

*Affect in Intimate
Relationships*

*The Developmental
Course of Marriage*

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I. INTRODUCTION

The cardinal role that social relationships play in emotional development has been well established. Not only does social interaction serve to strengthen and refine links between feelings and environmental events early in life (deRivera, 1984), social interactions contribute importantly to the development of attachment (Ainsworth, 1982; Bowlby, 1973) and the acquisition of emotional knowledge (Shaver, 1984). Although the developmental course of social and emotional links in later stages of life has received far less attention, it is clear that the inextricable association between emotion and social contact never ceases. In all likelihood, emotional experience within the context of social relationships influences virtually all domains of human experience throughout the human life span.

In this chapter, we explore the role of emotion expression and experience within the context of intimate relationships in adulthood and old age. We focus on the marital relationship because in Western cultures it is the closest and most enduring relationship most adults experience. Over 95% of people in America marry at some point in their lives, and after 20 years more than half of these marriages are still intact; in cases of divorce, remarriage within two to three years is typical (U.S. Bureau of the Census, 1992b). Marriage also serves as a rite of passage that signals entry into adulthood and marks the beginning of a developmental path on which other emotionally charged life events, such as parenthood and widowhood, are likely to follow. Thus, the marital relationship serves as a principal context for emotional experiences and life events.

In the following pages, we argue that relationships characterized by heavy emotional investment have broad implications for individuals' mental and physical health. Next, we characterize at a more microscopic level emotional exchanges between husbands and wives at different points in the life cycle. And finally, we offer the beginnings of a theoretical framework within which to consider the developmental course of emotional experience during the second half of life.

II. LINKS AMONG MARRIAGE, EMOTION, AND HEALTH

Marriage in modern times is expected to serve as a principal resource for emotional support. Most married people count their spouses among the small circle of intimates who comprise the social convoy that accompanies them through life (Antonucci & Jackson, 1987). As people age, spouses exert direct and indirect influences on access to emotional closeness. In old age, for example, as the overall social network narrows, the spousal relationship comes to occupy an ever larger proportion of this social resource. Spouses contribute to the overall size of their partners' social networks, above and beyond their own presence, by introducing their own close friends and relatives to one another, thus expanding each other's social networks with social partners who might not otherwise be available (Lang & Carstensen, 1994).

In recent years a compelling case has been made for the link between social support and physical health. Married people are in better physical and mental health than their single counterparts (B. Hess & Soldo, 1985). At one level, support from a spouse or child can reduce high-risk health behaviors, such as alcohol consumption, smoking, and drug use (Costello, 1991). But even controlling for health practices and socioeconomic status, the increased presence of emotional confidants—which is clearly

associated with marital status—predicts lower morbidity and lower mortality (Berkman & Syme, 1979; Blazer, 1982; Breslow & Engstrom, 1980).

The manner in which social relationships influence physical health remains elusive, however, and the health benefits of marriage require two important qualifiers related importantly to emotion: First, whereas married men appear to be healthier than single men irrespective of marital satisfaction, wives derive health benefits only when the marriage is happy (B. Hess & Soldo, 1985; Levenson, Carstensen, & Gottman, 1993), an issue to which we return later in this chapter. Second, the double-edged sword of emotional closeness is evident in marriage. When relationships are unhappy, the intimacy of marriage places spouses at risk for a number of deleterious outcomes. Unhappy marriages can entail physical violence, mental abuse (Markman, Renick, Floyd, & Stanley, 1993), and even murder (Tariq & Anila, 1993). Unhappy marriages are also strongly implicated in clinical depression. Among couples who seek marital therapy, half involve a depressed spouse (Beach, Jouriles, & O'Leary, 1985), and half of all women who seek treatment for depression report serious marital problems (Rounsaville, Weissman, Prusoff, & Herceg-Baron, 1979). Interestingly, the consequences of being in a good marriage are not all positive; when one spouse is depressed, the degree to which the couple is emotionally close is a risk factor for the other spouse also becoming depressed (Tower & Kasl, 1995).

III. THE DEVELOPMENTAL COURSE OF MARRIAGE

Most of the literature on marriage has focused on marital interaction and marital quality in relatively young couples (Krokoff, 1987) with the principle aim of identifying qualities in marriages that predict divorce (Gottman, 1993, 1994; Gottman & Levenson, 1992). When later stages of marriage have been studied, the emphasis most often has been on the influence that marital satisfaction has on other life domains, such as the extent to which happy marriages are associated with positive adjustment of offspring or productivity in the workplace. The bulk of the research on parenting, for example, examines the influence that parents have on their childrens' development as opposed to the influence that having children has on parental development (Seltzer & Ryff, 1994). Relatively little attention has been paid to potential changes in marital dynamics over time, as spouses come to know one another increasingly better, experience personal crises, pursue individual work trajectories, resolve identity issues, and coordinate their life goals. Subsequently, the nature of marriage as it unfolds across adulthood remains relatively uncharted ter-

ritory. In this section, we briefly overview research findings that speak directly or indirectly to the developmental course of marriage.

The earliest empirical assessments of marital *satisfaction* over time suggest that satisfaction is highest among newlyweds and proceeds to decline steadily during the ensuing years (Blood & Wolfe, 1960; Pineo, 1961, 1969; White & Booth, 1985). More recent research also suggests that passionate love declines during the early years of marriage and after major life events such as childbirth (P. Tucker & Aaron, 1993). Studies of long-term marriages paint a more optimistic picture suggesting that although satisfaction with marriage does indeed decline during the first twenty years, it increases again in the later years (Burr, 1970; Guilford & Bengtson, 1979; Rollins & Cannon, 1974; Rollins & Feldman, 1970). One important longitudinal study of marriage, which asked spouses to describe both positive and negative aspects of their relationships, suggested that negative sentiment (e.g., disagreements about important issues, anger, and criticism) declines linearly over time, whereas positive interactions (e.g., laughing together, exchanging interesting ideas, etc.) follow a curvilinear pattern, reaching high points early and late in marriage (Guilford & Bengtson, 1979). Studies of marriage in old age, based on questionnaire and interview data, suggest that marriages that survive into the twilight years are often satisfying and emotionally close (Erikson, Erikson, & Kivnick, 1986; Levenson et al., 1993; Stinnett, Carter, & Montgomery, 1972).

