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Sex differences in marital satisfaction and happiness: the contribrution of children, attractiveness, and financial status

Lisa Marie Dillon
Wayne State University,

SEX DIFFERENCES IN HAPPINESS AND MARITAL SATISFACTION: THE CONTRIBUTION OF CHILDREN, ATTRACTIVENESS, AND FINANCIAL STATUS

by

LISA MARIE DILLON

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DEDICATION

This is dedicated to those who believed in me when I could not believe in myself.

Thank you.

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CHAPTER 1

INTRODUCTION

Background and Significance

This is an exploratory study of married couples and how each spouse's satisfaction and personal well-being are affected by the characteristics of one's spouse and children. Our biological fitness hinges upon our production of quality offspring who live to reproductive maturity, which makes mate selection and the commonly resulting marital environment important, as both will affect any children produced in the relationship as well as impact the couple's future reproductive prospects. It stands to reason that reproduction should have some measurable benefits and drawbacks for each sex; children can be viewed as a product and a way of evaluating the couple's joint and individual efforts. However, many of the data in evolutionary psychology pertaining to relationships are collected from one member of the couple, which ignores the rich perspective of the other spouse. There are also few investigations of couples with children and how they impact the relationship. The current investigation addresses these deficits in the evolutionary psychology literature.

Marital Satisfaction from an Evolutionary Perspective

Marriage is a long-standing universal practice that the majority of men and women will enter into at least once in a lifetime. Marital relationships are distinguishable from other close, long-term relationships in that sexual and amorous relations are common expectations not applicable to other relationships. Marriage often extends our social support and increases emotional closeness from the partner and extended family network. Marriage provides a beneficial reproductive environment for both sexes, but

the pursuit of such an arrangement poses some reoccurring conflicts for men and women. Many evolutionary psychologists maintain that marital satisfaction reflects the trade-off of the reproductive costs and benefits of remaining in the relationship.

The adaptive challenges that males and females must successfully surmount are selection of, recruitment of, reproduction with, and retention of a mate. Being unable to identify fertile mates would have been a major hindrance, ultimately resulting in not passing one's genes on to future generations. Once mate viability is identified, convincing the potential mate via recruitment so that conception can occur requires both sexes to advertise what the mate might reap from forming an alliance with him or her. Once offspring are produced in the relationship, individuals are prompted to retain the mate so that the mate can contribute care and resources to the offspring and because of the costs of repeating the risky, laborious, and time-sensitive process of acquiring another mate. Also, mate retention includes the use of tactics and strategies to prevent mate-poaching. Those who marry are likely to be content with the achievement, but fitness problems continue to arise; we continuously track the costs and benefits of remaining married. One's satisfaction with a marriage is inextricably linked to his or her fitness interests being optimized and each sex assesses the mate value of potential and current partners.

Selecting a Quality Mate

The indicators of a fertile mate are written on the face and body. Physical attractiveness is the window through which we view and judge another's genetic quality and health. An individual's facial and body symmetry predicts relative attractiveness and beyond that, the amount of sexual dimorphism evident as expected for his or her

respective sex indicates fertility and enhances physical attractiveness. Secondary sex characteristics set in place by primary sex characteristics serve as signals to potential mates that this stage has been reached, meaning the individual is a functioning adult capable of producing offspring. Sexual and mating interest increases at puberty and each sex shows a preference for mates who possess highly developed secondary sexual characteristics, as these maturational indicators convey the health and fertility of the potential mate (Sefcek, Brumbach, Vasquez, & Miller, 2006). Physical attractiveness serves as an honest cue for reproductive maturity, immune system functioning, growth rate, fertility, and dominance status (Thornhill & Gangestad, 1993). Around the world, males and females use physical cues to eschew diseased and deformed mates (Gangestad & Buss, 1992); males and females exhibit a preference for symmetry which is an indicator of health and fertility. However, possessing attractive attributes would be more beneficial to a potential mate if the individual had complementary qualities like kindness and intelligence, so that a potential mate can experience the benevolence of a high quality mate (Buss, 1989). Both sexes desire mates who possess indicators that they are healthy and of good genetic quality. However, each sex differs somewhat in the amount of emphasis placed on certain attributes due to the differing fitness interests of each sex.

When looking for a long-term mate, men pursue a fertile, healthy, and attractive mate with a wide reproductive span, making younger mates with the widest reproductive window more in demand. It is true that younger men show an interest in both younger and older females, but this difference in age preference does not mean younger men do not prefer a highly fertile mate; younger men report being the most attracted to women

who at the peak of their fertility (Kendrick, Keef, Bryan, Barr, and Brown 1995). The preference for younger and older women is likely due to the age reference point of younger men who are more likely to have older and younger female peers who are still highly fertile. Men prefer sexually dimorphic features that signal youth such as large foreheads, small noses, clear skin, and feminine body shape (e.g., low Waist-to-Hip Ratio). Waist-to-Hip Ratio reflects an individual's hormonal profile, reproductive potential, and disease risk (Singh, et al., 2010). Because of its communication of fertility, physical attractiveness is the most desired trait by men ubiquitously.

With respect to males, a male's economic status contributes to his mate value. Universally, men do not marry until they can afford to do so. A husband's earnings affect his attractiveness to potential mates and ability to retain a mate, so they are likely to be connected to his relationship satisfaction. Men of high status, who have better chances than lower ranking men to have their mating preferences realized, prefer to and do marry a younger, attractive mate (Buss, 1989). In foraging cultures, hunters who are successful are rewarded with high social status and are more reproductively successful (Smith, 2005). This is a consequence of provisioning of wives and children; hunting also increases sexual access to mates, indicating that the male is likely healthy and strong. In marriages where wives earn more than their husbands, both the husbands and wives are less content with the marriage than when husbands out-earn wives (Weisfeld, Russell, Weisfeld, Wells, 1992; Brennan, Barnett, & Gareis, 2001), indicating that marital satisfaction for husbands and wives is linked to the financial contribution of the husband to the partnership.

Husbands report being more satisfied with their relationship when partnered with an attractive, youthful mate. Few men marry a woman who is older than they (Buss, 1989). Wives who are rated as more attractive than the husband bolster marital satisfaction for husbands (Weisfeld, Russell, Weisfeld, Wells, 1992). Another study showed that husbands who were rated by researchers as more attractive than their wives were less satisfied with their marriage in comparison to men rated as less attractive than their wives (McNulty, Neff, & Karney, 2008). The number of children desired by men and the desired age preference for a mate have been shown to be negatively correlated cross-culturally, so the more children desired means desiring a younger mate who is physiologically more likely to be capable of producing more offspring (Buss, 2000).

Though physical attractiveness is important, men are highly concerned about obtaining a faithful mate. Males faced the adaptive issue of being convinced that children born during a relationship were their own. Males who were vigilant and concerned about female sexual infidelity increased their chances of funneling resources towards their own progeny, which ultimately increases a male's fitness. It follows that a wife's fidelity ought to be a valued attribute. An indicator of relationship satisfaction for males is the perception of the wife's faithfulness (Buss & Schmitt, 1993). Paternal care increases as certainty increases. Paternal care also increases when it directly benefits the survival of offspring. Paternal care is lower when many mates are available. Fathers have been found to invest more in children who bear a resemblance to them (Prokop, Obertova, Fedor, 2009). Christenfeld and Hill (1995) demonstrated that it was possible to reliably match the photographs of one year old infants to the father, but not the

mother, suggesting an early, phenotypic mechanism for addressing paternity certainty. Bredart and French (1999) failed to replicate the work of Christenfeld and Hill (1995). In a fictional adoption study, college age men placed higher emphasis on resemblance in their decision to adopt in comparison to females (Volk & Quinsey, 2002). Blue-eyed men, whose phenotype and genotype for eye color match, show a preference for blue-eyed women as potential partners, and this was not true of blue-eyed women or brown-eyed men (Laeng, Mathisen, Johnsen, 2007). Also, two additional studies have shown that men (but not women) will rate the child who bears the greatest resemblance to themselves in an array of photographs as the most attractive (Platek 2002, Platek 2004), but others have not shown a sex difference (DeBruine, 2004). Welling (2011) presented male and female romantic couples with pairs of infant faces. In the pairs, one of the infant faces was altered to resemble one of the members of the relationship. Males and females consistently rated the self-resembling infant as more attractive and more desirable as a babysitting charge. Participants also completed an inventory on mate retention tactics, and findings revealed that males (not females) who preferred the more self-resembling infant also reported higher rates of mate retention and guarding tactics, with the negative tactics measured in the form of threats and manipulations.

Males demonstrate that they want to be assured that the children they are investing in via resources and parental care are their biological offspring, and while long term pair bonds negatively affect partner variety, they bolster paternity certainty. Thus, male jealousy is expressed to prevent a mate from engaging in extra-pair copulations by attending to potential bouts of mate poaching via mate guarding. Male mate retention strategies, as measured by being more attentive and time monopolization, increase

near ovulation, coinciding with the time female interest in extra-pair copulations, attractiveness, and fertility peak (Gangestad, Thornhill, & Garver, 2003). Infidelity is the most common reason men cite as the impetus for divorce (Betzig, 1989), spousal abuse (Shackelford & Buss, 1997), and uxoricide (Daly & Wilson, 1988).

Mammalian females contribute the larger gamete in reproduction and must automatically invest more in their progeny initially in the form of pregnancy. Under natural circumstances, further investment is practically unavoidable; mothers everywhere provide the majority of the nutrition via breastfeeding, and they also are responsible for the majority of childcare (Sear & Mace, 2008). Breastfeeding is very costly to a mother; lactation temporarily reduces fertility, and it can consume 670 kcal per day that a mother would not have available in for her own metabolic needs (Dewey, 1997). Given the chronically dependent nature of human offspring, paternal investment in child-rearing increases the chances of the children living to reproductive maturity, but it also allows females to shorten the time between births as well. In more recent times, wealthier couples in Europe were known to employ wet nurses and this shortened birth intervals (Low, 1993). But for most couples, lactational amenorrhea and increased maternal energy output in the form of parental care become barriers to having more offspring. Children from poor families are at greater risk for dying earlier than better off counterparts due to disease, malnutrition, and inadequate care (WHO, 2002). Thus, evidence of a male's capacity and willingness to provide resources to her and potential offspring are consistently sought by females and this increases the more physically attractive she is (Bereczkei, Voros, Gal, & Bernath, 1997).

Women desire a high-earning, comparatively older marriage partner of high status, and women consistently rank physical attractiveness as less important than men do. However, females do exhibit a preference for sexual dimorphic traits that indicate health, fertility, and the male's ability to protect, and this effect increases during ovulation (Gangestad, Garver-Apgar, Simpson, & Cousins, 2007). Also, the scent of a dominant male is preferred over the scent of other males around ovulation (Havlicek, Roberts, & Fligr, 2005). Generally, larger features, including brow ridge and jaw, and High Shoulder-to-Waist Ratio are other features routinely evaluated and desired in potential mates. Shoulder-to-Waist-Ratio evinces muscle development in the torso, which signals the male's ability to protect, and is correlated with a masculine hormone profile, like the aforementioned sexually dimorphic traits in men.

Marriage data indicate that females prefer an older mate who is older than they are (Buss, 1989). Older mates have had more time to amass resources, and older mates may be more socially dominant. There is some support showing that wives are happier with an older husband (Groot & Maassen Van Den Brink, 2002). Dominant males are sought throughout the animal kingdom because dominance conveys a male's ability to protect and provide for his mate (Campbell, 1995), though since few species have paternal care, it is more likely that dominant males are sought for their genes. Fisher (1958) points out the sons of dominant males are likely to be attractive to females of the next generation, which is another fitness benefit for a female who reproduces with a dominant male. Women care about the childrearing environment and the investment they have from the male. Male dominance translates into resources and

protection for themselves and their children, along with impacting the genetic quality of offspring.

Women face selection pressures that direct their attention to a mate's infidelity. Females are impacted negatively by an unfaithful mate as well; the resources directed at a female and her children could decrease or she might be abandoned by her mate, which can radically affect her reproductive success. As a result, females demonstrate vigilance towards cues of mates attending to and investing in other females (Harris, 2003). Females, in comparison to males, are more likely to forgive sexual infidelity in contrast to an amorous infidelity, as the latter is more predictive of mate desertion (Shackelford, Buss, & Bennett, 2002). Females remain the sex more concerned about when a partner is amorous to another and even report feeling more guilt when engaging in emotional infidelity themselves in comparison to males (Fisher, Voracek, Rekkas, & Cox, 2008). Having self-perceived high level of marital power contributes to the intent to be unfaithful for both sexes (Lammers, Stoker, Jordan, Pollman, Stapel, 2011), and being partnered with a higher status male may contribute to marital stability in the face of male infidelity. Deserted mothers may be able to pair bond with another male; however, this arrangement is potentially perilous to any offspring from former relationships. Stepchildren are abused, neglected, and murdered more frequently than biological children (Daly & Wilson, 1991). Some data indicate the risk is 60 times higher that a stepparent will murder a stepchild, with stepchildren under age five in the highest risk category (Daly & Wilson, 1994).

Choosing a partner based on perceived similarity, or homogamy, is also sought by men and women in long-term partners. Homogamy is not restricted to humans; it is

found among insects, birds, and other primates (Thiessen & Gregg, 1980). Married couples tend to be more genetically similar than randomly paired individuals. Also, homogamous couples are more fertile (Bereczkei & Csanaky, 1996). Sharing similar beliefs is a common means of assessment of homogamy in human couples, but couples share other dimensions of homogamy, too. Socioeconomic status, attractiveness, ethnicity, attitudes, personality, education, and IQ are among the identified areas of homogamy in humans. Couple similarity predicts the quality of the relationship (Weisfeld, Russell, Weisfeld, & Wells, 1992; Gaunt, 2006). Couples who share similarities obviously reduce some sources of discord, and sharing similarities increases compatibility.

The Importance of Studying Couples with Children

In general, behaviors that enhance fitness contribute to an individual's overall happiness. Eating, sleeping, living in safe surroundings, belonging to a social group, and physical contact with loved ones have all been shown to raise happiness. Being a parent is not reliably documented as an achievement that results in greater happiness. In fact, parenthood has been shown to reduce happiness, in some cultures more strongly than others. It may be that the methods used to derive the happiness garnered from one's children are not able to capture it. For example, a sample of Latina mothers who were separated from their children for years due to employment purposes showed higher rates of depression than mothers who were not (Miranda, Siddique, Der-Martirosian,& Belin, 2005). It is also suggested that humans prefer a wide range of emotional experience, which childrearing often provides, and makes it difficult to partial out the happiness of having children. Parenthood does detract from one's prospective

mating interests. Still, having a family and children is what most strive for and achieve (King & Broyles, 1997), and it is also among the accomplishments individuals reflect positively on. A study on the well-being of middle aged parents was significantly affected by how well the parents perceived their children to be doing; parental well-being was high if they perceived their children to be successful (Fingerman, Cheng, Burditt, Zarit, 2011).

Children are the product of one's reproductive success that parents, and researchers, evaluate. Children reflect how well an individual performed in selecting a mate and how well their genes mixed with the mate. As the child develops, the child is a source for ascertaining how much each parent continues to invest in the product of the relationship. Yet, there are comparatively few evolutionary studies that recruit couples and fewer that include couples with children. By heeding various aspects of children, predictions about personal well-being and satisfaction with one's relationship and life can be made.

The Impact of Children

In general, the presence of children, in contrast to childlessness, has a stabilizing effect on marriage, though there is a higher risk of divorce as children become older in the first four years of marriage around the world (Fisher 1992). Waite and Lillard (1992) found that during the preschool years, couples with children experience greater marital stability than couples with older children, but it should be noted that the presence of older children indicates the couple has been married for a longer time. Divorce has been found to peak four years into marriage (Fisher, 1992), suggesting that young couples evaluate whether they should remain with a mate, when there is time and

potentially opportunity to switch mates. Also, having more than one child further increases marital stability (Heaton, 1990). Marital satisfaction is particularly low when rearing adolescents (Gottman & Levenson, 2000) compared to other times in the marriage. Decreased relatedness is connected to increased conflict at home, and adolescents in step families leave home significantly earlier (White & Booth, 1985).

Human infants are highly dependent upon a direct caregiver, usually the mother, for feeding, warmth, transportation, protection, and stimulation. Human parents invest the most heavily in their offspring, and relatedness and apparent infant quality are important predictors of parental investment (Trivers, 1972). Each infant is an investment that is distinct from other investments, and total parental investment is distributed among the total number of offspring. Heavy investment in one infant can detract from investment in another child. Additionally, infant quality and environmental pressures may affect parental investment; discriminative parental solicitude is the term which refers to the differential allocation of parental care in both amount and quality which changes for each child over time.

Pair bonding species would be able to observe the investment of the other parent. Because progeny represent the reproductive success of each parent, perceptions of parental quality ought to affect how satisfied each parent is with the marital relationship. This effect might be stronger for mothers since maternity is certain, but paternity is uncertain, making paternal care more variable. Since the child's survival depends more on maternal care, however, this effect might be stronger for fathers.

Marital conflict is commonly spurred by perceiving that one's spouse lapses in caring for the children (Buehler & Gerard, 2002).

It has repeatedly been shown that children exert a negative effect on relationship satisfaction, and it is suggested here that this topic is plagued by a number of intervening variables. Dillon and Beechler (2010) demonstrated that culture, gender, and parental age are important considerations in this research. If one is considering life satisfaction, a positive relationship with the number of children emerges (Gwanfogbe, Schumm, Smith, & Furrow 1997; Angeles, 2010). Few studies examine sex differences in marital satisfaction as affected by children. The few studies that have explored the topic suggest that the marital satisfaction of wives is more closely linked to parental components (see Bradbury, Fincham, & Beach, 2000 for a review)

It is expected that the children produced in the marital relationship will contribute to the happiness of wives more than spousal attractiveness. However, marital satisfaction for husbands should be more connected to the wife's attractiveness. While few studies examine this, there is some suggestion that mothers are happier when their children are happy and well cared for (Belsky, Youngblade, Rovine, & Volling, 1992; Furstenburg & Harris, 1992). Mothers participate more in child-rearing even after controlling for hours employed outside of the home, and father involvement has been linked to marital happiness for mothers (McBride & Mills, 1993). Additionally, mothers and fathers have been found to nurture differently, with fathers being more involved with older children and with sons (Harris & Morgan, 1993). Male status correlates negatively with direct childcare as reported by wives; the lower a male's earnings, the more childcare he is likely to contribute to the partnership (Csatho & Bereczkei, 2003).

Quality Versus Quantity

There are many paths on the road to reproductive success, as individuals experience varied environmental influences on their fitness. A tradeoff that evolutionary psychologists heed is one that concentrates on the quantity versus quality of children. A quantity approach would favor producing as many viable offspring as possible which reduces the amount of parental investment that can be given to each child. A quality approach would favor heavy investment in fewer offspring. Today, there is more effective contraception and induced abortion, so that people can control when reproduction occurs, to an extent. Parents may choose to exclusively follow one or the other, but more often there is a balancing of the parents' finite ability to invest based on environmental circumstances and the number of current offspring.

