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**DEVELOPMENT AND VALIDATION OF A COUPLES MEASURE OF  
BIASED RESPONDING: THE MARITAL AGGRANDIZEMENT SCALE**

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A thesis submitted to the School of Graduate Studies of the University of Ottawa as  
partial fulfilment of the requirements for the degree of Doctor of Philosophy

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**In memory,**

David Raymond O'Rourke

1944-1999

לכ ישראל צובים זה ביה

(Shavuot 39a)

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**Development and validation of a couples measure of  
biased responding: The Marital Aggrandizement Scale**

**ABSTRACT**

More than 30 years ago, Edmonds recognized the need for a couples measure of biased responding. Like other categories of self-report instruments, marital measures are believed to be highly susceptible to distortion. Edmonds developed the Marital Conventionalization Scale (MCS) to measure overly positive appraisal of one's marriage. Subsequent research, however, has failed to confirm that the MCS is a valid measure of socially desirable responding. In keeping with this observation, the current study set out to develop a new couples measure of biased responding. An extended pool of items included statements from the existing MCS, additional items from Edmonds' original validation study as well as items written specifically for this study. The scoring protocol for the revised measure was also changed from a true/false, forced choice format to a 7-point, Likert-type scale to increase measurement sensitivity. Item analyses were performed among a random subgrouping of older adults ( $n = 200$ ). Various *a priori* inclusion criteria were applied from which a set of 18 items was selected. Three phases of validation research establish the reliability and validity of this measure among an international sample of older married adults ( $n = 350$ ). The concurrent and discriminant validity of this scale is demonstrated relative to separate measures of biased responding, marital satisfaction, and psychological well-being respectively. Indices of internal consistency as measured by Cronbach's alpha range from  $\alpha = .84$  to  $\alpha = .87$ . Test-retest reliability over an average interval of 43 days is calculated as  $r(102) = .75$ . This

coefficient compares favourably to those obtained for other indices of biased responding among these same participants. Consistent with existing research, it is proposed that the new instrument henceforth be known as the Marital Aggrandizement Scale (MAS). The challenge remains to identify factors associated with the etiology and maintenance of marital aggrandizement. Is this construct particular to older adults within long-term relationships or common to all stages of romantic relationships irrespective of duration? Subsequent research is required to identify correlates and predictors of marital aggrandizement across populations, over time.

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## INTRODUCTION

*Desire will send you back into memory...  
for memory is desire satisfied.*

(Fuentes, 1964)

A general assumption exists in social gerontology that older adults are accurate historians of their relational histories. Irrespective of the duration of one's marriage, it is assumed that change over time does not skew or distort recollections of one's relationship. In effect, it is assumed that past recollections are immune from recall and motivational biases (e.g., Williamson & Schulz, 1990).

It must be noted that this assumption is based on a narrow body of research based solely upon retrospective reports. In other words, the accuracy of retrospective reports has not been confirmed by longitudinal research. The assumption that prior relational quality appears to be immune from distortion, however, may stem from the finding that these beliefs appear to buffer spouses from distress (Cantor, 1983).

### Spousal Recollections of Relational Quality

Among spousal caregivers, for instance, prior relational quality appears inversely related to depressive affect (Kramer, 1992). Also of note, the salience of prior relational quality increases over time such that the relationship to depression becomes more pronounced. As reported by Schulz and Williamson (1991), those who consistently presented as asymptomatic for depression reported that their relationship with their spouse was significantly more positive (e.g.,  $r[73] = .31, p < .01$ ). This finding would seem to support the assertion that reported relational quality serves as a buffer against emotional distress.



This association would seem to suggest a causal relationship in which positive appraisal functions as a consistent buffer. As noted by Uchino, Kiecolt-Glaser, and Cacioppo (1994), however, one cannot assume that retrospective reports are immune from memory and motivational biases. Although a warm and supportive relationship with one's spouse may sustain married persons through difficult times, it is also conceivable that these recollections are distorted.

A study by O'Rourke, Hayden, Haverkamp, Tuokko, and Beattie (1995) questioned the validity of retrospective ratings among spouses of persons with dementia. As in other studies, a significant inverse relation emerged between caregiver burden and past relational quality ( $r[67] = -.35, p < .005$ ). Within a hierarchical regression equation, the contribution of pre-illness relational quality was no longer significant subsequent to forced entry of the Marital Conventionalization Scale, a measure of biased responding (MCS;  $F[5,58] = 1.95, ns$ ). With burden as the dependent variable, shared variance with MCS reduced the association between reports of pre-illness relational quality and burden to a non-significant level. This would suggest that reports of the prior relationship are subject to distortion; once removed, these ratings cease to predict caregiver burden (O'Rourke et al., 1995).

### Memory Reconstruction and the Passage of Time

Throughout recorded history, there has existed a common assumption that recollections are recalled as first encoded (Lamal, 1979). This assumes that memories are stored largely intact. In contrast, contemporary theorists contend that memory is a malleable and adaptive process (e.g., Neisser & Winograd, 1988). As such, events and beliefs are recalled in context of current awareness in order for continuity of meaning and

experience to be maintained over time. This view would appear most applicable to autobiographical memory (i.e., memory for personal life events) as selective recall is most likely to occur as a function of the personal valence of events.

Ironically, vividness of recall may correspond to greater malleability of memory. As breadth of recall is largely a function of frequency of reflection, each time a memory is accessed the possibility exists that subtle and cumulative revision may occur (Christianson, 1992). This creates a context in which recall can recast the details and meaning of past events as the person's circumstance and belief system alter. Successive reflection thus allows subtle distortion to occur leading to enduring, but not necessarily accurate memories (Christianson, 1992).

The degree to which events are deemed personally significant may also foster revision of one's past (Paris, 1996). When dissonance relative to current beliefs exists, memory may be altered to achieve consistency. This need not entail outright confabulation but subtle reconstruction or selective recall of specific details.

A study conducted by McFarland, Ross, and Giltrow (1992) suggests that perceived change in temperament is influenced by implicit beliefs regarding aging. Older adults ( $M = 65.9$  years) reported change in themselves consistent with beliefs regarding alterations in personal attributes across lifespan. In contrast to research which attests to the stability of character in adulthood (McCrae & Costa, 1990), these participants ( $N = 71$ ) perceived change in themselves consistent with age-related stereotypes. This result bears no relation to the positive (e.g., wisdom) or negative (e.g., impaired memory) valence of traits (McFarland et al., 1992).

Consistent findings emerge from research regarding interpersonal relationships (McFarland & Ross, 1987). Participants questioned at two separate times ( $N = 68$ ) altered recollections of their relationship and partner in keeping with current beliefs. Responses obtained two months apart indicated that dating partners who held more negative opinions stated erroneously that current perceptions matched earlier beliefs. In contrast, those who expressed greater intimacy and affection at the time of the second assessment rated past perceptions of their partner and relationship more favourably. This suggests that partners reconstruct relational histories in order to foster perceived continuity. Memories thus appear amenable to change such that past interpersonal beliefs can be adapted to achieve consistency with current attitudes (McFarland & Ross, 1987).

These findings have been replicated among married persons. Participants were recruited as part of the Early Years Marriage Project in which newlywed couples were interviewed at separate times, two years apart ( $N = 26$  dyads). Men who came to view the relationship less positively appeared to impose a negative memory bias upon earlier beliefs (Holmberg & Holmes, 1994). A similar process appears to result in positive memory distortion among men who later viewed the relationship more positively. Although significant results were not obtained for wives, male participants appeared to reconstruct interpersonal recollections concordant with current beliefs. These findings suggest that relational memories are susceptible to change to facilitate perceived continuity of interpersonal experience (Holmberg & Holmes, 1994).

#### Marital Conventionalization and Biased Responding

More than 30 years ago, Edmonds recognized the need for a couples measure of biased responding. Like other categories of self-report instruments, marital measures are

believed susceptible to significant distortion. The Marital Conventionalization Scale (Edmonds, 1967) was developed to measure overly positive appraisal of one's spouse and marriage (15 true/false statements). To this end, each MCS item was purposefully written in extreme terms such that they cannot be endorsed without conveying an inordinately positive depiction of the relationship (e.g., "If my spouse has any faults, I am not aware of them"; "I have never regretted my marriage, not even for a moment").

Since development, uncertainty has surrounded the precise function of the MCS. For instance, subsequent research has consistently shown a weak correlation between the MCS and more standard measures of socially desirable responding. As a result, Fowers, Applegate, Olson, and Pomerantz (1994), have suggested that the MCS does not measure biased responding but *marital hypersatisfaction*. More precisely, endorsement of MCS items was believed to convey a degree of contentment precluding the ability to acknowledge negative perceptions of one's spouse and marriage.

Upon reanalysis of the same data set, Fowers and Applegate (1996) later redefined elevated MCS scores as *idealistic distortion*. These authors now contend that the MCS measures a systemic construct reciprocally determined within the relationship. This assumes a sequence of circular reinforcement in which perceived marital satisfaction between spouses spirals upward. Over time, it is believed that beliefs regarding one's spouse and marriage become exclusively positive. These authors contend that this hypothesis is supported by the significant correlation between MCS levels and marital satisfaction within couples.

