
11. My marriage follows the Bible and what it teaches.
12. My marriage follows the teachings of my church.

APPENDIX 15

PERCEIVED SACRED QUALITIES

Please rate the degree to which each of the following adjectives describes your marriage.

Does Not Describe at All 1	2	3	Neutral 4	5	6	Very Closely Describes 7
1. Holy						
2. Inspiring						
3. Blessed						
4. Sacred						
5. Awesome						
6. Heavenly						
7. Spiritual						
8. Religious						
9. Mysterious						
10. Miraculous						

APPENDIX 16

STUDY PHASE 2 PARTICIPANT DESCRIPTIVE STATISTICS

Table A9. Study phase 2 participant descriptive statistics

	Participants	
	<i>Mean</i>	<i>SD</i>
Interview Key Question Length	10.58 min	2.82 min
Interview Length	27.24 min	6.91 min

Table A10. Study phase 2 descriptive statistics by gender

	Husbands		Wives	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Income	\$64,444.44	\$30,721.18	\$35,555.56	\$38,535.27
Height	70.33"	2.99"	65.06"	3.00"
Weight	209.72lbs	61.20lbs	162.22lbs	44.50lbs
Body Mass Index	29.91	9.49	26.97	7.00
Four Horsemen	6.56	6.10	7.00	6.17
Locke-Wallace Marital Adjustment Test	123.50	15.23	120.33	18.65
Marital Satisfaction	27.50	7.33	25.00	7.67
Perceived Sacred Qualities	47.06	7.06	48.83	7.24
Joint Religious Activities	54.94	11.12	55.28	10.24
Manifestation of God - Marital Scale	76.22	9.07	79.44	5.93
Total Questionnaire Response Time	18.07min	8.23min	20.17min	10.93min
Narrative Emotional Responsiveness	0.3473	0.2400	0.5771	0.3994
Symbol Emotional Responsiveness	0.1655	0.1521	0.1491	0.1272
Ritual Emotional Responsiveness	0.1686	0.1372	0.1900	0.2106
Average Emotional Responsiveness	0.1896	0.0562	0.2419	0.1067
Total Emotional Responsiveness	0.1247	0.0562	0.1681	0.0930

APPENDIX 17

STUDY PHASE 2 GROUP DESCRIPTIVE STATISTICS

Table A11. Study phase 2 high group descriptive statistics

	High Group	
	<i>Mean</i>	<i>SD</i>
Interview Key Question Length	11.30min	1.76min
Interview Length	35.67min	3.94min

Table A12. Study phase 2 high group descriptive statistics by gender

	Husbands		Wives	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Income	\$67,777.78	\$24,381.23	\$41,111.11	\$31,000.79
Height	69.78"	4.02"	65.78"	1.09"
Weight	220.56lbs	77.84lbs	159.44lbs	49.53lbs
Body Mass Index	31.91	12.16	25.87	7.84
Four Horsemen	6.22	7.10	8.11	7.91
Locke-Wallace Marital Adjustment Test	128.22	14.00	119.56	20.33
Marital Satisfaction	30.56	6.82	23.89	7.81
Perceived Sacred Qualities	49.89	4.43	52.22	6.85
Joint Religious Activities	59.78	10.33	58.33	11.26
Manifestation of God - Marital Scale	81.89	2.42	82.00	2.83
Total Questionnaire Response Time	17.16 min	7.59min	19.87 min	6.98min
Narrative Emotional Responsiveness	0.3693	0.3224	0.5391	0.5230
Symbol Emotional Responsiveness	0.2267	0.1877	0.1094	0.1206
Ritual Emotional Responsiveness	0.1866	0.1366	0.1988	0.2383
Average Emotional Responsiveness	0.1992	0.0562	0.2070	0.0984
Total Emotional Responsiveness	0.1530	0.0631	0.1705	0.1291

Table A13. Study phase 2 low group descriptive statistics

	Low Group	
	<i>Mean</i>	<i>SD</i>
Interview Key Question Length	9.86min	3.55min
Interview Length	25.27min	8.78min

Table A14. Study phase 2 low group descriptive statistics by gender

	Husbands		Wives	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Income	\$61,111.11	\$37,230.51	\$30,000.00	\$46,097.72
Height	70.89"	1.45"	64.33"	4.09"
Weight	198.89lbs	40.45lbs	165lbs	41.68lbs
Body Mass Index	27.90	5.85	28.06	6.32
Four Horsemen	6.89	5.33	5.89	3.95
Locke-Wallace Marital Adjustment Test	118.78	15.71	121.11	18.00
Marital Satisfaction	24.44	6.82	26.11	7.82
Perceived Sacred Qualities	44.22	8.26	45.44	6.21
Joint Religious Activities	50.11	10.18	52.22	8.67
Manifestation of God - Marital Scale	70.56	9.82	76.89	7.22
Total Questionnaire Response Time	18.97 min	9.17min	20.47 min	14.30min
Narrative Emotional Responsiveness	0.3252	0.1318	0.6152	0.2492
Symbol Emotional Responsiveness	0.1043	0.0742	0.1888	0.1276
Ritual Emotional Responsiveness	0.1484	0.1444	0.1797	0.1905
Average Emotional Responsiveness	0.1800	0.0578	0.2768	0.1084
Total Emotional Responsiveness	0.0963	0.0304	0.1656	0.0412

APPENDIX 18

I-330-C2+ SPECIFICATIONS

Input Impedance	10 Gohm
Notch filter	60 Hz
Maximum Band Pass	1 to 400 Hz
Input Channels Total	6
Preamp Channels	2
Isolation, Optical	4000VAC
Amplifier Failure Protection	50 μ A maximum
Static Discharge Protection	\pm 15,000V
Power Source	4x AA alkaline battery
Electrode Impedance Test	250 Ohm to 2 Mohm
Input Signal Range	\pm 500uV or \pm 2000uV
R Wave Filter & Detector	Single Beat Update
IBI or HR Output	40 to 200 beats/minute
Temperature Range	60° to 100°F (15° to 38°C)
Skin Conductance Range	0.5 to 100 μ S
Digital Conversion	16 bit
PC Connection	USB

APPENDIX 19

THE MEMORIAL HISTORY INTERVIEW

Question 1. Why don't we start from the beginning . . . Tell me how the two of you met and got together . . . Do you remember the time you met for the first time? Tell me about it . . . Was there anything about (spouse's name) that made him/her stand out? What were your first impressions of each other?

Question 2. When you think back to the time you were dating, before you got married, what do you remember? What stands out? What do you remember of this period? What were some of the highlights? Some of the tensions? What types of things did you do together? Do you ever revisit special places from this time?

Question 3. Tell me about how you decided to get married. Of all the people in the world, what led you to decide that this was the person you wanted to marry?

Question 4. Do you remember your wedding? Did you light a unity candle? If so, what did that symbolize for you? What do you remember feeling at that time? Did you exchange rings? What did your ring mean to you back then? What does your ring mean to you today? Tell me about your vows. Did you write your own? Do you remember what you felt physically or emotionally while you were hearing or saying your vows? Were you able to go away on a honeymoon? What kinds of things do you remember about it? Have you been back there?

Question 5. When you think back to the first year you were married, what do you remember? Did you do anything to celebrate your first anniversary? If so, what?

Question 6. Looking back over the years, what moments stand out as the really good times in your marriage? How often do you talk together about those times?

Question 7. Looking back over the years, what moments stand out as the really hard times in your marriage? Do you ever talk together about these past difficult times?

Question 8. Describe for me a time when both of you sensed God at work in your relationship. How have you seen your individual relationship with God impact your marriage?