There are benefits and drawbacks associated with focusing on offspring quality and quantity of offspring. Family size and wealth do show a positive relationship historically and contemporaneously (Borgerhoff Mulder, 1987; Cronk 1991). Analyses of parity find fitness rises across generations when family size is intermediate in relation to the population, presumably due to the investment parents and grandparents can make, as has been demonstrated in Africa (Borgerhoff Mulder, 2000) and in Finland (Gillespie, Russell, & Lummaa, 2008). These studies demonstrate how it is possible to have fewer offspring compared with peers, but higher fitness over generations. Another way environmental factors matter in family planning pertains to the current population. When fertility declines overall in a country, perceptions of the costs associated with having children decline. For example, a given area might not seem crowded, and this may have an effect on the desire for one or more children. We are aware of our own declines in

fertility and there is an expected impact of age on how we feel about the number of children and the quality of the offspring we have had (Newson, 2009). Walker, Gurven, Burger, and Hamilton (2008) studied subsistence populations and nonhuman primates and found an inverse relationship between offspring size and birth rate; larger-bodied primates reproduce at slower rates. Mere size of the offspring is sufficient to delay the birth of the next offspring. Giving birth to a son, who usually outweighs a daughter, extends birth intervals (Mace and Sear 1997; Koziel & Ulijaszek, 2001). Larger offspring may have a curtailing effect on reproduction because they are more likely to be healthier and live to reproductive maturity, thus reducing parental inclination to reproduce in favor of parental investment in present offspring.

Indicators of infant health, such as activity level and physical attractiveness, can skew parental investment. Parents are more likely to invest in healthy infants because health carries the increased likelihood of the infant living to reproductive maturity. Sickly children are subject to more neglect, abuse, and murder (Daly and Wilson, 1988; Harris, Hilton, Rice, and Eke, 2007; Catherine, Ko, and Barr, 2005). Another aspect of infant quality is reactivity. St. James-Roberts, Conroy, & Wilsher (1998) found that infants who cried more received more stimulation and maternal interaction. Infants vary in attractiveness, an indicator of health, and this characteristic can influence discriminative parental solicitude. Mothers of newborn infants who were rated as more attractive as a newborn and at three months of age by researchers were rated as more affectionate and more playful toward their infant (Langlois, Ritter, Casey, Sawin, 1995). Attractiveness, health, and reactivity are indicators of infant quality that affect investment.

Parental investment changes over time. The developing offspring is continually providing information to parents about his or her reproductive value. Adolescents who are perceived to have better prospects for financial success (Hewlett, 1991; Low, 1991; Low & Clarke, 1991; Voland, Siegelkow, Engel, 1991) and mating opportunities (Dickmann, 1979; Boone, 1986; Bereczekei & Dunbar, 1997; Cronk, 1991) receive more parental investment. When parents make decisions regarding inheritance, offspring who show they may obtain social power tend to receive more inheritance (Blaffer Hrdy & Judge, 1993; Boone, 1986; Hewlett, 1991). Paternity certainty is also a factor that affects inheritance, with fathers giving a larger inheritance to children of greater paternity certainty, such as daughters' children rather than sons' (Smith, Kish, Crawford, 1987). Family size in adolescence has its impact on the mental health of children as well; adolescents from larger families were overrepresented in mental hospitals in Finland (Kylmanen, Hakko, & Räsänen, & Riala, 2010). Though there are likely to be many relevant aspects of parent-child relationships, examining the consequences of differential investment from the parent and adolescent perspectives could benefit our understanding of family dynamics.

Health of Children

The health of children foreshadows their reproductive prospects once they reach puberty. Divorce is higher when children die or have a health condition that hampers the child's future ability to reproduce. Couples who seek genetic counseling and testing of fetuses are more likely to abort fetuses with birth defects than healthier fetuses (Leschot, Verjaal, Treffers, 1985). Congenital conditions of the child such as heart disease and cerebral palsy have been shown to significantly increase divorce (Mauldon,

1992; Joesch & Smith, 2010). Ending the relationship would allow each partner to play the reproductive lottery once again. Miscarriage and stillbirths also predict relationship dissolution (Gold, Sen, & Hayward, 2010), as does the death of older children (Oliver, 1999). Couples have difficulty weathering the loss of a child, and couples who do remain intact are less satisfied in their marriages. Death and poor child quality may be interpreted as honest signals that the two are not good mates for one another. Parents of a child with a disability have been found to have higher distress and depression, often resulting in lower marital quality and family functioningwhen compared to control couples, and mothers show more depressive symptomatology (Kersh, Hedvat, Hauser-Cram, & Warfield, 2006). Analyses of the grief over the loss of a child show some patterns that evolutionary psychologists would predict. Mothers and maternal siblings grieve more than fathers and paternal siblings (Littlefield & Rushton, 1986) over the loss of a child. Healthy male children receive proportionally more grief (Littlefield & Rushton, 1986), perhaps due to losing a child with potentially higher fecundity than compared to a daughter.

Childless Couples

Childless couples can help researchers partial out the impact of children on relationships. Unfortunately, there are few studies on childless couples and even fewer that identify whether or not the childlessness is intentional. Childless couples who desire children have higher stress levels, and a higher divorce rate in some cases (Thornton, 1977), whereas the stabilizing effect of children is well known (Morgan, Lye, Condran, 1988). Childless by choice couples are few. Men who are childless involuntarily report feeling deprived, depressed, and isolated (Hadley & Hanley, 2011). Couples who have

successfully reproduced will have greater marital stability in general, and this increases worldwide with the number of children produced (Goode, 1993), yet marital satisfaction consistently declines over time. However, marriages may be solidified by pleasure in one's children, as life satisfaction has been shown to be enhanced by reproduction.

Stepchildren

In comparison to one's first marriage, a re-marriage is less stable. In addition, re-marriages where families introduce step-children or blended households are even more unstable, and couples with stepchildren report lower marital satisfaction (White & Booth, 1985; MacDonald & DeMaris, 1995; Brown & Booth, 1996; Berman, Fazio, & Milkie, 2006). As evolutionary psychologists would anticipate, the most common source of conflict is disagreement over resources (Coleman, Fine, Ganong, Downs, & Pauk, 2001). Children who are reared with their biological parents help the longevity of the relationship, but this effect is not found in subsequent marriages (Erlangsen & Andersson, 2001). Uxoricide risk increases significantly for women who introduce children sired by former partners into the relationship (Daly, Wiseman, Wilson, 1997). The presence of children who are biologically related only to one parent is destabilizing to the marriage (Anderson, 2011).

Stepfamilies experience more frequent conflict and reduced marital stability over time.In marriages with stepchildren residing with the couple, husbands and wives will be more likely to say that previous relationships cause problems and will have greater intent to divorce (White & Booth, 1985). In marriages with stepchildren residing with the couple, husbands and wives will report more conflict with the children (Coleman, Fine, Ganong, Downs, & Pauk, 2001).

Partner Effects

In light of the fact that this study's hypotheses will be tested by using survey data from married couples, partner effects can also be investigated. A couple's response to the same survey item would not be independent from one another (Kenny & Cook, 1999). Whenever dyadic data are gathered, the ability to test for the interrelatedness of responses for each member of the dyad is present. For two significantly related variables, there are six investigations stemming from a causal variable, X, and an outcome variable, Y: how X affects both members of the couple on the outcome variable for themselves (two measurements) and how the partner's score affects the other partner's score on the outcome variable (two measurements), how it is related to the partner's score on the same variable, and the correlation of the outcome variable between both members of the couple. For example, a husband's perception of how attractive his wife is should bear an impact on not only his own marital satisfaction, but also on his wife's marital satisfaction. The reverse effects that are addressed in a partner effect analysis should be meaningfully lower due to the reduced emphasis females will place on attractiveness in comparison to other aspects of male mate value. There is a correlation between marital satisfaction for both husbands and wives, and the attractiveness perceptions between husbands and wives should be related, too.

The Impact of Culture

Culture represents the agreed upon interpretations of the beliefs, values, norms, and customs shared by a group of people. There are measurable effects of culture on behavior, as culture forms the guidelines about what is expected of people in a given

group and how one should behave. Exhibiting behavior that is not normative for a group is a violation and may affect one's group membership.

Hofstede (2001) has done a great deal of research on specifying the dimensions of cultural differences and comparing cultural differences. There are five dimensions that are the dominant patterns and capture major sources of cultural difference. These dimensions are power distance, uncertainty avoidance, masculinity and femininity, time orientation, and individualism versus collectivism. Power distance refers to how much attention is afforded to social and organizational status. Cultures with high power distance may tend to promote conformity and little questioning of authority figures. Out of the cultures included in the present analysis, Russia and China reflect higher levels of power distance, with the United States, and Great Britain considerably lower (Hoftstede, 2001). Uncertainty avoidance is the degree of threat brought about by ambiguity, and in cultures low on this dimension interpersonal disagreement is accepted, as are risk-taking and avoiding convention. China and Great Britain are the highest in uncertainty avoidance, with the United States comparatively more tolerant in this area in comparison to Russia (Hofstede, 2001). Masculinity/femininity gauges how much a culture prizes assertiveness and achievement (masculine) over more nurturing and humanitarian goals (feminine). China, Great Britain, and the United States are more masculine oriented whereas Russia is more feminine in this regard (Hofstede, 2001). Time orientation is the reference point about work and life, with cultures that have a long time orientation tending to admire self-denial, persistence, humility, and thriftiness. China has a long time orientation and Great Britain, Russia, and the United States have a comparatively shorter time orientation, and value results and productivity

comparatively more (Hofstede, 2001). Individualist cultures, which are predominantly found in North America, Western Europe and Australia, underscore the importance of individual rights, achievement, independence, and personal freedom. Collectivist cultures prize mutual deference, conformity, social connectedness, maintaining harmonious relationships, avoidance of direct conflict, conformity to social norms, and respect for others. China is the most collectivist, followed by Russia, with Great Britain and the United States being largely individualistic cultures.

Universal patterns are identifiable in marital satisfaction, though the influence of culture is evident (Diener and Diener, 1995). In an analysis of seventeen countries, there was a significant correlation between being married and one's happiness in sixteen countries, perhaps due to the financial and emotional support potentially imparted through marriage (Stack & Eshleman, 1998). It has been found that Westernized countries such as the United States, Australia, and Brazil rate romantic love as more important for establishing and maintaining a marriage, while Eastern countries like Pakistan and Hong Kong rate love as not as relevant; these ranking differences may explain differing scale scores across cultures (Levine, Sato, Hashimoto, & Verma, 1995). Cultural influences may represent the diversity of mating tactics and strategies that are useful in a given area.

Background and Marital Satisfaction for Countries in Present Analysis

British Culture

Long-term cohabitations are becoming more common in Great Britain. Over the last twenty-five years, people who have never been married and younger people have been more likely to forgo marriage in favor of a long-term partnership; one in six couples

is now a long-term cohabitation (Haskey, 2001). Homogamy has been identified as an important feature of marital satisfaction (Weisfeld, Russell, Wells, Weisfeld, 1992). Additionally, Wong and Goodwin (2009) found that spousal support, stability, cooperation, and financial stability were important components of marital satisfaction.

Chinese Culture

In order to curb population growth, the one-child policy was introduced in 1978. Since the implementation of the policy, the number of people living below the poverty line has decreased by over 270 million. Of course, the one-child policy has affected the Chinese family in various ways. Increases in couples living together prior to marriage, premarital sex and pregnancy, infidelity, and divorce have been noted in the first generation of children born once the policy was implemented (Shen, 1996). Additionally, attitudes toward children and marriage are breaking with tradition. There is less emphasis on desiring a male heir, voluntary childlessness is rising, and marriage is delayed more than ever (Shen, 1996). There is some difficulty in finding a marriageable mate due to the former bias toward having a male heir, resulting in female infanticide. Women are experiencing more economic independence due to more emphasis on education and employment, though there is a marked disparity in earning power between men and women (Sun, 1991). Marriage is seen as a means for raising children as well as cementing familial bonds. For over sixty years, the government has allowed couples, and not the extended family, to make decisions regarding marriage and divorce. Arranged marriages are less common, but not entirely absent, and having the freedom to choose a mate is related to marital quality. Parental approval and feeling close to one's spouse are strong predictors of marital quality.

Regarding marital satisfaction, Chinese couples have cited spousal support, cooperation, financial stability, and a sense of harmony as important facets that affect their satisfaction (Wong & Goowdin, 2009; Shek, 1999). Chinese couples have been shown to value privacy for the marital relationship and are not likely to discuss intimate details about the other partner or the relationship beyond family members. In addition to prizing the support (instrumental and social) and cooperation of a marriage partner, Chinese couples place emphasis on devotion and conforming to the expectations of the spouse (Epstein, Chen, & Beyder-Kamjou, 2005).

Russian Culture

Gender roles are traditional in Russia, though many wives are employed outside of the home due to necessity and females have equal rights to property as men. Boss and Gurko (1994) examined marital satisfaction in over 200 couples and found that being positively regarded by one's spouse and sexual satisfaction predicted relationship satisfaction. Wives are more likely to not be as satisfied as husbands and wives report understanding their husbands more frequently than the reverse. It is not uncommon for husbands and wives to remain married but have little to do with one another on a daily basis. In couples whose children have reached adolescence, marital satisfaction is based on their own behavior (Gozman & Aleshin, 1987). Russian marital quality researchers have found relationship maintenance behaviors similar to American culture are utilized by Russian couples such as division of labor, spousal social support, loyalty, and love (Boss & Gurko, 1994).

American Culture

Perhaps due to the influence psychological researchers have had on the study of marriage and marital satisfaction around the world, there are few unique characteristics of marriage in the United States. Love, companionship, division of labor, homogamy, sexual fulfillment, and parenting are the most frequently specified factors related to marital satisfaction. However, marriage is more likely to be delayed as more time is needed to finish one's education and achieve economic independence in the United States. By 2009, the age of first marriage was 28.1 for men and 25.1 for women (U.S. Census Bureau, 2009). In 1970, the average age at first marriage was 23.2 and 20.8 for women (U.S. Census Bureau, 2009).

Marital Satisfaction has been heavily studied in the United States with various instruments (Bradbury, Fincham, & Beach, 2000; Hamilton, 1948; Jones, Adams, Monroe, & Berry, 1995; Patrick, Sells, Giordano, & Tollerud, 2007). Commonly, summative assessments of unspecified satisfaction are garnered (Hill, 1988; Stack, 1998). Other instruments examine one's contentment with marital interactions in contrast to one's expectations (Spanier, 1976; Collard, 2006). A major criticism is that marital satisfaction measures lack a sound theoretical basis (Ruddel, 2002; Kerlinger & Lee, 2000), and the present analysis deviates from popular measures of marital satisfaction in favor of one that permits an evolutionary analysis of marital satisfaction.

Purpose and Aims of the Current Study

The purpose of the present analysis is to explore how children affect each member of the couple in four countries, and all predictions were created with evolutionary theory as the basis for generating the hypotheses. Previously unexamined contributing factors for marital satisfaction will be investigated for the four datasets.

Cross-cultural data allow for finding patterns in samples from populations which may be indicative of universal patterns in human behavior despite the different contexts, beliefs, and norms for each individual group.

Aims and hypotheses

1. To investigate the contribution of children to marital satisfaction for husbands and wives in four cultures

   H1a: For wives, marital satisfaction will be more strongly related to deeming one's spouse a good parent than it is for husbands. As one's children are a measure of reproductive success, how well they are cared for should factor into how happy one is with a spouse; perceived male parental ability is a known preferred trait for women (Kruger & Fisher, 2003).

   H1b: There is an expected sex difference with regard to how feeling close to one's children will be related to how close one feels to a spouse. Wives, more than husbands, who feel close to their children will report greater closeness to their spouses, indicating satisfaction in mate choice. This connection for wives is anticipated because of the amount of time mothers are more likely to invest in childcare and previous research that mothers are happier when children are happy (Belsky, Youngblade, Rovine, & Young, 1992; Furstenburg & Harris, 1992).

   H1c: For wives, marital satisfaction will be more closely related to satisfaction with one's children than it is for husbands. Items related to the children's happiness and feeling close to one's children are expected to be

stronger predictors of marital satisfaction for wives than they are for husbands. For husbands, spending time with children will contribute more to marital satisfaction for husbands.

2. To investigate the contribution of children to happiness for husbands and wives in four cultures.

   H2a: It is expected that mothers and fathers whose children bring them happiness should report higher personal happiness. Children reflect one's reproductive efforts and can be a continuous index of one's reproductive success as they develop, which has been linked to the individual happiness of parents (Mitchell, 2010).

   H2b: For both husbands and wives, one's contentedness with life will be related to how much enjoyment is derived from children one has and how happy the children are perceived to be, as happy children may be a reflection of optimized parental investment. Involvement and interactions with children have been linked to individual happiness for men (Choi, 2010) and for mothers (McBride & Mills, 1993; Tremblay & Pierce, 2011)

   H2c: In marriages with stepchildren residing with the couple, husbands and wives will report more conflict with the children (Coleman, Fine, Ganong, Downs, & Pauk, 2001).

3. To investigate how attractiveness, financial contributions to household, and perceived financial status contribute to marital satisfaction for husbands and wives in four cultures.

H3a: For husbands, marital satisfaction will be more closely connected to aspects of financial success, such as how financially successful they feel they are and how much of a financial contribution they make to the relationship, and attractiveness of their spouse than it is for wives. Husbands are happier when they perceive themselves to be making a meaningful contribution to the relationship (Weisfeld, et al., 1992; Cready, Fossett, & Kiecolt, 1997; Brennan, Barnett, & Gareis, 2001) and when they are partnered with an attractive mate (McNulty, Neff, & Karney, 2008).

H3b: For wives, lower financial status will negatively affect marital satisfaction. Dissatisfaction with one's financial status may negatively affect how wives perceive their husband's and this dissatisfaction may affect the perception of the relationship, as reduced financial investment from husbands has been linked to marital disruption (Sayer & Bianchi, 2000; Kalmijn, Loeve, & Manting, 2007).

H3c: It was hypothesized that wives who contribute half or more to the joint income than husbands will have lower marital satisfaction than when husbands contribute more than wives. This hypothesis is distinct from the one before it because it examines the financial contribution of wives, and wives who earn more than their husbands experience more marital dissatisfaction and dissolution (Ono, 1998).