This systemic conceptualization is not supported by research conducted with spouses of dementia patients (O'Rourke et al., 1996; O'Rourke, 1998; O'Rourke &

Wenaus, 1998). Within this context, it is unlikely that spouses engage in shared recollections and reinforce each other's relational perceptions. Dementia robs one of one's spouse as the relationship ceases to resemble a marriage (DeLongis & O'Brien, 1990). The notion that spouses collude to recast an embellished depiction of the marriage is inconsistent with the changes wrought by neurodegeneration. Despite this, spousal caregivers endorse a higher number of MCS items as compared to participants recruited in other studies (cf. Hansen, 1981; O'Rourke et al., 1996).

### Evolution of Theory and the MCS

A preliminary study by O'Rourke et al. (1996) challenges the traditional understanding of burden among spouses of persons with dementia. In this study, a measure of marital conventionality (redefined as *marital aggrandizement* in subsequent research) emerged as the single strongest (inverse) predictor of expressed burden among spousal caregivers. This construct was more strongly predictive of burden than patient impairment, duration of care and hopelessness among caregivers. A significant proportion of caregivers indicated that their relationship was ideal prior to the onset of their spouses' illness and that the premorbid personality of their spouse was devoid of character flaws (O'Rourke et al., 1996). The propensity to negate negative experience in one's relational history emerged as a significant, predictor of burden among spouses of dementia patients. It remained to be determined, however, if this phenomenon is widely prevalent among older married adults.

Subsequent research by O'Rourke and Wenaus (1998) replicated the initial findings of the initial O'Rourke et al. study (1996) as the MCS remained a significant predictor of expressed burden among spousal caregivers. MCS scores significantly

contributed to prediction of expressed burden ( $\beta = -.36, p < .01$ ) subsequent to covariation for patient impairment and duration of symptoms ( $R^2 = .24, p < .001$ ).

Data were obtained anonymously for this study to minimize the likelihood of distortion due to impression management. Replication of the significant association between MCS and burden with a separate caregiver sample suggests a consistent relationship between these constructs. This finding is supported by methodological differences between studies. Measurement of marital aggrandizement with respondents' identity masked reduced the possibility that MCS scores are elevated as a function of the demand requirements of structured interviews (O'Rourke & Wenaus, 1998).

#### Marital Aggrandizement as Currently Defined

Marital aggrandizement is hypothesized to be a distinct response style by which persons convey an inordinately positive portrayal of their spouse and marriage. This entails a propensity to discount negative perceptions of one's marital history. Marital aggrandizement is deemed distinct from individually-mediated response biases as measured by traditional instruments. This construct is thus systems-based (i.e., occurring exclusively within relationships). It is believed that those who convey idealized depictions of their relationship invariably provide exaggerated responses to other marital measures; however, contentment within marriage does not necessarily entail aggrandizement of one's relational history. Marital aggrandizement is believed to be idiosyncratic to a percentage of persons and not necessarily integral to enduring relationships.

It is also assumed that marital aggrandizement does not entail psychopathology, but functions as an adaptive process. Furthermore, it is believed that older adults

reconcile the continuity of their marriages with negative interpersonal experience. In other words, awareness that one has chosen to remain married to the same person over many years would appear incongruent with beliefs that challenge this decision. In order to sustain contentment, spouses attend more closely to beliefs that support the continuity of the relationship. This assertion is congruent with the notion of cognitive dissonance as applied to recollections of one's interpersonal history (Ross, 1989). Beliefs incongruent with current satisfaction are less likely to be recalled and retained.

### Social Desirability and Questionnaire Research

According to Linden, Paulhus, and Dobson (1986), it is advantageous to include a measure of socially desirable responding in self-report studies. This is because participants may distort information divulged. For instance, questions regarding illicit behaviour, sexual practices, or idiosyncratic beliefs may lead to self-censorship in certain instances. Distortion can occur in interview settings, survey research as well as completion of anonymous questionnaires (Paulhus, 1991).

Socially desirable responding is defined as a systematic tendency to present oneself favourably (Paulhus, 1991). Although social desirability has traditionally been perceived as a deliberate process, the phenomenon has come to be viewed as increasingly complex. In addition to purposeful distortion, participants may under-report various behaviours and beliefs with limited awareness. In this vein, Paulhus (1984) has proposed a two-component model of biased responding. In addition to *impression management* (i.e., conscious dissembling or other distortion), persons may also engage in *self-deception* (i.e., an honest, yet overly positive self-presentation). This distinction suggests that biased responding is not solely intentional, but also may reflect a self-protective,

psychological stance. In other words, some respondents may choose to present themselves in a more favourable light, whereas others convey an overly positive self-image which they honestly endorse (Paulhus, 1984).

### Marital Aggrandizement as a Distinct Construct

As suggested by O'Rourke et al. (1996), items from more traditional social desirability measures differ qualitatively from the MCS which deals directly with the *individual in relationship*. This hypothesis was tested in research comparing response levels for the MCS relative to the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1994). The latter was specifically developed to tap self-deception and impression management via separate subscales.

The MCS did not correlate significantly with either the self-deception ( $r = .13, ns$ ) or impression management ( $r = .24, ns$ ) subscales of the BIDR. A corroborating finding emerged from regression analysis in which the MCS served as the predicted variable. The standardized beta coefficients for BIDR self-deception ( $\beta = .03; F[4.51] = .06, ns$ ) and impression management ( $\beta = .25; F[4.51] = 3.73, ns$ ) did not significantly contribute to the prediction of MCS scores in contrast to reported hopelessness ( $R^2 = .17, p < .05$ ). These results support the assertion that the MCS taps a response style distinct from more traditional social desirability constructs (O'Rourke & Wenaus, 1998). Although developed as a measure of biased responding, these findings suggest that the MCS measures a construct distinct from individually-mediated response biases.

### Factor Structure of the MCS

In contrast to the BIDR, the MCS appears to measure a single construct. In a study by Wenaus, O'Rourke, and MacLennan (1997), various indices suggest that the



two-factor hypothesis may not apply to the MCS. Preliminary analyses suggested a two-factor structure though strongly correlated ( $r[128] = .60, p < .001$ ). Six of 15 items loaded significantly on both factors (i.e., complex variables), and Factor 2 contributed only 4.5% additional variance above that provided by Factor 1 (34%) subsequent to oblique rotation.

In contrast, the correlation between subscales of the BIDR is notably lower. For instance, the coefficients between impression management and self-deception range from  $r = .05$  to  $r = .40$  (Paulhus, 1991). Among older adults, a nonsignificant correlation coefficient of  $r[56] = .19$  emerged between BIDR factors as reported by O'Rourke and Wenaus (1998).

A qualitative analysis of item content was undertaken in a subsequent study (O'Rourke, 1999). As compared to a single factor model, it was hypothesized that distinct *ideal spouse* and *ideal marriage* factors might underlie the MCS. This was not apparent, however, as the results of confirmatory factor analyses indicated that the single factor model provided a better fit to the data. This finding supports the assertion that the MCS measures a construct distinct from traditional measures of biased responding (O'Rourke, 1999).

### Summary of Research to Date

Much of the difficulty interpreting existing research is attributable to the finding that the MCS measures multiple constructs. More precisely, it appears that the existing scale taps both marital satisfaction and biased responding (Fowers & Applegate, 1995; Fowers et al., 1994). Contradictory conclusions stem from the fact that the existing measure allows for preconceptions to skew interpretation of findings in the direction of

existing belief systems (see Clayton, 1979; Johnson & Greenberg, 1985). A new couples measure of biased responding is thus required.

The need to gauge marital aggrandizement remains a necessity in couples research; however, this instrument needs to be distinct from marital satisfaction while measuring distorted perceptions of one's spouse and relationship history. As it is assumed that marital aggrandizement emerges over time, measurement of this construct presupposes that persons have been married for an extended period.

According to this operational definition, marital aggrandizement is assumed to emerge over time. Among newlyweds, for instance, heightened satisfaction may reflect novelty of married life and incomplete knowledge of one's spouse. Early on, one may endorse the statement, 'I have never known a moment of sexual frustration during my marriage', because the occasion has yet to arise. Credible endorsement of such statements becomes increasingly unlikely with the passage of time. To ensure that endorsement of such statements entails selective recall, participation in this study was limited to those over 49 years of age who have been married at least 20 years. It was deemed prudent at this stage of item selection to ensure that the marriage has endured beyond the point where endorsement of such statements entails negation of negative beliefs and perceptions of the marriage.

### Research Questions

#### Study One

It was unclear how definitely respondents endorsed these items as the MCS was devised as a forced-choice, true/false scale. For instance, spouses may specify that they 'have never regretted their marriage, not even for a moment' not because this statement is

perceived to be true but as a function of the ideals and expectations of bygone times. It is assumed that some respondents may indicate that statements from the original MCS are true because they do not wish to convey the contrary. In other words, measurement sensitivity of existing scale may be compromised by a tendency to endorse extreme statements as the opposing forced-choice alternative may be perceived as unacceptable. Various authors contend that the true/false response format is significant limitation of the MCS (Hansen, 1981; Schumm, Hess, Bollman, & Jurich, 1981).

Objective 1.1 In keeping with this observation, the scoring protocol of the MCS has been revised so that responses are now scored upon a 7-point, Likert-type scale. This revision enables gradation of responses such that extreme and moderate endorsement of statements can be differentiated thus providing increased measurement sensitivity (Smith & McCarthy, 1995). Given a greater number of response options, it is assumed that some respondents would still choose to select response alternatives at the extreme end of response keys. This is the same scoring protocol as for the BIDR (Paulhus, 1994).