There is emerging consensus in the literature that the reliable decline in satisfaction during the early years of marriage is associated, at least indirectly, with parenting. On average, the transition to parenthood holds negative consequences for marriage (Belsky & Pensky, 1988; Burr, 1970; P. Cowan & Cowan, 1988; C. Cowan et al., 1985; Rollins & Cannon, 1974). Although a significant minority of new parents report improved marital functioning following the birth of a child, most couples report a reduction in marital satisfaction (Belsky & Rovine, 1990; P. Cowan & Cowan, 1988) characterized by an increase in marital conflicts and a decrease in shared positive experiences (P. Cowan & Cowan, 1988). Both husbands and wives experience this drop in marital satisfaction. Wives, however, tend to feel the impact sooner. For wives the decline is experienced most strongly during the first six months after the birth of a child, whereas husbands experience a decline in marital satisfaction the following year (C. Cowan & Cowan, 1992).

Although social scientists initially attributed dissatisfaction to the demands of child rearing itself, the drop in marital satisfaction appears to be related more directly to the exacerbation of gender roles commonly experienced during the transition to parenthood (P. Cowan & Cowan,

1988) and from the challenge to parents to develop a coordinated approach to child rearing (Gable, Belsky, & Crnic, 1992). The division of labor appears to be particularly central to marital conflicts during this life stage (C. Cowan & Cowan, 1992). Most studies suggest that even with an increase in paternal involvement in child rearing observed over recent years, a disproportionate burden of parenting continues to be placed on wives, even in relationships that were previously equitable (C. Cowan & Cowan, 1992; Levant, Slattery, & Loiselle, 1987). Dissatisfaction is greatest when husbands' actual involvement in parenting is less than wives' expected it would be (Belsky, Ward, & Rovine, 1986; Garrett, 1983).

Marital satisfaction does not improve significantly until children leave home (Troll, 1985). However, as children grow older, child-related factors that influence marital satisfaction appear to change from issues related to the division of labor to qualitative aspects of parent-child relationships and parents' involvement in other life domains. Marital satisfaction in parents of adolescents, for example, is influenced by parental self-esteem and attitudes toward their own aging as well as characteristics of the teenager and the degree of closeness between parents and children (Steinberg & Silverberg, 1987). Parents who are highly work-oriented generally experience improvement in mental health as their children reach adolescence, whereas parents who are less work-oriented experience declines (Silverberg & Steinberg, 1990). Parenting of adolescents often co-occurs with the period in life that adults provide care to their aging parents. However, to the best of our knowledge, the potential influence of this additional external stressor on marital satisfaction has not been addressed in the marital or developmental literatures (see also George & Gold, 1991).

Despite the apparent challenge that children present to couples' satisfaction with their relationships, the effects of children on their parents' marriages are not uniformly negative. This becomes especially evident when one views parenting from a life course perspective. In retrospective accounts of marriages that had lasted for more than 50 years, the child-bearing years were viewed as both the most satisfying and least satisfying periods of marriages; and in old age, the presence of adult children is strongly predictive of emotional well-being (Lang & Carstensen, 1994). In our own research, children represent the greatest source of marital conflict among middle-aged couples but become the greatest source of pleasure older couples share (Levenson et al., 1993).

The effects of retirement on long-term relationships remain equivocal. Some studies show a positive effect of retirement on marriage, especially among middle- and upper-middle class couples who are in good health (Atchley, 1976), whereas other studies have documented negative

effects of retirement on marital satisfaction, particularly on wives (Johnston, 1990; Lee & Shehan, 1989). Ekerdt and Vinick (1991) found that spouses adjusting to the retirement of their partners complained no more or less about their marriages than their nonretired counterparts. It is hard to imagine that a change as profound as retirement has no effect on the day-to-day lives of married couples, and couples who face retirement do report that they anticipate both positive and negative effects of the transition (Vinick & Ekerdt, 1991). However, the profile of findings in this literature suggests that the resiliency and continuity of long-term marriages probably precludes dramatic effects on the quality of the relationship.

The illness and eventual death of a spouse are also associated with marriage in the later years. The process and experience of widowhood can be emotionally devastating for husbands and wives. Gender, once again, makes a difference. Both caregiving and widowhood are far more common experiences for women than men. Men's shorter life expectancy, combined with the societal practice of women marrying older men, places women at greater risk for assuming the caregiver role and eventually becoming widowed. By the age of 84, 62% of women but only 20% of men have lost spouses due to death (U.S. Bureau of the Census, 1992a).

The enormous burden of caregiving within the societal constraints imposed by the American health-care system is evidenced by the fact that 50% of caregivers become clinically depressed (Gallagher, Rose, Rivera, & Lovett, 1989). When a husband becomes ill, his wife typically assumes the primary caregiver role; when a wife becomes ill other female relatives are more likely to assume primary caregiving roles (Carstensen & Pasupathi, 1993). Moreover, when husbands do become caregivers, they are more likely than wives to receive assistance from other relatives and friends or to hire professional help (Zarit, Orr, & Zarit, 1982). Women, in contrast, are often reluctant to seek any help at all (Zarit et al., 1982). Subsequently, caregiving is typically more stressful for women than men (Barusch & Spaid, 1989).

Widowhood itself, however, appears to be particularly stressful for men. Among men, but not among women, widowhood is associated with increased mortality risk (Helsing, 1981; Longino & Lipman, 1981). Men are also four times more likely than women to remarry after the death of a spouse (Carstensen & Pasupathi, 1993). One can only speculate about the reasons for these gender differences in the experience of widowhood. One possibility involves emotional support. Married men are more likely to rely on their partner as their sole confidant, whereas women are more likely to have same-sex confidants outside of marriage (Komarovsky, 1976; Vaux, 1985). Because women have more emotional confidants than men,

the death of a spouse is less likely to result in the loss of their entire emotional support network.