CHAPTER 2

METHOD

Participants

Participants will be 2,583 male and female couples from China, Russia, the United Kingdom, and the United States who were previously recruited to complete a survey on marriage and family life. The dissimilarity of the countries in terms of culture, race, religion, economy, and geography is one reason why these countries were selected. Couples were recruited for participation by using convenience and snowball sampling (Bailey, 1987), as these methods are successful in collecting data from couples in the most populous areas of the aforementioned nations. This means the samples are nonrandom and do not represent all marriages and subcultures for each country. British couples were recruited through magazine advertisements aimed at women, a marketing research company, and requests for participation from college students. Chinese couples were recruited through their school children, who brought the survey home for completion. The Chinese couples received a small amount of compensation. Russian couples were recruited by Moscow State University students via "chain referral" and through use of snowball sampling. sample from United States was primarily recruited through snowball sampling initiated by university students using a stratified approach in order to recruit couples in a range of socioeconomic and racial groups. The age range for the participants in the five cultures was 18-91, though all five groups were similar in average age. All couples had been married to their partner for a minimum of one year and 60 years at the maximum. Couples have been married for at least 11 years on average, and this the first marriage for the majority of the couples in

all samples. In all five samples, husbands are at least slightly older than wives and couples have at least 1 child on average. Demographic information for each culture is in Table 1.

Measures

Participants completed the Marriage and Relationship Questionnaire (MARQ) designed by Russell and Wells (1991), about their current marriage. Each member of the couple was instructed to complete the MARQ in private. Responses for each member of the couple were collected in separate envelopes, and sealed, and then both envelopes were placed into a larger envelope to keep the responses organized and confidential.

The MARQ is a self-report, general relationship inventory that produces 12 subscale scores derived from 179 items for each individual in the long-term relationship. The 12 subscales consist of the following constructs: Roles (division of labor), Values (modern or traditional), Family Ties (closeness to relatives), Partnership (emotional support), Love (physical and emotional closeness), Attractiveness (self and partner), Sexual Jealousy (infidelity concerns and possessiveness), Conciliation (Appeasement), Personal Problems (emotional regulation), Circumstantial Problems (financial), Partner Problems (undesirable partner behavior), and Relationship Problems (separation ideation). The MARQ was carefully translated and back-translated before being administered to non-English speakers in the samples.

On the MARQ, the preliminary items are for gathering demographic information about age, length of relationship, and children. The remaining items typically have five response choices that are tailored to each question (example: How sociable are you?

has the responses ‘not at all’, ‘not really’, ‘average’, ‘fairly’, and ‘very’). Each response has a corresponding number ranging from 1 to 5 for the majority of the items. The MARQ was specifically designed for use with couples, though each individual completes the questionnaire in private, and was normed twenty-five years ago in Great Britain with a sample of 1250 married couples (Russell & Wells, 1993). Cronbach’s alpha ranged from .55 to .90 in the original British sample for the scales. The present analysis will use the nine item Love Scale as an assessment of marital satisfaction. It measures the level of emotional attachment to one’s partner (see Table 2 for the scale items and reliabilities). The Love Scale has a high level of internal consistency across cultures (alphas range from .85 to .91) and this scale has demonstrated strong cross-cultural invariance (Lucas et al., 2008). All other items in the present study were selected based on the level of perceived face validity in representing the stated hypotheses. For a complete list of items, please see Table 3.

Data Analysis

The present study is exploratory in nature and data analysis will proceed from simpler to more complex analyses based on initial findings. After the data are screened, the initial Paired Sample t-tests will be completed to examine mean differences between each item for each couple in the four data sets. For a full list of MARQ items being used in the analysis, please see Table 3.

The first aim of this study is to investigate how children contribute to marital satisfaction for husbands and wives in the four cultures. The first hypothesis is that marital satisfaction for wives will be related to perceiving one’s spouse to be a good parent. This will be tested by examining the relationship of item 168, “Is your spouse a

good parent?" and the Love scale score. Each spouse's Love scale score represents the construct of marital satisfaction.

Regarding the hypothesis that feeling close to one's children will be related to feeling close to one's spouse, item 74, "Do you feel close to your spouse will be tested for a significant relationship with item 174, "Do your children bring you happiness?"

To test third hypothesis of the first aim that marital satisfaction for wives will be related to satisfaction with one's children, several analyses will be examined. Items 171 (Are you close to the children?), 174 (Do your children bring you happiness?), 175 (Do you like being with your children?), and 178 (Are your children happy?) pertain to children and the respective bivariate relationship with the Love scale score, or marital satisfaction, will be calculated for each member of the couple. If significant correlations are present, a linear multiple regression analysis using the Love scale as the dependent variable will be conducted in order to partial out the individual contributions of items related to satisfaction in children (items 171, 174, 175, and 178) to marital satisfaction.

The second aim of the present study is to examine the contribution of children to happiness for husbands and wives. The first hypothesis will examine the bivariate relationship between individual happiness (Are you happy?) and how happy children are perceived to be (Are your children happy?). The second hypothesis to be tested under the second aim is that happiness derived from one's children Items 171, 174, 175, and 178 pertain to children and the respective bivariate relationship with item 39, "Are you happy?", will be calculated for each member of the couple. If significant correlations are present, a linear multiple regression analysis using item 39 as the dependent variable will be conducted in order to partial out the individual contributions of items related to

satisfaction in children (items 171, 174, 175, and 178) to individual happiness. To test the third hypothesis of the second aim, that families with at least one stepchild living at home, husbands and wives will report being irritated by their children more, an Analysis of Variance (ANOVA) will be conducted. Due to the differing numbers of stepchildren for husbands and wives, two separate ANOVAs will be used for each spouse. Mean differences in responses to the item, “Do the children get on your nerves?” will be compared for spouses with at least one stepchild living with the family currently, spouses with stepchildren not living at home currently, spouses with only biological children currently living at home, and spouses with children not living in the home.

The third aim of the study is to investigate how attractiveness and financial status contribute to marital satisfaction for husbands and wives in four cultures. The first hypothesis for this aim is that marital satisfaction for husbands will be positively connected to financial status and spousal attractiveness. To test this hypothesis a linear multiple regression analysis will be used using the items, “Do you think your spouse is attractive to others?” (item 100), “Do you consider yourselves well off?” (item 82), and “How much of the joint income do you earn?” (item 4) along with each spouses score on the Love scale, which represents the construct of marital satisfaction, as the dependent variable. It is expected that higher financial status will positively impact marital satisfaction for both husbands and wives, but it is expected to be a stronger predictor for husbands. Also, lower financial status will negatively affect marital satisfaction.

To test the third hypothesis of the third aim that wives who earn more than their husbands will have lower marital satisfaction than when husbands earn more than wives, two groups will be created for the item, “How much of the joint income do you

earn?": one for wives who earn more than half and one for wives who earn less than half. After this split, an independent samples t-test to examine mean differences on the Love scale score between the two groups will be conducted.

Once the aforementioned analyses have been completed, Actor-Partner Interdependence Models (Kashy & Kenny, 1999) will be conducted to examine partner effects. Actor-Partner Interdependence Models (APIM) account for the interdependence that is characteristic of dyadic data by allowing the unexplained variances in the outcome variable to correlate. The basic model conveys the impact of the causal variable on the outcome variable for each member of the couple, which are actor effects, as well as the impact of the causal variable on the partner, or partner effects. Partner effects provide the spouse's influence while controlling for the impact of one's own behavior, which are actor effects. There are six models that will be tested in the four data sets based on anticipated findings. The models are organized by their corresponding aim and hypothesis below.

Aim 1: To investigate the impact of children on marital satisfaction for husbands and wives in four cultures.

H1a: For wives, marital satisfaction will also be related to deeming one's spouse a good parent.

APIM 1a: Perceived parental ability of spouse item with marital satisfaction score as the dependent variable for the dyad.

H1b: Wives who feel close to their children will report greater closeness to their spouses, indicating satisfaction in mate choice.

APIM 1b: Closeness to children item with marital satisfaction score as the dependent variable.

H1c: For wives, marital satisfaction will be related to satisfaction with one's children. Items related to the children's happiness and how well they are doing as perceived by parents will be used.

APIM 1c: Happiness of children and marital satisfaction score as the dependent variable for the dyad.

Aim 2: To investigate the contribution of children to happiness for husbands and wives in four cultures.

H2a: It is expected that mothers and fathers whose children bring them happiness should report higher personal happiness.

APIM 2a: Happiness of children and individual happiness score as the dependent variable for the dyad.

H2b: For both husbands and wives, one's contentedness with life will be related to how much enjoyment is derived from children one has.

APIM 2b: Closeness to children item with marital satisfaction score as the dependent variable.

Aim 3: To investigate how attractiveness and financial status contribute to marital satisfaction for husbands and wives in four cultures.

H3a: For husbands, marital satisfaction will be connected to aspects of financial success and quality of spouse.

APIM 3a: Spouse's attractiveness to others with marital satisfaction as the dependent variable.

CHAPTER 3

RESULTS

The data were carefully screened prior to the statistical analyses and checked for out-of-range values, plausible means, and standard deviations. Up to 6% of the data were missing per sample, due to the inability to distinguish the selected answer, or failure to respond. The skewness, kurtosis, and homoscedasticity were examined to ensure the data were normally distributed, an underlying assumption of parametric statistical analyses. The Love scale was positively skewed, and significant skew was present for all variables selected for the present analysis. As the cost of data transformations outweigh the benefits (Tabachnik & Fidel, 2000), the data remained in their untransformed state.

After the data were screened, the means and standard deviations for all items used in the analyses were calculated. Significant sex differences were tested for each item in the analyses. These results are included in the results when relevant to the hypotheses outlined. For a complete list of the means and standard deviations, please see Table 4 and 5 for wives and husbands, respectively.

Aim 1: The impact of children on marital satisfaction

Hypothesis 1a: For wives, marital satisfaction was expected to be more strongly related to deeming one's spouse a good parent than it was for husbands. This hypothesis was tested by examining the perception of spousal parenting with the item: "Is your spouse a good parent?", where lower scores indicate a higher assessment on the other spouse's parental ability, and the strength of this item's relationship with the Love Scale score was tested for both husbands and wives. In all four cultures, this item

was significantly related to the Love Scale score for both husbands and wives, ranging from -.35 to -.54 (see Table 6). In the American sample, the item was significantly related to the Love Scale score for both husbands, r = -.48, p < .01, and wives, r = -.47, p < .01. In the British sample, the item was significantly related to the Love Scale score for husbands, r = -.37, p < .01 and wives, r = .-.35, p < .01. In the Chinese sample, the item was significantly related to the Love Scale score for both husbands, r = -.50, p < .01, and wives, r = -.54, p < .01. In the Russian sample, the item was significantly related to the Love Scale score for both husbands, r = -.45, p < .01, and wives, r = -.44, p < .01. Thus, in all four samples for husbands and wives, higher perceived parental ability in one's spouse was meaningfully related to marital satisfaction. A Fisher r-to-z test did not reveal any significant sex differences among the correlations.

Additionally, an Actor-Partner Interdependence Model (APIM) was conducted for this hypothesis in AMOS version 7 (Arbuckle, 2006). All of the couples in the present analysis are heterosexual couples and were distinguished on the basis of gender. The perceived parental ability of the other spouse item served as the predictor, with marital satisfaction score as the dependent variable for the dyad. The basic model, which is just identified and does not contain degrees of freedom, was used. Model fit was not examined, but the analysis produced regression coefficients to show the effect of one spouse's response on the other. Table 7 discloses that the actor paths are significant in all four samples, but there are some differences with regard to the partner effects.

The APIM for this hypothesis showed significant partner effects for husbands and wives in the American, British, and Russian samples. In the American sample, husband's perceived parental ability of their spouses was negatively related to their own

satisfaction (β = -.43, p < .01). Wive's perceived parental ability of their spouses was also negatively related to their own marital satisfaction (β = -.42, p < .01). Regarding partner effects, the husband's response to this item weighed more heavily in predicting marital satisfaction for wives (β = -.25, p < .01) than for predicting marital satisfaction for American husbands from the wife's report of parental ability (β = -.19 p < .01). With respect to the partner effects in the British sample, the wife's perceived parental ability of the husband was a better predictor for the husband's marital satisfaction (β = -.26, p < .01) than for the wife's satisfaction, (β = -.09, p < .01). There were no significant partner effects for this hypothesis in the Chinese sample. There were significant partner effects in the Russian sample; the wife's perceived parental ability of the husband was a stronger predictor for the husband's marital satisfaction (β = -.17, p < .01) than the reverse pattern (β = -.11, p < .05).

Hypothesis 1b: There was an expected sex difference with regard to how feeling close to one's children would be related to how close one feels to a spouse. Wives, more than husbands, who felt close to their children would report greater closeness to their spouses, indicating satisfaction in mate choice. To test this hypothesis, the item, "Are you close to the children?", where higher scores indicate greater closeness, was selected for the closeness to children item. The item, "Do you feel close to your spouse?", where higher scores suggest more closeness, was selected as an index of spousal closeness in the analysis. Correlations for the four samples ranged from -.01 to -.17 for husbands and wives, and this inverse relationship indicates as closeness to children increases, closeness to one's spouse decreases, and the reverse association is also true (see Table 8). The variables were significantly related for American wives (r

= -.10, $p < .05$), British wives (r = -.10, $p < .01$), Chinese wives (r = -.17, $p < .01$), and Russian wives (r = -.10, $p < .05$). Regarding husbands, the variables were significantly related for Chinese husbands, (r = -.20, $p < .01$) only. A Fisher r-to-z test did not reveal any significant sex differences among the correlations between Chinese husbands and wives.

To explore this hypothesis further by examining partner effects regarding closeness to children, an APIM was completed using the closeness to children item with marital satisfaction score as the dependent variable. There were significant actor effects in all four samples (please see Table 9). In the American sample, the wife's closeness to children had a negative impact on her husband's satisfaction (β = -.20, $p < .001$), whereas the husband's closeness to children had a positive relationship (β = .14, $p < .001$) to his wife's satisfaction. In the British sample, the husband's closeness to children had a positive relationship on marital satisfaction for wives (β = .17, $p < .001$), but there was no significant partner effect for wife's closeness to children on marital satisfaction for husbands. Though there were significant actor effects in the Chinese and Russian samples, there were no significant partner effects.

Hypothesis 1c: For wives, it was expected that marital satisfaction would be more closely related to satisfaction with one's children than it is for husbands. Items related to the children's happiness and feeling close to one's children were expected to be stronger predictors of marital satisfaction for wives than they would be for husbands. To test the hypothesis that marital satisfaction for wives would be significantly related to their satisfaction in their children, the Love scale was chosen to represent the construct of marital satisfaction and the following four items, which were related to satisfaction in children and their perceived happiness, were selected: "Are you close to the children?",

"Do you like being with your children?", "Do your children bring you happiness?", and "Are your children happy?" Low scores on "Are you close to the children?" and "Do you like being with your children?" indicate not feeling close at all to children and not deriving enjoyment from being with them, respectively. Low scores on "Do your children bring you happiness?" and "Are your children happy?" indicate children provide a great deal of happiness and the children are perceived to be extremely happy, respectively. A correlational analysis revealed that all four items were significantly related to the Love scale score for both wives and husbands (see Table 10 for wives and Table 11 for husbands) in all four cultures). The only exception was the Russian sample; closeness to children was not significantly related to the Love scale score for husbands or wives. Fisher r-to-z comparisons revealed that being with children was more strongly related to the Love scale score for British husbands (r = .33, p < .01) than for British wives (r = .22, p < .01). Closeness was more strongly related to the Love scale score for Russian husbands (r = .37. p < .05) than for Russian wives (r =.16, p < .05); happiness of children was more strongly related to the Love scale score for Russian husbands (r = -.41, p < .01) than for Russian wives (r = -.26, p < .01). Wives reported higher average scores for closeness to children in all four cultures, wives were significantly closer to children in the American (t(340) = -4.32, p < .01), British (t(1011) = -10.04, p < .01), and Russian samples (t(301) = -6.28, p < .01) (see Tables 4 and 5 for means and standard deviations for each spouse).

A linear multiple regression analysis was conducted to examine the unique impact the selected items had using the Love scale score as the dependent variable. The correlations indicated a low risk of multicollinearity being present. For all regression

models in the present study, the variance inflation factor (VIF) was used to confirm this assessment. All regression models yielded VIF values under 1.05, suggesting a low chance that multicollinearity is a concern; average VIF values higher than 10 indicates model bias and the predictive value of the variables would be clouded (Myers, 1990). Adjusted R^2 is reported because it a conservative estimate of the model's predictive power, and it estimates the variance if the model had been derived from the population.

In the American sample, the four predictors accounted for 10.5% of the variance in the Love Scale score for wives, adjusted R^2 = .105, $F(4, 331) = 10.81$, $p < .001$. As shown in Table 12, two items were significant predictors. One was "Do your children bring you happiness?", β = -.11, $t(333) = -1.99$, $p < .05$, which indicates that the higher happiness score predicted higher Love scale scores. The other significant predictor was "Are your children happy?", β = -.25, $t(335) = -4.08$, $p < .001$, and based on the scaling for this item, the happier wives perceived their children to be predicted higher Love scale scores.

For American husbands, the model was also significant and the four predictors accounted for 12.7% of the variance in the Love scale score for American husbands, adjusted R^2 = .127, $F(4, 328) = 9.21$, $p < .001$. The predictor, "Are you close to the children?" was significant, β = .18, $t(332) = 2.70$, $p < .01$, indicating that higher closeness to children predicted higher marital satisfaction scores. The predictor, "Do you like being with your children?", was significant, β = .14, $t(332) = 2.08$, $p < .05$, which indicates that the higher enjoyment score predicted higher Love scale scores. The predictor "Are your children happy?", β = -.13, $t(332) = -1.99$, $p < .05$, indicating that happier husbands perceived their children to be predicted higher Love scale scores.

In the British sample, the model was significant; the four predictors accounted for 9.8% of the variance in the Love scale score for wives, adjusted R^2 = .098, F(4, 967) = 27.44, p < .001. As shown in Table 12, the predictor, “Are you close to the children?” was significant, β = .10, t(970) = 2.54, p < .05, indicating that higher closeness to children predicted higher Love scale scores. Another significant predictor was “Do you like being with your children?”, β = .08, t(970) = 2.23, p < .05, where higher scores point to enjoying the company of one’s children more and that was positively related to the Love scale score. The third significant predictor was “Are your children happy?”, β = -.20, t(970) = -5.30, p < .001, indicating that happier wives perceived their children to be predicted higher Love scale scores.

For British husbands, the model was also significant. The four predictors explains 12.4% of the variance in the Love scale score for British husbands, adjusted R^2 = .124, F(4, 969) = 35.37, p < .001. As displayed in Table 12, there were two significant predictors. The predictor, “Do you like being with your children?”, β = .21, t(972) = 5.03, p < .001, which indicates that the more husbands reported liking the company of their children there was a positive effect on relationship satisfaction. The other significant predictor was “Are your children happy?”, β = -.11, t(972) = -3.00, p < .01, indicating the happier husbands perceived their children to be predicted higher Love scale scores.

In the Chinese sample, the model was significant for wives and the four predictors captured 15.8% of the variance, adjusted R^2 = .158, F(4, 368) = 18.46, p < .001 (see Table 12). The significant predictor was “Are your children happy?”, β = -.28, t(371) = -4.93, p < .001, indicating that happier wives perceived their children to be predicted higher Love scale scores.