Objective 1.2 Analyses were performed to assess the factor structure of an extended item pool. As previously discussed, the true/false format of the existing scale suggests a single underlying construct (O'Rourke, 1999; Wenaus et al., 1997). At this stage, exploratory analyses are again warranted to determine if marital aggrandizement entails a multi-factor structure. This information is required prior to item selection for the revised measure. It is hypothesized that this scale will remain a measure of a single construct.

Objective 1.3 Originally developed in the 1960s, the validation sample recruited by Edmonds (1967) was composed of married students from one American university.

Considering the interval since initial validation, the homogeneity of Edmonds' sample, and the revised definition of the construct measured by the MCS, it is deemed prudent to re-examine the breadth and item content of this measure (Haynes, Richard, & Kubany, 1995).

All 15 items from the existing MCS, 9 additional items from Edmonds initial validation study (those with SMC values greater than .50), 6 MSI obfuscation items, and 10 new items written for the current study make up this extended item pool (total = 40). New items were written in keeping with the operational definition of marital aggrandizement. Content validity was obtained via two authorities in test construction (Drs. D. Paulhus and D. Laveault). These researchers were provided with the operational definition of marital aggrandizement and the complete item pool. All items were deemed suitable for inclusion.

A random subset of participants were identified from the full sample to select items for the revised measure ( $n = 200$ ). Analyses were performed to identify items that contribute most to the identification and measurement of the hypothesized construct. Various *a priori* criteria were applied as a function of observed limitations of the existing instrument and current psychometric theory.

Item-scale correlations were examined relative to the Dyadic Adjustment Scale (DAS; Spanier, 1976). As the operational definition of relational aggrandizement entails inordinately positive appraisal of one's marriage, items that primarily measure satisfaction do not fit the construct as currently defined. It was assumed that most would be positively correlated with the DAS, yet those with markedly elevated coefficients were not believed to measure the defined response style. Given difficulties with the existing

MCS, this criterion was most critical. Items with correlation coefficients with the DAS greater than  $r = .40$  were excluded prior to consideration of subsequent criteria.

Response levels for each item were also examined. Items should be endorsed only by a minority of participants (i.e., scores on the extreme end of scales) as it was assumed that the underlying construct applies only to a portion of married persons. Those endorsed at the extreme by more than 50% were assumed to be worded too subtly.

Objective 1.4 Internal consistency was also computed to provide an index of cohesion among selected items (e.g., Cronbach's alpha). According to Clark and Watson (1995), estimates generally should be above  $\alpha = .80$ ; however, levels above  $\alpha = .90$  suggest item redundancy or inordinate length (DeVellis, 1991). Scale length was reconciled with brevity to provide adequate measurement with a sufficient sum of items.

### Study Two

Once identified, it became necessary to determine if selected items exist as a valid measure of marital aggrandizement. To this end, analyses were performed upon remaining participant data ( $n = 350$ ). As previously noted, it was assumed that marital aggrandizement exists as a systems-based construct distinct from individually-mediated response biases (i.e., self-deception, impression management); however, it was also assumed that significant covariance exists among indices of biased responding.

Objective 2.1 The larger portion of participant data was used to replicate initial findings. For instance, the Cronbach's alpha was again computed among selected items to ensure consistency of estimates. In addition, confirmatory factor analysis (CFA) was performed upon the selected grouping of items to ascertain if the revised instrument effectively measures a homogeneous construct (i.e., single factor structure).

Objective 2.2 Confirmatory factor analysis (CFA) was also performed to analyze covariation among all study variables. In order to establish that marital aggrandizement is a distinct response style, it was assumed that the revised measure will align with the constructs of self-deception and impression management (i.e., subsumed under the same latent construct). Marital aggrandizement is assumed to be a separate response bias distinct from these more traditional constructs. This result was sought to demonstrate the concurrent validity of the revised measure relative to the BIDR.

Objective 2.3 It was assumed that the revised measure is also distinct from a latent construct labelled marital satisfaction. This grouping includes measures of marital adjustment, affection for one's spouse, and positive interpersonal communication. Each was believed related to a general factor of satisfaction within marriage. Indication that the revised measure aligns more closely with other response biases as opposed to marital satisfaction is sought to establish discriminant validity. This feature will address the perceived primary shortcoming of the existing measure which appears to covary significantly with measures of marital satisfaction.

Objective 2.4 Under the heading of psychological well-being are measures of life satisfaction, perceived health and affect balance (i.e., happiness relative to sadness). Each is assumed to measure a separate but related aspect of psychological well-being (i.e., subsumed under the same latent construct). These variables have previously been used to assess well-being among older adults (Quayhagen & Quayhagen, 1988).

It was hypothesized that marital aggrandizement would emerge as distinct from psychological well-being. Again, the revised measure was assumed to correlate with measures of affect and life satisfaction. As a systems-based construct, however, it was

hypothesized that it would emerge as distinct. The finding that the revised measure adheres more closely with the BIDR subscales as opposed to psychological well-being was sought to provide further evidence for the divergent validity of the revised measure.

### Study Three

Objective 3.1 With the item content established, respondents were asked to complete the revised measure a second time to calculate test-retest reliability.

Participants were also asked to complete the BIDR (Paulhus, 1994) a second time to compare the reliability estimate for the revised scale relative to this established measure of biased responding. It was assumed that test-retest reliability for the revised measure would compare favourably to estimates obtained for both BIDR subscales.

Objective 3.2 Cronbach's alpha was computed among retest responses to provide an index of internal consistency a third time. It was assumed that the alpha level for the revised measure would remain within acceptable parameters and continue to compare favourably to both BIDR subscales.

## METHODOLOGY

*It is singular how soon we lose the impression of what ceases to be constantly before us. A year impairs, a lustre obliterates. There is little distinct left without an effort of memory, then indeed the lights are rekindled for a moment - but who can be sure that the imagination is not the torch-bearer?*

(Lord Byron, 1821)

### Participants

A total of 550 participants were recruited for this study from January to October, 1999 (247 men, 266 women; gender not provided by 37 respondents). The average age of participants was 63 years ( $SD = 8.87$ ; range 50 to 95). 61% reported that they were retired. Fully half identified their religious affiliation as Protestant, with a further 18.2% who self-identified as either atheist or agnostic. The sample is also composed of a smaller numbers of Roman Catholics, Hindus, Muslims, Jews and Buddhists.

Participants had been married an average of 37.2 years ( $SD = 9.87$ ; range 20 to 64) and had completed 14.7 years of education on average ( $SD = 3.36$ ; range 0 to 26). The majority were in their first marriage (78%) though a notable percentage had been married once before (17%). Seventy-two percent stated that the quality of their marriage was either excellent or very good. Similarly, 53% indicated that they believed they were happier than the average couple with only 7% stated that they were less happy.

### Printed-page Participants

A total of 147 participants completed the printed-page version of questionnaires (77 women, 70 men). These respondents were recruited through media advertisements and notices appearing in seniors' publications, contacts with community groups, word-of-mouth, as well as the membership of the Canadian Association on Gerontology.



Flyers requesting participation were also placed in locations frequented by older adults (e.g., community centres, seniors' housing complexes). The majority of questionnaires were returned by participants (all but 9, or 6.1%). This high rate of participation is due to the fact that prospective participants expressed interest, or agreed to take part, before questionnaires were mailed to them.

Questionnaires were randomly counterbalanced between two printed-page formats (Forms A and B). When different forms were sent to couples, receipt was further randomized as they themselves determined who completed which form (i.e., both mailed to prospective participants in one envelope). Means levels of response bias measures did not differ between forms. However, those who completed Form B reported significantly elevated positive feelings toward their spouse (PFQ;  $t[147] = 3.42, p < .01$ ) whereas responses to other marital satisfaction measures did not differ. In addition, those who completed Form B reported higher Affect Balance Scale scores ( $t[147] = 3.22, p < .01$ ). Here, again, responses did not differ between forms on other well-being measures.

Order of presentation would not appear to explain these differences. Although the Positive Feelings Questionnaire appeared early in the order of measures in Form B, the ABS was later in order as compared to Form A. No obvious explanation would seem to account for between group differences other than capitalization on chance (i.e., repeated univariate analyses upon the same data set).

### Internet Participants

A total of 1875 *hits* were recorded at the website constructed specifically for this study (<http://home.istar.ca/~norourke>). From April to October, 1999, an average of 9 persons per day passed from the title page to access study questionnaires. This provided a

total of 403 useable sets of responses (completion of at least five of eight questionnaires, up to, and including the Marital Conventionalization Scale). Data were forwarded automatically via e-mail as participants proceeded from one page to the next.

Questionnaires were routed through the Internet service provider thus masking the e-mail address as well as the time zone in which responses originated.

Postings announcing this study were placed at dedicated websites for seniors (e.g., American Association of Retired Persons, SeniorNet, 50+ Net, Age of Reason). Direct appeals were also made to older adults seeking e-mail pen-pals, a request for participants was placed in an Australian electronic senior's newsletter and reciprocal links were placed between this website and others directed toward a similar audience.

Of those who identified their country of origin, the vast majority stated that they lived in the United States (41 of 50 American states). Participants from Canada, England, Israel, India, Brazil, Austria, South Africa, Australia and New Zealand were also recruited. Given that roughly one-third of participants did not provide geographic information, no country-specific comparisons were computed.