In addition, although widowhood is obviously negatively valenced for both women and men, for women in the current cohort of elderly people, it is also frequently associated with a newfound sense of autonomy and competence as women take over roles previously assumed by their husbands (e.g., managing finances) (George, 1981). Of course, practical issues also limit remarriage among older women, given the fewer available mates.

In closing, the literature suggests that the emotional climate of marriage changes across adulthood. The best documented change includes a general trend toward declining marital satisfaction following the birth of a child, which persists until children leave home. The normative developmental path along which couples become parents, "launch" children into the world, and return to a primarily dyadic unit inevitably entails emotionally taxing times. The experience of conflicts within marital relationships is arguably unavoidable. In the next section we review a literature that suggests that the ways in which couples resolve emotionally charged issues is centrally involved in the maintenance of satisfying, intimate relationships.

IV. THE EXPRESSION AND EXPERIENCE OF EMOTION IN MARRIAGE

A considerable literature on emotion expression and experience within the context of marriage provides ample evidence that the nature of emotional exchanges between spouses is related to marital satisfaction and marital dissolution (Gottman & Levenson, 1992; Levenson & Gottman, 1985; Storaasli & Markman, 1990). As noted above, the vast majority of the research on marriage has targeted relatively young couples. In this section, we briefly overview central findings from this literature and then compare and contrast these findings with those from an observational study of middle-aged and older couples that we have conducted over the last several years (Carstensen, Levenson, & Gottman, 1995; Levenson et al., 1993; Levenson, Carstensen, & Gottman, 1994).

For most people, the marital relationship entails the highest emotional highs and the lowest emotional lows experienced in adult life. Over the years couples share extremely intimate moments, marked by joy, hope, pride, feelings of accomplishment, and empathy. Yet the very intimacy that links two people also lays the groundwork for feelings of deep resentment, sadness, jealousy, and anger. Couples clearly differ along quantita-

tive and qualitative dimensions in the degree to which they experience positive and negative emotions in their marriages as well as the strategies they enlist to cope with relationship conflicts. Most couples develop characteristic styles of dealing with conflict, from tacit agreements to avoid discussions of conflicts to the frequent and open airing of hostilities (Gottman, 1993). Because spouses' emotional well-being is so clearly linked to one another, in order for marriages to remain happy, a style must evolve that allows both partners to achieve satisfactory resolution of conflict. Indeed, couples' success in resolving negative issues in relationships predicts marital outcomes better than the frequency with which they share positive emotional experiences (Markman, 1992), and interventions that improve couples' effectiveness in resolving conflicts have been shown to strengthen troubled marriages (Jacobson & Addis, 1993).

The ability to handle emotional conflict in marriage relies, to a great extent, on the ability to deal simultaneously with one's own negative affect and the negative affect expressed by a partner (Markman, 1991). Issues that arouse strong feelings in both partners are very difficult to resolve when spouses rely on different coping strategies. For example, a particularly dissatisfying pattern occurs when one partner strives to resolve a conflict and the other partner withdraws in response to the negative emotions expressed by the first partner (Christensen & Heavey, 1990).

Discussions of relationship conflict clearly distinguish distressed from nondistressed couples. Compared to their happily married counterparts, unhappily married couples express more negative affect, are more likely to reciprocate negative affect expressed by their spouse and show greater physiological linkage to one another during a discussion of conflict (Levenson & Gottman, 1983). In addition, unhappily married couples tend to show a pattern in which one partner makes demands while the other partner withdraws (Christensen & Heavey, 1990; Levenson & Gottman, 1983).

Styles of conflict resolution are associated with gender. In general, men display attempts to end conflict discussions either through conciliation or withdrawal. Women, in contrast, are more likely to push toward resolution of conflicts. Gottman and Levenson (1992) attribute this male tendency to disengage verbally and emotionally, which they refer to as "stonewalling," to the relative intolerance of men for the physiological arousal that accompanies negative emotions. Christiansen and Heavey (1990) view the same pattern as a more general "demand/withdrawal" dynamic of interpersonal interaction. They argue that, regardless of gender, a person who desires change will make demands and a person who is being asked to change will withdraw. According to their view, the pattern becomes gendered because social structural factors that place women in subservient positions to men lead women to desire change more than

men. In an experiment in which two conflictual topics were discussed, one in which wives wanted change and one in which husbands wanted change, they obtained partial support for their hypothesis. Wives showed more withdrawal behavior when their husbands asked for change and vice versa. Nevertheless, husbands remained more withdrawing and wives more demanding. Interestingly, Heavey, Layne, and Christensen (1993) observed that when husbands do make demands and wives withdraw, marital satisfaction increases over time. They speculated that wives interpret husbands' demands as evidence of interest in the relationship and/or a willingness to break out of stereotyped gender roles in the service of improving marital relations (Heavey et al., 1993). It is also possible that a reversal of prototypical roles provides husbands and wives a way to soothe their partners. That is, when wives remove themselves from conflict discussions, they release their husbands from unpleasant feelings associated with conflictual interactions. When husbands push for conflict resolution, it suggests to their wives that they are invested in the relationship. Levenson and Gottman (1985) reported a similar pattern in predictors of future marital satisfaction. The greatest improvement in marital satisfaction over a 3-year period was found when husbands' negative affect was not reciprocated by their wives, and when wives' negative affect was reciprocated by their husbands.

As noted above, the vast majority of observational research on marriage has focused on relatively young couples. Several years ago three of us embarked on an observational study of middle-aged and older couples in order to see whether happy and unhappy couples who had been married for many years would show similar patterns as the younger couples described in the literature. Although it appeared from questionnaire research that marital satisfaction increases in old age, there was virtually no information on age differences in the dynamics of emotional exchange.