For Chinese husbands, the model was significant. The four variables accounted for 24.1% of the variance in the Love scale score, adjusted R^2 = .241, $F(4, 373) = 30.93$, $p < .001$. The significant predictor was "Are your children happy?", β = -.39, $t(376) = -7.56$, $p < .001$, indicating that happier husbands perceived their children to be predicted higher Love scale scores.

In the Russian sample, the model was significant. The four variables accounted for 9.3% of the variance in the Love scale score for wives, adjusted R^2 = .093, $F(4, 309) = 8.99$, $p < .001$. As shown in Table 12, there were two significant predictors. The predictor, "Do you like being with your children?", β = .18, $t(312) = 3.13$, $p < .01$, with higher scores suggesting that enjoying the company of one's children more and that was positively related to the Love scale score. The other significant predictor was "Are your children happy?", β = -.24, $t(312) = -3.76$, $p < .001$, indicating that happier wives perceived their children to be predicted higher Love scale scores.

For Russian husbands, the model was significant and the four predictors accounted for 19.6% of the variance in the Love scale score, adjusted R^2 = .196, $F(4, 300) = 19.58$, $p < .001$. Table 12 shows there were two significant predictors. The significant predictors were, "Are you close to the children?", β = .17, $t(308) = 2.61$, $p < .01$, indicating that higher closeness to children predicted higher Love scale scores The other significant predictor was "Are your children happy?", β = -.30, $t(308) = -4.86$, $p < .001$, indicating that higher closeness to children predicted higher Love scale scores.

As the happiness of children was a significant predictor in all four samples for husbands and wives, further analyses were conducted. Partner effects were examined by conducting an APIM, where the happiness of children item was used to predict the

dependent variable, the Love scale score, or marital satisfaction, for the dyad. Out of the four samples, the actor effects were significant in the British, Chinese, and Russian samples (see Table 13), In the American sample, only the partner effects were significant. The happier husbands perceived the children to be predicted an increase in marital satisfaction for wives (β = -.19, $p < .001$). However, for husbands, the happier wives perceived children to be predicted a decrease in marital satisfaction (β = .27, $p < .001$) for husbands. In the British and Russian samples, there was one significant path; the happier children were perceived to be by the husband predicted an increase in marital satisfaction for British wives (β = -.10, $p < .001$) and Russian wives (β = -.19, $p < .001$). The happier Russian wives perceived their children to be predicted an increase in her husband's score on the Love scale (β = -.15 $p < .001$). There were no significant partner effects in the Chinese sample.

Aim 2: The contribution of children on individual happiness

Hypothesis 2a: It was expected that mothers and fathers whose children were a happy should report higher personal happiness. Two items were used to test this hypothesis: "Are you happy?" and "Are your children happy?" Responses for "Are you happy?" were split into two groups: one group for respondents who perceived their children to be extremely or very happy (High happy children group) and another for respondents who perceived their children to be fairly, not really happy, or not happy at all (Low happy children group). The grouping of responses was completed for both husbands and wives. Then, an independent samples t-test was used to compare means on the individual happiness item.

As shown in Table 14, there were significant differences for husbands in all four samples. American husbands in the high happy children group (M = 3.99, SD = .78)

reported significantly higher individual happiness than American husbands in the low happy children group (M = 3.62, SD = .90), t(345) = 3.41, p < .01. British husbands in the high happy children group (M = 4.20, SD = .79) reported significantly higher individual happiness than British husbands in the low happy children group (M = 3.73, SD = .79), t(1348) = 8.33, p < .01. Chinese husbands in the high happy children group (M = 4.04, SD = .69) reported significantly higher individual happiness than Chinese husbands in the low happy children group (M = 3.15, SD = .91), t(408) = -10.42, p < .01. Russian husbands in the high happy children group (M = 4.17, SD = .60) reported significantly higher individual happiness than Russian husbands in the low happy children group (M = 3.75, SD = .65), t(315) = 5.72, p < .01.

As shown in Table 15, there were significant differences for wives based on group membership. American wives in the high happy children group (M = 4.03, SD = .82) reported significantly higher individual happiness than American wives in the low happy children group (M = 3.59, SD = .96), t(345) = 4.08, p < .01. British wives in the high happy children group (M = 4.21, SD = .79) reported significantly higher individual happiness than British wives in the low happy children group (M = 3.52, SD = .91), t(1338) = 11.12, p < .01. Chinese wives in the high happy children group (M = 3.83, SD = .83) reported significantly higher happiness than Chinese wives in the low happy children group (M = 3.15, SD = .97), t(409) = 6.88, p < .01. Russian wives in the high happy children group (M = 4.10, SD = .59) reported significantly higher individual happiness than Russian wives in the low happy children group (M = 3.86, SD = .69), t(320) = 4.67, p < .01.

Actor-Partner effects for this hypothesis were examined by conducting an APIM where the happiness of the children item was used to predict the dependent variable, individual happiness for each member of the dyad. The actor effects were significant in the British, Chinese, and Russian samples for both spouses (see Table 16). In the American sample, only one partner effect was significant. The happier wives perceived the children to be predicted a decrease in happiness for husbands (β = .20, $p < .001$). The reverse pattern was demonstrated in the British and Russian samples; there was one significant path; the happier children were perceived to be by the husband predicted an increase in happiness for British wives (β = -.10, $p < .001$) and Russian wives (β = -.15, $p < .001$). There were no significant partner effects in the Chinese sample.

Hypothesis 2b: The next hypothesis tested concerned how parents' responses to items regarding their children affected individual happiness. For both husbands and wives, how happy the spouse was expected to be related to how much enjoyment was derived from children one has and how happy the children were perceived to be. A linear multiple regression analysis was conducted to examine the unique impact the selected items had using the item, "Are you happy?" as the dependent variable. The following four items, which were related to satisfaction in children and their perceived happiness, were selected as predictor variables: "Are you close to the children?", "Do you like being with your children?", "Do your children bring you happiness?", and "Are your children happy?" Low scores on "Are you close to the children?", "Do you like being with your children?", indicate not feeling close at all to children and not enjoying being with them, respectively. Low scores on "Do your children bring you happiness?"

and “Are your children happy?” indicate children provide a great deal of happiness and the children are perceived to be extremely happy, respectively. Initially, the correlations were examined for both wives and husbands in all four samples (please see Table 17 and 18, respectively). A Fisher r-to-z transformation determined that the happiness item was significantly related to being happy in relation to children for Chinese husbands (r = -.21, $p < .01$), but not for wives (r = .05, n. s.). This was also the case for perceiving children as happy; the happiness of Chinese husbands was more strongly related to the item, “Are your children happy?”, r = -.50, $p < .01$. A Fisher r-to-z transformation determined that the item, “Do your children bring you happiness?’’ was more strongly related to the item “Do you like being with your children?” for Russian husbands (r = -.37, $p < .01$) in comparison to Russian wives (r = -.20, p < .05).

In the American sample, the model was significant for wives. As shown in Table 19, the four predictors accounted for 8.7% of the variance in the happiness item for wives, adjusted R^2 = .087, $F(4, 340) = 8.83$, $p < .01$. One item was a significant predictor: “Are your children happy?”, β = -.26, $t(343) = -4.21$, $p < .001$, indicating the happier wives perceived their children to be predicted higher individual happiness scores.

For American husbands, the model was also significant, and the four predictors accounted for 8.8% of the variance in the happiness item for American husbands, adjusted R^2 = .088, $F(4, 338) = 9.21$, $p < .001$. The predictor, “Are you close to the children?” was significant, β = .18, $t(342) = 2.62$, $p < .01$, indicating that higher closeness to children predicted higher individual happiness scores. Another significant predictor was “Do your children bring you happiness?”, β = .12, $t(342) = 2.44$, $p < .05$,

and this positive relationship suggests that the more that husbands reported that children do not bring them happiness, the higher their individual happiness was. The final significant predictor was “Are your children happy?”, β = -.15, t(342) = -2.26, p < .05, indicating the happier husbands perceived their children to be predicted higher individual happiness scores.

For British wives, the model was also significant. The four predictors explains 13.2% of the variance in the happiness item for British wives, adjusted R^2 = .132, F(4, 988) = 38.66, p < .001. One significant predictor was “Do you like being with your children?”, β = .09, t(991) = 2.53, p < .05, where the more enjoyment derived from being with one’s children predicted higher individual happiness scores. The other significant predictor was “Are your children happy?”, β = -.26, t(991) = -7.25, < .01, indicating the happier wives perceived their children to be predicted higher individual happiness scores.

In the British sample, the model was significant for husbands. As shown in Table 19 the four predictors accounted for 12% of the variance in the individual happiness score for husbands, adjusted R^2 = .12, F(4, 1002) = 34.26, p < .001. The predictor, “Do your children bring you happiness?” was significant, β = -.10, t(1005) = -3.12, p < .01, indicating that the more happiness brought on by children predicted higher individual happiness scores. The predictor “Do you like being with your children?”, β = .11, t(1005) = 2.72, p < .01, where the more enjoyment derived from being with one’s children predicted higher individual happiness scores. “Are your children happy?”, β = -.20, t(1006) = -5.38, p < .001, where the happier children were perceived to be predicted higher individual happiness scores.

In the Chinese sample, the model was significant for wives and the four predictors captured 12.7% of the variance, adjusted R^2 = .127, $F(4, 392) = 15.21$, $p < .01$. The significant predictor was “Are your children happy?”, β = -.35, $t(388) = -6.16$, $p < .01$, indicating the happier wives perceived their children to be predicted higher individual happiness scores.

For Chinese husbands, the model was significant. The four variables accounted for 26.2% of the variance in the Love scale score, adjusted R^2 = .262, $F(4, 388) = 35.80$, $p < .001$. The predictor, “Do your children bring you happiness?”, was significant, β = -.13, $t(391) = -2.90$, $p < .001$, where the more happiness perceived to be brought on by children predicted higher individual happiness, based on item scale. Another significant predictor was “Are your children happy?”, β = -.50, $t(391) = -10.13$, $p < .001$, indicating the happier husbands perceived their children to be predicted higher individual happiness scores.

In the Russian sample, the model was significant for wives. The four variables accounted for 6.5 % of the variance in the happiness item for wives, adjusted R^2 = .065, $F(4, 304) = 6.52$, $p < .001$. The significant predictor was, “Are your children happy?”, β = -.25, $t(307) = -3.80$, $p < .001$, indicating the happier wives perceived their children to be predicted higher individual happiness scores.

For Russian husbands, the model was significant and the four predictors accounted for 13.4% of the variance in the Love scale score, adjusted R^2 = .134, $F(4, 309) = 13.12$, $p < .001$ (please see Table 19). One of the significant predictors was, “Do your children bring you happiness?”, β = -.13, $t(308) = 2.30$, $p < .05$, where the more happiness brought on by children predicted higher individual happiness, according to

item scaling. The other significant predictor was “Are your children happy?”, β = -.30, t(308) = -4.91p < .001, indicating the happier husbands perceived their children to be predicted higher individual happiness scores.

Actor-Partner effects were examined by conducting an APIM where the closeness to children item was used to predict the dependent variable, individual happiness for each member of the dyad. In all British, Chinese, and Russian samples, the actor effects were significant for both spouses (see Table 20). Actor effects were significant for only American wives. There were significant partner effects in the American and British samples. For American wives, the closer to children husbands perceived themselves to be predicted an increase in happiness for wives (β = .14, p < .001); however, the closer to children American wives perceived themselves to be predicted a decrease in happiness for American husbands (β = -.10, p < .001). In the British sample, there was one significant path; the closer to the children husbands perceived themselves to be predicted an increase in happiness for British wives (β = .16, p < .001). There were no significant partner effects in the Chinese and Russian samples.

Hypothesis 2c: The hypothesis tested in regard to stepchildren was that stepfamilies would experience more child-related stress than families without stepchildren. Specifically, in marriages with stepchildren residing with the couple, it was anticipated that husbands and wives would report more conflict with the children. To test this hypothesis, a new variable was created that collapsed children information for the British datasets. The British data set contained the highest number of stepchildren living at home and was the only data set used to test this hypothesis. British wives reported

19 stepchildren currently living at home and British husbands reported 72 stepchildren living at home. Four groups were created in the British data set based on family composition: couples with at least one stepchild living at home, couples with stepchildren not living at home, couples with only biological children living at home, and couples with biological children not living at home. The item used to index child-related stress was, "Do the children get on your nerves?" Higher scores on this item indicate decreasing frequency in the number of times children are irritants. A 2 X 4 Analysis of Variance was used to compare means of the groups and post hoc analyses were used to examine group differences.

Table 21 shows that for wives, the model was significant, $F(4, 1026) = 18.96$, $p = < .01$. Post hoc analyses (see Table 22, stepmother data are below the diagonal) revealed that stepmothers with at least one stepchild living at home ($M = 2.89$, $SD = 1.20$) reported significantly more irritation than mothers of biological children not living at home ($M = 3.51$, $SD = 1.26$). Additionally, stepmothers whose stepchildren were not living at home reported greater irritation ($M = 2.44$, $SD = 1.53$) than mothers of biological children living at home ($M = 3.20$, $SD = .74$) and not living at home ($M = 3.51$, $SD = 1.26$).

For husbands, the model was also significant, $F(4, 1040) = 9.54$, $p = < .01$ (see Table 23). Post hoc analyses (see Table 22, stepfather data is above the diagonal) showed that stepfathers with at least one stepchild living at home reported less irritation ($M = 2.05$, $SD = .82$) than fathers of biological children currently living at home ($M = 1.5$, $SD = 1.16$) and not living at home ($M = 1.69$, $SD = .69$).

Aim 3: Marital satisfaction, financial status and attractiveness

Hypothesis 3a: The third aim of the study was to examine how marital satisfaction was affected by financial status and spousal attractiveness. This exploration began with the hypotheses that for husbands, marital satisfaction would be more closely connected to aspects of financial success, such as how financially successful they feel they are and how much of a financial contribution they make to the relationship than for wives. How attractive their spouse is to others was expected to be a stronger predictor of a husband's marital satisfaction more so than it would be for a wife's. To test the hypothesis that the marital satisfaction of husbands would be significantly related to their spouse's attractiveness and their own financial status, the score on the Love scale for each member of the couple was selected to represent marital satisfaction and the following three items related to spousal attractiveness and their financial status were selected: "How much of the joint income do you earn?", where low scores indicate earning more of the joint income, "Do you consider yourselves well off?", where high scores indicate the perception that one is poor, and "Is your spouse attractive to others?" where high scores indicate one's spouse is very attractive to others.. Means of the relevant items were compared and it was found that husbands earned significantly more of the joint income in all four samples: American, $t(416), = 18.70, p < .01$; British $t(1338), 46.12, p < .01$; Chinese, $t(415), = 8.89, p < .01$; Russian, $t(403), = 14.88, p < .01$ (see Tables 4 and 5 for means and standard deviations). In all four samples, husbands had higher means when rating how attractive their spouse was to others, and British husbands had significantly higher mean ratings than British wives for the attractiveness of their spouse, $t(1347), = 11.71, p < .01$ as did Russian husbands,

t(400), = 2.23, *p* < .05. American husbands rated themselves as significantly more well off than wives did *t*(416), = -2.52, *p* < .05.

A correlational analysis revealed that all three items were significantly related to the Love scale score for both wives and husbands with few exceptions (see Tables 24 and 25, respectively) in all four cultures). For Chinese and Russian husbands, the portion of the joint income they earn was not related to the Love Scale score. Fisher r-to-z comparisons revealed that contributing less to the joint income was more strongly related to the Love scale score for American wives (*r* = .14, *p* < .01), whereas American husbands had higher Love scale scores if they contributed more to the joint income (*r* = -.09, *p* < .05). Separate Fisher r-to-z comparisons revealed the relationship between one's contribution to household income and marital satisfaction was significantly larger for Chinese wives (*r* =.15, *p* < .01) in comparison to Chinese husbands (*r* =.01, n. s.), and for Russian wives (*r* =.17, *p* < .01) compared to their husbands (*r* = -.02, n. s.). Considering one's self well off was more strongly related to the Love scale score for Russian wives (*r* = -.36, *p* < .01) than for Russian husbands (*r* = -.19, *p* < .01).

A linear multiple regression analysis was conducted to examine the unique impact the selected items had using the Love scale score as the dependent variable. In the American sample, the model was significant and the three predictors accounted for 16.2% of the variance in the Love Scale score for husbands, adjusted R^2 = .162, *F*(3, 394) = 25.25, *p* < .001 (see Table 26). Two items were significant predictors: "Is your wife attractive to others?", β = .33, *t*(396) = 7.16, *p* < .01, indicating that the more attractive husbands reported their wives to be to others predicted higher scales on the

Love scale. The other significant predictor was “Do you consider yourselves well-off?”, β = -.174, t(396) = -3.63, p < .01, indicating that the less well off husbands reported themselves to be predicted lower scores on the Love scale.

For American wives, the model was also significant and the three predictors accounted for 11.2% of the variance in the Love scale score for American wives, adjusted R^2 = .112, F(3, 403) = 18.13, p < .01 (see Table 26). The predictor, “How much of the joint income do you earn?” was significant, β = .116, t(405) = 2.46, p < .01, which means as wives report contributing less to the joint income their Love scale score increased. The predictor “Do you think your husband attractive to others?” was significant, β = .179, t(405) = -4.96, p < .01, indicating that the more attractive they perceived their spouse to be to others predicted higher scores on the Love scale. The third predictor was significant “Do you consider yourselves well-off?”, = -.236, t(405) = 3.77, p < .01, indicating that wives who reported being more well off would have higher scores on the Love scale.

In the British sample, the model was significant for husbands. The three predictors explains 24.6% of the variance in the Love scale score for British husbands, adjusted R^2 = .246, F(3, 1288) = 141.69, p < .01 (see Table 26). The predictor, “Do you think your spouse is attractive to others?” was significant, β = .48, t(1290) = 19.89, p < .01, indicating that the more attractive husbands reported their wives to be to others predicted higher scales on the Love scale. The predictor, “Do you consider yourselves well-off?”, was significant, β = -.08, t(1290) = -3.09, p < .01, indicating that the less well off husbands reported themselves to be predicted lower scores on the Love scale..

For British wives, the model was significant; the three predictors accounted for 22.5% of the variance in the Love scale score for wives, adjusted R^2 = .225, F(3, 1292) = 126.01, p < .001 (see Table 26). The predictor, “Do you think your spouse is attractive to others?” was significant, β = .44, t(1294) = 17.85, p < .01, indicating that the more attractive that wives reported their husbands to be to others predicted higher scales on the Love scale. The predictor “Do you consider yourselves well-off?”, was significant, β = -.10, t(1294) = -3.83, p < .01, indicating that wives who reported being more well off would have higher scores on the Love scale.