The order of presentation of study questionnaires at the website differed from both printed-page formats. Responses to social desirability measures did not differ, nor did responses to marital measures. Older adults using the Internet, however, appeared more physically frail than seniors recruited via traditional research means. In contrast to printed-page respondents who reported that they suffer from an average of 1.77 chronic illnesses ( $SD = 1.36$ ), Internet participants reported an average of 2.26 illnesses ( $SD = 1.63$ ;  $t[507] = 3.41$ ,  $p < .01$ ). This difference may suggest that Internet use is greater among older adults with more limited physical mobility.

As stated, a significant number of participants did not complete all questionnaires. In the feedback section on the final page, the most frequent comment pertained to the length of time required to participate. Duration between receipt of the first and last questionnaire was 30 to 50 minutes. This was perceived as excessive by many.

Between each questionnaire, an 'aging fact' appeared in order to retain participant interest. It would appear that this may have confused many who did not realize that the site was composed of multiple pages. As a result, 115 participants completed one (or two) questionnaires and then discontinued. A comparison of responses on the adaptability subscale of FACES II (first questionnaire posted at the website) revealed no significant difference between those providing useable versus unusable data ( $t[663] = .67, ns$ ). It would thus appear that the length of time required to participate on-line did not introduce a discernible selection bias distorting responses to the FACES II subscale (and by extrapolation, responses to subsequent measures).

In order to ensure adequate duration of relationships, couples who participated in this study were required to be married a minimum of 20 years. Admittedly, this length of time is arbitrary. In order to assess relational aggrandizement and contributing factors, however, it was deemed prudent to ensure that the marriage had existed over an extended period for major life transitions to occur (e.g., birth of children, acute illness, retirement).

## Measures

### Affect Balance Scale

The model of subjective well-being proposed by Bradburn (1969) suggests that positive and negative affect are relatively independent. The notion that positive and negative affect do not exist as opposite end points on the same continuum has been

supported in subsequent research (Lawton, Moss, Kleban, Glicksman, & Rovine, 1991; Miller, 1989).

The Affect Balance Scale developed and refined by Bradburn (ABS; 1969) has been employed extensively in gerontological research (e.g., Pruchno & Resch, 1989; Quayhagen & Quayhagen, 1988). This 10-item measure presents participants with a set of questions to which responses are recorded as often (1), sometimes (2), or never (3). Affect balance is calculated as the difference between negative and positive subscale scores (with 10 added to avoid negative values).

Over a 3-day interval, Bradburn obtained a test-retest reliability coefficient of  $\gamma = .76$  for the ABS ( $N = 174$ ). For positive and negative affect subscales, estimates of internal consistency range between  $\alpha = .55$  and  $\alpha = .73$ , and  $\alpha = .61$  and  $\alpha = .73$  respectively (McDowell & Newell, 1987). Consistent with the hypothesized independence between subscales, the overall correlation between positive and negative affect has been reported as  $r < .10$  (Andrews & Robinson, 1991).

Bradburn (1969) reports strong correlations between the ABS and various well-being indices. Further evidence of the concurrent validity of the ABS is provided by Beiser (1974) who reports a significant correlation between negative affect and blind ratings of *psychiatric caseness*. As reported by Townsend, Noekler, Deimling, and Bass (1989), discriminant validity for the ABS is indicated by significant correlations with the Zung Depression Scale at separate intervals ( $r = -.53$ ,  $r = -.59$ ).

A strength of the ABS has been its repeated use in epidemiological research with older adults. In effect, Bradburn's measure has been instrumental in stimulating extensive research regarding the nature of subjective well-being (McDowell & Newell,

1987). Results have shown notable consistency across samples. Although the hypothesized distinction between positive and negative affect remains contentious, this brief measure remains a mainstay of gerontological research (McDowell & Newell, 1987).

#### Life Satisfaction Index - Z

Within the domain of psychological well-being, life satisfaction has been a primary construct measured among older adults. For instance, satisfaction with life is believed integral to successful aging (McDowell & Newell, 1987). The Life Satisfaction Index (LSI-Z; Wood, Wylie, & Sheafor, 1969) is composed of 13 items to which respondents indicate agreement or disagreement (i.e., dichotomous scoring). The LSI-Z contains eight positively- and five negatively-keyed items. Possible scores range from 0 to 13 with higher totals suggestive of greater life satisfaction.

The LSI-Z was validated with a sample of 100 older adults (30 men, 70 women) between the ages of 63 and 92 years (Wood et al., 1969). Lohr, Essex, and Klein (1998) report internal consistency as measured by Cronbach's alpha to be  $\alpha = .84$  among 293 women between 56 and 95 years of age. LSI-Z scores do not appear to differ between genders nor unduly influenced by age. As noted by Andrews and Robinson (1991), however, internal consistency appears to increase for the LSI-Z as the age of respondents increases.

Concurrent validity for the LSI-Z has been established relative to independent ratings by clinical psychologists ( $r = .64$ ; Andrews & Robinson, 1991) and other measures of well-being such as the Philadelphia Geriatric Center Morale Scale ( $r = .79$ ; McDowell & Newell, 1987). Construct validity has been established and replicated by

factor analytic research suggesting a dominant, general factor labelled mood tone underlying LSI-Z scores ( $N = 508$ ). Secondary factors identified as zest for life and goal attainment also appear consistent with the notion of life satisfaction (Hoyt & Creech, 1983). Although the distinction among morale, happiness, and life satisfaction remains to be fully disentangled, the psychometric properties of the LSI-Z establish it among the best researched well-being measures for use with older adults (McDowell & Newell, 1987).

#### Dyadic Adjustment Scale

The Dyadic Adjustment Scale (DAS; Spanier, 1976) is a 32-item instrument developed to assess marital satisfaction. Responses are recorded along a series of 5- and 6-point Likert-type scales with two yes/no questions and one final item in which persons are asked to select the statement which best reflects their expectation of continuity of the relationship (six response alternatives provided). According to Budd and Heilman (1992), the DAS can be completed in approximately 10 minutes.

The DAS provides a total score composed of four subscales (dyadic consensus, dyadic satisfaction, dyadic cohesion, affectional expression). Most often, the total only is reported in which a score of 100 or greater is suggestive of dyadic adjustment. As noted by Kazak, Jarmas, and Snitzer (1988), however, very high totals may indicate inordinate idealization of the relationship.

The DAS was developed from an item pool of 300 statements drawn from existing measures of marital satisfaction. Items deemed to lack content validity were eliminated. The remaining 200 items were validated among separate normative samples of married and recently divorced persons. It should be noted that these 312 persons were Caucasians living in one county of Pennsylvania. This casts some doubt as to the validity

of cut-off scores as applied against more heterogeneous populations.

Of note, the DAS has been shown to possess strong internal consistency. For example, Cronbach's alpha for the full scale has been reported consistently as  $\alpha = .90$  or greater by various authors (Stuart, 1992). Over an 11 week interval, test-retest reliability has been reported as  $r = .96$  suggesting construct stability (Stuart, 1992).

Concurrent validity of the DAS has been established relative to similar instruments such as the Personal Authority in the Family System Scale (Rabin, Bressler, & Prager, 1993) and the Locke-Wallace Marital Adjustment Scale (as reported by Stuart, 1992). The DAS has also appears to possess predictive validity in terms of domestic violence, couples' communication, family dysfunction, and depressive affect (Stuart, 1992).

As noted by Budd and Heilman (1992), the DAS is likely the most widely used measure of marital satisfaction in research and clinical practice. Although used in more than 1,000 scientific studies (Budd & Heilman, 1992) few have focused upon older adult couples. Cut-off points are not be applied for the current study.

#### Positive Feelings Questionnaire

A separate measure of affection was included in this study. The Positive Feelings Questionnaire (PFQ; O'Leary, Fincham, & Turkewitz, 1983) was first developed to measure outcome in marital therapy; subsequent research, however, has employed this instrument more broadly. For instance, Broderick and O'Leary (1986) included the PFQ as an independent variable in their study of predictors of marital satisfaction.

Married persons are presented with 17 items to which they are asked to indicate agreement. The PFQ is composed of eight questions and nine statements to which

responses range from extremely negative (1) to extremely positive (7). Totals are calculated by summing scores for each item as gauged upon 7-point Likert-type scales.

In the initial validation study, internal consistency as measured by Cronbach's alpha was calculated as  $\alpha = .94$ . All items met a homogeneity criterion greater than .50. Among non-distressed couples, all items yielded significant item differences ( $ps < .01$ ; O'Leary et al., 1983). Test re-test reliability has been reported as  $r = .92$  over a three week period (as cited by Broderick & O'Leary, 1986).

Concurrent validity for the PFQ has been established relative to the Navran Communication Scale ( $r = .40, p < .001$ ) and the Locke-Wallace Marital Adjustment Test ( $r = .70, p < .001$ ). Despite the strong correlation between the PFQ and the Marital Adjustment Test ( $r = .70, p < .001$ ), O'Leary et al. (1983) contend that these scales measure distinct constructs. For instance, 50% of variance between measures is distinct. In other words, caring for a spouse is not synonymous with satisfaction in marriage.

#### Family Adaptability and Cohesion Evaluation Scale - II (Couples Form)

The FACES instruments are based upon a circumplex model of family functioning (Olson, Portner, & Bell, 1983). This model assumes that interpersonal behaviour can best be defined in terms of cohesion, adaptability and communication. The FACES instruments, however, (both family and couple forms) measure only the first two constructs.