We anticipated that there might be differences in emotional interactions between older and younger couples for three primary reasons. One, there is some evidence in the literature that, with age, gendered roles soften (Hyde & Phillis, 1979) or even reverse (Guttman, 1987). Because gendered patterns appear to underlie much marital conflict, a lessening of these roles could result in improved communication patterns between husbands and wives. Second, there is some suggestion in the literature that emotional understanding (Labouvie-Vief & DeVoe, 1991) and emotional regulation improve (Lawton, Kleban, Rajagopal, & Dean, 1992) and become more salient with age (Carstensen & Turk-Charles, 1994; Fredrickson & Carstensen, 1990). If so, there should be evidence of such improvement in the interactional dynamics of married couples. Third, although the subjective experience of specific emotions (Levenson, Carstensen,

Friesen, & Ekman, 1991; Malatesta & Kalnok, 1984) and the configuration of autonomic changes that accompanies basic emotions (Levenson et al., 1991) appear to remain unchanged with age, the magnitude of the associated physiological arousal appears to be somewhat reduced (Levenson, et al., 1991). We reasoned that such a reduction could reduce the toxicity of conflict discussions and facilitate conflict resolution.

In order to ensure that we were not studying exclusively happy couples, we actively recruited four subsamples of couples: unhappily married middle-aged couples, happily married middle-aged couples, unhappily married older couples, and happily married older couples (see Levenson et al., 1993 for a full description of sampling procedures). The experimental paradigm we used was identical to that used in Levenson and Gottman's (1983) research with younger couples. Following an initial telephone and mail screening which ensured appropriate cell assignment, couples arrived at the laboratory after an 8-hour period of separation. They were asked to engage in three conversations with one another while their behavior was videotaped and their physiological activity was recorded.

The three conversations included a discussion of the events of the day, a discussion of a conflict that was a source of continuing disagreement in their marriage; and a discussion of a mutually agreed upon pleasant topic. Each conversation lasted for 15 minutes, preceded by a 5-min silent period. For the events of the day conversation, couples were asked simply to discuss events that had happened during the day. Prior to initiating the problem area discussion, couples completed the Couple's Problem Inventory (Gottman, Markman, & Notarius, 1977) on which they rated the perceived severity of several marital issues. Prior to initiating the pleasant topic discussion, they completed a similar inventory, in which they rated the enjoyment derived from pleasant aspects of their relationships. An interviewer used these inventories to help couples select topics for conversations.

A day or two later, spouses returned separately to the laboratory to view the video recording of their interaction and provide a continuous report of their subjective affective experience during the interactions. This was accomplished by having spouses adjust a rating dial while they watched the videotape, which was anchored at one end by "extremely negative" and at the other end by "extremely positive" in order to indicate the degree of positivity or negativity they had experienced during the interaction.

Ratings of problem severity and enjoyment of pleasant events were analyzed. Videotapes were scored using the Specific Affect Coding System (Gottman & Krokoff, 1989) such that specific emotional behaviors

expressed by spouses when they were speaking and listening could be quantified. Physiological activity as well as associated subjective states were also assessed.

As noted above, we were most interested in age and gender differences displayed by couples who had been married for many years. Because conflict resolution is so informative of younger couples' marriages, we were especially interested in potential age differences in the conflict arena.

Ratings of problems and pleasant topics suggested that older couples' conflicts were less severe than middle-aged couples' conflicts and centered around different issues (Levenson et al., 1993). Middle-aged couples disagreed more than older couples about children, money, religion, and recreation. None of the ten topics assessed were more conflictual for older couples than for middle-aged couples. Moreover, older couples derived more pleasure than middle-aged couples from four sources: talking about children and grandchildren, doing things together, dreams, and vacations. None of the topics assessed were more pleasurable for middle-aged couples than for older couples. Thus, it appears that older couples not only experience less conflict in their marriages, they also experience more pleasure.

There was direct evidence for improved emotion regulation in the observational data. Older couples, compared to middle-aged couples, expressed lower levels of anger, disgust, belligerence, and whining and higher levels of one important emotion, namely affection. This pattern of results holds even after controlling statistically for the severity of the problem discussed. Interestingly, the pattern is consistent with Guilford and Bengtson's (1979) longitudinal evidence for increasing positivity and decreasing negativity in marriage in late life.

By and large, we did not find evidence for a softening of gendered roles suggested in the literature. Older couples displayed the same gendered patterns as the middle-aged couples in our study and younger couples studied previously. Wives expressed more emotion, both positive and negative, than their husbands. Husbands displayed more stonewalling than wives.

However, there was one intriguing gender difference that offers a potential explanation for the apparent differences in health benefits marriage provides for husbands and wives. Recall that husbands appear to derive health benefits from marriage independent of marital quality, whereas wives derive health benefits only from happy marriages (Hess & Soldo, 1985). In our study as well unhappily married women were in poorer health than their happily married counterparts (Levenson et al., 1993). Recall also that Gottman and Levenson (1988) argue that stone-

walling is due to the relative intolerance males have for the physiological arousal associated with negative emotions. Measures used in this study allowed us to examine the relationship between actual levels of physiological arousal and subjective distress (Levenson et al., 1994). We found significant correlations among six of the seven physiological indices and subjective distress in husbands. None of the physiological measures correlated significantly with subjective distress indicated by wives. In short, although mens' subjective distress was consistent with their level of physiological arousal, womens' was not.

Levenson et al. (1994) argue that this gender difference may account for the different effects bad marriages appear to have on women and men. Mens' sensitivity to physiological arousal may provide an internal "alarm system" that signals the need to reduce stimulation and produce the consequent withdrawal that is manifest as stonewalling behavior. Women, who are perhaps less aware of such signals, may persist in interactions characterized by extended periods of autonomic nervous system arousal. This persistence may be particularly distressing for women if their partner appears to be "sitting it out." Over the course of many years, these frequent unmitigated bouts of heightened physiological arousal on the part of women may contribute to the increase in physical symptoms experienced by unhappily married wives. In contrast, the withdrawal behavior on the part of men may be protective, thus accounting for the relative lack of negative impact of marital unhappiness on husbands' health.