APPENDIX 20

INDIVIDUAL INCOME, GROUPING, AND GENDER

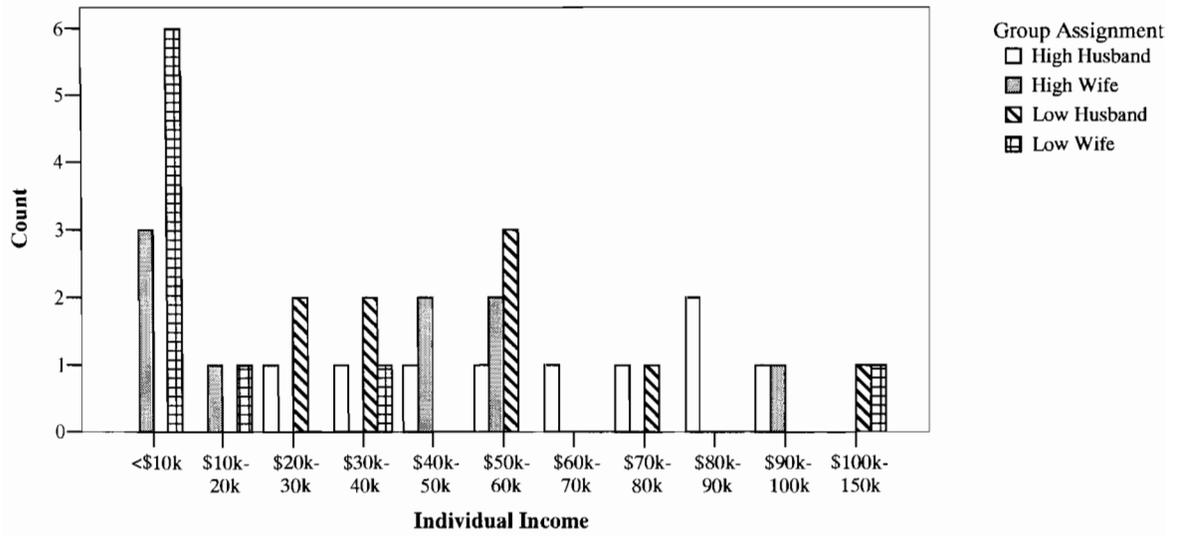


Figure A1. Individual income, grouping, and gender

APPENDIX 21

MARITAL SATISFACTION AND MEMORIAL SCORE

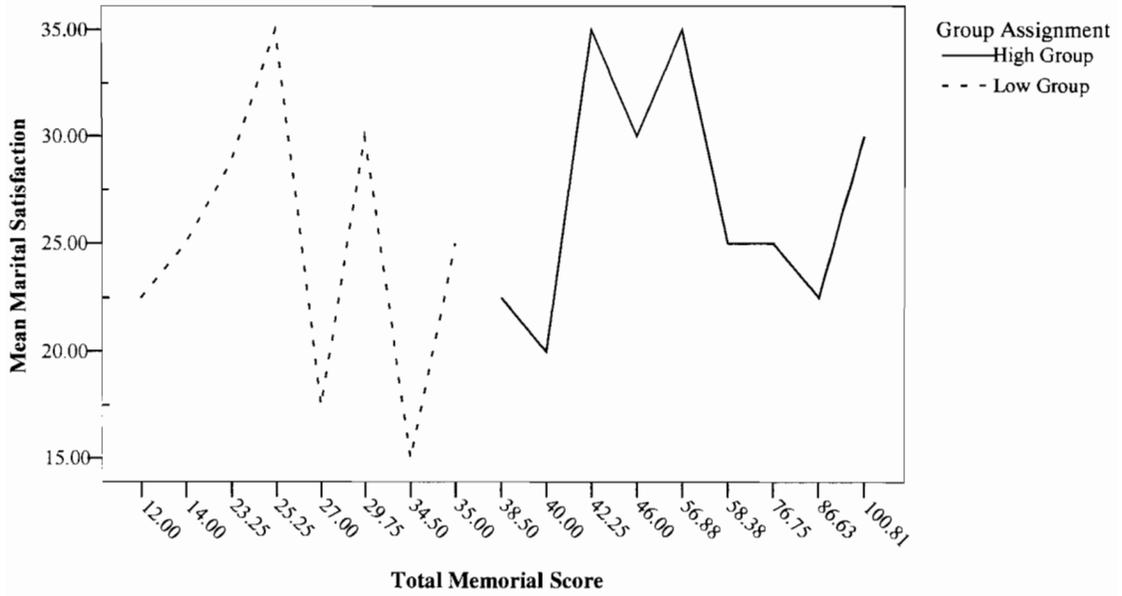


Figure A2. Marital satisfaction and memorial score

APPENDIX 22

MARITAL SATISFACTION, GENDER AND GROUP

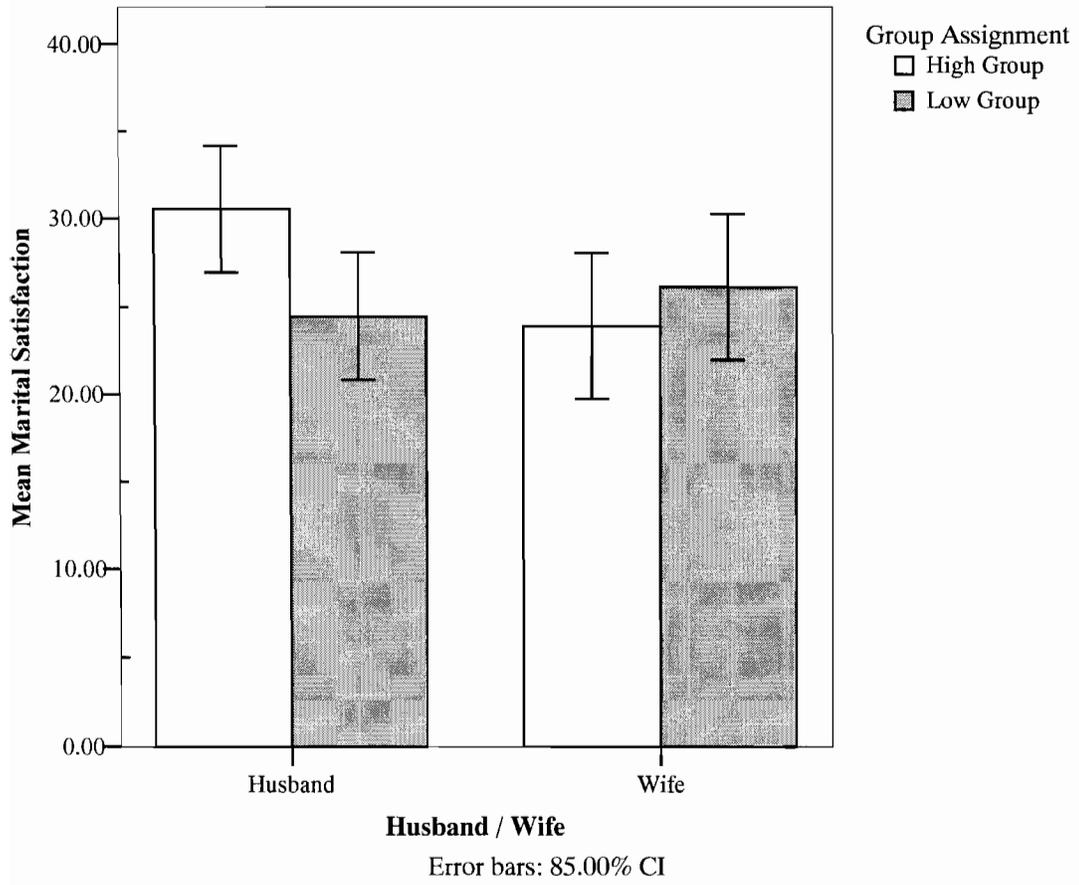


Figure A3. Marital satisfaction, gender and group

APPENDIX 23

FOUR HORSEMEN, GROUP, AND GENDER

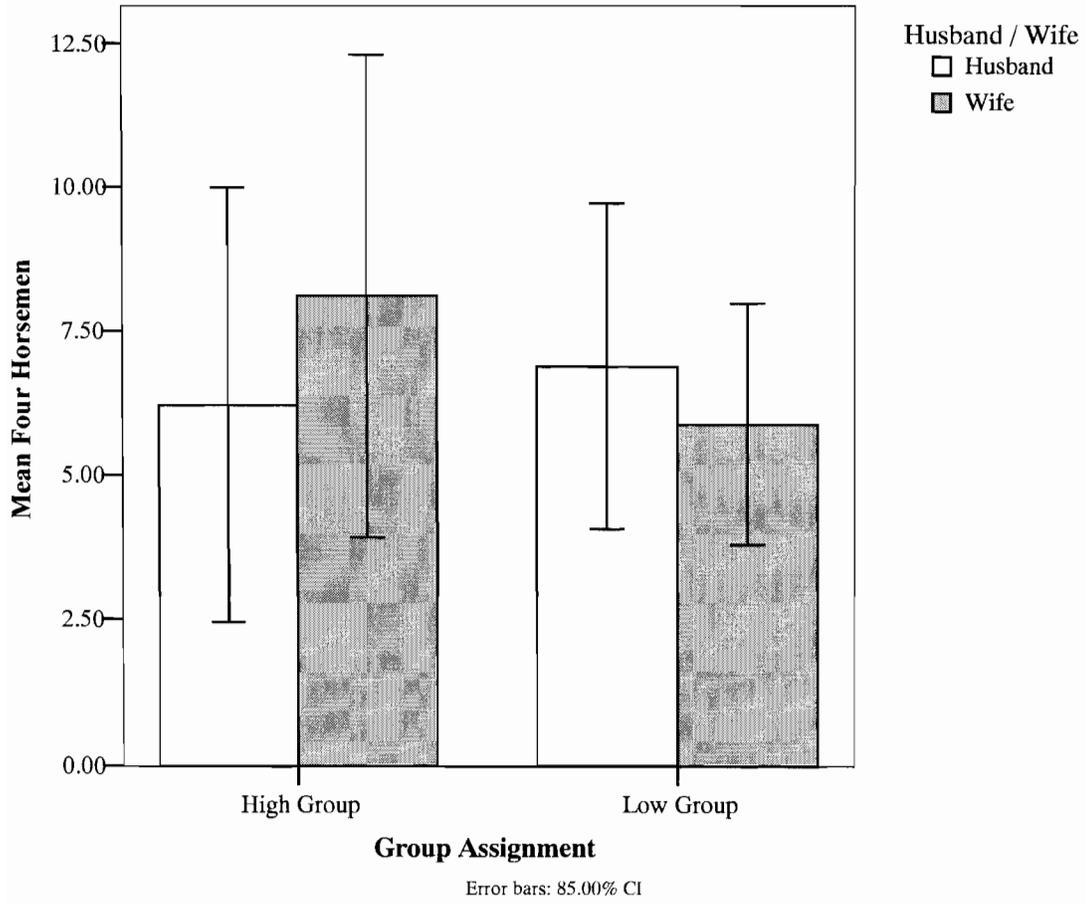


Figure A4. Four Horsemen, group, and gender

APPENDIX 24

JOINT RELIGIOUS ACTIVITY AND GROUPING

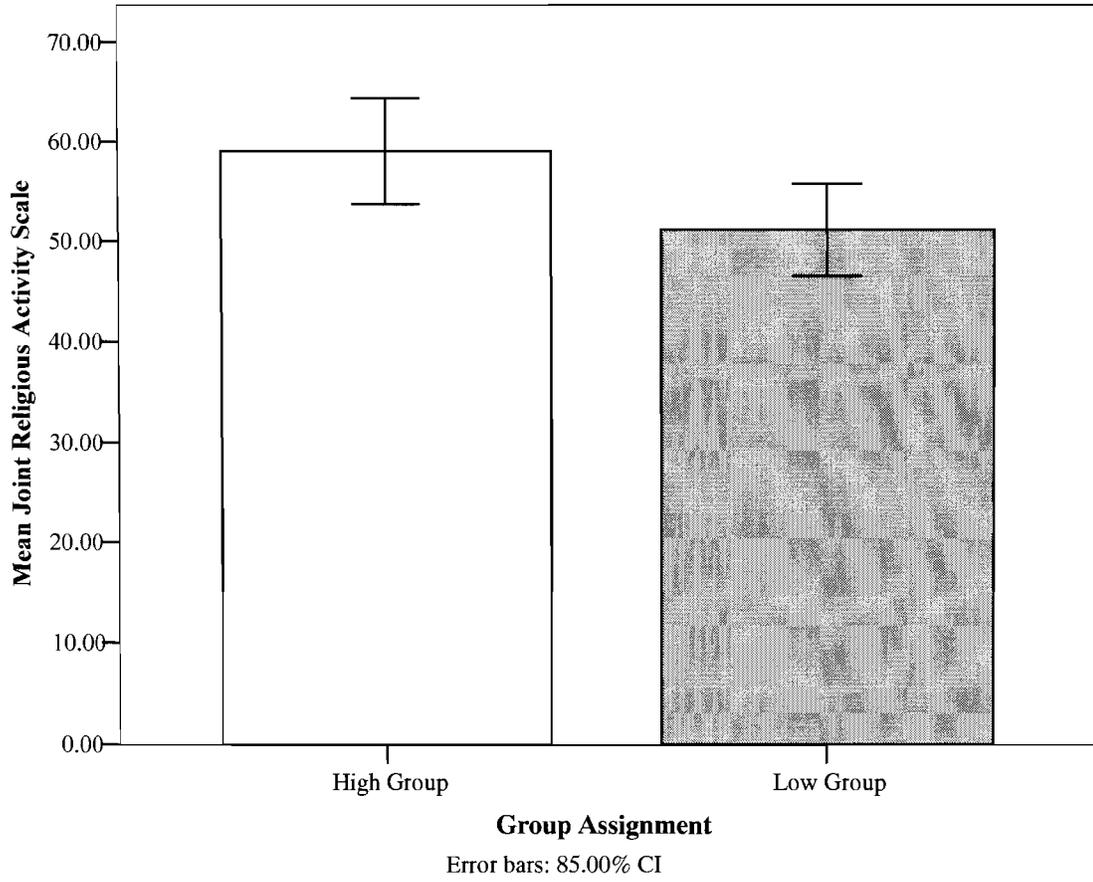


Figure A5. Joint Religious Activity and grouping

APPENDIX 25

PERCEIVED SACRED QUALITIES AND GROUPING

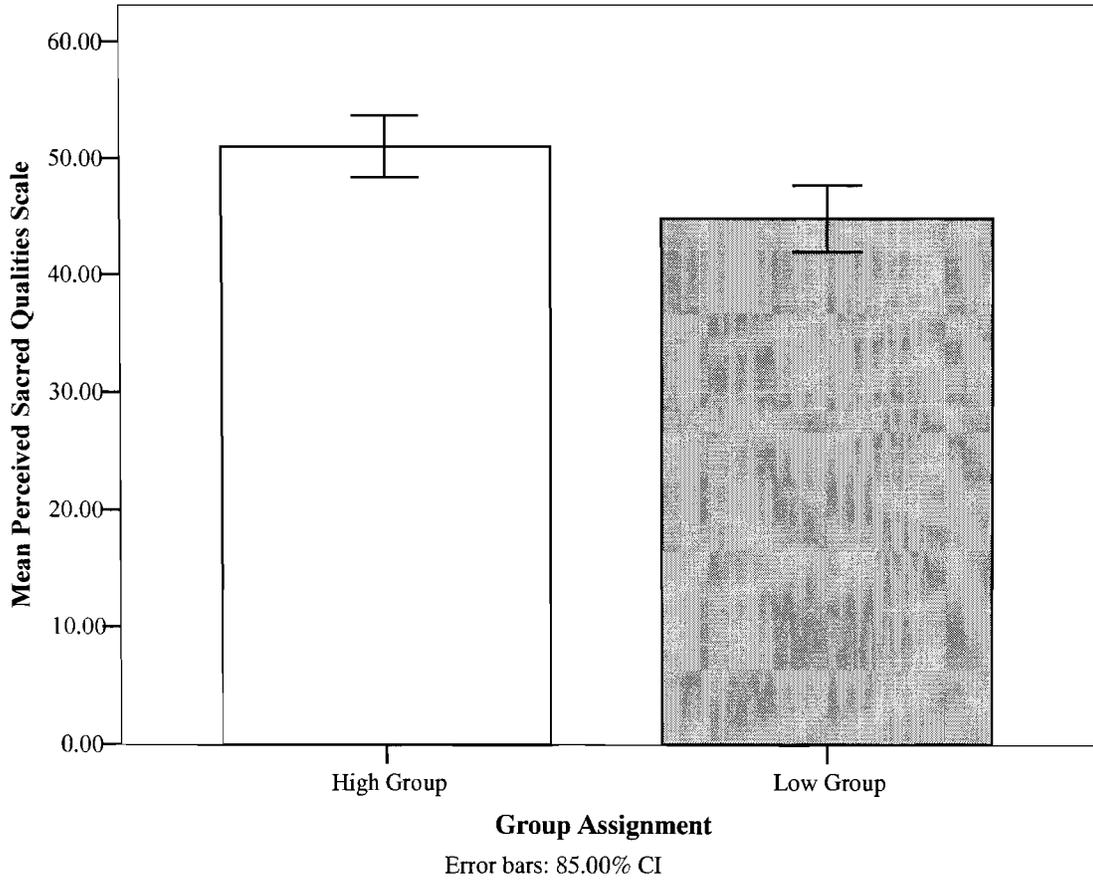


Figure A6. Perceived Sacred Qualities and grouping

APPENDIX 26

MANIFESTATION OF GOD AND GROUPING

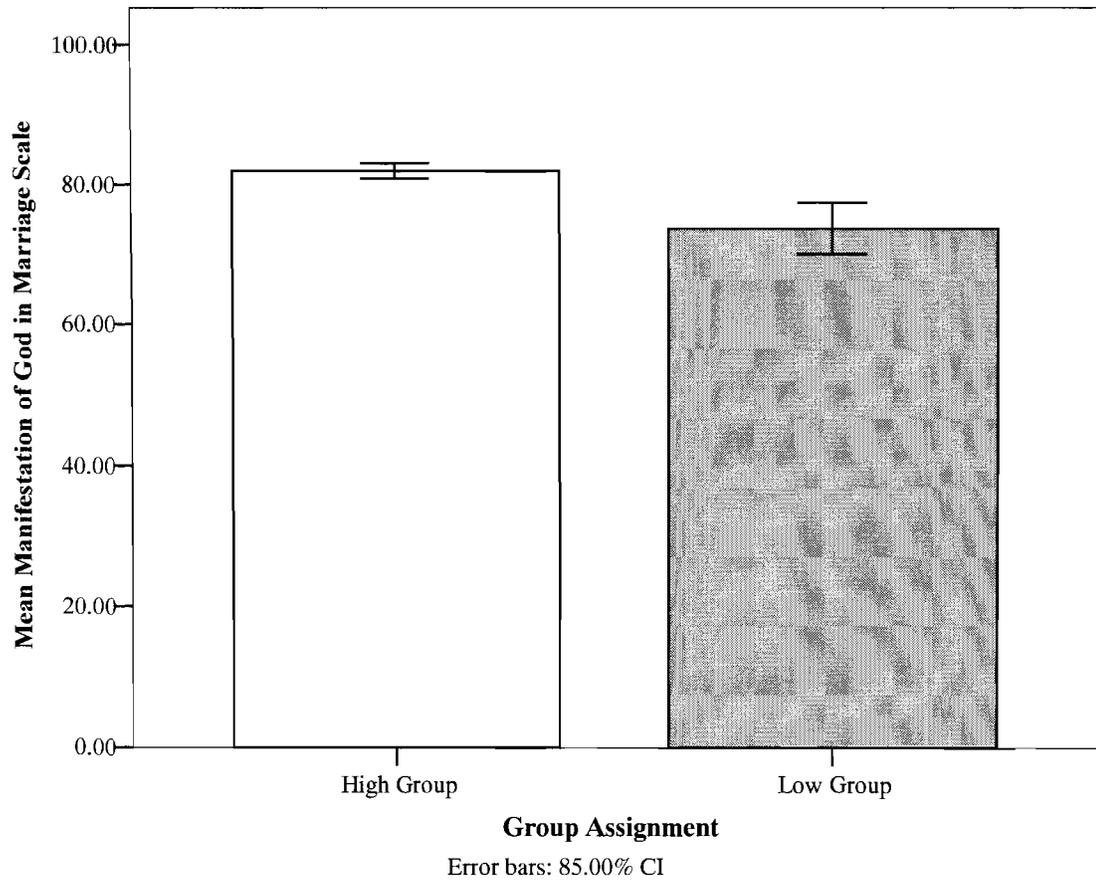


Figure A7. Manifestation of God and Grouping

APPENDIX 27

TOTAL EMOTIONAL RESPONSIVENESS,