FACES II is a 30-item self-report measure with items rated upon 5-point response scales. These items were selected from a larger pool of 50 items administered to 2,412 individuals in a U.S. national survey ranging from families with young children to retired persons (Olson et al., 1983). Factor analysis suggests two primary factors which



delineate cohesion from adaptability items. Reading level for FACES II is estimated to be at the seventh grade level (Camara, 1988).

For the current study, only the 14-item adaptability subscale was administered to participants. This decision was based on the finding that the cohesion construct may not be distinct from marital satisfaction (James & Hunsley, 1995). According to Olson and Portner (1983), adaptability entails the degree to which systems are flexible and amenable to change. In response to situational and developmental stress, adaptable couples vary roles, relationship rules, and power dynamics. Internal consistency as measured by Cronbach's alpha has been reported as  $\alpha = .78$  for the adaptability subscale (Olson & Portner, 1983). Test-retest reliability was calculated as  $r = .80$  over a four week period. Reliability estimates for FACES II appear superior as compared to the more recent FACES III. For instance, internal consistency for the 10-item adaptability subscale of FACES III has been reported as  $\alpha = .62$  (Olson, Portner, & Lavee, 1987).

Discriminant validity of FACES II (full scale) has been demonstrated by its ability to distinguish between distressed and nondistressed older couples (Olson & Portner, 1983). Concurrent validity for FACES II has been established relative to the Beavers Systems Model of family functioning (Hampson, Hulgus, & Beavers, 1991) and couple interaction coding diaries (Kirchler, 1989). Although the range of scores does not appear to differ by genders, correlation coefficients between husband and wives has been reported as low as  $r = .32$  for the adaptability subscale. This suggests that FACES II is a measure of individual perception though purported to measure a systemic construct.

According to Olson and Portner (1983), FACES measures four levels of adaptability ranging from rigid to chaotic. This implies that it is preferred for couples to

present as moderately adaptable whereas extremes at either end of the continuum are problematic. This hypothesis, however, has been challenged for both cohesion and adaptability (Kuehl, Schumm, Russell, & Jurich, 1988). For instance, the adaptability subscale of FACES II appears to possess a linear relation with the Dallas Self-Report Family Inventory (Hampson et al., 1991). Higher adaptability levels are thus associated with heightened family functioning. Similar findings are reported by James and Hunsley (1995) with the couples' version of FACES III. Adaptability appears to possess a linear relation with the DAS. Cohesion also appears to be linearly related to marital adjustment; however, the strongly significant value of cohesion regressed upon adjustment suggests little independence between constructs ( $R^2 = .72, p < .01$ ; James & Hunsley, 1995). This finding supports the decision to include only the adaptability subscale in the current study.

#### Balanced Inventory of Desirable Responding - Version 6

The Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1994) is a 40-item self-report measure. This scale was developed subsequent to factor analytic research delineating self-deception (SD) from impression management (IM) response styles (Paulhus, 1991). The BIDR is composed to two 20-item subscales. Respondents rate their degree of agreement to each statement along a 7-point Likert-type scale. One point is assigned for each six or seven response (subsequent to reversal of negatively-keyed items).

As reported by Paulhus (1991), correlation coefficients between subscales range from  $r = .05$  to  $r = .40$ . Internal consistency as measured by Cronbach's alpha ranges from  $\alpha = .65$  to  $\alpha = .75$  for the SD subscale and  $\alpha = .75$  to  $\alpha = .80$  for the IM subscale

(Paulhus, 1994). Lower values are reported by O'Rourke & Wenaus (1998) for the BIDR in a recent study of older adults ( $\alpha = .49$  for SD;  $\alpha = .56$  for IM subscale). Among undergraduate students ( $N = 83$ ), test-retest reliability over a five week period has been reported as  $r = .69$  and  $r = .77$  for SD and IM subscales respectively (Paulhus, 1994). This suggests adequate stability of constructs over time.

The 40-item BIDR has been shown to correlate significantly with the Marlowe-Crowne Social Desirability Scale ( $r = .73$ ; Paulhus, 1994) and the Multidimensional Social Desirability Inventory ( $r = .80$ ; Paulhus, 1991). Convergent validity for the IM subscale has been established relative to the Lie Scale of the Minnesota Multiphasic Personality Inventory (Paulhus, 1994). Responses to the IM subscale also show marked increase from private to public response conditions; as expected, no such variability is noted for the SD subscale (Lautenschlager & Flaherty, 1990). These findings appear to differentiate response sets and support the construct validity of subscales.

#### Marital Conventionalization Scale

More than 30 years ago, Edmonds recognized the need to assess and control for biased responding on measures of marital functioning. Although he developed the first couples social desirability measure, what precisely is measured by Edmonds' Marital Conventionalization Scale (MCS; 1967) still remains a topic of study.

The MCS is a 15-item scale in which spouses are asked if a series of statements pertain to their marriage. Consistent with the author's recommendation, core items have been interspersed with five additional items from the Marital Status Inventory (MSI; Weiss & Cerreto, 1980). The latter assess the potential for marital dissolution, thus it is assumed that inclusion of these items may lead the respondent to assume that scale

examines the stability of one's marriage (O'Rourke et al., 1996). In effect, inclusion of items from the MSI are intended to obfuscate the intent of the MCS so it is less apparent that respondents are asked to complete a measure of biased responding.

From the initial validation study, Edmonds (1967) devised a weighting scheme by which certain items were assigned greater value in terms of overall score totals. However, it is unclear how these weights were obtained. Also, the normative sample was composed solely of married students from one American university. It is uncertain whether the relative weighting of items can be generalized to other populations.

The original MCS item pool consisted of 50 items. Of note, the correlation coefficient between the extended pool and the 15-item scale has been reported as  $r = .99$  (Zweben, Pearlman, & Li, 1988). This would suggest that the 15-item MCS is sufficiently sensitive relative to the original instrument. Among a sample of 70 older adults ( $M = 66.3$  years,  $SD = 9.81$ ), internal consistency for the MCS (true/false format) was measured as  $\alpha = .86$  (O'Rourke, 1995).

It has been suggested that marital conventionality is evident relative to the Locke-Wallace Scale of Marital Adjustment (Edmonds, Withers, & DiBatista, 1972), and the Relationship Inventory (Schumm, Bollman, & Jurich, 1980). Although suggestive of convergent validity, it remains to be determined if the MCS measures a response style or a distinct construct yet to be fully defined.

#### Demographics Questionnaire

A questionnaire was constructed for this study to gather personal data and participant health information. This is an expanded version of a questionnaire previously used with older couples (O'Rourke, 1995). As well as information pertaining

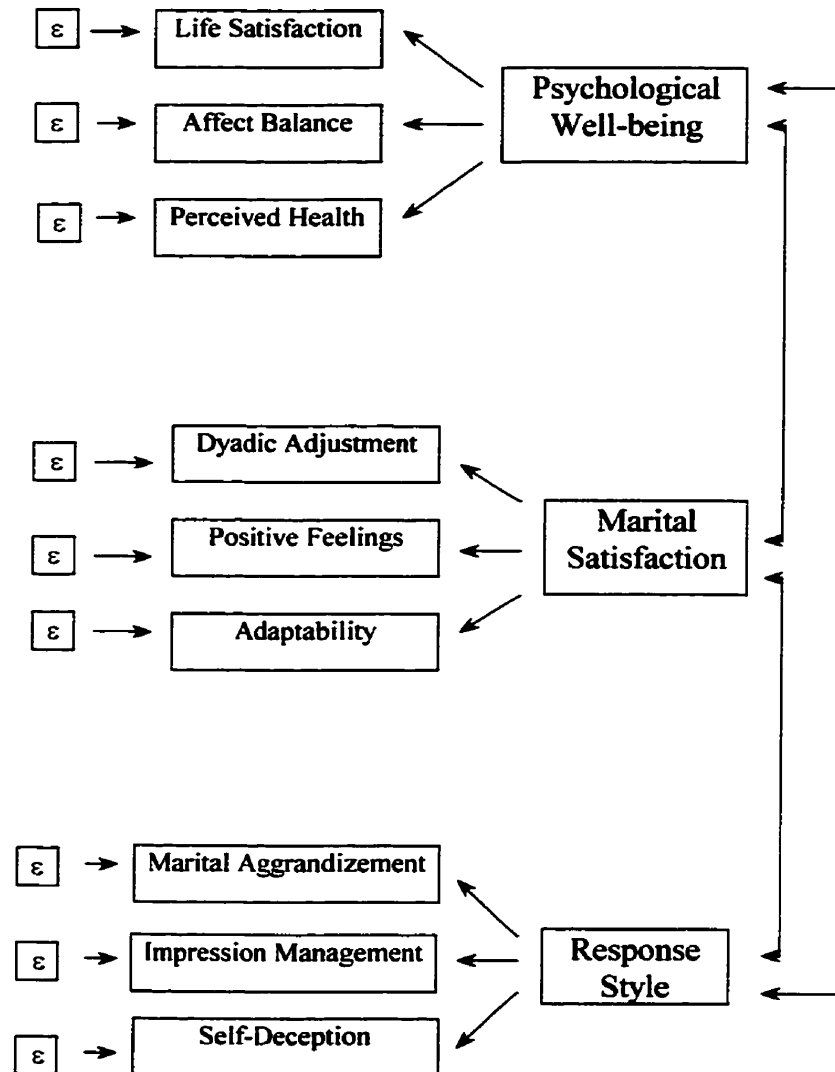
to socio-economic variables and particulars of one's relationship. several questions solicit subjective and objective health information. The latter was adapted from the demographics questionnaire used in the Canadian Study of Health and Aging (CSHA Working Group, 1994). These questions focus specifically upon diagnosed medical conditions as opposed to perceived symptoms. Although subjective health variables are important predictors of morbidity and mortality among older adults (O'Rourke, MacLennan, Hadjistavropoulos & Tuokko, in press), these variables are strongly influenced by personality factors not directly germane to physical health status (Watson & Pennebaker, 1989).