Finally, the generalizability of these findings must be tested. Whereas there is considerable reliability of the findings we reported for younger couples, observational analysis of older couples' emotional patterns is limited largely to the study we described. Moreover, the vast majority of research on marriage—including ours—has focused predominantly on white, middle-class, and Judeo-Christian samples. We simply do not know the extent to which current research represents the experiences of minority couples. Clearly, regulatory styles are influenced by "emotion cultures" (Thompson, 1994). The extent to which subcultures vary in terms of the nature of intimate relationships very likely influences the degree to which our findings also characterize minority marriages. Examination of the relatively sparse literature on marriages among minorities in the United States suggests that there are important similarities to majority groups. Marital satisfaction, for example, is similar for African-American and Anglo couples (Tucker, Taylor, & Mitchell-Kernan, 1993) and spousal social support is similar for American and South Asian samples (Venkatraman, 1995). At the same time, however, differences have been reported that implicate conflict resolution styles. African-American couples describe both more positive and more negative aspects of marriage than An-

glo couples (Oggins, Veroff, & Leber, 1993). Compared to Anglo couples, they also report more withdrawal from conflictual interactions (Oggins et al., 1993). The finding that African-American couples report that they are more likely than Anglo couples to withdraw from conflict, but fail to show lesser marital satisfaction suggests that interactions may be interpreted differently by different subgroups.

To recapitulate, the literature on emotional exchanges among married couples suggests that the manner in which couples resolve emotionally charged conflicts predicts marital satisfaction throughout adulthood. Spousal satisfaction with their marriages, even those that have lasted for decades, is related to the ways in which negative emotions are expressed and reciprocated. Emotional exchanges characterized by the expression of higher levels of negative than positive affect and the expression of high levels of specific affects, like contempt and disgust, are associated with unhappy marriages across the adult life span. There is also evidence for the consistency of gender differences across adulthood, characterized by emotional expressiveness and engagement on the part of females and relative inexpressiveness and withdrawal among males. These gendered patterns may relate importantly to physical health. Thus, there appears to be considerable consistency in interactional dynamics among married couples across adulthood.

Those age differences that were observed were quite positive. Although there are, of course, unhappy marriages in old age, by and large, couples that survive into the later years appear to derive from them more pleasure and less distress. At the interactive level it appears that older couples interweave expressions of affection into discussions of conflicts, which may serve an important emotional regulatory function. The extent to which these patterns are culture-bound remains to be seen.

V. A THEORETICAL FRAMEWORK FOR EMOTIONAL DEVELOPMENT AND INTIMACY IN ADULTHOOD

A consideration of emotional development within a life span perspective is only starting to take shape within the social sciences. The beginning of this line of research suggests that emotion may represent one psychological domain that is largely spared from the deleterious effects of the aging process. Certainly, early notions about emotional quiescence and disengagement in later life have not held up to empirical test (Carstensen, 1987; Malatesta & Izard, 1984). The integrity of the basic emotion system appears to be maintained. Older people experience emotions subjectively at levels of intensity comparable to younger adults

(Levenson, et al., 1991; Malatesta & Kalnok, 1984) and physiological signatures associated with specific emotions are also maintained into old age, even though the overall level of arousal is somewhat reduced (Levenson et al., 1991). Moreover, by self-report, older adults control their emotions better than young adults (Lawton et al., 1992) and show improved emotional understanding (Labouvie-Vief, DeVoe, & Bulka, 1989). The research we have reviewed herein on emotional intimacy in adulthood contributes to this relatively glowing picture.

Why might emotional functioning maintain or improve across the life course when functioning in other psychological arenas shows simultaneous decline? First, although cognitive processing of new information shows definite deterioration with age, knowledge-based performance is generally unaffected (Hess, 1994); that is, access to experience-based knowledge—also referred to as crystallized intelligence—does not lessen with age. On the contrary, in many people, this store of information about culture, language, people, and so on continues to increase well into very old age (Schaie, 1993). Because emotional functioning draws so heavily on cultivated knowledge structures, especially the regulation of emotional interaction with long-term friends and loved ones, age contributes to expertise. Self-knowledge and knowledge about other people (e.g., intimates) allows better situational control over emotion. Familiarity with thoughts and/or situations that have generated negative emotions in the past can enhance control over similar situations in the future, just as knowledge about topics or situations that have triggered particular emotions in mates can point to ways to improve further discussions.

Second, compared to younger adults, older adults show lower levels of physiological arousal associated with emotion whether emotions are induced via memories (Levenson et al., 1991) or during emotionally charged interactions between spouses (Levenson et al., 1994). The source of this age-related difference in autonomic nervous system arousal is not known. Although it is conceivable that less arousal is a consequence of improved emotion control, more likely it reflects a more generalized depression of the central or autonomic nervous systems that accompanies late-life aging. Regardless of its source, lower levels of arousal may facilitate the regulation of emotion. The absence of a racing heart or sweaty palms may circumvent a positive feedback system whereby emotions are exacerbated and instead allow for calmer, more reasoned consideration of the emotional experience.

Third, according to socioemotional selectivity theory (Carstensen, 1993, 1995)—a life span theory of social motivation—the motivation to seek emotionally meaningful experience and to regulate emotion increases with age. The theory contends that the hierarchy of social motives that instigates social behavior across life is reorganized when people con-

sciously or subconsciously take account of the time that they left in their lives and conclude that time is limited. The recognition of limited time results in a prioritizing of short-term goals over long-term goals. Whereas future-oriented goals center around long-term payoffs, such as information acquisition, present-oriented goals involve current feeling states.

According to the theory, the construal of the future is inextricably associated with place in the life cycle. Early in adulthood, when time is perceived as largely open-ended, future-oriented goals, such as information seeking and self-development, are prioritized over short-term goals, whereas later in adulthood, goals such as self-verification and affect regulation become more salient. Socioemotional selectivity theory does not predict that exclusively positive emotional experience is sought in later adulthood. Rather, it contends that emotionally meaningful goals assume higher priority than goals that are relatively absent emotional meaning. Very likely emotionally rewarding experience involves both negative and positive emotions. Ideally, the experience is managed such that an optimal balance of emotions is achieved.

Analogies can be made between the individual life course and the life course of a relationship. Early in a relationship, when the future is looming large, the resolution of conflicts may be extremely important and adaptive. Even if negative emotions are experienced intensely during conflictual discussion, the potential long-term benefits of resolving conflicts are considerable. As couples move through life, three things happen. First, some conflicts get resolved, either because partners change their behavior or the problems go away. Grown children leaving home, for example, appears to remove one potential source of marital conflict. Second, habituation to old conflicts that have not been resolved may make some conflicts less toxic. Long-standing conflicts, minimally, become more predictable over time. In addition, a conflictual topic raised repeatedly over many decades is unlikely to retain the same threatening quality it had when first raised simply due to the perspective that time and shared history provide.