GROUPING, AND GENDER

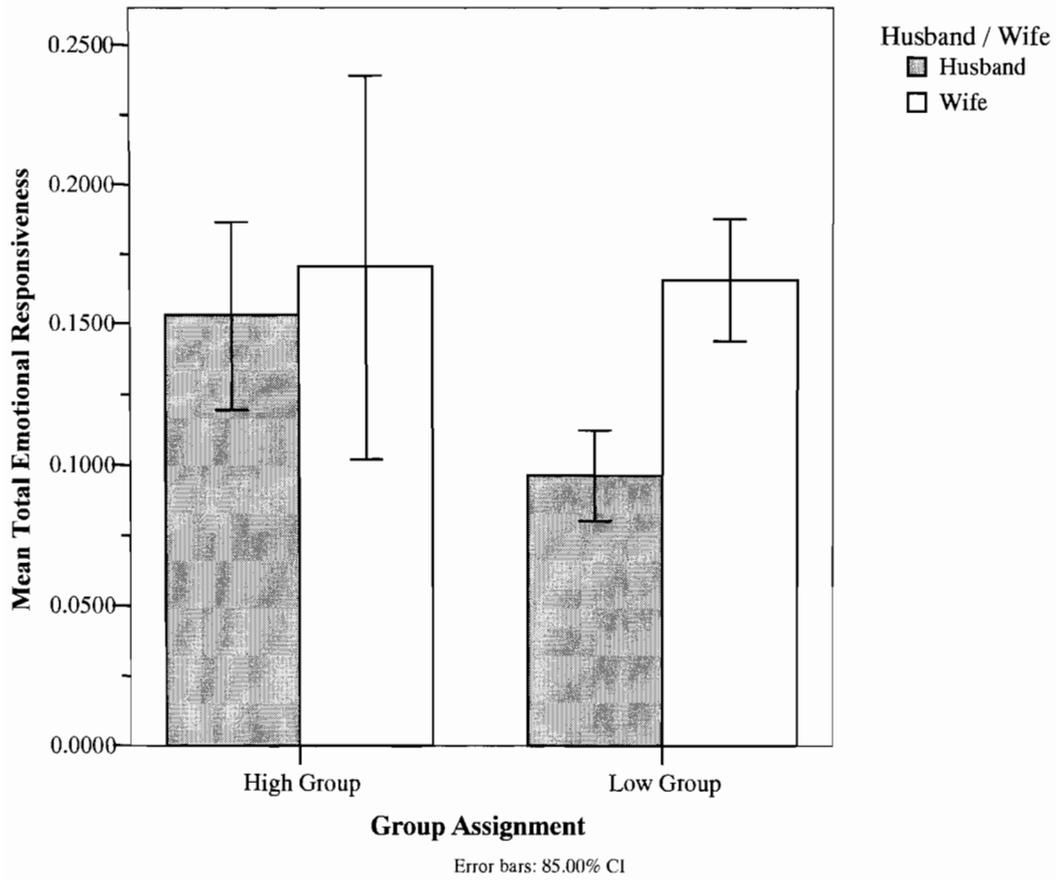


Figure A8. Total emotional responsiveness, grouping, and gender

APPENDIX 28

ZĒKER EMOTIONAL RESPONSIVENESS, GROUPING,
AND GENDER

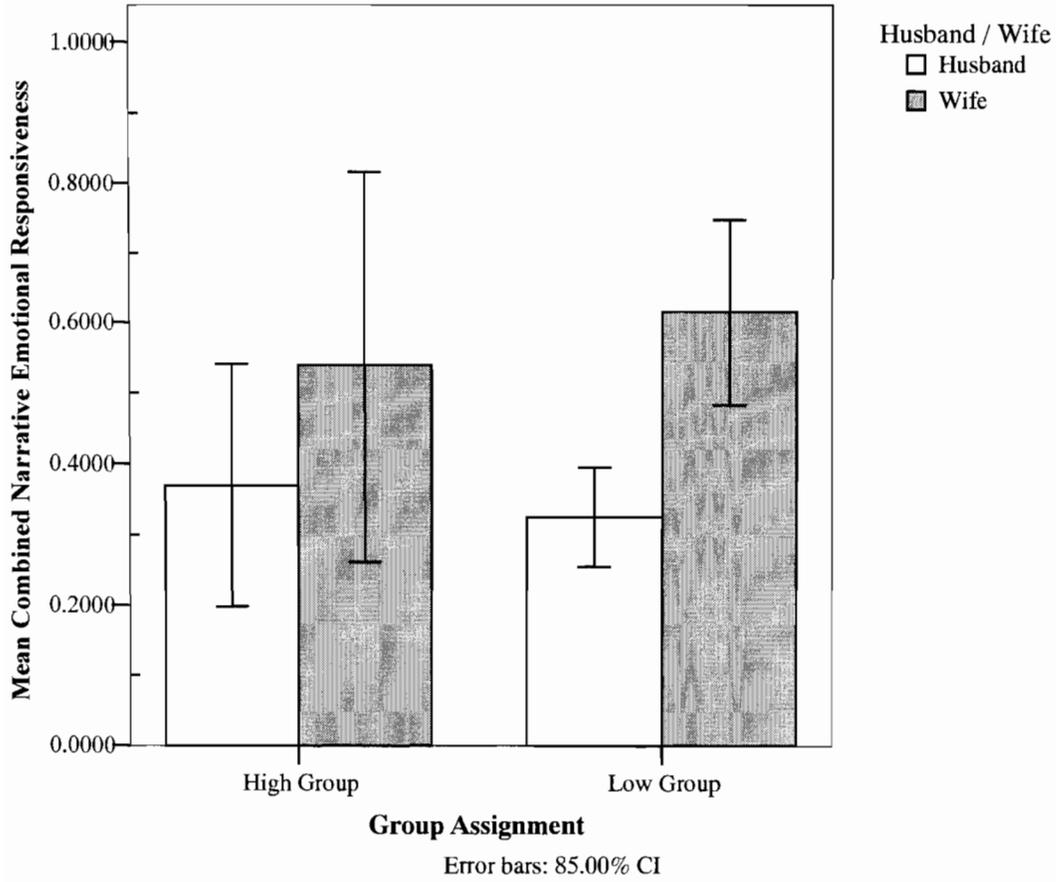


Figure A9. Zēker emotional responsiveness, grouping, and gender

APPENDIX 29

ZIKKĀRŌN EMOTIONAL RESPONSIVENESS,
GROUPING, AND GENDER

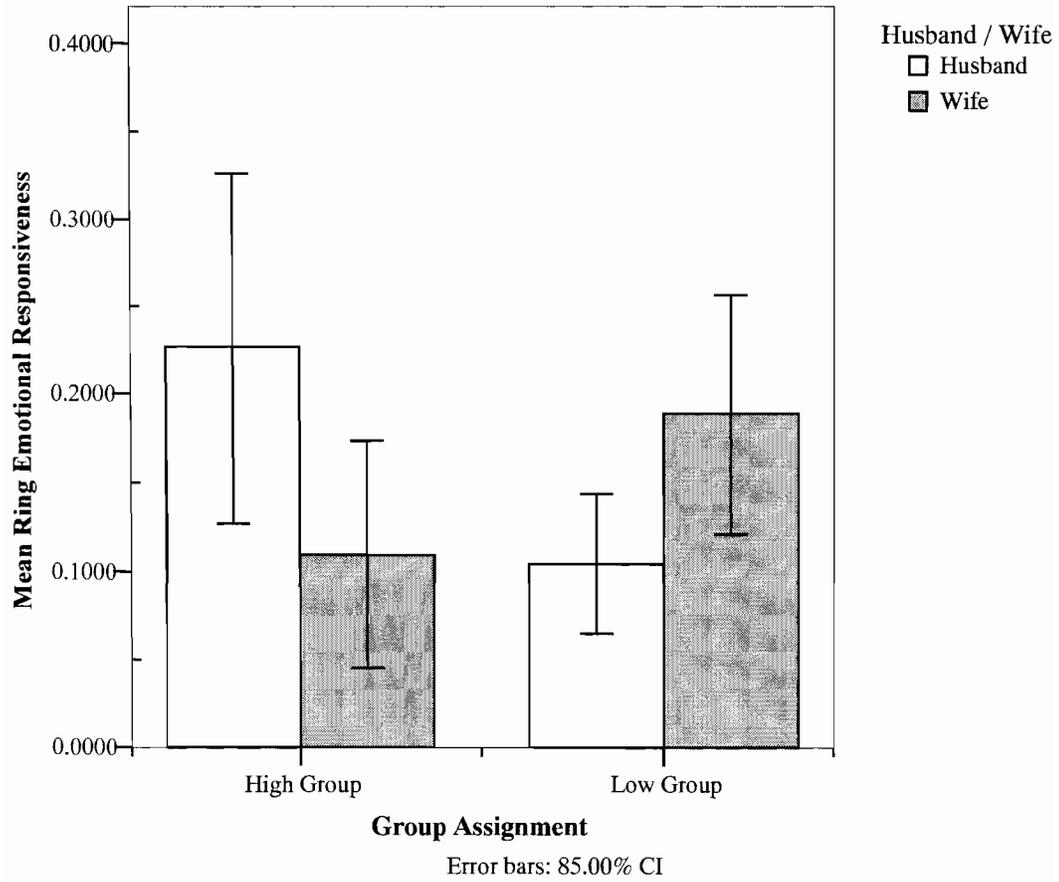


Figure A10. *Zikkārōn* emotional responsiveness, grouping, and gender

APPENDIX 30

'AZKĀRĀ EMOTIONAL RESPONSIVENESS,
GROUPING, AND GENDER

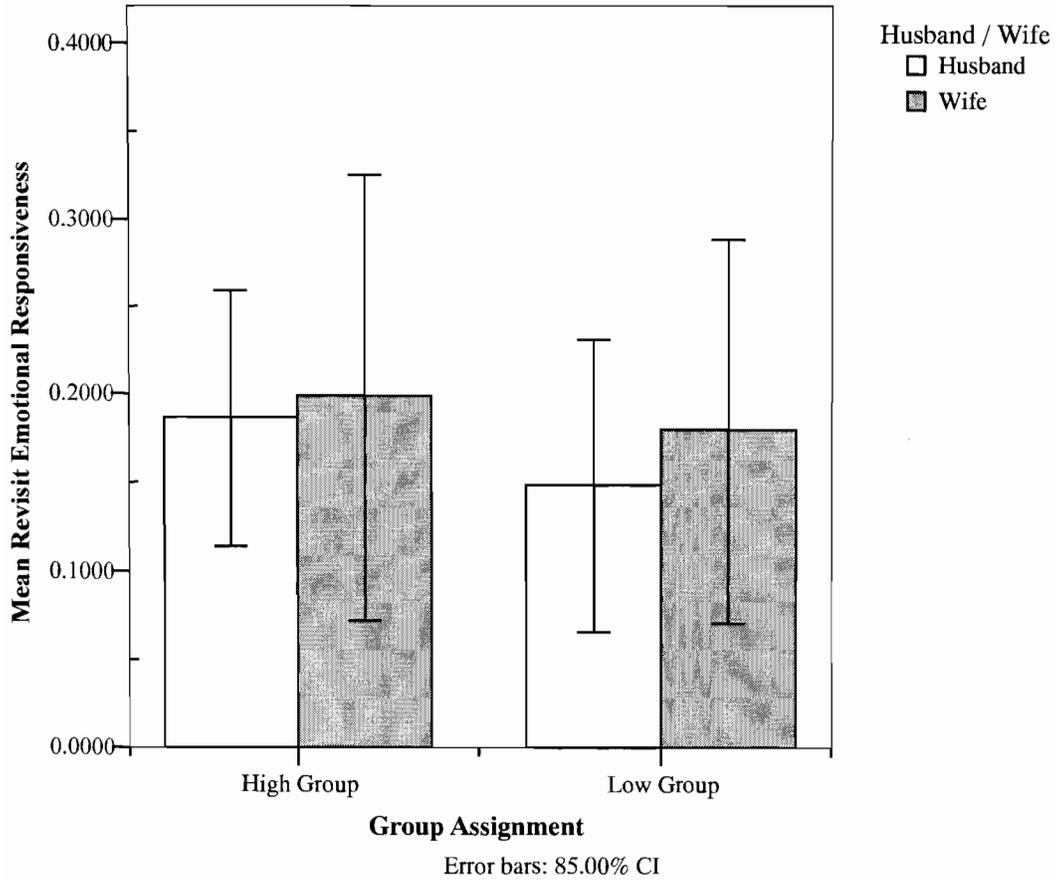


Figure A11. 'Azkārā emotional responsiveness, grouping, and gender

APPENDIX 31

FOUR HORSEMEN, MARITAL SATISFACTION,
GROUPING, AND GENDER

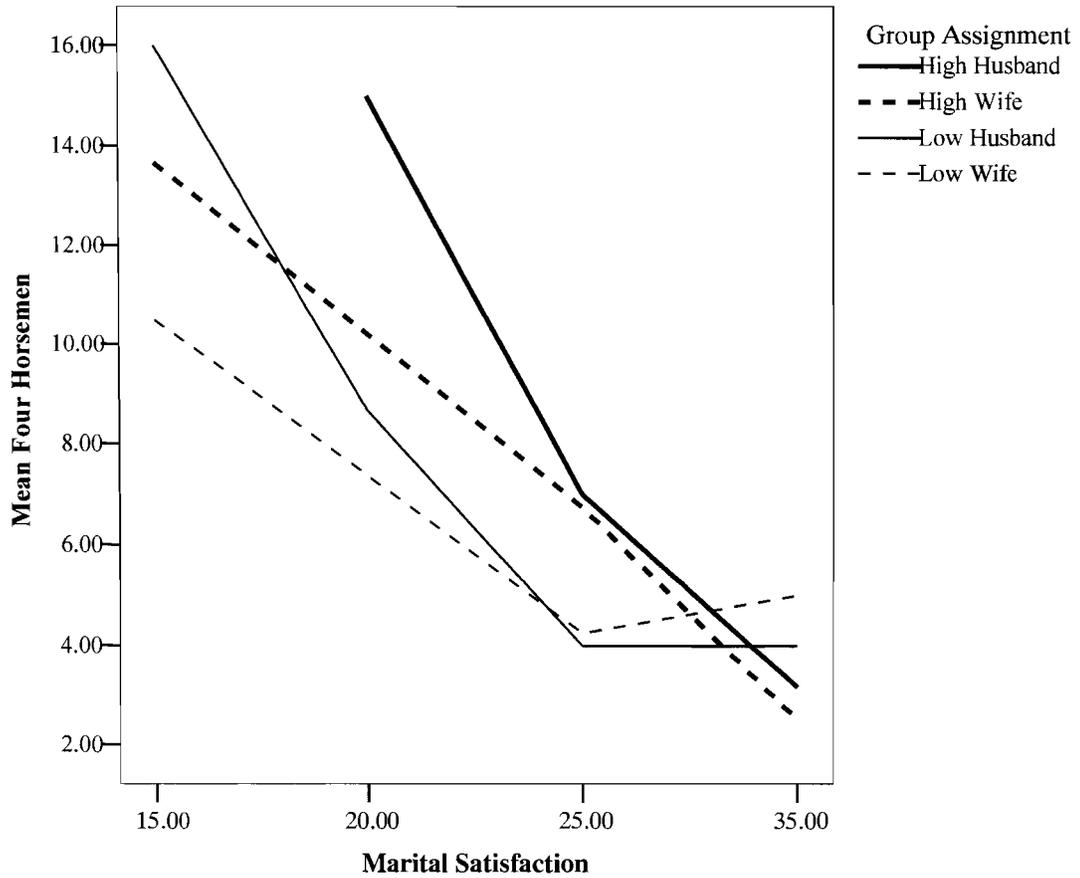


Figure A12. Four Horsemen, marital satisfaction,
grouping, and gender

APPENDIX 32

TOTAL EMOTIONAL RESPONSIVENESS, MARITAL SATISFACTION, GROUPING, AND GENDER

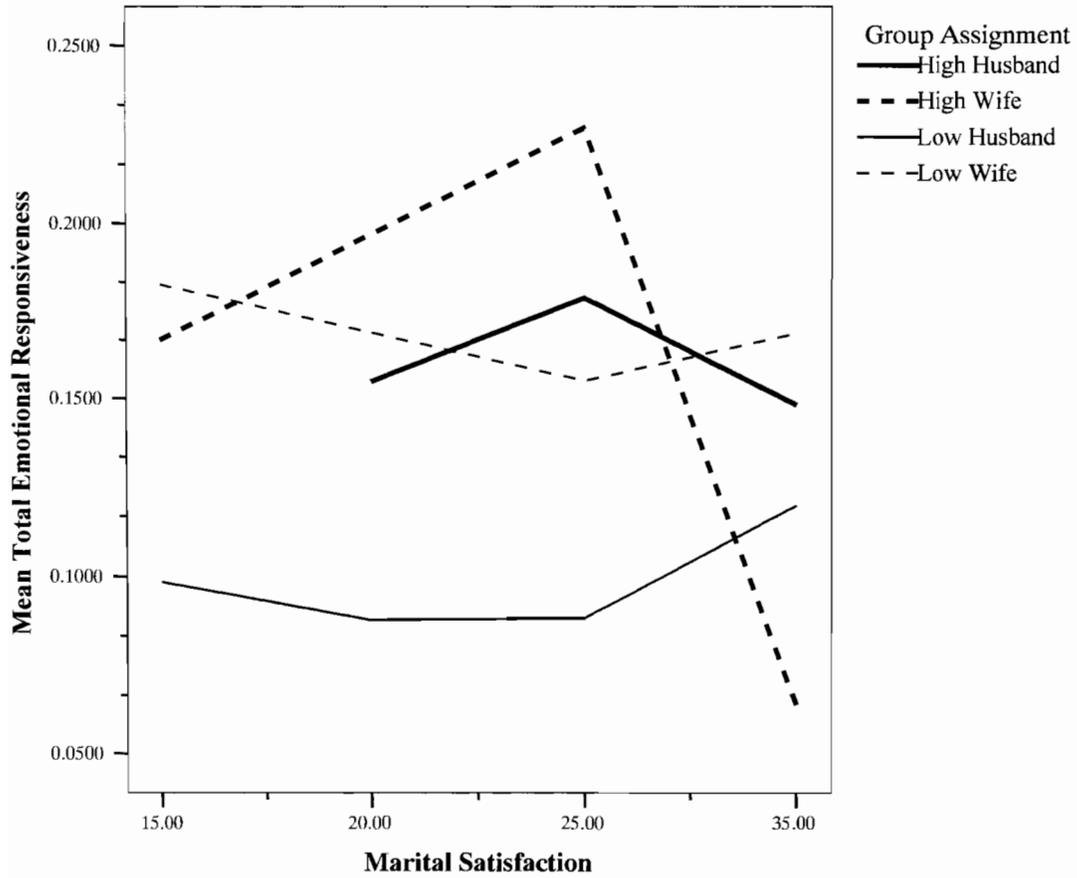


Figure A13. Total Emotional Responsiveness, Marital Satisfaction, Grouping, and Gender