#### Analytic Procedure

Subsequent to item selection, the hypotheses of this study are addressed primarily by means of confirmatory factor analysis (CFA; Byrne, 1998). This statistical procedure allows for grouping of like-instruments. A further utility of CFA is the ability to identify and measure latent (i.e., unobserved) variables which subsume component constructs (Floyd & Widaman, 1995). In this way, it is possible to assess if (and the degree to which) instruments measure single or complex constructs (i.e., covariance among like-instruments or dispersed across latent variables).

The CFA model hypothesized for this study is formulated to demonstrate both the convergent and divergent validity of the new marital aggrandizement measure. Given the limitations of the existing MCS, CFA is used to determine if a new couples measure of biased responding can be constructed in which covariance is contained under rubric of biased responding without significantly tapping marital satisfaction or psychological well-being. See Figure 1.

Figure 1

Confirmatory Model of the Convergent and Discriminant Validity of the Revised measure

## RESULTS

*'I have done that,' says my memory. 'I cannot have done that,' says my pride, and remains inexorable. Eventually -- memory yields.*  
(Nietzsche, 1886)

Both printed-page ( $n = 147$ ) and Internet participants ( $n = 403$ ) were randomly assigned to one of two groupings (60:40 ratio). Once the smaller had reached 200, all subsequent respondents were assigned to the larger ( $n = 350$ ). These groupings constituted participants assigned to Study 1 and Study 2 respectively. There were no differences between groups in terms of demographic characteristics or response to study measures.

Data were missing from both electronic and printed-page questionnaires. Most often, responses to specific questions were omitted. The PRELIS program was used to estimate values for missing data (Jöreskog & Sörbom, 1996b). The exception being missing values for prospective marital aggrandizement items for which values of 4 (i.e., neutral) were assigned. If respondents chose not to provide a response to prospective items, it was not deemed appropriate to estimate a value for that item.

As opposed to substituting mean item scores, PRELIS imputes values on the basis of like-responses. According to Little and Rubin (1987), this method is preferable to use of mean values which can obscure between group differences. Visual inspection and summary statistics did not reveal any discernible pattern among missing data (estimated at less than 3% of usable data).

Of note, Internet and printed-page participants appear remarkably similar. Not only are responses to each scale indistinguishable but few demographic differences

appear between groups. For instance, the average age of participants does not differ ( $t[507] = .22, ns$ ), nor years of formal education ( $t[498] = 1.91, ns$ ), years married ( $t[506] = .18, ns$ ), gender composition ( $\chi^2[1, n=513] = .15, ns$ ) or socio-demographic categorization based upon work performed either now or prior to retirement ( $\chi^2[10, n=501] = 6.10, ns$ ). As noted previously, the sole discernible between group difference pertains to chronic health conditions as Internet respondents present as more physically frail as compared to printed-page respondents ( $t[507] = 3.41, p < .01$ ). Contrary to expectation, Internet respondents may, in fact, be more representative of the current cohort of older adults as compared to those recruited by more traditional research methods.

Geography is a further criterion which distinguishes participants. Although printed-page participants come from all Canadian provinces with roughly a dozen from the U.S., Internet respondents live mostly in the U.S., and most often in rural areas as opposed to large urban centres.

### Study One

Responses to the 34 core items of the extended item pool were examined subsequent to reversal of 11 negatively-keyed items. This total did not include the six obfuscation items pertaining to divorce. Analyses were conducted upon responses from the 200 participants selected for scale construction phase of this research (87 men, 98 women, gender not provided by 15 participants).

#### Exploratory Factor Analysis (Objective 1.2)

Exploratory factor analysis was performed using SPSS FACTOR (SPSS Inc., 1988). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy indicated



sufficient interrelatedness among items ( $KMO = .92$ ) for factor analysis.

The maximum likelihood method of factor extraction with varimax rotation was employed in keeping with previous social desirability research (Paulhus & Reid, 1991). Judging from the Kaiser-Guttman criterion, initial estimates suggested a multi-factor solution with six factors (i.e., eigenvalues greater than one); of note, however, only one accounted for more than 10% of variance ( $\lambda_1 = 12.92$  [38%],  $\lambda_2 = 2.56$  [7.5%]). The remaining four eigenvalues were less than 2.0. As noted by Floyd and Widaman (1995), the Kaiser-Guttman criterion generally provides over-inclusive factor solutions.

The Cattell-Nelson-Gorsuch (CNG) scree test was also performed to examine the pattern of eigenvalue distribution. This procedure suggested a single factor solution due to the notable flattening of eigenvalues after Factor 1 (see Figure 2).

A two-factor solution was computed for which Factor 2 was composed of only 8 of 36 items (see Table 1). The plot of variables in factor space indicated that Factors 1 and 2 are virtually overlapping (see Figure 3). Although some items appear to load on a secondary factor, this plot suggests that the two factor solution is a mathematical anomaly. Similar to previous factor analytic research with the MCS, these analyses suggest a single factor solution (Wenaus et al., 1997; O'Rourke, 1998).

#### Item Selection for Revised Scale (Objective 1.3)

Various *a priori* criteria were considered in order to identify suitable items for the revised measure. First, correlation coefficients between each item and the Dyadic Adjustment Scale were examined. Here, it was assumed that strongly correlated items were most likely tapping satisfaction as opposed to marital aggrandizement. Given the ambiguity of previous research regarding the MCS, this criterion was deemed most