Third, the motivation to resolve some conflicts may subside over time. Socioemotional selectivity theory suggests that the motivation to regulate the immediate emotional climate of intimate relationships increases in later life. Especially if endings are primed, through the illness of a spouse or even the illness of age mates, couples may attempt increasingly to optimize the emotional climate. It is not that conflicts do not exist in old age; rather, heated debate about certain issues may be viewed as serving little purpose during this penultimate phase of life.

In sum, emotionally close social relationships offer many benefits to older adults. Intimate emotional relationships in later life appear to buffer individuals from mental and physical health problems. The closeness and predictability of long-term relationships provides an important

context for achieving emotionally meaningful experience. It may be within this context that, ideally, people master an art of emotion regulation in which understanding a loved ones' emotions and even soothing that persons' emotions can occur simultaneous to the regulation of one's own emotional state.

REFERENCES

- Ainsworth, M. D. S. (1982). Attachment: Retrospect and prospect. In C. M. Parkes & J. Sevenson-Hinde (Eds.), *The place of attachment in human behavior* (p. 457). New York: Basic Books.
- Antonucci, T. C., & Jackson, J. S. (1987). Social support, interpersonal efficacy, and health: A life course perspective. In L. L. Carstensen & B. A. Edelman (Eds.), *Handbook of clinical gerontology* (pp. 291–311). New York: Pergamon Press.
- Atchley, R. C. (1976). *The sociology of retirement*. Cambridge, MA: Schenkman Publishing.
- Barusch, A. S., & Spaid, W. M. (1989). Gender differences in caregiving: Why do wives report greater burden? *The Gerontologist*, 29, 667–676.
- Beach, S. R. H., Jouriles, E. N., & O'Leary, K. D. (1985). Extramarital sex: Impact on depression and commitment in couples marital therapy. *Journal of Sex and Marital Therapy*, 11, 99–108.
- Belsky, J., Crnic, K., & Gable, S. (1995). The determinants of coparenting in families with toddler boys: Spousal differences and daily hassles. *Child Development*, 66, 629–642.
- Belsky, J., & Pensky, E. (1988). Marital change across the transition to parenthood. *Marriage and Family Review*, 12, 133–156.
- Belsky, J., & Rovine, M. (1990). Patterns of marital change across the transition to parenthood. *Journal of Marriage and the Family*, 52, 109–123.
- Belsky, J., Ward, H., & Rovine, M. (1986). Prenatal expectations, post-natal experiences and the transition to parenthood. In R. Ashmore & D. Brodzinsky (Eds.), *Perspectives on the family* (pp. 119–146). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Berkman, L. F., & Syme, S. L. (1979). Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda County residents. *American Journal of Epidemiology*, 109, 186–204.
- Blazer, D. G. (1982). Social support and mortality in an elderly community population. *American Journal of Epidemiology*, 115, 684–694.
- Blood, R. O., & Wolfe, D. M. (1960). *Husbands and wives: The dynamics of married living*. Glencoe, IL: Free Press.
- Bowlby, J. (1973). Affectional bonds: Their nature and origin. In R. S. Weiss (Ed.), *Loneliness: The experience of emotional and social isolation* (pp. 38–52). Cambridge, MA: MIT Press.
- Breslow, L., & Engstrom, E. (1980). Persistence of health habits and relationship to mortality. *Preventative Medicine*, 9, 469–483.

- Burr, W. R. (1970). Satisfaction with various aspects of marriage over the life cycle. *Journal of Marriage and the Family*, 32, 29–37.
- Carstensen, L. L. (1987). Age-related changes in social activity. In L. L. Carstensen & B. A. Edelstein (Eds.), *Handbook of clinical gerontology* (pp. 222–237). New York: Pergamon Press.
- Carstensen, L. L. (1993). Motivation for social contact across the life span: A theory of socioemotional selectivity. In J. Jacobs (Ed.), *Nebraska symposium on motivation* (pp. 209–254). Lincoln, NE: University of Nebraska Press.
- Carstensen, L. L. (1995). Evidence for a life-span theory of socioemotional selectivity. *Current Directions in Psychological Science*, 4, 151–156.
- Carstensen, L. L., Levenson, R. W., & Gottman, J. M. (1995). Emotional behavior in long-term marriage. *Psychology and Aging*, 10, 140–149.
- Carstensen, L. L., & Pasupathi, M. (1993). Women of a certain age. In S. Matteo (Ed.), *Critical issues facing women in the '90s* (pp. 66–78). Boston: Northeastern University Press.
- Carstensen, L. L., & Turk-Charles, S. (1994). The salience of emotion across the adult life span. *Psychology and Aging*, 9, 259–264.
- Christensen, A., & Heavey, C. L. (1990). Gender and social structure in the demand/withdraw pattern of marital conflict. *Journal of Personality and Social Psychology*, 59, 73–81.
- Costello, E. J. (1991). Married with children: Predictors of mental and physical health in middle-aged women. *Psychiatry*, 54, 292–305.
- Cowan, C. P., & Cowan, P. A. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
- Cowan, C. P., Cowan, P. A., Heming, G., Garrett, E., Coysh, W. S., Curtis-Boles, H., & Boles, A. J. (1985). Transitions to parenthood: His, hers, and theirs. *Journal of Family Issues*, 6(4), 451–481.
- Cowan, P., & Pape-Cowan, C. (1988). Changes in marriage during the transition to parenthood. In G. Y. Michaels & W. A. Goldberg (Eds.), *The transition to parenthood: Current theory and research* (pp. 114–154). Cambridge, UK: Cambridge University Press.
- deRivera, J. (1984). The structure of emotional relationships. In P. Shaver (Ed.), *Review of personality and social psychology: Emotion, relationships, and health* (Vol. 5, pp. 116–145). Beverly Hills, CA: Sage.
- Ekerdt, D. J., & Vinick, B. H. (1991). Marital complaints in husband-working and husband-retired couples. *Research on Aging*, 13, 364–382.
- Erikson, E. H., Erikson, J., & Kivnick, H. (1986). *Vital involvement in old age*. New York: Norton.
- Fredrickson, B. L., & Carstensen, L. L. (1990). Choosing social partners: How age and anticipated endings make people more selective. *Psychology and Aging*, 5, 335–347.
- Gable, S., Belsky, J., & Crnic, K. (1992). Marriage, parenting and child development: Progress and prospects. *Journal of Family Psychology*, 5, 276–294.
- Gallagher, D., Rose, J., Rivera, P., Lovett, S. (1989) Prevalence of depression in family caregivers. *Gerontologist*, 29, 449–456.
- Garrett, E. T. (1983, August). *Women's experiences of early parenthood: Expectation vs.*