REFERENCE LIST

- Acosta, Alberto, and Jamie Vila. 1990. Emotional imagery: Effect of autonomic response information on physiological arousal. *Cognition and Emotion* 4 (2): 145-60.
- Allen, Leslie C. 1997a. זִכָּר. In *New International dictionary of Old Testament theology and exegesis*. Edited by Willem A. VanGemeren. Grand Rapids, MI: Zondervan Publishing House.
- _____. 1997b. נִשְׁה. In *New International dictionary of Old Testament theology and exegesis*. Edited by Willem A. VanGemeren. Grand Rapids, MI: Zondervan Publishing House.
- _____. 1997c. שִׁכָּח. In *New International dictionary of Old Testament theology and exegesis*. Edited by Willem A. VanGemeren. Grand Rapids, MI: Zondervan Publishing House.
- Andreassi, John L. 2000. *Psychophysiology: Human behavior and physiological response*, 4th ed. Mahwah, NJ: Lawrence Erlbaum Associates.
- Ax, Albert F. 1953. The physiological differentiation between fear and anger in humans. *Psychosomatic Medicine* 15 (5): 433-42.
- Behm, Johannes. 1964. ἀνάμνησις, ὑπόμνησις. In *Theological Dictionary of the New Testament*. Edited by Gerhard Kittel. Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Ben-Shakhar, Gershon. 1985. Standardization within individuals: A simple method to neutralize individual differences in skin conductance. *Psychophysiology* 22 (3): 292-99.
- Bernsten, D. 1998. Voluntary and involuntary access to autobiographical memory. *Memory* 6: 113-41.
- Berntson, Gary G., J. Thomas Bigger, Jr., Dwain L. Eckberg, Paul Grossman, Peter G. Kaufmann, Marek Malik, Haikady N. Nagarja, Stephen W. Porges, J. Philip Saul, Peter H. Stone, and Maurits W. Van Der Molen. 1997. Heart rate variability: Origins, methods, and interpretive caveats. *Psychophysiology* 34: 623-48.
- Bewley, Anne R. 1995. Re-membering spirituality: Use of sacred ritual in psychotherapy. *Women & Therapy* 16 (2-3): 201-13.
- Bird, Amy, and Elaine Reese. 2006. Emotional reminiscing and the development of an autobiographical self. *Developmental Psychology* 42 (4): 613-26.
- Blaikie, William G. 1908. *The book of Joshua*. London: Hodder and Stoughton.