In the Chinese sample, the model was not significant for husbands. For Chinese wives, the model was significant (see Table 26). The three variables accounted for 8.8% of the variance in the Love scale score, adjusted R^2 = .088, F(3, 382) = 13.34, p < .01. The predictor, “How much of the joint income do you earn?” was significant, β = .17, t(384) = 3.74, p < .01, which means as wives report contributing less to the joint income their Love scale score increased. The predictor “Do you consider yourselves well-off?”, was significant, β = -.18, t(384) = -3.66, p < .01, indicating that wives who reported being more well off would have higher scores on the Love scale. The predictor “Do you think your spouse is attractive to others?” was significant, β = .18, t(384) = 3.67, p < .01, indicating that the more attractive wives perceived their spouse to be to others predicted an increase in their Love scale.

In the Russian sample, the model was significant. The three variables accounted for 27.5% of the variance in the Love scale score for husbands, adjusted R^2 = .275, F(3, 381) = 49.57, p < .001 (see Table 26). The significant predictors were, “Do you consider yourselves well-off?”, β = -.12, t(383) = -2.52, p < .05, indicating that husbands who

reported being more well off predicted higher scores on the Love scale. The second significant predictor was “Do you think your spouse attractive to others?”, β = .50, t(383) = 11.38, p < .01, indicating that the more attractive husbands reported their wives to be to others predicted higher scales on the Love scale..

For Russian wives, the model was significant and the three predictors accounted for 25.9% of the variance in the Love scale score, adjusted R^2 = .259, F(3, 391) = 46.83, p < .001. The significant predictors were, “Do you consider yourselves well-off?”, β = -.28, t(393) = -6.25, p < .01, indicating that wives who reported greater wealth would have higher scores on the Love scale. The predictor “Do you think your spouse is attractive to others?”, was significant, β = .36, t(393) = 8.01, p < .01, indicating that the more attractive they perceived their spouse to be to others predicted higher scores on the Love scale.

Partner effects for this hypothesis were examined by conducting an APIM where the item regarding spouse’s attractiveness to others was used to predict the dependent variable, marital satisfaction for each member of the dyad. In all four samples, both actor effects were significant, please see Table 27. There were no significant partner effects in the American sample. The British sample yielded significant partner effects. The more attractive a husband found his wife to be to others, the higher her marital satisfaction was likely to be (β = .17, p < .001). The same was true for husbands; the higher a wife rated her husband to be to others, the higher her husband’s marital satisfaction was likely to be (β = .10, p < .001). The Russian sample yielded significant partner effects. The more attractive a husband found his wife to be to others, the higher her marital satisfaction was likely to be (β = .12, p < .001). The reverse was true for

husbands; the higher a wife rated her husband's attractiveness to be to others, the higher her husband's marital satisfaction was likely to be (β = .16, $p < .001$). There were no significant partner effects in the American and Chinese data set.

Hypothesis 3b: The next hypothesis tested concerned sex differences in marital satisfaction based on financial status. It was expected that wives would have lower marital satisfaction if their financial status was also low. This association was investigated through a correlational analysis. The following item was tested for its relationship to the Love scale, "Do you consider yourselves well off?" where higher scores indicate a lower perception of one's financial status. As shown in Table 28 there were significant, negative relationships in all four samples; the better off wives perceived themselves to be was related to having a higher Love scale score. For American wives the association was $r = -.27$, $p < .01$. For British wives the association was $r = -.17$, $p < .01$. For Chinese wives the association was $r = -.18$, $p < .01$. For Russian wives the association was $r = -.37$, $p < .01$. However, husbands in all four samples had the same pattern; low financial status was associated with low marital satisfaction for husbands (Table 28). A Fisher r-to-z transformation revealed that the association between being well off and the Love scale score was significantly different and stronger for Russian wives were in comparison to their husbands; no other comparisons were significant.

Hypothesis 3c: The final hypothesis tested centered on income contribution and marital satisfaction. It was hypothesized that wives who contribute about half or more to the joint income than husbands will have lower marital satisfaction than when husbands contribute more than wives. To test this hypothesis, using the item, "How much of the joint income do you earn?", two groups were created in the data for husbands and

separately for wives: one for spouses who earned all, more than half, and about half of the joint income, and a second group for spouses who reported earning less than half or none of the joint income.

As shown in Table 29, there were significant differences for wives in three of the four samples. American wives who contributed half or more to the joint income (M = 37.38, SD = 6.20) reported significantly lower marital satisfaction than American wives who contributed less than half to the joint income (M = 39.09, SD = 5.32), $t(407) = -2.92$, $p < .01$. There were no significant differences in marital satisfaction based on contribution to joint income for British wives. Chinese wives who contributed half or more to the joint income (M = 30.21, SD = 5.68) reported significantly lower marital satisfaction than Chinese wives who contributed less than half to the joint income (M = 31.99, SD = 5.76), $t(391) = -2.86$, $p < .01$. Russian wives who contributed half or more to the joint income (M = 32.79, SD = 5.43) reported significantly lower marital satisfaction than Russian wives who contributed less than half of the joint income, (M = 34.44, SD = 5.24), $t(396) = -3.07$, $p < .01$.

Regarding husbands, the results were less striking (see Table 30). American husbands who contributed half or more of the joint income (M = 38.61, SD = 5.53) reported significantly higher marital satisfaction than husbands who contributed less than half of the joint income, (M = 37.54, SD = 5.81), $t(399) = 1.88$, $p < .01$. There were no significant differences in the British, Chinese, and Russian samples.

Post hoc analysis

Because of the consistent predictive value of children's happiness, attractiveness, and financial status, an additional linear multiple regression analysis was

conducted to examine model with when these three predictors were combined in the same model. The results are displayed in Table 31.

In the American sample, the model was significant and the three predictors accounted for 24% of the variance in the Love Scale score for husbands, adjusted R^2 = .24, $F(3, 394) = 26.33$, $p < .001$. The three items were significant predictors: "Is your wife attractive to others?", β = .31, $t(396) = 16.29$, $p < .01$, indicating that the more attractive husbands reported their wives to be to others predicted higher scales on the Love scale. The predictor "Do you consider yourselves well-off?", β = -.20, $t(396) = -3.99$, $p < .01$, was significant and indicated that the less well off husbands reported themselves to be predicted lower scores on the Love scale. The third predictor, "Are your children happy?" was a significant predictor, β = -.26, $t(396) = -4.79$, $p < .01$, which suggests that the happier children are perceived to be the higher the Love scale score for American husbands.

For American wives, the model was also significant and the three predictors accounted for 17% of the variance in the Love scale score for American wives, adjusted R^2 = .17, $F(3, 403) = 18.55$, $p < .01$. The predictor "Is your husband attractive to others?" was significant, β = .15, $t(405) = 2.92$, $p < .01$, indicating that the more attractive they perceived their spouse to be to others predicted higher scores on the Love scale. A second predictor was significant "Do you consider yourselves well-off?", = -.22, $t(405) = -4.27$, $p < .01$, indicating that The predictor, "Are your children happy?" was significant, β = -.26, $t(405) = -5.10$, $p < .01$, which means as wives report the children being happier the higher the Love scale score for American wives.

In the British sample, the model was significant for husbands. The three predictors explains 24% of the variance in the Love scale score for British husbands, adjusted R^2 = .24, F(3, 1288) = 78.58, p < .01. The predictor, "Is your spouse is attractive to others?" was significant, β = .37, t(1290) = 13.02, p < .01, indicating that the more attractive husbands reported their wives to be to others predicted higher scales on the Love scale. The predictor, "Do you consider yourselves well-off?", was significant, β = -.09, t(1290) = -3.85, p < .01, indicating that the less well off husbands reported themselves to be predicted lower scores on the Love scale. The third predictor, "Are your children happy?" was significant, β = -.27, t(396) = -9.76, p < .01, which suggests that the happier children are perceived to be the higher the Love scale score for husbands.

For British wives, the model was significant; the three predictors accounted for 27% of the variance in the Love scale score for wives, adjusted R^2 = .27, F(3, 1292) = 91.92, p < .001. The predictor, "Do you think your spouse is attractive to others?" was significant, β = .40, t(1294) = 14.45, p < .01, indicating that the more attractive that wives reported their husbands to be to others predicted higher scales on the Love scale. The predictor "Do you consider yourselves well-off?", was significant, β = -.11, t(1294) = -3.95, p < .01, indicating that wives who reported being more well off would have higher scores on the Love scale. The third predictor, "Are your children happy?" was a significant predictor, β = -.25, t(396) = -9.86, p < .01, which suggests that the happier children are perceived to be the higher the Love scale score for wives.

In the Chinese sample, the model was significant for husbands. The variables accounted for 23% of the variance in the Love scale score, adjusted R^2 = .23, F(3, 3375)

= 30.43, $p < .01$. The predictor “Do you think your spouse is attractive to others?” was significant, $\beta = .11$, $t(384) = 2.55$, $p < .05$, indicating that the more attractive wives perceived their spouse to be to others predicted an increase in their Love scale. The third predictor, “Are your children happy?” was significant, $\beta = -.48$, $t(396) = -10.59$, $p < .01$, which suggests that the happier children are perceived to be the higher the Love scale score for husbands.

For Chinese wives, the model was significant. The three variables accounted for 20% of the variance in the Love scale score, adjusted $R^2 = .20$, $F(3, 382) = 24.27$, $p < .01$. The predictor “Do you consider yourselves well-off?”, was significant, $\beta = -.12$, $t(384) = -2.65$, $p < .05$, indicating that wives who reported being more well off would have higher scores on the Love scale. The predictor “Is your spouse is attractive to others?” was significant, $\beta = .18$, $t(384) = 3.95$, $p < .01$, indicating that the more attractive wives perceived their spouse to be to others predicted an increase in their Love scale. The third predictor, “Are your children happy?” was a significant predictor, $\beta = -.34$, $t(396) = -7.34$, $p < .01$, which suggests that the happier children are perceived to be the higher the Love scale score for wives.

In the Russian sample, the model was significant. The three variables accounted for 34% of the variance in the Love scale score for husbands, adjusted $R^2 = .34$, $F(3, 381) = 40.29$, $p < .001$. One significant predictor was “Is your spouse attractive to others?”, $\beta = .44$, $t(383) = 9.29$, $p < .01$, indicating that the more attractive husbands reported their wives to be to others predicted higher scales on the Love scale. A second predictor, “Are your children happy?” was significant, $\beta = -.20$, $t(396) = -5.99$, $p < .01$,

which suggests that the happier children are perceived to be the higher the Love scale score for husbands.

For Russian wives, the model was significant and the three predictors accounted for 26% of the variance in the Love scale score, adjusted R^2 = .26, $F(3, 391) = 29.36$, $p < .001$. The significant predictors were, “Do you consider yourselves well-off?”, β = -.24, $t(393) = -4.79$, $p < .01$, indicating that wives who reported greater wealth would have higher scores on the Love scale. The predictor “Is your spouse is attractive to others?”, was significant, β = .35, $t(393) = 7.09$, $p < .01$, indicating that the more attractive they perceived their spouse to be to others predicted higher scores on the Love scale. The third predictor, “Are your children happy?” was a significant predictor, β = -.17, $t(396) = -3.49$, $p < .01$, which suggests that the happier children are perceived to be the higher the Love scale score for wives.

CHAPTER IV

DISCUSSION

The present study investigated how known aspects of mate quality affect marital satisfaction and individual happiness. There is support for the idea that both spouses value parental ability and their children's happiness, and these factors are used to gauge marital satisfaction and their own individual happiness. Given the contradictory evidence of other research which concludes that the presence and number of children have a negative impact on marital satisfaction (see Twenge, Campbell, & Foster, 2003), the findings presented here aid in understanding how children affect their parents and their parents' marriage. The present study demonstrated that mate two characteristics, attractiveness and financial status, which attract mates to a long-term mating arrangement such as marriage, also help retain that mate.

Aim 1: The impact of children on marital satisfaction

The first goal of the study was to investigate the contribution of children to marital satisfaction for husbands and wives in four cultures. Due to the extensive investment women make in reproduction, feeling that one's children have a good father should increase marital satisfaction for women. To that end, perceived male parental ability is a known preferred trait for women (Kruger & Fisher, 2003). This hypothesis was supported for wives, but the analogous comparison for husbands was supported too. In all four samples, wives assigned lower ratings of their husband's parental ability than their husbands assigned to them. This difference was significant in the American, British, and Russian samples, but the relationship of this item to marital satisfaction was significantly different from husbands only in the British sample. The lower ranking of the

parental ability of husbands implies that wives are providing more scrutiny in their assessment of parent-child interaction. The correlations were in the moderate range, and the higher the spouse ranked the other's parental ability, the higher marital satisfaction was likely to be. It was hypothesized that this would hold for only wives, but the data showed that husbands also had higher marital satisfaction the more they thought of their spouse's parental ability.

In all four samples, there were moderate correlations indicating that marital satisfaction increased as perceived parental ability increased for husbands and wives. In addition, the positive effect bore out in three of the four cultures tested for both spouses in the APIM that was completed based on this hypothesis. In the American, British, and Russian samples, the higher husbands rated their wife's parental ability, the higher her relationship satisfaction, and the reverse relationship was true as well. Because of the investment women make in pregnancy, it was anticipated that marital satisfaction for wives would be associated with her husband's parental ability to in effect protect that investment. In light of higher parental ability being related to marital satisfaction for husbands, it must be remembered that pregnancy is only one part of successful reproduction. Fitness is measured by how many offspring reach reproductive maturity, and that period is longer for humans than any other species. Prior to adolescence, children are vulnerable and also are learning many of the skills necessary to be a sought-after mate in later life. In adolescence and early adulthood, offspring seek influence from caregivers for mating related matters (Madsen, 2008). If progeny are the product of one's reproductive success, then how they are being cared for will matter to both spouses, even though each sex has different fitness interests that factor

into how one feels about the relationship as a whole. Another plausible explanation for the positive relationship between deeming one's spouse a good parent and marital satisfaction is the spillover hypothesis, which states that positive interactions between spouses can carry over to interactions between parents and children (Erel & Burman, 1995). It is also possible that parental roles and spousal roles share similarities in kindness, communication, and affection which would also explain this connection; thus homogamy could also explain this relationship (Gaunt, 2006).

The second hypothesis of this aim stated there would be a sex difference with regard to how feeling close to one's children will be related to how close one feels to the spouse. As an indication of satisfaction in mate choice, wives, more than husbands, who felt close to their children would report greater closeness to their spouses. This connection for wives was anticipated because of the amount of time mothers are more likely to invest in childcare and previous research that mothers are happier in general when children are happy (Belsky, Youngblade, Rovine, & Young, 1992; Furstenburg & Harris, 1992). However, the correlational analysis did not support the hypothesis. In fact, the opposite pattern was found. Wives in all four samples reported lower closeness to spouse ratings the higher closeness they had to their children. This was not true for the American, British, and Russian husbands, as the closeness they felt to their spouse was not related to the closeness they felt to their children. Cultivating close relationships with children may come at the expense of not feeling as close to one's husband, or distance from spouse could increase closeness to children. The meaning of this finding may be embedded in how respondents conceptualize closeness. Respondents may have considered emotional closeness, or closeness through shared interests and

activities, or they may have compared closeness based on other familial relationships. One wonders whether American couples have reduced time together such that closeness is at a premium and not having it adversely affects the closeness or quality of relationships. It may also reflect the amount of time American wives feel, in contrast to actual time, they have with their husband. Work schedules and time with children are known to reduce the amount of time spent with spouse (Wight, Raley, & Bianchi, 2008), and wives are more likely to state that husbands do not attend to them as much as they wish in general (Cunningham, Braiker, & Kelley, 1982), so the association here may have several influential factors.

The APIM to examine closeness to children in relation to marital satisfaction score revealed that for American wives, the closer a wife reported being to her children, the less satisfied the husband was likely to be with the marriage. This finding may reflect that the husband may feel the wife's relationships with the children take priority over the marital relationship. However, the closer an American husband reported being to his children, the higher his wife's marital satisfaction was likely to be. This partner effect was stronger than the actor effect in this model. Marriages in the Netherlands show increase stability and satisfaction the more involved fathers are with their children (Kalmijn, 1999). Wives may perceive this closeness as part of paternal investment. It may also be that husbands who report being close to their children respond that way based on the amount of time they spend with children, which may reduce role strain on his wife, thus making her more satisfied with the relationship than U. S. husbands (Ramonetti, 1997). The opposite was true for British husbands; the closer wives reported being to their children, the higher their husband's marital satisfaction. Perhaps

this finding is in line with gender role expectations, as the U.K. tends to be more traditional in that regard than other countries (Alwin, Braun, & Scott, 1992).

The final hypothesis tested for this aim was that aspects of child quality would matter more strongly in the marital satisfaction of wives than for husbands across cultures was partially supported. Child quality items were related to marital satisfaction for husbands as well as for wives. Small to moderate correlations were found among all variables selected for the analysis and both regression models for husbands and wives were significant in the four samples. In all four cultures, wives reported feeling closer to their children than husbands reported. The consistent predictor of marital satisfaction for wives that was significant for the four groups (American, British, Chinese, and Russian) was their perception of how happy the children were, where perceiving children to be happier predicted higher marital satisfaction. The relative consistency of this pattern could be due to children being seen as happy because they are cared for, protected, and invested in by parents. A mother's rating of happiness in children may reflect a number of other things, such as personality, peer relations, health, and temperament (Kohler, Behrman, & Skytthe, 2005). In the present study it seems that observing that the children are doing well may boost a wife's opinion of the relationship.

The regression models shed light on other aspects of the children: closeness, being in their company, and how these variables related to marital satisfaction. Regarding American wives, the more wives reported that their children brought them happiness, the higher marital satisfaction; this item was not a significant predictor for other groups of wives. The phrasing of this item may provide an explanation for the cultural differences, as people from the U.S. are more likely to emphasize their own

happiness and label the sources of their happiness (Diener, Oishi, & Lucas, 2003). With respect to British wives, closeness to children reported predicted higher marital satisfaction, and for British and Russian wives, enjoyment from being with their children predicted higher marital satisfaction. This result can be seen as due to deriving satisfaction from the children one has produced, but it is possible that respondents are also satisfied with the social roles they are carrying out. It could also reflect the amount of time that some wives have to spend with their children due to reduced employment outside of the home,.

For husbands, the most consistent predictor of higher marital satisfaction was how happy the children were perceived to be. Like wives, the husbands viewed their marriage in a better light the happier children are rated to be. There has been little research on whether the happiness of children would mean something different than viewing the happiness of children as successful parental investment. American and British husbands' enjoyment of being with their children was just as important as the happiness of children, whereas this was only a significant predictor in the model for Russian wives. For fathers, interaction with children strengthens a father's affiliation and increases liking of children more so than for mothers. Research on how time with children is spent with children suggests fathers are more playful (Ross & Taylor, 1989; McBride, Schoppe, & Rane, 2002), this finding is supported cross-culturally (Bronstein, 1984). Mothers are more nurturing (Starrels, 1994). It may also be that husbands who report higher marital satisfaction want to spend more time with their children, as previous analyses have found in the U.S. (Blair, Wenk, & Hardesty, 1994).