- reality. Presented at 91st Annual Convention of the American Psychological Association, Anaheim, CA.
- George, L. (1981). *Role transitions in later life*. Monterey: Wadsworth.
- George, L., & Gold, D. (1991). Life course perspectives on intergenerational and generational connections. *Marriage and Family Review*, 16, 67–88.
- Gottman, J. M. (1993). The roles of conflict engagement, escalation, and avoidance in marital interaction: A longitudinal view of five types of couples. *Journal of Consulting and Clinical Psychology*, 61, 6–15.
- Gottman, J. M. (1994). *What predicts divorce?: The relationship between marital processes and marital outcomes*. Hillsdale, NJ: Lawrence Erlbaum.
- Gottman, J. M., & Krokoff, L. J. (1989). The relationship between marital interaction and marital satisfaction: A longitudinal view. *Journal of Consulting and Clinical Psychology*, 57, 47–52.
- Gottman, J. M., & Levenson, R. W. (1992). Marital processes predictive of later dissolution: Behavior, physiology, and health. *Journal of Personality and Social Psychology*, 63, 221–233.
- Gottman, J. M., & Levenson, R. W. (1988). The social psychophysiology of marriage. In P. Notter & M. A. Fitzpatrick (Eds.), *Perspectives on marital interaction* (pp. 182–200). Cleredon, England: Multilingual Matters, Ltd.
- Gottman, J. M., Markman, H., & Notarius, C. (1977). The topography of marital conflict: A sequential analysis of verbal and nonverbal behavior. *Journal of Marriage and the Family*, 39, 461–477.
- Guilford, R., & Bengtson, V. (1979). Measuring marital satisfaction in three generations: Positive and negative dimensions. *Journal of Marriage and the Family*, 41, 387–398.
- Guttmann, D. (1987). *Reclaimed powers: Toward a new psychology of men and women in later life*. New York: Basic Books.
- Heavey, C. L., Layne, C., Christensen, A. (1993). Gender and conflict structure in marital interaction: A replication and extension. *Journal of Consulting and Clinical Psychology*, 61, 16–27.
- Helsing, K. J. (1981). Factors associated with mortality after widowhood. *American Journal of Public Health*, 71, 802–809.
- Hess, B., & Soldo, B. (1985). Husband and wife networks. In W. J. Sauer & R. T. Coward (Eds.), *Social support networks and the care of the elderly: Theory, research, and practice* (pp. 67–92). New York: Springer.
- Hess, T. M. (1994). Social cognition in adulthood: Aging related changes in knowledge and processing mechanisms. *Developmental Review*, 14, 373–412.
- Hyde, J. S., & Phillis, D. (1979). Androgyny across the life span. *Developmental Psychology*, 15, 334–336.
- Jacobson, N. S., & Addis, M. E. (1993). Research on couples and couples therapy: What do we know? Where are we going? *Journal of Consulting and Clinical Psychology*, 61, 85–93.
- Johnston, T. (1990). Retirement: What happens to marriage. *Issues in Mental Health Nursing*, 11, 347–359.
- Komarovsky, M. (1976). *Dilemmas of masculinity*. New York: W. W. Norton.
- Krokoff, L. J. (1987). Recruiting representative samples for marital research. *Journal of social and personal relationships*, 4, 317–328.

- Labouvie-Vief, G., & DeVoe, M. (1991). Emotional regulation in adulthood and later life: A developmental view. In K. W. Schaie (Ed.), *Annual review of gerontology and geriatrics* (pp. 172–194). New York: Springer.
- Labouvie-Vief, G., DeVoe, M., & Bulka, D. (1989). Speaking about feelings: Conceptions of emotion across the life span. *Psychology and Aging, 4*, 425–437.
- Lang, F. R., & Carstensen, L. L. (1994). Close emotional relationships in late life: Further support for proactive aging in the social domain. *Psychology and Aging, 9*, 315–324.
- Lawton, M. P., Kleban, M. H., Rajagopal, D., & Dean, J. (1992). Dimensions of affective experience in three age groups. *Psychology and Aging, 7*, 171–184.
- Lee, G. R., & Shehan, C. L. (1989). Retirement and marital satisfaction. *Journal of Gerontology, 44*, S226–S230.
- Levant, R. F., Slattery, S. C., & Loiselle, J. E. (1987). Fathers' involvement in housework and child care with school-age daughters. *Family relations: Journal of applied family and child studies, 36*, 152–157.
- Levenson, R. W., Carstensen, L. L., Friesen, W. V., & Ekman, P. (1991). Emotion, physiology, and expression in old age. *Psychology and Aging, 6*, 28–35.
- Levenson, R. W., Carstensen, L. L., & Gottman, J. M. (1993). Long-term marriage: Age, gender, and satisfaction. *Psychology and Aging, 8*, 301–313.
- Levenson, R. W., Carstensen, L. L., & Gottman, J. M. (1994). The influence of age and gender on affect, physiology, and their interrelations: A study of long-term marriage. *Journal of Personality and Social Psychology, 67*, 56–68.
- Levenson, R. W., & Gottman, J. M. (1983). Marital interaction: Physiological linkage and affective exchange. *Journal of Social and Personality Psychology, 45*, 587–597.
- Levenson, R. W., & Gottman, J. M. (1985). Physiological and affective predictors of change in relationship satisfaction. *Journal of Personality and Social Psychology, 49*, 85–94.
- Longino, C. F., & Lipman, A. (1981). Married and spouseless men and women in planned retirement communities: Support network differentials. *Journal of Marriage and the Family, 43*, 169–177.
- Malatesta, C. Z., & Kalnok, M. (1984). Emotional experience in younger and old adults. *Journal of Gerontology, 39*, 302–308.
- Malatesta, C. Z., & Izard, C. E. (1984). Facial expression of emotion in young, middle-aged, and older adults. In C. Z. Malatesta & C. E. Izard (Eds.), *Emotion in adult development* (pp. 253–274). Beverly Hills: Sage.
- Markman, H. J. (1991). Backwards into the future of couples therapy and couples therapy research: A comment on Jacobson. *Journal of Family Psychology, 4*, 416–425.
- Markman, H. J. (1992). Marital and family psychology: Burning issues. *Journal of Family Psychology, 5*, 256–275.
- Markman, H. J., Renick, M. J., Floyd, F. J., & Stanley, S. M. (1993). Preventing marital distress through communication and conflict management training: A 4- and 5-year follow-up. *Journal of Consulting and Clinical Psychology, 61*, 70–77.
- Ogginis, J., Veroff, J., & Leber, D. (1993). Perceptions of marital interaction among black and white newlyweds. *Journal of Personality and Social Psychology, 65*, 494–511.