Figure 2

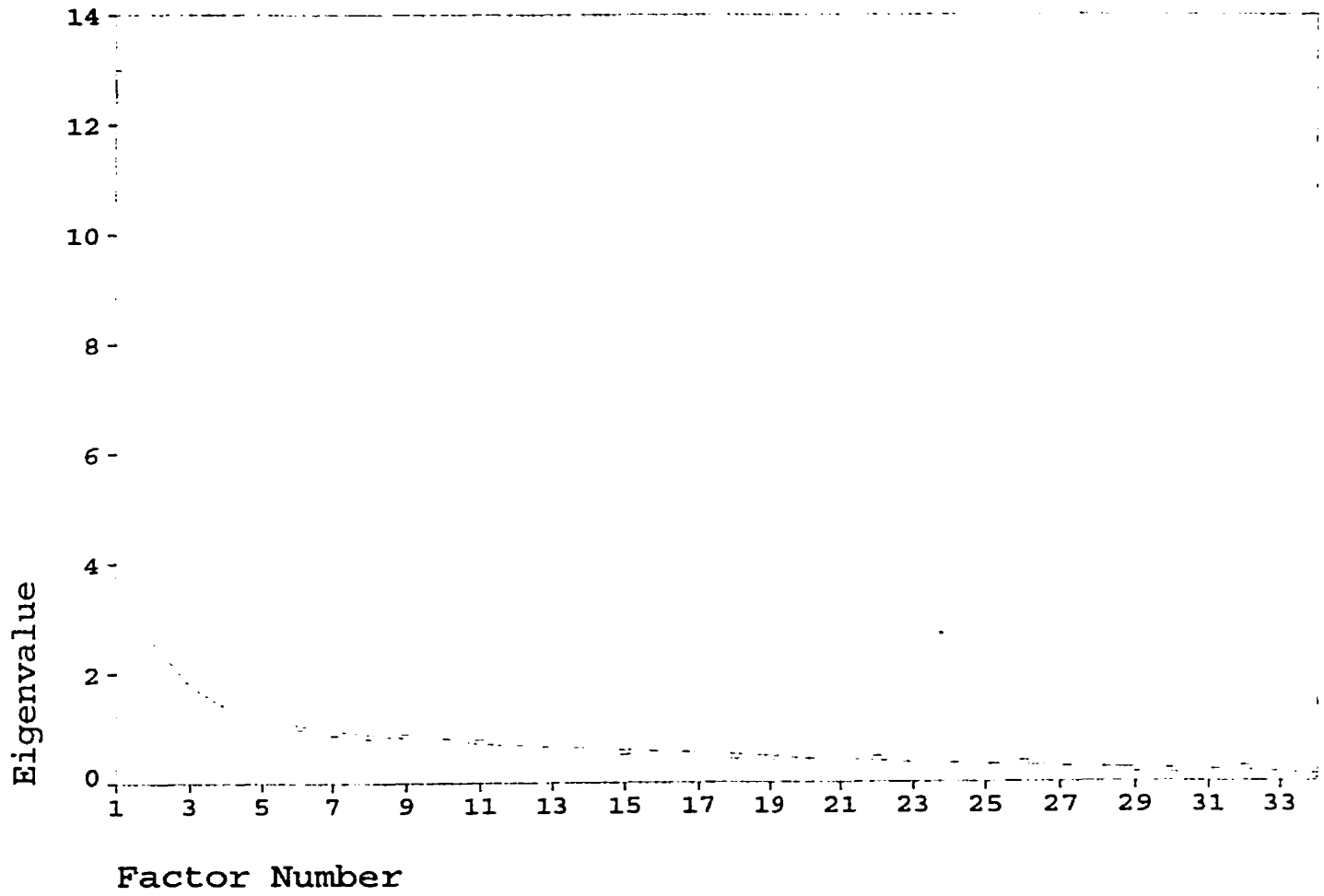
SPSS Factor Scree Plot of Eigenvalues

Table 1

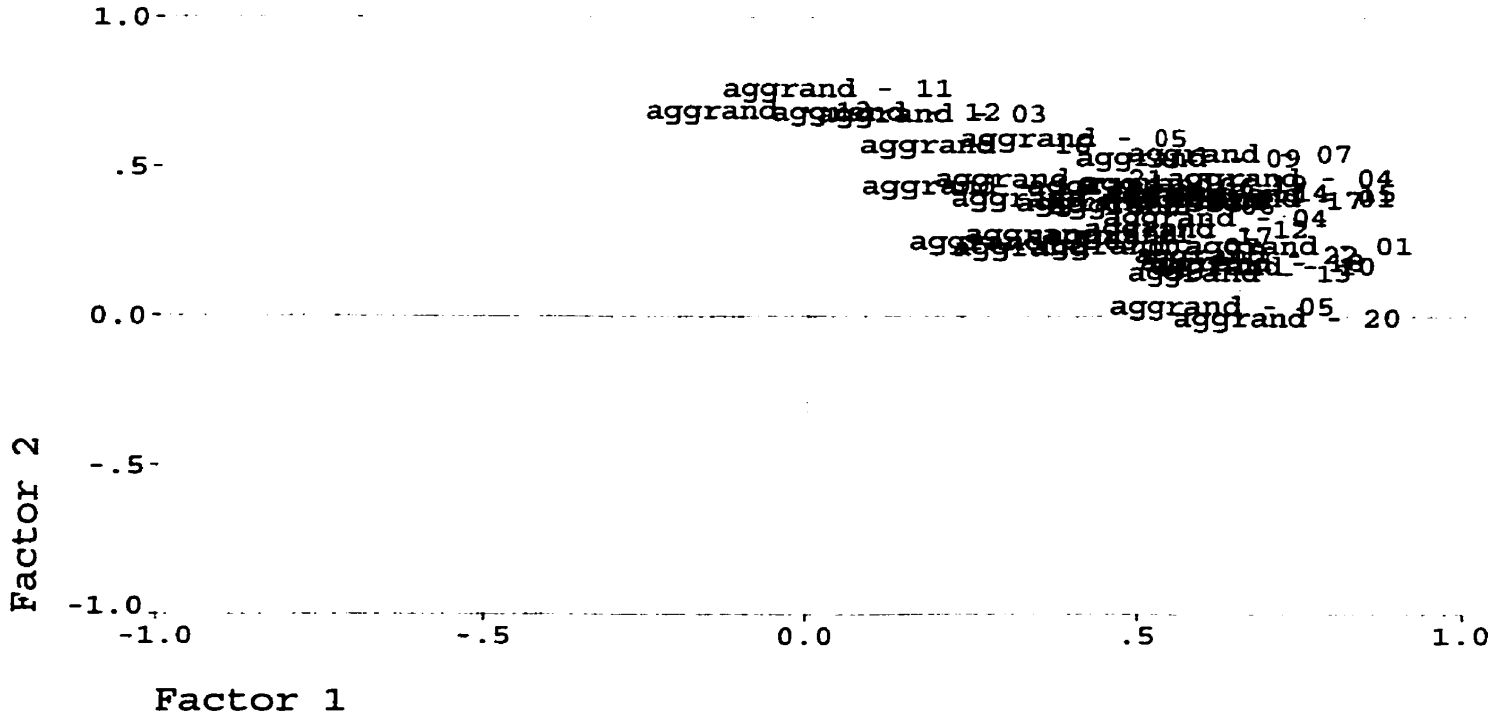
Rotated Two Factor Solution with Full Item Pool

Pool Item	<u>Factor One</u>	<u>Factor Two</u>
01	.75	.17
20	.73	-.07
<b>15</b>	.72	.35
<b>23</b>	.72	.33
<b>26</b>	.72	.40
32	.69	.10
40	.67	.12
<b>39</b>	.67	.32
22	.67	.14
35	.66	.08
<b>29</b>	.65	.48
05	.63	-.03
<b>14</b>	.62	.35
04	.62	.27
34	.59	.23
<b>19</b>	.58	.38
<b>31</b>	.57	.46
<b>06</b>	.54	.31
17	.53	.20
07	.51	.17
<b>28</b>	.50	.37
<b>03</b>	.49	.32
33	.41	.21
10	.39	.17
<b>36</b>	.39	.33
09	.32	.18
11	.04	.70
13	-.08	.62
12	.11	.62
25	.18	.61
<b>27</b>	.40	.53
16	.25	.51
<b>21</b>	.36	.39
38	.25	.37

*Note:* 14 of 36 items (in bold) cross-load significantly on both factors (i.e., > .30).

Figure 3

SPSS Plot of Two Factor Solution for All Pool Items



important. In order to establish a bona fide couples measure of biased responding, this study set out to minimize covariance with marital satisfaction. Items were excluded if their correlation coefficient with the DAS were equal to, or greater than .40 irrespective of other psychometric properties.

Frequency of responses at the upper end of response keys were also examined. Where fewer than 50% of participants selected six or seven (i.e., upper two points on scale), these items were deemed potentially suitable for inclusion. As it is assumed that aggrandizement occurs among only a minority of married persons, items endorsed at the upper end by more than half of respondents were considered too meek to distinguish marital satisfaction from biased responding.

Squared multiple correlations (SMCs) were also examined for each item relative to covariance of all items. Those with SMC values equal to, or greater than .50 were identified for possible inclusion. Although somewhat arbitrary, this criterion is based on the observation that measurement of the underlying construct for these items is at least equal to measurement error.

Further item analyses were performed with the TestGraf program (Ramsay, 1995). This non-parametric approach provided a visual representation of item response relative to overall scale scores. With 200 sets of participant responses and more than 20 items, the extended item pool for the MCS was suitable for analyses by this program (Ramsay, 1995). Obfuscation items were not included in TestGraf analyses.

Appendix Three presents the analyses of each item. The graph to the left shows the probability of selecting each response relative to scale totals. Each line represents the characteristic curve for each of the seven points of the Likert-type scales. As evident with

item 7. for instance, the probability of endorsing upper end responses (vertical axis) is most likely among those obtaining higher overall scale scores (horizontal axis). For this item, no participant who selected one, two or three as his or her response obtained a total scale score greater than 180. In contrast, the probability approaches .6 that those who selected seven as their response to this item obtained a total scale score above 200. Probability approaches zero that someone who selected seven as a response would obtain a total less than 100. Vertical dashed lines distinguish participants by response to specific items relative to quartile groupings.

The graph to the right shows the item score as a function of expected score for the entire scale. Vertical bars on this curve indicate the 95% confidence interval across the range of total scale scores. A straight, upward latent trait score is suggestive of superior item performance as are narrow confidence limits.

Item 21 exhibits an effective item profile. For instance, the likelihood of obtaining a total scale score in the top quartile is negligible if participants endorse a response of less than 5 for this item. Probability is highest that persons selecting one as their response will fall within the first quartile. As expected, the order of response probabilities is sequential at both ends of score distribution (i.e., one to seven). Also of note, this item provides a straight, upward progression of latent trait scores with a narrow band of confidence intervals at each point.

In contrast, item 4 exhibits a poor profile of response characteristics. For instance, a neutral response (4) is most strongly associated with higher overall scale scores. Response at upper ends of the response key fails to distinguish participants. A response of 7 has a lower probability of identifying someone within the top quartile of

scale scores as compared to a response of either 1 or 4. Also of note, latent trait scores indicate a 95% confidence interval of four points within the top quartile (i.e., half the range of the response key for this item). To assert that there are things about one's marriage that are not pleasing does not appear to predict who is most likely to obtain a high overall scale total.

Items were identified as exhibiting either a positive or negative TestGraf profile on the basis of various *a priori* criteria. Those identified for potential inclusion displayed probabilities greater than .60 for either a response of six or seven that participants fall within the upper quartile of scale scores. The order of characteristic curve placement needed be sequential within the top quartile (i.e., higher probability associated with responses of 6 or 7 than 4 or 5 relative to total scale scores). Expected item scores (right-hand graph) were required to display a progressive, linear upward incline with a one-point range subsuming the 95% confidence interval of scores within the top quartile.

As noted previously, an item was considered only if its correlation coefficient with the DAS was less than .40. In addition, items were required to satisfy two of three other inclusion criteria (i.e., low frequency of scores at 6 or 7 points, SMC values  $\geq .50$ , positive TestGraf profile). This information is summarized in Table 2. On this basis, 18 items were retained. Internal consistency as measured by Cronbach's alpha is  $\alpha = .87$  for this revised measure (men  $\alpha = .86$ , women  $\alpha = .88$ ). Response levels are similar between men ( $M = 69.1, SD = 18.5$ ) and women ( $M = 63.6, SD = 19.4; t[183] = 1.84, ns$ ). It should be noted that more rigid inclusion criteria were considered providing a smaller set of items (e.g., six which satisfied all inclusion criteria). In order to obtain an alpha above .80, however, a larger number of items were required.