Further support that the happiness of children, as rated by husbands, matters for the marital satisfaction of wives comes from the APIM conducted. The happier husbands see the children, the greater wives' marital satisfaction scores in the American, British, and Russian samples. This could mean that it is important to a wife that her husband sees the children as happy to be satisfied with her relationship. The reverse partner effect, where the happier wives rated the children the higher the husbands' marital satisfaction was likely to be, was only significant in the Russian sample. Interestingly, the happier American wives perceived children to be the lower marital satisfaction for American husbands. Closeness to children could detract from husbands' marital satisfaction for reasons that are related to being close to the children, such as reduced sexual access to the spouse (Blumstein & Schwartz, 1983), and child interference with spousal interaction and communication (White, 1983).

Aim 2: The contribution of children to individual happiness

The second aim of the study investigated the contribution of children to happiness for husbands and wives in four cultures. The first hypothesis, which expected that mothers and fathers whose children brought them happiness would also report higher personal happiness, was supported. Children reflect one's reproductive efforts and can be a continuous index of one's reproductive success as they develop, which has been linked to the individual happiness of parents (Mitchell, 2010). Husbands and wives who rated their children as extremely or very happy rated their own happiness higher in all four cultures. As one's children are a measure of reproductive success, how well they are cared for should factor into individual happiness (Belsky, Youngblade, Rovine, & Young, 1992; Furstenburg & Harris, 1992). The results could be

due to personality; low neuroticism and higher extroversion and agreeableness are strongly related to individual happiness (DeNeve & Cooper, 1998), and respondents may be generally happy and rate their children as happy too.

The APIM where the happiness of children was entered as a predictor and individual happiness score as the dependent variable for the dyad yielded interesting support for the role of children's happiness in individual happiness. American and British wives rated themselves as happier as the happiness rating husbands assigned to children rose. It is unclear whether or not this means the happiness of wives hinges on husbands rating the children as happy, which is their husband's partial reflection of how well the children are cared for. It could also be that wives are happier if husbands share the same concern as they do, since the happiness of children is an important predictor of the happiness they have as a couple. As with the marital satisfaction analyses, American husbands rated their individual happiness lower when wives rated the happiness of children higher, which points to the husband's happiness suffering the happier children are, though the reason why is uncertain. The husbands could feel neglected, but it is possible the lower happiness is connected to culture. American culture has been criticized for having higher expectations from spouses in comparison to others around the world, which contributes to lower satisfaction and, ultimately, marital disruption (Jones & Nelson, 1996).

The second hypothesis of the second aim tested whether the happiness of husbands and wives would be related to how much enjoyment is derived from children one has and how happy the children are perceived to be, as happy children may be a reflection of optimized parental investment. This hypothesis was partially supported.

The regression analysis showed that the most consistent, and only, predictor that accounted for the greatest increase in happiness for wives was their perception of how happy their children were, indicating that as long as the children were happy, wives would report being happy as well. Though there were correlations prior to conducting the regression analysis, relative closeness to children and deriving happiness from children did not predict any significant difference in individual happiness, and being with children was only a significant predictor for British wives.

The regression analysis for husbands also showed that the happiness of children predicted individual happiness for all four cultures, and increasing agreement that children bring them happiness was a consistent predictor in all four cultures, too. The idea of children bringing their fathers happiness could have several interpretations. Fathers may find the process of witnessing the development of their children as a source of happiness. The accomplishments and choices the children make could be a source of happiness, making them proud of their investment. It is certainly an interesting distinction that children can be seen as a direct source of happiness when measuring happiness for husbands, but not when measuring a husband's marital satisfaction. Being close to the children predicted the greatest unit change in happiness for American husbands; closeness to children did not affect happiness for any other group. The amount of time fathers spend with children in the United States has increased greatly in the last fifty years (Sayer, Bianchi, & Robinson, 2004), so that might explain this. Like British wives, finding enjoyment in the company of their children meaningfully predicted greater happiness for British husbands; it is suspected that being with children reflects a cultural value since it was found for both spouses. Involvement and interactions with

children have been linked to individual happiness for American men (Choi, 2010) and for American women (McBride & Mills, 1993; Tremblay & Pierce, 2011). In all four samples, wives reported that they enjoyed spending time with their children more than husbands, and this sex difference was significant in all samples except for the Chinese dataset. With regard to Chinese husbands, children and closeness to them may be influenced by aspects of culture. Though Chinese and other Asian cultures are renowned for veiling the physical aspects of emotional expression (Wu & Tseng, 1985), Chinese fathers consider themselves as highly involved in the education of their children and their care in private (Jankowiak, 1992). National policies, such as the One-Child Policy, have been cited as a factor that increased the positive feelings Chinese couples have for their children, too (Short, Zhai, Xu, & Yang, 2001).

The partner effects that closeness to children had on individual happiness showed that wives had higher happiness scores if their husband was closer to the children. This finding was significant for American and British wives, and it was approaching significance in the Russian sample. A wife could be happier because the father's closeness is a direct sign of his paternity certainty; as paternity certainty increases, both investment and time spent with children increase (Anderson, Kaplan, & Lancaster, 2007). It could also reflect a perceived balance in childcare, resulting in greater happiness for the wife. The actor effects reflected that the closer wives were to children, the happier they were in the British, Chinese, and Russian samples, though closeness to children was not a significant predictor in the regression analysis. Curiously, closeness to children did not affect the happiness rating of husbands, except for the American sample. The closer American wives reported themselves as being to

their children the lower individual happiness for themselves and for their husbands. American husbands may feel that some companionship needs have been sacrificed so that the care of children can be the primary focus of the wife's energy. For husbands, this is likely to be their sexual needs (Call, Sprecher, & Schwartz, 1995; Yeh, Lorenz, Wickrama, Conger, & Elder, 2006), though lack of sexual access to one's partner is not necessarily due to the presence of children; the longevity of the relationship is a possibility as well (McNulty & Fisher, 2008). As for why the same partner effect appears for American wives, diminished sexual quality could be a reason (McNulty & Fisher, 2008). Wives who are caregivers do report feelings of isolation from their spouse (Blair and Johnson, 1992) and reduced emotional support from him (Acitelli & Antonucci, 1994).

Due to known factors that affect parental investment, having children in the home that are unrelated to one member of the couple should result in stepchildren being a source of displeasure. In marriages with stepchildren residing with the couple, husbands and wives report more irritation spurred by the children (Coleman, Fine, Ganong, Downs, & Pauk, 2001), and the present study sought to replicate this finding. A major challenge to testing this was the small number of couples in the analyses with stepchildren, so only the British sample was used because it contained the highest number of stepchildren for husbands and wives. This low level of power is one of the reasons for the finding of partial support for some of the comparisons for British wives only. There were no differences in levels of irritation for wives when comparing households with a stepchild present in contrast biological children living at home. The sample sizes were vastly different, which can account for the lack of meaningful

difference. Stepmothers with at least one stepchild living at home reported being more frequently irritated by their children than mothers of only biological children who were not living at home. This finding likely reflects financial and parenting strains that come from the presence of any children in the home. It was also revealed that stepmothers whose stepchildren were not living in the home were more frequently irritated by their children than mothers of only biological children at home. In this case, though contact and investment is more frequent and greater, respectively, with biological children in the home, it is the unrelated stepchildren who are the greater source of irritation, indicating the presence of discriminative parental solicitude for biological children. Stepchildren who are not living at home may be a source of irritation through custody arrangements, child support, and stepmother-stepchild relations. These factors may be qualitatively different stressors than those associated with the presence of biological children. In addition, stepmothers with stepchildren not living at home reported more frequent irritation from children than mothers of only biological children not living at home. Thus, when residence is equalized, stepmothers with at least one stepchild still report the children as a greater source of irritation, as expected. Unrelated individuals can mean larger differences in personality as well (Loehlin, McCrae, Costa, & John, 1998), which may be an alternative explanation for why stepchildren invite more irritation.

However, British husbands reported less frequent irritation if there was a stepchild living at home in comparison to biological children living at home and biological children not living at home. Stepfathers can be less involved in the direct care of their stepchildren and have fewer opportunities to find the children irritating, whereas care-giving is more often expected of stepmothers (Fisher, O'Leary, & Leve, 2003).

Research on stepchildren has supported that there is increased conflict, lower relationship quality, and less support in stepmother families in contrast to stepfather families (Pruett, Calsyn, Jensen, 1993). When the respondents became stepparents was not controlled for in the analyses, and this timing has been known to impact stepparent-stepchild relations (Banker, 2003).

Aim 3: Marital satisfaction, financial status and attractiveness

The final aim of the study focused on how marital satisfaction for husbands and wives in four cultures was affected by spousal attractiveness, financial contributions to household income, and one's perceived financial status. Because of the importance of recruiting and maintaining an attractive mate by way of channeling his resources toward her and the children produced in that relationship, it was expected that the marital satisfaction of husbands would be more closely connected to aspects of financial success (such as how financially successful they feel they are and how much of a financial contribution they make to the relationship) and attractiveness of their spouse than it would be for wives. This hypothesis was partially supported. For American, British, and Russian husbands, having a spouse who was considered increasingly attractive to others predicted higher marital satisfaction. Also, the British and Russian samples showed that the more attractive a husband rated his wife to others, the higher her marital satisfaction was likely to be, and the reverse was also true. The fact that husbands are more satisfied with marriage when partnered with an attractive wife was expected: her attractiveness can bolster satisfaction on its own, but her attractiveness to others may increase his satisfaction by reflecting his own mate quality (Buss, 1989).

Finding the same pattern for wives can be interpreted the same way. The more wives reported their husband was attractive to others and how well off they reported themselves to be predicted higher marital satisfaction scores in all four cultures, and this finding is consistent with other cross-cultural research (Wong & Goodwin, 2009; Schramm & Harris, 2011). As the financial status of wives increased, so did their marital satisfaction. Marital satisfaction for British and Russian wives was bolstered by how attractive to others their husbands rated them. It is suspected that having an attractive spouse affects how wives feel about their own attractiveness, as couples are likely to be homogamous in attractiveness ratings (Chambers, Christiansen, 1983). There are many data on women being more likely to rate the importance of physical attractiveness lower in contrast to men. The findings here do not refute that phenomenon. It is thought that time, proximity, and familiarity may increase how attractive a spouse is perceived to be over the course of the marriage (Barelds, Dijkstra, Koudenburg, & Swami, 2011). A husband's attractiveness can contribute to the attractiveness of one's children (Gangestad & Simpson, 2000; Cornwell, 2008), especially sons (Fisher 1958), and this may also explain the salience of attractiveness for wives.

The second most frequent predictor of marital satisfaction was the husband's perception of how well off they were; the financially better-off husbands reported being higher in marital satisfaction. Husbands are happier when they perceive themselves to be making a meaningful financial contribution to the relationship (Weisfeld, et al., 1992; Cready, Fossett, & Kiecolt, 1997; Brennan, Barnett, & Gareis, 2001). Marital satisfaction for husbands was not affected by how much of the joint income they earned. It is suggested that the financial items are tapping into the husband's mate value for the

wife, which would explain their relationship to marital satisfaction. Being well off is an index of the sense of financial security benefit she and the children have from her current marriage. Due to the low intercorrelations between the predictor variables and marital satisfaction, it is unsurprising the model was not significant for Chinese husbands, though the model was significant for all four groups of wives. This is not an isolated finding. Guo and Huang (2005) did not find that household income predicted marital satisfaction for Chinese couples.

Because of the universal impact that seeing children as happy had on marital satisfaction and the distinct importance that attractiveness and financial status had, the three variables were tested in a combined model. The new models accounted for more of the variance, and were significant in all four samples for husbands and wives. The standardized weights were largely unchanged from the previous analyses. For wives in all four cultures, perceiving the children as happy, reporting higher financial status, and deeming their husbands as attractive to others predicted higher marital satisfaction scores. For husbands, the children's happiness and rating their spouse as attractive to others were the consistent predictors in all four cultures. Rating one's financial status as high was a significant predictor of marital satisfaction as well for American and British husbands only. The combination of the three predictors in the same model shows that marital satisfaction for husbands and wives continue to be affected by spousal attractiveness and the happiness of children, with financial status being a more consistent predictor for wives.

The hypothesis that lower financial status will negatively affect marital satisfaction was supported for both husbands and wives. Dissatisfaction with one's

financial status may negatively affect how wives perceive their husband's financial contribution, and this dissatisfaction may affect the perception of the relationship, as reduced financial investment from husbands has been linked to marital disruption (Sayer & Bianchi, 2000; Kalmijn, Loeve, & Manting, 2007). Wives in all four samples were less satisfied with their marriages the less well off they considered themselves to be. Russian wives were the only group whose marital satisfaction was even more adversely affected by financial status than their husbands'.

Since the regression analyses showed that financial status only predicted higher marital satisfaction when wives rated themselves as well off in all four cultures, a final hypothesis on household income contribution was generated. The last hypothesis that wives who earned more of the joint income than their husbands would have lower marital satisfaction than wives who contribute less to the joint income was supported. Wives reported earning significantly less of the joint income in all four groups and the less they earned was related to being happier with their marriage in all four samples. However, when wives were grouped based on whether they contributed half or more of the joint income, it was only American, Chinese, and Russian wives who had higher marital satisfaction when they contributed less to the joint income. No meaningful difference was found for British wives, which is likely due to low power and vastly different sample size between the two groups, as roughly one-third of the sample earned half or more of the joint income in contrast to the wives who earned less than half. These findings are best understood under Trivers' theory of parental investment in mammals where the more investing sex seeks a mate who will complement her extensive investment in pregnancy and lactation. In modern society, men invest through

financial support, and numerous studies consistently link income and earning potential as sought-after traits by women (Buss, 1989; Regan, Levin, & Sprecher, 2000); thus, having a husband who earns more indicates that a wife has secured a good investor. American husbands were more satisfied with their marriages when they contributed about half or more of the joint income. The failure to find differences in the other groups of husbands may be due to power. It could also be that men are less bothered by income disparities in contrast to women, or it could be that a more complex analysis of the trade-offs of having a higher-earning wife is needed (Brennan, Barnett, Gareis, 2001). This sex difference supports previous findings that women are troubled more by a lower-earning husband than husbands are; research from numerous tribal societies (Pearson & Hendrix.1979), cross-cultural studies (Canabal, 1990; Seccombe & Lee, 1987; Trent & South, 1989) have shown that when wives have greater economic power, divorce is more frequent.

Limitations

The present study carries the limitations that come with self-report data collected via survey. Self-report data are commonly criticized for whether reliability and validity with respect to the constructs being studied. On the other hand, survey data allow for the collection of large sample sizes in an economic and swift fashion while still being both reliable and valid.

There were several variables that were not included in study, which could have affected the analyses. Gender of the children was not considered in the present analyses due to missing data. Child gender is a known factor that can influence parental investment (Trivers, 2002). Also, the age of children was not included in the analysis,

and it is well known that marital satisfaction is affected by this variable (VanLaningham, Johnson, & Amato, 2001). Educational status of each member of the couple was not collected, so it could not be controlled for. The actual income of the respondents was not collected, either. However, the researcher was more interested in the perceptions respondents maintained about income and financial status.

Perhaps the most severe limitation is the interdependence of the data. Multiple regression, ANOVA, and t test analyses assume the data are independent. The data are also from couples, and nesting effects are likely to be present as well. Data are nested when their variation is linked to other variables, and understanding multiple sources of influence on one variable can aid in understanding differences in the data. In the present analysis, all of the data are dyadic, and treating dyadic data as if it were independent does not account for the effect that one spouse has on the other. The APIMs that were conducted allowed the error terms to be correlated, which identified the interdependence of the variables tested, but these models were only one part of the analyses. As the data are from separate countries, there could have been an effect for country of origin, too. In other words, the contextual variable, country, means nesting effects could be present. The presence of contextual variables means that residuals will be correlated and dependency is in the data. A Multilevel Linear Model (MLM) could have tested for nesting effects based on the couple and country of origin (Raudenbus & Bryk, 2002). MLMs do not assume that data are independent. Additionally, MLMs are highly tolerant of missing data.

The current study did not consider developmental changes to index the contributions of financial status, attractiveness, and children on marital satisfaction and

individual happiness. These variables change with the passage of time, which supports testing evolutionary hypotheses in longitudinal or cross-sectional designs. A major gain that could be generated from such an analysis would be controlling for changes in the individual, specifically one's own mate value, which may affect how individuals feel about their own happiness and marital satisfaction.

The analysis was limited by culture as well. Only four cultures were used in the analysis, although they were chosen for their diversity. The groups were tested separately to allow cross-cultural patterns in the data to be seen, and to permit cultural differences to emerge. When datasets are combined, distinct cultural factors can be obscured. In order to demonstrate that the patterns here are more universal, rather than country specific, couples from different cultures should be included in the future. On the other hand, cultural differences exist within countries, and this notion was not addressed in the present study. Culture is made up of our social norms and customs that allow members to contribute and benefit by adhering to the norms of a given group. The benefits of human cooperation (see Tomasello, 2011 for a review) served as motivation for communication and behavioral imitation--two key areas in which humans outshine our primate cousins across the lifespan. Geography, inter-group competition, and environmental pressures are some factors that have contributed to shaping culture, so groups of people may appear to be different from others. For example, languages can be quite different from each other, but the developmental acquisition, use, underlying cognitions still share many similarities in humans regardless of the language in question (Kirby, Dowman, & Griffiths, 2007). This is something for evolutionary psychologists, who are interested in universal patterns, to account for when making cross-cultural

comparisons. When differences arise, researchers should examine measurement, sampling, and how cultural artifacts influence the results.

Conclusion and Future Directions

There are a few new directions future research could take based on the findings presented here. Given the inverse relationship between marital closeness and closeness to children for wives, future analyses could look at how spouses feel about the amount of time spent together, as it may play a role in how spouses perceive marital closeness. The more similar husbands and wives feel about the amount of shared time together could clarify why closeness to children detracts from being close to one another. Another interesting direction for future research is how parents spending time with their children affects marital satisfaction from an evolutionary perspective. Spouses who are more satisfied due to observations they make about their children may sustain their confidence in having chosen a good mate. Possible directions for testing could be physical and interpersonal resemblance of the child to each parent and examining how these variables affect relationship satisfaction. A final future direction concerns partner effects. The APIM analyses showed that the American sample displayed contrasting results where husbands were less happy and less satisfied with their marriage if wives were closer to children and reported that children were happy. Future research could examine the ways in which husbands may feel neglected by their wife because of her involvement with the children. There were no significant partner effects for the Chinese sample. It is not known if dyadic data in China are less likely to be interdependent, if this is a random pattern, or if there is an effect of culture operating.