- Pineo, P. C. (1961). Disenchantment in the later years of marriage. *Marriage and Family Living*, 23, 3-11.
- Pineo, P. C. (1969). Developmental patterns in marriage. *Family Coordinator*, 18, 135-140.
- Powell, W. E. (1988). The "ties that bind": Relationships in life transitions. Social Casework: *The Journal of Contemporary Social Work*, 69, (9) 556-562.
- Rollins, B. C., & Cannon, K. L. (1974). Marital satisfaction over the family life cycle: A reevaluation. *Journal of Marriage and the Family*, 36, 271-282.
- Rollins, B. C., & Feldman, H. (1970). Marital satisfaction over the family life cycle. *Journal of Marriage and the Family*, 32, 20-28.
- Rounsaville, B. J., Weissman, M. M., Prusoff, B. A., & Herceg-Baron, R. L. (1979). Marital disputes and treatment outcome in depressed women. *Comprehensive Psychiatry*, 20, 483-490.
- Schaie, K. W. (1993). The Seattle Longitudinal Studies of Adult intelligence. *Current Directions in Psychological Science*, 2, 171-175.
- Seltzer, M. M., & Ryff, C. D. (1994). Parenting across the life-span: The normative and nonnormative cases. In D. Featherman, R. M. Lerner, & M. Perlmutter (Eds.), *Life-span development and behavior* (Vol. 11, pp. 1-40). Hillsdale, NJ: Lawrence Erlbaum.
- Shaver, P. (Ed.). (1984). *Review of personality and social psychology: Emotion, relationships, and health* (Vol. 5). Beverly Hills, CA: Sage.
- Silverberg, S. B., & Steinberg, L. (1990). Psychological well-being of parents with early adolescent children. *Developmental Psychology*, 26, 658-666.
- Steinberg, S. B., & Silverberg, L. (1987). Influences on marital satisfaction during the middle years of the family life cycle. *Journal of Marriage and the Family*, 49, 751-760.
- Stinnett, N., Carter, L. M., & Montgomery, J. E. (1972). Older persons' perceptions of their marriages. *Journal of Marriage and the Family*, 32, 428-434.
- Storaasli, R. D., & Markman, H. J. (1990). Relationship problems in the early stages of marriage: A longitudinal investigation. *Journal of Family Psychology*, 4, 80-98.
- Sporakowski, M. J., & Hughston, G. A. (1978). Prescriptions for happy marriage: Adjustments and satisfactions of couples married for 50 or more years. *The Family Coordinator*, 27, 321-327.
- Tariq, P. N., & Anila, (1993). Marital maladjustment and the crime of murder among Pakistani female criminals. *International Journal of Psychology*, 28, 809-819.
- Thompson, R. A. (1994). Emotion regulation: A theme in search of definition. In N. A. Fox (Ed.), *The development of emotion regulation: Biological and Behavioral considerations* (pp. 25-52). *Monographs of the Society for Research in Child Development*, 59, 2-3.
- Tower, R. B., & Kasl, S. V. (1995). Depressive symptoms across older spouses and the moderating effect of marital closeness. *Psychology and Aging*, 10, 625-638.
- Troll, L. (1985). *Early and middle adulthood* (2nd ed.). Monterey, CA: Brooks/Cole Publishers.
- Tucker, M. B., Taylor, R. J., & Mitchell-Kernan, C. (1993). Marriage and roman-

- tic involvement among aged African Americans. *Journal of Gerontology*, 48, S123-S132.
- Tucker, P., & Aron, A. (1993). Passionate love and marital satisfaction at key transition points in the family life cycle. *Journal of Social and Clinical Psychology*, 12, 135-147.
- U.S. Bureau of the Census (1992a). *Current population reports, special studies, P23-178RV, sixty-five plus in America*. Washington, DC: U.S. Government Printing Office.
- U.S. Bureau of the Census (1992b). *Current population reports, P23-180, Marriage, divorce, and remarriage in the 1990's*. Washington, DC: U.S. Government Printing Office.
- Vaux, A. (1985). Variations in social support associated with gender, ethnicity, and age. *Journal of Social Issues*, 41, 89-110.
- Venkatraman, M. M. (1995). A cross-cultural study of the subjective well-being of married elderly persons in the United States and India. *Journal of Gerontology*, 50B, S35-S44.
- Vinick, B. H., & Ekerdt, D. J. (1991). Retirement: What happens to husband-wife relationships? *Journal of Geriatric Psychiatry*, 24, 23-40.
- White, L. K., & Booth, A. V. (1985). The transition to parenthood and marital quality. *Journal of Family Issues*, 6, 435-449.
- Zarit, S. H., Orr, N. K., & Zarit, J. M. (1982). *The hidden victims of Alzheimer's disease: Families under stress*. New York: New York University Press.