- Blair, Edward. 1961. An appeal to remembrance. *Interpretation*, 15: 41-47.
- Blanton, Gregg P. 2003. Creating narratives from meditations: A model for marital therapy. *Marriage & Family: A Christian Journal* 6 (1): 43-55.
- Block, Daniel I. 2000a. *Gods of the nations*, 2nd ed. Grand Rapids, MI: Baker Academic.
- _____. 2000b. Divine covenant. Classroom lecture notes, *20210 Introduction to Old Testament, Pt. I.*, Fall 2000.
- Boonstra, Harry. 1992. Light one candle . . . *Reformed Worship* 25: 2-4.
- Born again adults less likely to co-habit, just as likely to divorce. Barna Research Online. Retrieved 9 March 2005 from <http://www.barna.org/FlexPage.aspx?Page=BarnaUpdate&BarnaUpdateID=170> .
- Bregman, Lucy. 1987. Baptism as death and rebirth: A psychological interpretation of its imagery. *Journal of Ritual Studies* 1 (2): 27-41.
- Brown, Fancis, S.R. Driver, and Charles A. Briggs. 1996. *The Brown-Driver-Briggs Hebrew and English lexicon: With an appendix containing the biblical Aramaic*. Peabody, MA: Hendrickson.
- Buchanan, George Wesley. 1980. Worship, feasts and ceremonies in the early Jewish-Christian church. *New Testament Studies* 26: 279-97.
- Burke, Alafair, Friderike Heuer, and Daniel Reisberg. 1992. Remembering emotional events. *Memory and Cognition* 20: 277-90.
- Cacioppo, John T., and Louis G. Tassinary. 1990a. Inferring psychological significance from physiological signals. *American Psychologist* 45 (1): 16-28.
- _____. 1990b. *Principles of psychophysiology: Physical, social, and inferential elements*. Cambridge, MA: Cambridge University Press.
- Calvin, John. 1975. *Genesis*. Vol 1. Carlisle, PA: Banner of Truth Trust.
- Campbell, Dianne. 2004. *USE3 Physiolab software guide*. Poulsbo, WA: J&J Engineering.
- Campbell, Maura. 1990. Symbol and reality: Water, life, death, and Christian baptism. *Dialogue and Alliance* 4 (1): 49-60.
- Cannon, Walter B. 1927. The James-Lange theory of emotions: A critical examination and an alternative theory. *American Journal of Psychology* 39: 106-24.
- Carpinelli, Francis Giordano. 1999. "Do this as my memorial" (Luke 22:19): Lucan soteriology of atonement. *The Catholic Biblical Quarterly* 61: 74-91.
- Carstensen, L.L., John M. Gottman, and Robert W. Levenson. 1995. Emotional behavior in long-term marriage. *Psychology and Aging* 10 (4): 406-14.

- Cermak, Laird S. and Fergus I.M. Craik, eds. 1979. *Levels of processing in human memory*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Childs, Brevard S. 1962. *Memory and tradition in Israel*. Naperville, IL: Alec R. Allenson.
- Christianson, Sven-Ake, ed. 1992. *The handbook of emotion and memory*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Christianson, Sven-Ake, E.F. Loftus, H. Hoffman, and G.R. Loftus. 1991. Eye fixations and memory for emotional events. *Journal of Experimental Psychology: Learning Memory and Cognition* 17: 597-609.
- Clydesdale, Timothy. 1997. Family behaviors among early U.S. baby boomers: Exploring the effects of religion and income change, 1965-1982. *Social Forces* 76 (2): 605-35.
- Coles, Michael G.H., Emanuel Donchin, and Stephen W. Porges, eds. 1986. *Psychophysiology: Systems, processes, and applications*. New York, NY: The Guilford Press.
- Coles, Michael G.H. Gabriele Gratton, Arthur F. Kramer, and Gregory A. Miller. 1986. Principles of signal acquisition and analysis. In *Psychophysiology: Systems, processes, and applications*, ed. Coles, Michael G. H., Emanuel Donchin, and Stephen W. Porges, 183-221. New York, NY: The Guilford Press.
- Collins, A.M., and E.F. Loftus. 1975. A spreading activation theory of semantic processing. *Psychological Review* 82 (3/4): 55-73.
- Cosand, Robert J. 1995. The theology of remembrance in the cultus of Israel. Ph.D. diss., Trinity Evangelical Divinity School.
- Cozolino, Louis J. 2002. *The neuroscience of psychotherapy: Building and rebuilding the human brain*. New York, NY: W.W. Norton & Company.
- Cuthbert, B.N., S.R. Vrana, and M.M. Bradley. 1991. Imagery: Function and physiology. *Advances in psychophysiology* 4: 1-42.
- Craik, Fergus I.M. 1979. Levels of processing: Overview and closing comments. In *Levels of processing in human memory*, ed. Cermak, Laird S. and Fergus I.M. Craik, 447-460. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Creswell, John W. 1998. *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: SAGE Publications.
- Dawson, Michael E., Anne M. Schell, and Diane L. Filion. 1990. The electrodermal system. In *Principles of psychophysiology: Physical, social, and inferential elements*, ed. John T. Cacioppo and Louis G. Tassinary, 295-324. New York, NY: Cambridge University Press.
- Deeley, Peter Q. 2004. The religious brain: Turning ideas into convictions. *Anthropology and Medicine* 11 (3): 245-67.

- Dickstein, Susan. 2004. Marital attachment and family functioning: Use of narrative methodology. In *Family stories and the life course: Across time and generations*, ed. Michael W. Pratt and Barbara Fiese, 213-32. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dille, Sarah J. 2005. *Mixing metaphors: God as mother and father in Deutero-Isaiah*. New York, NY: T&T Clark International.
- Dodge, Kenneth A. 1991. Emotion and social information processing. In *The development of emotion regulation and dysregulation*, ed. J. Garber and K. A. Dodge, 159-81. Cambridge: Cambridge University Press.
- Dreytza, Manfred. 1997. אָר. In *New International dictionary of Old Testament theology and exegesis*. Edited by Willem A. VanGemeren. Grand Rapids, MI: Zondervan Publishing House.
- Edelberg, Robert. 1972. Electrical activity of the skin. In *Handbook of psychophysiology*, ed. Norman S. Greenfield and Richard A. Sternback, 367-418. New York, NY: Holt, Rinehart, and Winston.
- Eising, H. 1980. אָר. In *Theological dictionary of the Old Testament*. Edited by G. Johannes Botterweck and Helmer Ringgren. Translated by David E. Green. Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Ekman, Paul. 2005. *What the face reveals: Basic and applied studies of spontaneous expression using the Facial Affect Coding System (FACS)*., 2nd ed. New York, NY: Oxford University Press.
- Ekman, Paul, Robert Levenson, and Friesen Wallace. 1983. Autonomic nervous system activity distinguishes among emotions. *Science* 221: 1208-10.
- Eliot, Lise. 1999. *What's going on in there? How the brain and mind develop in the first five years of life*. New York, NY: Bantam Books.
- Fabry, H. J. 1998. אָר, אָר. In *Theological dictionary of the Old Testament*. Edited by G. Johannes Botterweck, Helmer Ringgren, Heinz-Josef Fabry. Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Feeley-Harnik, Gillian. 1994. *The Lord's table: The meaning of food in early Judaism and Christianity*. Washington, DC: Smithsonian Institution Press.
- Fiese, Barbara H., and Thomas J. Tomcho. 2001. Finding meaning in religious practices: The relation between religious holiday rituals and marital satisfaction. *Journal of Family Psychology* 15 (4): 597-609.
- Fiese, Barbara H., Thomas J. Tomcho, Michael Douglas, Kimberly Josephs, Scott Poltrock, and Tim Baker. 2002. A review of 50 years of research on naturally occurring family routines and rituals: Cause for celebration? *Journal of Family Psychology* 16 (4): 381-90.
- Firth, Raymond. 1973. *Symbols: Public and private*. Ithaca, NY: Cornell University Press.

- Fivush, Robyn. 1994. Constructing narrative, emotion, and self in parent-child conversations about the past. In *The remembering self: Construction and accuracy in the self-narrative*, ed. Neisser, Ulric and Robyn Fivush, 136-57. Cambridge, MA: Cambridge University Press.
- Fivush, Robyn and Catherine A. Haden, eds. 2003. *Autobiographical memory and the construction of a narrative self: Developmental and cultural perspectives*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Fox, Michael V. 1974. The sign of the covenant. *Review Biblique* 81: 557-96.
- Fredrickson, Barbara L., and Christine Branigan. 2001. Positive Emotions. In *Emotions: Current issues and future directions*, ed. Tracy J. Mayne and Gerge A. Bonanno, 123-51. New York, NY: The Guilford Press.
- Freeston, Mark H., and Michael Plechaty. 1997. Reconsideration of the Locke-Wallace Marital Adjustment Test: Is it still relevant for the 1990's? *Psychological Reports* 81: 419-34.
- Gagel, Kenneth O. 1977a. Toward a biblical theology of marriage and family - Part one: Pentateuch and historical books. *Journal of Psychology and Theology* 5 (1): 55-69.
- _____. 1977b. Toward a biblical theology of marriage and family - Part two: Poetical and prophetic books. *Journal of Psychology and Theology* 5 (2): 150-62.
- _____. 1977c. Toward a biblical theology of marriage and family - Part three: Gospels and acts. *Journal of Psychology and Theology* 5 (3): 247-59.
- _____. 1977d. Toward a biblical theology of marriage and family - Part four: Epistles and revelation. *Journal of Psychology and Theology* 5 (4): 318-31.
- Gallo, Smith, Kircher. 2000. Cardiovascular and electrodermal responses to support and provocation: Interpersonal methods in the study of psychophysiology reactivity. *Psychophysiology* 37 (2/3): 185-200.
- Gane, Roy E. 2005. *Cult and character: Purification offerings, day of atonement, and theodicy*. Winona Lake, IN: Eisenbrauns.
- Glass, Gene V., Victor L. Wilson, and John M. Gottman. 1975. *Design and analysis of time-series experiments*. Boulder, CO: Colorado Associated University Press.
- Gottman, John M. 1981. *Time-series analysis: A comprehensive introduction*. Cambridge, MA: Cambridge University Press.
- _____. 1982. Emotional responsiveness in marital conversations. *Journal of Communication* 32 (3): 108-20.
- _____. 1999. *The marriage clinic: A scientifically-based marital therapy*. New York, NY: W.W. Norton & Company.
- Gottman, John M., and Robert W. Levenson. 1988. The social psychophysiology of marriage. In *Perspectives on marital interaction*, ed. Noller, Patricia and Mary Anne Fitzpatrick, 182-200. Philadelphia, PA: Multilingual Matters.