The present study shows that there are some similarities and differences between husbands and wives with respect to how marital satisfaction and happiness are affected by their perceptions of their children, financial status, and attractiveness. Parental ability and seeing the children as happy are important components of marital satisfaction not often noted by evolutionists. Having an attractive mate and high financial status persist in affecting us individually and in partnerships, too. Mate selection is based on an unconscious goal of reproduction, so it is not surprising that these variables continue to affect how each member of the couple feels about themselves and their relationship. Future research in evolutionary psychology should include data on couples to expand the findings established here. Though there are studies showing that the presence and number of children are related to dissatisfaction, the present study offers a way for researchers to further explore the connection between having happy children, individual happiness, and marital satisfaction. Perhaps stressors that detract from the happiness of children are more meaningful predictors of dissatisfaction than the presence or number of children themselves. Additionally, future research can focus on the happiness of children at specific points in the lifespan. For example, it could be that marital satisfaction is the lowest when children are adolescents due to, or partially due to, changes in the happiness of children at that time.

A final point for future research is that the ideas tested here were largely influenced by studies where data were collected from single individuals, not dyads. Collecting data from individuals can skew the application of evolutionary principles. Increasing the number of couples in evolutionary analyses in particular can ensure that

researchers are applying evolutionary principles of mate selection, retention, and reproduction to the entire human lifespan.

APPENDIX A

Table 1

Demographic Information for Participants

	China	Russia	U.K.	U.S.
No. of Couples	419	405	1339	420
Mean Age of Husband	39.84	42.67	38.2	42.35
Mean Age of Wife	38.05	40.51	35.94	39.94
Mean No. of Children	1.06	1.2	1.3	2.2
Mean Years of Marriage	13.94	15.6	13.17	15.32
Mean No. of Marriages	1.01	1.21	1.14	1.6

Table 2

Love scale items from the Marriage and Relationship Questionnaire (MARQ) and internal consistencies for all four samples

Love scale items	*Group*	α
Do you enjoy your spouse's company?	American husbands	.91
Are you happy?	American wives	.91
Do you find your spouse attractive?	British husbands	.89
Do you enjoy doing things together?	British wives	.91
Do you enjoy cuddling your spouse?	Chinese husbands	.87
Do you respect your spouse?	Chinese wives	.86
Are you proud of your spouse?	Russian husbands	.85
Does your marriage have a romantic side?	Russian wives	.85
How much do you love your spouse?		

Table 3

Items from the MARQ used in the present study

No.	MARQ item
4	How much of the joint income do you earn?
39	Are you happy?
46	Do you find your spouse attractive?
59	Have you ever thought of divorcing your spouse?
74	Do you feel close to your spouse?
94	How often do you have a serious argument?
98	Have you ever separated for a while?
100	Is your spouse attractive to others?
144	Do you worry about your spouse being unfaithful?
155	Have you had as many children as you wanted?
163	Do the children get on your nerves?
167	Are any of your children physically or mentally disabled?
168	Is your spouse a good parent?
171	Are you close to the children?
174	Do your children bring you happiness?
175	Do you like being with your children?
178	Are your children happy?

Table 4

Means and standard deviations for wives' items for all cultures

	American (n = 336)	British (n = 1339)	Chinese (n = 416)	Russian (n = 404)
Love Scale for wives	38.25 (5.83)	35.05 (4.9)**	30.72 (5.76)*	33.83 (5.35)**
How much of the joint income do you earn?	3.67 (.93)**	3.96 (.91)**	3.05 (.81)**	3.51 (.94)**
Are you happy?	3.93 (.89)	4.10 (.85)	3.65 (.92)**	3.89 (.65)
Do you find your spouse attractive?	4.39 (.76)	4.14 (.92)**	3.35 (.80)	3.85 (.85)**
Have you ever thought of divorcing your spouse?	1.80 (.91)**	1.57 (.84)**	1.88 (1.06)**	2.06 (.99)**
Do you feel close to your spouse?	4.14 (.97)*	4.09 (.94)	3.3 (.89)*	3.43 (.84)*
Are you well off?	2.48 (.81)*	2.78 (.73)	2.86 (.68)	2.96 (.92)
How often do you have a serious argument?	2.63 (.77)	2.45 (.78)	2.61 (.83)	2.28 (.70)
Have you ever separated for a while?	1.89 (.32)	1.89 (.32)	2.24 (.66)	4.60 (.49)
Is your spouse attractive to others?	3.95 (.89)	3.58 (.88)**	2.78 (.98)	3.73 (.82)*
Do you worry about your spouse being unfaithful?	1.76 (.91)**	1.87 (.99)**	1.92 (.98)	1.88 (.98)
Have you had as many children as you wanted?	3.27 (.71)	3.26 (.75)**	3.01 (.78)	3.32 (.67)
Do the children get on your nerves?	3.28 (.69)**	3.3 (.74)**	3.55 (.91)*	3.65 (.76)
Are any of your children physically or mentally disabled?	1.94 (.24)	1.98 (.81)	1.99 (.07)	1.98 (.18)
Is your spouse a good parent?	1.49 (.73)**	1.98 (.15)**	2.05 (.89)**	1.88 (.90)**
Are you close to the children?	4.32 (.7)**	4.31 (.75)**	3.91 (.88)	3.47 (.81)**
Do your children bring you happiness?	1.03 (.18)	1.02 (.13)	1.03 (.17)	1.04 (.32)
Do you like being with your children?	4.49 (.68)*	4.43 (.72)**	4.04 (.83)	4.26 (.69)**
Are your children happy?	1.99 (.74)	1.92 (.74)*	1.95 (.81)	2.71 (.78)

Note. *Significant sex difference at $p < .05$.

** Significant sex difference at $p < .01$.

Table 5

Means and standard deviations for husbands' items for all cultures

	American (n = 333)	British (n = 1339)	Chinese (n = 416)	Russian (n= 404)
Love Scale for husbands	38.12 (5.8)	35.7 (4.33)**	31.57 (5.86)*	35.02 (5.09)**
How much of the joint income do you earn?	2.16 (.85)**	1.94 (.86)**	2.55 (.76)**	2.32 (.89)**
Are you happy?	3.93 (.82)	4.12 (.81)	3.81 (.85)**	3.92 (.64)
Do you find your spouse attractive?	4.39 (.75)	4.39 (.81)**	3.44 (.83)	4.17 (.78)**
Have you ever thought of divorcing your spouse?	1.65 (.84)**	1.39 (.72)**	1.65 (.91)**	1.78 (.91)**
Do you feel close to your spouse?	4.04 (.87)*	4.10 (.84)	3.44 (.88)*	3.52 (.83)*
Are you well off?	2.39 (.79)*	2.77 (.76)	2.89 (.62)	3.05 (.86)
How often do you have a serious argument?	2.58 (.77)	2.45 (.79)	2.56 (.87)	2.24 (.70)
Have you ever separated for a while?	1.88 (.33)	1.90 (.31)	2.30 (.72)	4.64 (.48)
Is your spouse attractive to others?	4.04 (.82)	3.91 (.89)**	2.85 (.92)	3.86 (.79)*
Do you worry about your spouse being unfaithful?	1.53 (.78)**	1.72 (.95)**	1.81 (.96)	1.82 (.98)
Have you had as many children as you wanted?	3.26 (.72)	3.2 (.73)**	3.04 (.95)	3.26 (.75)
Do the children get on your nerves?	3.4 (.67)**	3.43 (.75)**	3.69 (.89)*	3.65 (.74)
Are any of your children physically or mentally disabled?	1.94 (.24)	2.23 (.91)	1.98 (.13)	1.98 (.15)
Is your spouse a good parent?	1.33 (.60)**	1.98 (.13)**	1.75 (.78)**	1.62 (.70)**
Are you close to the children?	4.12 (.81)**	4.01 (.87)**	3.89 (.87)	3.14 (.78)**
Do your children bring you happiness?	1.02 (.14)	1.02 (.14)	1.03 (.16)	1.06 (.31)
Do you like being with your children?	4.4 (.75)*	4.33 (.78)**	4.0 (.80)	3.93 (.85)**
Are your children happy?	1.96 (.71)	1.98 (.76)*	1.93 (.80)	2.71 (.78)

Note. *Significant sex difference at $p < .05$.

** Significant sex difference at $p < .01$.

Table 6

Zero-order correlations between Love scale score and "Is your spouse a good parent?"

	American	British	Chinese	Russian
Wives	-.47**	-.35**	-.50**	-.44**
Husbands	-.48**	-.37**	-.54**	-.45**

*$p < .05$. **$p < .01$.

Table 7

APIM for predicting marital satisfaction from spouse's perceived parental ability of spouse

	Marital satisfaction	
	Husband	Wife
American sample (N = 420)		
Perceived parental ability of spouse		
Husband	-.43**	-.25**
Wife	-.19**	-.42**
British sample (N = 1357)		
Perceived parental ability of spouse		
Husband	-.30**	-.09*
Wife	-.26**	-.52**
Chinese sample (N = 419)		
Perceived parental ability of spouse		
Husband	-.53**	-.07
Wife	-.06	-.51**
Russian sample (N = 405)		
Perceived parental ability of spouse		
Husband	-.42**	-.11*
Wife	-.17**	-.43**

Note. All values represent standardized beta weights.
*p , .05. **p , .01.

Table 8

Zero-order correlations between closeness to children and closeness to spouse

	American	British	Chinese	Russian
Wives	-.10*	-.10**	-.17**	-.10*
Husbands	-.05	-.01	.20**	.06

*p < .05. **p < .01.

Table 9

APIM for predicting marital satisfaction from closeness to children

		Marital satisfaction	
		Husband	Wife
Closeness to children			
American sample (N = 420)			
	Husband	.12**	.14**
	Wife	-.20**	-19**
British sample (N = 1357)			
	Husband	.25**	.17**
	Wife	.02	.19**
Chinese sample (N = 419)			
	Husband	.33**	-.07
	Wife	-.01	.23**
Russian sample (N = 405)			
	Husband	.39**	.10
	Wife	-.06	.23**

Note. All values represent standardized beta weights.
*p , .05. **p , .01.

Table 10

Wives' zero-order correlations for the children variables in all four cultures

		1	2	3	4	5
American Sample (N = 336)						
1	Wife's love	---	.23**	-.20**	.18**	-.31**
2	Are you close to the children?		---	-.40**	.53**	-.43**
3	Do your children bring you happiness?			---	-.36**	.25**
4	Do you like being with your children?				---	-.44**
5	Are your children happy?					---
British Sample (N = 972)						
1	Wife's love	---	.26**	-.09**	.22**	-.29**
2	Are you close to the children?		---	-.21**	.53**	-.55**
3	Do your children bring you happiness?			---	-.28**	.21**
4	Do you like being with your children?				---	-.42**
5	Are your children happy?					---
Chinese Sample (N = 373)						
1	Wife's love	---	.31**	-.16**	.28**	.38**
2	Are you close to the children?		---	-.22**	.62**	-.51**
3	Do your children bring you happiness?			---	-.28**	.23**
4	Do you like being with your children?				---	-.49**
5	Are your children happy?					---
Russian Sample (N = 314)						
1	Wife's love	---	.16**	.04	.22**	-.26**
2	Are you close to the children?		---	-.14**	.36**	-.54**
3	Do your children bring you happiness?			---	-.20**	.14**
4	Do you like being with your children?				---	-.27**
5	Are your children happy?					---

*$p < .05$. **$p < .01$.

Table 11

Husbands' zero-order correlations for the children variables in all four countries

		1	2	3	4	5
American Sample (N = 333)						
1	Husband's love	--	.33**	-.09**	.30**	-.30**
2	Are you close to the children?		---	-.31**	.59**	-.55**
3	Do your children bring you happiness?			---	-.33**	.22**
4	Do you like being with your children?				---	-.52**
5	Are your children happy?					---
British Sample (N = 974)						
1	Husband's love	--	.29**	-.16**	.33**	-.27**
2	Are you close to the children?		---	-.30**	.65**	-.60**
3	Do your children bring you happiness?			---	-.31**	.20**
4	Do you like being with your children?				---	-.50**
5	Are your children happy?					---
Chinese Sample (N = 378)						
1	Husband's love	--	.33**	-.20**	.31**	.47**
2	Are you close to the children?		---	-.31**	.62**	-.48**
3	Do your children bring you happiness?			---	-.27**	.20**
4	Do you like being with your children?				---	-40**
5	Are your children happy?					---
Russian Sample (N = 305)						
1	Husband's love	--	.37**	-.04	.25**	-.41**
2	Are you close to the children?		---	-.11*	.47**	-.52**
3	Do your children bring you happiness?			---	-.38**	.11*
4	Do you like being with your children?				---	-.30**
5	Are your children happy?					---

*$p < .05$. **$p < .01$.

Table 12

Summary of regression analyses for four cultures for predicting marital satisfaction for husbands and wives from children items

	Wives				Husbands			
	American (N = 333)	British (N = 972)	Chinese (N = 373)	Russian (N = 314)	American (N= 343)	British (N = 974)	Chinese (N = 378)	Russian (N = 319)
Variable			β				β	
Are you close to the children?	.07	.10*	.12	-.02	.11**	.07	.05	.17**
Do your children bring you happiness?	-.11*	-.01	-.05	.11	.05	-.05	-.08	.11
Do you like being with your children?	.0	.08*	.06	.18**	.14*	.21**	.10	.05
Are your children happy?	-.25**	-.2**	-.28**	-.24**	-.13*	-.11**	-.39**	-.30**
Constant	43.84**	31.94**	31.31**	27.78**	28.05**	31.77**	35.77**	32.79**
R^2	.105**	.098**	.158**	.093**	.127**	.124**	.241**	.196**
F	10.81**	27.44**	18.46**	9.00**	13.05**	35.37**	30.93**	19.58**

*$p < .05$. **$p < .01$.

Table 13

APIM for predicting marital satisfaction from happiness of children

		Marital satisfaction	
		Husband	Wife
Happiness of children			
American sample (N = 420)			
	Husband	-.06	-.19**
	Wife	.27**	-.04
British sample (N = 1357)			
	Husband	-.32**	-.10**
	Wife	-.02	-.27**
Chinese sample (N = 419)			
	Husband	-.45**	-.07
	Wife	-.01	-.38**
Russian sample (N = 405)			
	Husband	-.44**	-.19**
	Wife	-.15**	-.06

Note. All values represent standardized beta weights.
*p , .05. **p , .01.

Table 14

Individual happiness differences based on happiness of children for husbands

	High happy children	Low happy children	*t*	*df*
Individual happiness	N = 276	N = 71		
American husbands	3.99 (.78)	3.62 (.90)	3.41**	345
	N = 1116	N = 234		
British husbands	4.20 (.79)	3.73 (.79)	8.33**	1348
	N = 305	N = 105		
Chinese husbands	4.04 (.69)	3.15 (.91)	10.42**	408
	N = 305	N = 105		
Russian husbands	4.17 (.60)	3.75 (.65)	5.72**	315

* $p < .05$ ** $p < .01$

Table 15

Individual happiness differences based on happiness of children for wives

	High happy children	Low happy children	*t*	*df*
Individual happiness	N = 267	N = 80		
American wives	4.03 (.82)	3.59 (.96)	4.08**	345
	N = 1140	N = 200		
British wives	4.21 (.79)	3.52 (.91)	11.12**	1338
	N = 304	N = 107		
Chinese wives	3.83 (.83)	3.15 (.97)	6.88**	409
	N = 214	N = 108		
Russian wives	4.10 (.59)	3.86 (.69)	4.67**	320

* $p < .05$ ** $p < .01$

Table 16

APIM for predicting individual happiness from happiness of children

	Individual happiness	
	Husband	Wife
Happiness of children		
American sample (N = 420)		
Husband	.06	-.09
Wife	.20**	.03
British sample (N = 1357)		
Husband	-.32**	-.10**
Wife	-.02	-.27**
Chinese sample (N = 419)		
Husband	-.45**	-.01
Wife	-.07	-.37**
Russian sample (N = 405)		
Husband	-.44**	-.15**
Wife	.10	-.19**

Note. All values represent standardized beta weights.
*p , .05. **p , .01.

Table 17

Zero-order correlations between happiness score and children variables for wives

		1	2	3	4	5
American Sample (N = 341)						
1	Wife's happiness	---	.21**	-.10	.18**	-.30**
2	Are you close to the children?		---	-.39**	.54**	-.49**
3	Do your children bring you happiness?			---	-.35**	.26**
4	Do you like being with your children?				---	-.44**
5	Are your children happy?					---
British Sample (N = 972)						
1	Wife's happiness	---	.27**	-.12**	-.25**	-.35**
2	Are you close to the children?		---	-.20**	.54**	-.55**
3	Do your children bring you happiness?			---	-.26**	.22**
4	Do you like being with your children?				---	-.42**
5	Are your children happy?					---
Chinese Sample (N = 373)						
1	Wife's happiness	---	.21**	-.05	.20**	-.36**
2	Are you close to the children?		---	-.22**	.63**	-.52**
3	Do your children bring you happiness?			---	-.29**	.23**
4	Do you like being with your children?				---	-.49**
5	Are your children happy?					---
Russian Sample (N = 309)						
1	Wife's happiness	---	.15**	.03	.15**	-.24**
2	Are you close to the children?		---	-.14**	.36**	-.55**
3	Do your children bring you happiness?			---	-.20*	.14*
4	Do you like being with your children?				---	-.27*
5	Are your children happy?					---

*$p < .05$. **$p < .01$.

Table 18

Zero-order correlations between happiness score and children variables for husbands

		1	2	3	4	5
American Sample (N = 349)						
1	Husband's happiness	---	.26**	.02	.19**	-.25**
2	Are you close to the children?		---	.30**	-.32**	-.55**
3	Do your children bring you happiness?			---	-.14**	.21**
4	Do you like being with your children?				---	-.50**
5	Are your children happy?					---
British Sample (N = 972)						
1	Husband's happiness	---	.27**	.18**	.27**	-.30**
2	Are you close to the children?		---	-.29**	.64**	-.59**
3	Do your children bring you happiness?			---	-.30**	.20**
4	Do you like being with your children?				---	.48**
5	Are your children happy?					---
Chinese Sample (N = 373)						
1	Husband's happiness	---	.22**	-.21**	.22**	-.50**
2	Are you close to the children?		---	-.33**	.62**	-.48**
3	Do your children bring you happiness?			---	-.29**	.19**
4	Do you like being with your children?				---	.39**
5	Are your children happy?					---
Russian Sample (N = 314)						
1	Husband's happiness	---	.26**	.08	.12*	-.35*
2	Are you close to the children?		---	-.10*	.46**	-.52**
3	Do your children bring you happiness?			---	-.37**	.11*
4	Do you like being with your children?				---	-.29**
5	Are your children happy?					---

*$p < .05$. **$p < .01$.