- Gottman, John M., James D. Murray, Catherine C. Swanson, Rebecca Tyson, and Kristin R. Swanson. 2002. *The mathematics of marriage: Dynamic linear models*. Cambridge, MA: Massachusetts Institute of Technology.
- Gottman, John M., and Nan Silver. 2000. *The seven principles for making marriage work*. New York, NY: Three Rivers Press.
- Graesser, Carl F. 1972. Standing stones in ancient Palestine. *The Biblical Archaeologist* 35: 34-63.
- Greenberg, Leslie S., and Jeremy D. Safran. 1987. *Emotion in psychotherapy: Affect, cognition, and the process of change*. New York, NY: The Guilford Press.
- Grings, William W., and Michael E. Dawson. 1978. *Emotions and bodily responses: A psychophysiological approach*. New York, NY: Academic Press.
- Gruenwald, Ithmar. 2003. *Rituals and ritual theory in ancient Israel*. Boston: Brill.
- Groß, Heinrich. 1960. Zur wurzel zkr. *Biblische Zeitschrift* 4: 227-37. Translated by J. Robert Cosand.
- Haag, E. 1998. \aleph . In *Theological dictionary of the Old Testament*. Edited by G. Johannes Botterweck, Helmer Ringgren, Heinz-Josef Fabry. Translated by David Green. Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Hejmel, Laszlo, and Elizabeth Roth. 2004. What is the adequate sampling interval of the ECG signal for heart rate variability analysis in the time domain? *Physiological Measurement* 25: 1405-11.
- Helfmeyer, F.J. 1977. \aleph . In *Theological dictionary of the Old Testament*. Edited by G. Johannes Botterweck, Helmer Ringgren. Translated by John T. Willis. Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Hershberger, Michele. 2002. The baptism ritual in the postmodern world. *Direction* 3 (1/2): 135-47.
- Hollis, Kenneth A. 2003. Examining the impact of a psycho-spiritual educational model of marriage enrichment on seminary couples: A pilot study. Ph.D. diss., The Southern Baptist Theological Seminary.
- Holmberg, Diane, Terri L. Orbuch, and Joseph Veroff. 2004. *Thrice told tales: Married couples tell their stories*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Hugdahl, Kenneth. 1995. *Psychophysiology: The mind-body perspective*. Cambridge, MA: Harvard University Press.
- J&J Engineering, Inc. 2004. *I-330-C2+ hardware guide*. Poulsbo, WA: J&J Engineering.
- Jacoby, Larry L., and Fergus I.M. Craik. 1979. Effects of elaboration of processing at encoding and retrieval: Trace distinctiveness and recovery of initial context. In *Levels of processing in human memory*, ed. Cermak, Laird S. and Fergus I.M. Craik, 1-21. Hillsdale, NJ: Lawrence Erlbaum Associates.

- James, William. 1884. What is emotion? *Mind* 9: 188-205.
- Jennings, J. Richard. 1981. Publication guidelines for heart rate studies in man. *Psychophysiology* 3: 226-31.
- _____. 1986. Memory, thought, and bodily responses. In *Psychophysiology: Systems, processes, and applications*, ed. Coles, Michael G. H., Emanuel Donchin, and Stephen W. Porges, 290-308. New York, NY: The Guilford Press.
- Johnson, Eric L. (unpublished) *Signs of life: Towards a grammar of Christian soul-care*.
- Johnson, Laverne C., and Ardie Lubin. 1972. On planning psychophysiological experiments: Design, measurement, and analysis. In *Handbook of psychophysiology*, ed. Norman S. Greenfield and Richard A. Sternback, 125-58. New York, NY: Holt, Rinehart, and Winston.
- Kandel, Eric. 2006. *In search of memory: The emergence of a new science of mind*. New York, NY: W.W. Norton & Company.
- Kenealy, P.M. 1997. Mood-state-dependent retrieval: The effects of induced mood on memory reconsidered. *Quarterly Journal of Experimental Psychology* 50: 289-301.
- Keren, Gideon, and Charles Lewis. 1993. *A handbook for data analysis in the behavioral sciences: Statistical issues*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Kirk, Jerome, and Marc L. Miller. 1986. *Reliability and validity in qualitative research*. Qualitative Research Methods, vol. 1. Beverly Hills, CA: Sage Publications.
- Kiser, Laural J., Linda Bennett, Jerry Heston, and Marilyn Paavola. 2005. Family ritual and routine: Comparison of clinical and non-clinical families. *Journal of Child and Family Studies* 14 (3): 357-72.
- Koopmans, William T. 1985. Memorializing covenant identity: A study of Old Testament memorials and monuments. Th.M. thesis, Calvin Theological Seminary.
- Kruger, Paul A. 1997a. אָרָא. In *New International dictionary of Old Testament theology and exegesis*, ed. Willem A. VanGemeren, 1:331-33. Grand Rapids, MI: Zondervan Publishing House.
- _____. 1997b. אָרָא. In *New International dictionary of Old Testament theology and exegesis*. Edited by Willem A. VanGemeren. Grand Rapids, MI: Zondervan Publishing House.
- Kunzendorf, Robert G., and Anees A. Sheikh, eds. 1990. *The psychophysiology of mental imagery: Theory, research, and application*. Amityville, NY: Baywood.
- Larsen, Randy J., and Barbara L. Fredrickson. 1999. Measurement issues in emotion research. In *Well-being: The foundations of hedonic psychology*, ed. Kahneman, Daniel, Ed Diener, and Norbert Schwarz, 40-60. New York, NY: Russell Sage Foundation.
- Lawler, Michael G. 1980. Christian rituals: An essay in sacramental symbolism. *Horizons* 7 (2): 7-35.

- Lawson, E. Thomas. 1976. Ritual as language. *Religion* 6: 123-39.
- Leary, Mark R. 1995. *Introduction to behavioral research methods*. 2nd ed. Pacific Grove, CA: Brooks/Cole Publishing Company.
- LeDoux, Joseph. 1996. *The emotional brain: The myterious underpinnings of emotional life*. New York, NY: Touchstone.
- Leupold, H.C. 1960. *Exposition of Genesis*. Vol. 2. Grand Rapids, MI: Baker Book House.
- Levenson, Robert W. 1988. Emotion and the autonomic nervous system: a prospectus for research on autonomic specificity. In *Social psychophysiology and emotion: Theory and clinical applications*, ed. Hugh L. Wagner, 17-42. Chichester: John Wiley & Sons.
- Levenson, Robert W., and John M. Gottman. 1983. Marital interaction: Physiological linkage and affective exchange. *Journal of Personality and Social Psychology* 45 (3): 587-97.
- Lewis-Beck, Michael S. *Applied regression: An introduction*. Quantitative Applications in the Social Sciences, vol 22. Beverly Hills, CA: Sage Publications.
- Lock, H., and K. Wallace. 1959. *Marriage and Family Living* 2: 251-55.
- Mahoney, Annette, Kenneth I. Pargament, Tracey Jewell, Aaron B. Swank, Eric Scott, Erin Emery, and Mark Rye. 1999. Marriage and the spiritual realm: The role of proximal and distal religious constructs in marital functioning. *Journal of Family Psychology* 13 (3): 321-38.
- Mahoney, Annette, Kenneth I. Pargament, Aaron Murray-Swank, and Nichole Murray-Swank. 2003. Religion and the sanctification of family relationships. *Review of Religious Research* 44: 220-36.
- Mann, Thomas W. 1971. The pillar of cloud in the Reed Sea narrative. *Journal of Biblical Literature* 90 (1): 15-30.
- Mathew, K.V. 1964. In remembrance of me. *The Indian Journal of Theology* 13: 130-34.
- Maticich, Karen K. 1990. The biblical Hebrew concept of remembrance and its transmission to the New Testament expression "do this in remembrance of me." Th.M. thesis, Dallas Theological Seminary.
- McAdams, Dan P. 2003. Identity and the life story. In *Autobiographical memory and the construction of a narrative Self*, ed. Robyn Fivush, and Catherine A. Haden, 187-207. Mahwah, NJ: Lawrence Erlbaum Associates.
- McDowall, David, Richard McCleary, Errol E. Meidinger, and Richard A. Hay, Jr. 1980. *Interrupted time series analysis*. Quantitative Applications in the Social Sciences, vol. 21. Beverly Hills, CA: Sage Publications.
- McGaugh, James L. 2003. *Memory and emotion: Preserving the presence of the past*. New York, NY: Columbia University Press.

- Menchaca, Diana, and Crystal Dehle. 2005. Marital quality and physiological arousal: How do I love thee? Let my heartbeat count the ways. *The American Journal of Family Therapy* 33: 117-30.
- Merrill, Eugene H. 2000. Remembering: A central theme in biblical worship. *Journal of the Evangelical Theological Society* 43(1): 27-36.
- Michel, O. 1967. μιμνήσκομαι μνεία μνήμη μνήμα μνηεῖον μνημονεύω μιμνήσκομαι. In *Theological Dictionary of the New Testament*. Edited by Gerhard Kittel. Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Myers, David G. 1998. *Psychology*. 5th ed. New York, NY: Worth.
- Newberg, Andrew, Eugene d'Aquili, and Vince Rause. 2001. *Why God won't go away: Brain science and the biology of belief*. New York, NY: Ballantine Books.
- Oatley, Keith, and Maja Djikic. 2002. Emotions and transformation: Varieties of experience of identity. *Journal of Consciousness Studies* 9 (9-10): 97-116.
- Ostrom, Charles W. 1978. *Time series analysis: Regression techniques*. Quantitative Applications in the Social Sciences, vol. 9. Beverly Hills, CA: Sage Publications.
- Oswalt, John N. 1986. *The book of Isaiah: Chapters 1-39*. Grand Rapids, MI: Eerdmans Publishing Company.
- Patterson, Ben. 2005. The goodness of sex and the glory of God. In *Sex and the supremacy of Christ*, ed. Piper, John and Justin Taylor, 47-61. Wheaton, IL: Crossway Books.
- Pallant, Julie. 2001. *SPSS survival manual: A step by step guide to data analysis using SPSS for Window (Versions 10 and 11)*. Philadelphia, PA: Open University Press.
- Papillo, James F., and David Shapiro. 1990. The cardiovascular system. In *Principles of psychophysiology: Physical, social, and inferential elements*, ed. John T. Cocioppo and Louis G. Tassinary, 456-512. New York, NY: Cambridge University Press.
- Patsch, Hermann. 1990. ἀνάμνησις. In *Exegetical Dictionary of the New Testament*, ed. Horst Balz and Gerhard Schneider, 85-86. Grand Rapids, MI: William B. Eerdmans Publishing Co..
- Pedersen, J. 1954. *Israel, its life and culture*, Vol 1. London: Oxford University Press.
- Piper, John. 2005. Sex and the supremacy of Christ: Part one. In *Sex and the supremacy of Christ*, ed. John Piper, and Justin Taylor, 25-35. Wheaton, IL: Crossway Books.
- Philippot, Pierre, and Alexandre Schaefer. 2001. Emotion and memory. In *Emotions: Current Issues and Future Directions*, ed. Tracy J. Mayne and George A. Bonanno, 82-122. New York, NY: The Guilford Press.
- Porges, Stephen W., and Michael G.H. Coles. 1976. *Psychophysiology*. Stroudsburg, PA: Dowden, Hutchinson, & Ross.
- Preuss, H.D. 2004. פֶּשַׁח. In *Theological dictionary of the Old Testament*, ed. G. Johannes Botterweck, Helmer Ringgren, Heinz-Josef Fabry, 14:671-677.

Translated by Douglas W. Stott. Grand Rapids, MI: William B. Eerdmans Publishing Co.

- Reymond, Robert L. 1987. Lord's Day observance: Man's proper response to the fourth commandment. *Presbyterion: Covenant Seminary Review* 13 (1): 7-23.
- Ricoeur, Paul. 2004. *Memory, history, forgetting and time and narrative*. Translated by Kathleen Blamey and David Pellauer. Chicago, IL: University of Chicago Press.
- Ringgren, Helmer. 1999. זָכַר. In *Theological dictionary of the Old Testament*. Edited by G. Johannes Botterweck, Helmer Ringgren, Heinz-Josef Fabry. Translated by Douglas W. Scott Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Salkind, Neil J. 2004. *Statistics for people who (think they) hate statistics*. Thousand Oaks, CA: Sage Publications.
- Schacter, Daniel L., Anthony D. Wagner, and Randy L. Buckner. 2000. Memory systems of 1999. In *The Oxford handbook of memory*, ed. Tulving, Endel and Fergus I.M. Craik, 627-48. New York, NY: Oxford University Press.
- Schachter, Stanley, and Jerome E. Singer. 1962. Cognitive, social and physiological determinants of emotional state. *Psychological Review* 69 (5): 379-99.
- Schooler, Jonathan W., and Eric Eich. 2000. Memory for emotional events. In *The Oxford Handbook of Memory*, eds. Endel Tulving, and Fergus I.M. Craik, 379-92. New York, NY: Oxford University Press.
- Schottroff, W. 1997. זָכַר. In *Theological lexicon of the Old Testament*. Edited by Ernst Jenni and Claus Westermann. Translated by Mark E. Biddle. Peabody, MA: Hendrickson.
- Schulz, Oliver. 2004. An exegetical study of the husband-wife relationship in Ephesians 5:21-33. Th.M. thesis, The Master's Seminary.
- Schwartz, Gary E. 1986. Emotions and psychophysiological organization: A systems approach. In *Psychophysiology: Systems, processes, and applications*, ed. Michael G. H. Coles, Emanuel Donchin, and Stephen W. Porges, 354-77. New York, NY: The Guilford Press.
- Schwartz, Gary E., Daniel A. Weinberger, and Jefferson A. Singer. 1981. Cardiovascular differentiation of happiness, sadness, anger and fear following imagery and exercise. *Psychosomatic Medicine* 43 (4): 343-64.
- Shaw, Luci. 1987. The God who mixes his metaphors. *Crux* 23 (4): 2-4.
- Siddle, David A. T., and Ottmar V. Lipp. 1995. Review of *Sweat glands: Windows to mind and reflections of emotion*. Ed. Jean-Claude Roy, Wolfram Boucsein, Don C. Fowles, and John H. Gruzelier. *Contemporary Psychology* 40 (12): 1155-56.
- Siegel, Daniel J. 1999. *The developing mind: How relationships and the brain interact*. New York, NY: The Guilford Press.
- Simpson, William C., Jr. 1998. Our Jewish heritage: Sabbath as a symbol of the unseen. *The Living Pulpit* 7 (2): 12-13.

- Singer, Aaron. 1990. Jewish religious symbolism: Purpose and abuse. *Dialogue and Alliance* 4 (1): 35-47.
- Singer, Jefferson A. 2004. A love story: Self-defining memories in couple therapy. In *Healing plots: The narrative basis of psychotherapy*, ed. Lieblich, Amia, Dan P. McAdams, and Ruthellen Josselson, 189-208. Washington, DC: American Psychological Association.
- Smith, Gallo. 1999. Hostility and cardiovascular reactivity during marital interaction. *Psychosomatic Medicine* 61: 436-45.
- Smith, T.W., L.C. Gallo, L. Goble, L.Q. Ngu, and K.A. Stark. 1998. Agency, communion, and cardiovascular reactivity during marital interaction. *Health Psychology* 17: 1042.
- Smith, Gordon T. 2005. *A holy meal: The Lord's supper in the life of the church*. Grand Rapids, MI: Baker Academic.
- Sroufe, L. Alan. 1996. *Emotional development: The organization of emotional life in the early years*. New York, NY: Cambridge University Press.
- Stein, Robert. 1996. *Jesus the Messiah – A survey of the life of Christ*. Downers Grove, IL: InterVarsity Press.
- Stern, Robert M., William J. Ray, and Karen S. Quigley. 2001. *Psychophysiological recording*. 2nd ed. New York, NY: Oxford University Press.
- Stevens, J. 1996. *Applied multivariate statistics for social sciences*. 3rd ed. Mahwah, NJ: Lawrence Erlbaum.
- Streib, Heinz. 1991. *Hermeneutics of metaphor, symbol and narrative in faith development theory*. New York, NY: Peter Lang.
- Tarwater, John K. 2006. Marriage as covenant: Considering God's design at creation and the contemporary moral consequences. Lanham, MD: University Press of America.
- Tulving, Endel, and Fergus I.M. Craik, eds. 2000. *The Oxford handbook of memory*. New York, NY: Oxford University Press.
- vanLeewen, C. 1997. **עֵר**. In *Theological lexicon of the Old Testament*, vol II, ed. Ernst Jenni and Claus Westermann, 838-46. Translated by Mark E. Biddle. Peabody, MA: Hendrickson.
- Vischer, Georg H. 1977. The Eucharist - Ritual and reality. *Andover Newton Quarterly* 17 (3): 201-12.
- Wagner, Hugh L., ed. 1988. *Social psychophysiology and emotion: Theory and clinical applications*. Chichester: John Wiley & Sons.
- Wagner, Hugh L., and Rachel M. Calam. 1988. Interpersonal psychophysiology and the study of family. In *Social psychophysiology and emotion: Theory and clinical applications*, ed. Hugh L. Wagner, 211-29. Chichester: John Wiley & Sons.

- Wagner, S. 1997. גִּזְפֵּת. In *Theological dictionary of the Old Testament*. Edited by G. Johannes Botterweck, Helmer Ringgren, Heinz-Josef Fabry. Translated by Douglas W. Scott. Grand Rapids, MI: William B. Eerdmans Publishing Co.
- Whitehouse, Harvey. 2004. Rites of terror: Emotion, metaphor, and memory in Melanesian initiation cults. In *Religion and Emotion*, ed. John Corrigan, 133-48. Oxford: Oxford University Press.
- Ziff, Joel D. 1983. Shabbat as therapy: Psychosynthesis and Shabbat ritual. *Journal of Psychology and Judaism* 7 (2): 118-34.

ABSTRACT

AN EMPIRICAL EXPLORATION OF THE USE OF NARRATIVE, SYMBOL, AND RITUAL IN CREATING CHRISTIAN MARITAL MEMORIALS

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Among other images, Scripture uses marriage as a picture of God's relationship to his people. Scripture also prescribes numerous ways for that people to build their relationship with him. In order to give Christian marriages as many tools as possible for bolstering of the relationship, this dissertation examines narrative, symbol, ritual, and memorials as a selection of Scripture's methods for "heart writing" or relationship building. These methods correspond to various uses of the Hebrew root זָכַר, for "remember."

Following the examination of Scripture's methods of "heart writing" through the use of narrative, symbol, and ritual, contemporary understandings of the physiological and neurological underpinnings for the deep internalization of relationship.

The ideas presented in the first two chapters were explored in an empirical study which found that couples who utilize more narrative, symbols, rituals, and memorials in their marriages tend to also see their marriages as more sacred and experience the manifestation of God within the marriage. Groups were also compared on levels of physiological responsiveness (skin conductance, skin temperature, and interbeat interval) as a measure of emotional engagement during an interview that lead couples in discussion of narratives, symbols, and rituals in their marriages. Husbands in marriages that utilized few narratives, symbols, and rituals were the least emotionally responsive

during the interview while wives in the same type of marriage were the most emotionally responsive.

This dissertation concludes by translating some of the principles discovered into various methods of writing the marital relationship on the hearts of the individuals to build Christian marriages.

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Teaching Assistant, The Southern Baptist Theological Seminary, 2001-2002
Garret Fellow, The Southern Baptist Theological Seminary, 2002-2004
Instructor of Psychology, Boyce College, Louisville, KY, 2004
Senior Research Assistant, The Southern Baptist Theological Seminary, Louisville, KY, 2002-2005
Reformational Counseling Diplomate and Approved Supervisor, The Southern Baptist Theological Seminary, Louisville, KY, 2004-2006

ORGANIZATIONAL

Christian Association for Psychological Studies
American Association of Christian Counselors
Society for Christian Psychology