Table 19

Summary of regression analyses for four cultures for predicting happiness for husbands and wives

	Wives				Husbands			
	American (N = 344)	British (N = 993)	Chinese (N = 392)	Russian (N = 308)	American (N= 343)	British (N = 1006)	Chinese (N = 393)	Russian (N = 319)
Variable	β				β			
Are you close to the children?	.06	.07	.02	-.01	.18**	.05	-.09	.10
Do your children bring you happiness?	-.03	-.03	.05	.08	-.12*	-.10**	-.13**	-.13*
Do you like being with your children?	.03	.09*	.02	.09	.33	.11**	.04	.03
Are your children happy?	-.26**	-.26**	-.35**	-.25**	-.15*	-.20**	-.50**	-.30**
Constant	4.10**	3.98**	4.03**	3.69**	2.44**	4.38**	5.67**	3.92**
R^2	.087**	.133**	.13**	.07**	.088**	.12**	.26**	.13**
F	8.83**	38.66**	15.21**	6.52**	9.21**	34.26**	35.80**	13.12**

*$p < .05$. **$p < .01$.

Table 20

APIM for predicting individual happiness from spouse's closeness to children

		Individual happiness	
		Husband	Wife
Closeness to children			
American sample (N = 420)			
	Husband	.06	.14**
	Wife	-.10**	-.14**
British sample (N = 1357)			
	Husband	.25**	.16**
	Wife	.04	.21**
Chinese sample (N = 419)			
	Husband	.23**	.01
	Wife	.03	.22**
Russian sample (N = 405)			
	Husband	.27**	.11
	Wife	-.01	.12*

Note. All values represent standardized beta weights.
*p , .05. **p , .01.

Table 21

Summary of ANOVA for stepchildren and British wives

	Sum of Squares	df	Mean Square	F
Between Groups	59.88	4	14.97	18.96**
Within Groups	810.16	1026	0.79	
Total	870.04	1030		

**$p < 0.01$

Table 22

Post hoc comparisons between stepchildren and biological children for the item, "Do the children get on your nerves?"

	Stepchild in home	Stepchild not in home	Biological child in home	Biological child not in home
Stepchild in home		.55 (.23)	.36 (.10)**	.45 (.11)**
Stepchild not in home	-.45 (.27)		.19 (.21)	.10 (.99)
Biological child in home	-.31 (.20)	-.76 (.18)**		.09 (.07)
Biological child not in home	-.62 (.22)**	1.07 (.19)**	-.31 (.08)**	

Note. Cells reflect mean difference determined via Tukey's HSD test with standard error in parentheses. Data for husbands presented above the diagonal.
* $p < .05$, ** $p < .01$

Table 23

Summary of ANOVA for stepchildren and British husbands

	Sum of Squares	df	Mean Square	F
Between Groups	23.96	4	5.99	9.54**
Within Groups	652.63	1040	0.63	
Total	676.59	1044		

**$p < 0.01$

Table 24

Zero-order correlations for the financial status and attractiveness variables for wives

	1	2	3	4
American Sample (N = 407)				
1 Wife's love	---	.14**	-.28**	.21**
2 How much of the joint income do you earn?		---	-.10*	-.02
3 Do you consider yourselves well-off?			---	-.15**
4 Is your spouse attractive to others?				---
British Sample (N = 1291)				
1 Wife's love	---	.08**	-.17**	.46**
2 How much of the joint income do you earn?		---	-.02	.07**
3 Do you consider yourselves well-off?			---	-.17**
4 Is your spouse attractive to others?				---
Chinese Sample (N = 373)				
1 Wife's love	---	.15**	-.19**	.20**
2 How much of the joint income do you earn?		---	.08	.01
3 Do you consider yourselves well-off?			---	-.11*
4 Is your spouse attractive to others?				---
Russian Sample (N = 314)				
1 Wife's love	---	.17**	-.36**	.43**
2 How much of the joint income do you earn?		---	-.19**	-.19**
3 Do you consider yourselves well-off?			---	-.20**
4 Is your spouse attractive to others?				---

*p < .05. **p < .01.

Table 25

Zero-order correlations for financial status and attractiveness variables for husbands

	1	2	3	4
American Sample (N = 397)				
1 Husband's love	---	-.09*	-.23**	.36**
2 How much of the joint income do you earn?		---	.23**	-.03
3 Do you consider yourselves well-off?			---	-.13**
4 Is your wife attractive to others?				---
British Sample (N = 1292)				
1 Husband's love	---	.05*	-.12**	.49**
2 How much of the joint income do you earn?		---	.06*	.05*
3 Do you consider yourselves well-off?			---	-.09**
4 Is your wife attractive to others?				---
Chinese Sample (N = 378)				
1 Husband's love	---	.01	-.10*	.12*
2 How much of the joint income do you earn?		---	.07	-.01
3 Do you consider yourselves well-off?			---	-.15**
4 Is your wife attractive to others?				---
Russian Sample (N = 402)				
1 Husband's love	---	-.02	-.19**	.52**
2 How much of the joint income do you earn?		---	.28**	-.03
3 Do you consider yourselves well-off?			---	-.16**
4 Is your wife attractive to others?				---

*$p < .05$. **$p < .01$.

Table 26

Summary of regression analyses for four cultures for predicting marital satisfaction for husbands and wives

	Wives				Husbands			
	American (N = 407)	British (N = 1291)	Chinese (N = 373)	Russian (N = 314)	American (N= 397)	British (N = 1294)	Chinese (N = 378)	Russian (N = 319)
Variable	β				β			
How much of the joint income do you earn?	.116*	.047	.165**	.05	-.042	.034	.016	.025
Do you consider yourselves well-off?	-.236**	-.095**	-.18**	-.28**	-.174**	-.075**	-.08	-.115*
Is your spouse attractive to others?	.179**	.444**	.18**	.361**	.333**	.483**	.096	.501**
Constant	35.45**	26.58**	28.88**	28.80**	32.63**	27.17**	31.62**	24.45**
R^2	.112**	.225**	.088**	.259**	.162**	.246**	.01	.275**
F	18.13**	126.01**	13.34**	46.83**	25.25**	141.70**	2.39	49.57**

*$p < .05$. **$p < .01$.

Table 27

APIM for predicting marital satisfaction from spouse's attractiveness to others

	Marital satisfaction	
	Husband	Wife
Spouse's attractiveness to others		
American sample (N = 420)		
Husband	.35**	.08
Wife	.07	.21**
British sample (N = 1357)		
Husband	.45**	.17**
Wife	.10**	.41**
Chinese sample (N = 419)		
Husband	.11**	-.02
Wife	-.001	.21**
Russian sample (N = 405)		
Husband	.51**	.16**
Wife	.12**	.41**

Note. All values represent standardized beta weights.
*p , .05. **p , .01.

Table 28

Zero-order correlations between Love scale score and financial status

	American	British	Chinese	Russian
Wives	-.27**	-.17**	-.18**	-.37**
Husbands	-.23**	-.11**	-.10*	-.19**

*$p < .05$. **$p < .01$.

Table 29

Marital satisfaction differences based on joint income contribution for wives

	Half or more	Less than half	*t*	*df*
Marital satisfaction	N = 146	N = 263		
American wives	37.38 (6.20)	39.09 (5.32)	-2.92**	407
	N = 312	N = 1004		
British wives	34.58 (5.77)	35.09 (4.63)	-1.56	1314
	N = 205	N = 194		
Chinese wives	30.21 (5.68)	31.99 (5.76)	-2.86**	391
	N = 172	N = 226		
Russian wives	32.79 (5.43)	34.44 (5.24)	-3.07**	396

* $p < .05$ ** $p < .01$

Table 30

Marital satisfaction differences based on joint income contribution for husbands

	Half or more	Less than half	*t*	*df*
Marital satisfaction	N = 297	N = 104		
American husbands	38.61 (5.53)	37.54 (5.81)	1.88**	399
	N = 1244	N = 67		
British husbands	35.68 (4.38)	35.37 (4.94)	.56	1309
	N = 304	N = 107		
Chinese husbands	31.45 (5.85)	31.73 (5.76)	-.48	397
	N = 253	N = 137		
Russian husbands	35.33 (5.25)	34.49 (4.87)	1.53	388

* $p < .05$ ** $p < .01$

Table 31

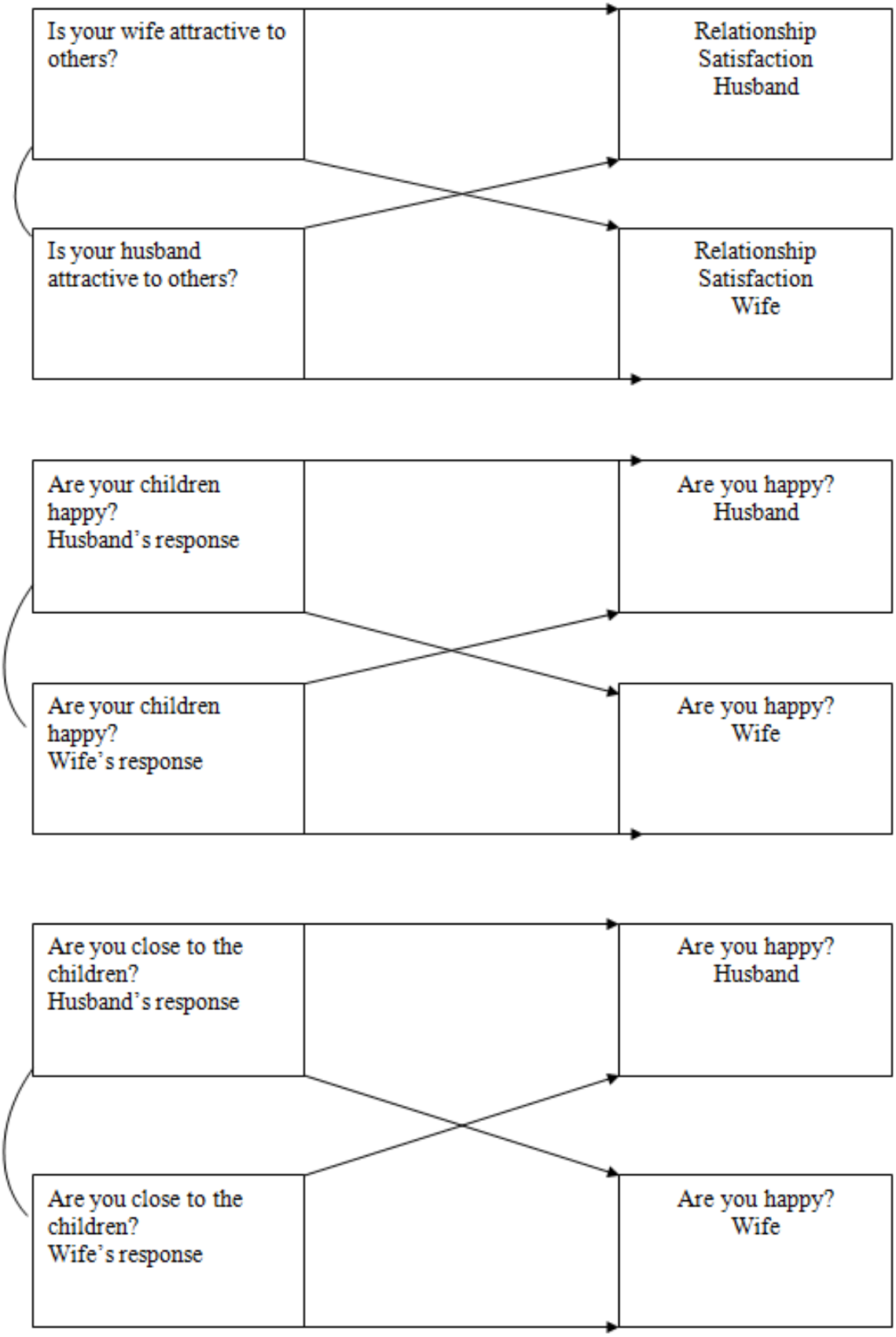
Summary of regression analyses for four cultures for predicting marital satisfaction for husbands and wives from children's happiness, financial status, and spousal attractiveness

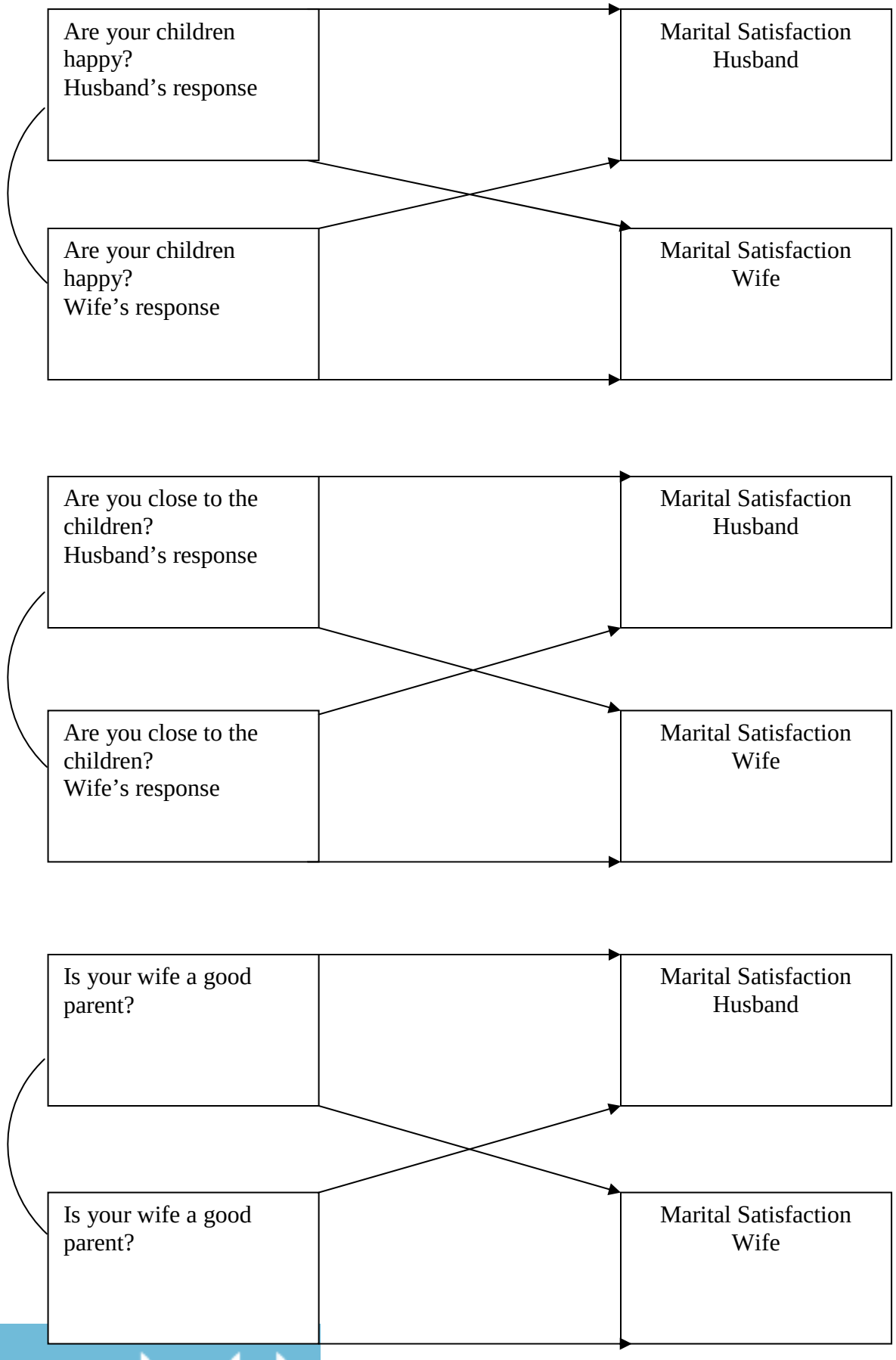
	Wives				Husbands			
	American (N = 407)	British (N = 1291)	Chinese (N = 373)	Russian (N = 314)	American (N= 397)	British (N = 1294)	Chinese (N = 378)	Russian (N = 319)
Variable	β				β			
Are your children happy?	-.26**	-.25**	-.34**	-.17**	-.23	-.27**	-.48**	-.20**
Do you consider yourselves well-off?	-.22**	-.11**	-.12**	-.24**	-.20**	-.09**	-.05	-.05
Is your spouse attractive to others?	.15**	.40**	.18**	.35**	.31**	.37**	.11*	.44**
Constant	40.47**	29.95**	32.87**	31.20**	36.46**	32.34**	37.27**	29.36**
R^2	.17**	.27**	.20**	.26**	.24**	.24**	.23**	.34**
F	18.55**	91.92**	24.27**	29.36**	26.33**	78.58**	30.43**	40.29**

*$p < .05$. **$p < .01$.

APPENDIX B

Figure 1: Actor-Partner Interdependence models tested





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ABSTRACT

SEX DIFFERENCES IN MARITAL SATISFACTION AND HAPPINESS: THE CONTRIBRUTION OF CHILDREN, ATTRACTIVENESS, AND FINANCIAL STATUS

by

LISA MARIE DILLON

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Advisor: Dr. Glenn Weisfeld

Major: Psychology (Cognitive, Developmental, and Social Psychology)

Degree: Doctor of Philosophy

Though numerous studies in the evolutionary psychology literature have investigated how humans select mates in order to successfully reproduce and raise progeny to reproductive maturity, few have examined if factors involved in mate selection matter in marital satisfaction and individual happiness. Being youthful and attractive are indices of reproductive viability and are traits preferred by men universally while women are most known to prefer a mate of high financial status (Buss, 1989), thus underscoring the importance of a male's ability to offer financial investment to potential mates. In addition, women are more likely to evaluate the parental ability of potential long-term mates (Kruger & Fisher, 2003). If reproduction is the unconscious end goal, positive aspects of child quality should be important to parents because children represent the reproductive success individuals have been able to achieve, though the presence and number of children have documented detrimental effects on marital satisfaction (Twenge, Campbell, & Foster, 2003). The present study sought to analyze how information related to child quality, their happiness, spousal attractiveness,

and financial status affect individual happiness and marital satisfaction based on the premise that if individuals have made choices that positively affect reproduction, there ought to be a measurable psychological benefit. While the expected sex differences between husbands and wives were apparent when comparing responses on attractiveness, financial status, and children, finding sex differences in how these variables impacted happiness and marital satisfaction were not as clear. The regression models showed that individual happiness and marital satisfaction can be predicted for both husbands and wives from these variables, though financial status and contributing less of the joint income is more important in the marital satisfaction of wives. The findings are discussed in an evolutionary framework with respect to how future work can benefit from extending the application of evolutionary principles of mating to the entire human lifespan. Evolutionary psychological research needs to heed this new direction.

AUTOBIOGRAPHICAL STATEMENT

Lisa Dillon earned her undergraduate degree in Spanish Modern Language and Literature with a minor in Psychology from Oakland University on the Trustee Academic Success Scholarship in December of 1999. She entered the Cognitive, Developmental, and Social Psychology Graduate program at Wayne State University in the fall of 2006. Lisa's major is developmental psychology and she has completed a minor in statistics. Her main interests are parental investment, sexual orientation, mate selection, and various topics in evolutionary psychology. She has also written on the impact of the number of children on marital satisfaction in collectivist cultures, and the effect of paternal sensitivity on attachment. Lisa enjoys running, reading, painting, and thinking in her spare time.