Table 2

Selection Criteria for the Revised Measure

Item	item r to DAS < .40	Frequency (6 & 7)	SMC ≥ .50	TestGraf
01	.44	50 %	.66	✓
03	.44	27	.67	x
04	.48	32	.72	x
<b>05</b>	.28	49	.55	x
<b>06</b>	.37	46	.51	✓
<b>07</b>	.31	37	.49	✓
<b>09</b>	.14	40	.55	x
<b>10</b>	.21	29	.39	✓
<b>11</b>	.03	6	.51	✓
<b>12</b>	.13	8	.50	✓
<b>13</b>	-.01	3	.51	x
<b>14</b>	.39	37	.62	✓
15	.54	37	.69	✓
<b>16</b>	.17	18	.51	x
17	.47	39	.48	✓
19	.40	29	.56	x
20	.44	74	.63	✓
<b>21</b>	.39	14	.51	✓
22	.47	47	.59	✓
23	.44	48	.72	✓
<b>25</b>	.21	11	.52	✓
26	.44	32	.75	✓
27	.42	18	.53	x
28	.47	22	.59	x
29	.48	31	.73	x
31	.42	20	.66	✓
32	.51	50	.61	x
<b>33</b>	.32	39	.51	x
<b>34</b>	.34	36	.59	x
35	.36	52	.58	x
<b>36</b>	.28	29	.50	x
<b>38</b>	.21	20	.55	x
<b>39</b>	.39	39	.66	x
<b>40</b>	.33	46	.59	x

*Note:* Analyses do not include obfuscation items (2, 8, 18, 24, 30, 37). DAS = Dyadic Adjustment Scale, SMC = Squared Multiple Correlation. Items in bold met selection criteria and are included in the revised measure.



## Study Two

The remaining 350 participants were assigned to the scale validation study (159 men, 169 women, gender not provided by 22 participants). Table 3 presents descriptive information for each scale including the revised measure. Of note, kurtosis and skewness indices suggest univariate normality of distributions for each instrument (Byrne, 1998).

The relative length of this revised scale and the original measure are comparable (18 versus 15 items respectively). Of note, however, the revised scale is composed of 12 new items with only six from the previous MCS. Thus the composition differs substantively from the original measure. The outcome of the scale refinement phase produced a largely original instrument.

Table 4 presents the correlation coefficients and significance indices between measures. As expected, the revised measure is significantly correlated with each of the marital measures as well as both social desirability subscales. Age ( $r = .08, ns$ ), years of formal education ( $r = -.18, p < .05$ ), religious denomination ( $F[6,309] = .77, ns$ ), and religious service attendance ( $r = .07, ns$ ) do not appear related to response levels of the revised measure. Furthermore, there is no difference between scores for men ( $M = 70.0, SD = 19.3$ ) and women ( $M = 67.7, SD = 19.2; t[326] = 1.08, ns$ ).

Only for the BIDR impression management subscale is there a significant gender difference ( $t[343] = 4.21, p < .01$ ) as women endorsed more items ( $M = 9.55, SD = 4.04$ ) as compared to men ( $M = 7.74, SD = 3.94$ ). Mean levels for subscales and this gender difference are consistent with previous research with the BIDR (Paulhus, 1991).

Also of note, the correlation between spouses for the revised measure is low ( $r[81] = .30$ ). This coefficient indicates that there is less than 10% covariance within

Table 3

Descriptive Features of Study Measures (n = 350)

Measure	Mean	SD	Skewness	Kurtosis	Alpha ( $\alpha$ )
Revised Measure	69.3	19.4	.07	-.66	.86
BIDR Self-Deception	6.56	3.71	.59	.14	.73
BIDR Impression Mgt	8.68	4.08	.10	-.64	.78
Dyadic Adjustment Scale	111.1	20.7	-1.17	1.67	.93
FACES II (Adaptability)	55.0	10.5	-1.05	.72	.91
Positive Feelings	99.2	19.2	-1.79	2.68	.96
Life Satisfaction	10.2	2.86	-1.29	1.14	.80
Affect Balance - positive	8.50	2.31	.61	.07	.80
Affect Balance - negative	11.7	2.38	-.65	-.19	.74
Perceived Health	11.6	2.64	-.65	-.17	.70



couples. In other words, marital aggrandizement does not appear to be a systemically reinforced mode of deception (in contrast to the interpretation of elevated MCS scores by Fowers & Applegate, 1996).

A confirmatory factor analytic model was computed to examine cohesion among selected items with LISREL 8 (Jöreskog & Sörbom, 1996a). LISREL is the original and most widely distributed language for analysis of covariance structures. According to Byrne (1998), LISREL has served as the prototype for all subsequent programs.

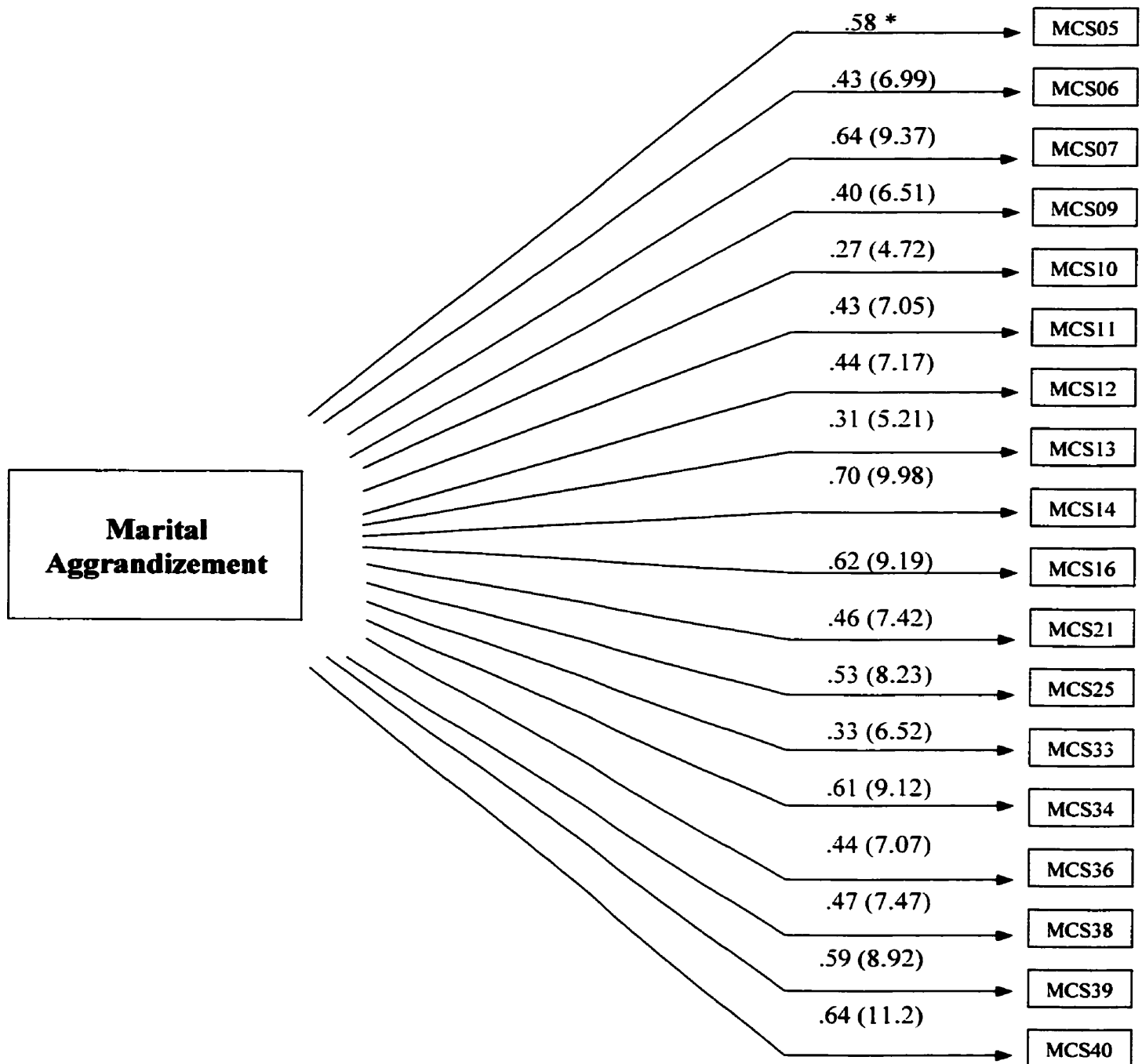
The single-factor CFA model depicting selected items is presented as Figure 4 (Objective 2.1). After correction for significant correlation among 14 item error pairs, the revised model converged after 13 iterations ( $\chi^2[df=118] = 223.59, p < .01$ ). Each parameter estimate and error term differ significantly from zero (i.e.,  $t$ -values  $> 1.96$ ). Also of note, the Adjusted Goodness of Fit (AGFI = .91) and Comparative Fit Indices (CFI = .94) both indicate effective fit of data. The Root Mean Square Error of Approximation (RMSEA = .05) is also within acceptable limits (i.e.,  $.08 > RMSEA$ ).

Cronbach's alpha for the revised measure ( $\alpha = .86$ ) suggests optimal internal consistency among these participants (men  $\alpha = .86$ , women  $\alpha = .87$ ) similar to that obtained in Study One ( $\alpha = .87$ ). This reliability measure is larger than that obtained for the self-deception ( $\alpha = .73$ ) and impression management ( $\alpha = .78$ ) subscales of the Balanced Inventory of Desirable Responding.

#### Construct Validity of the Revised Measure

With the revised measure grouped along with the self-deception and impression management subscales of the BIDR, it was assumed that these measures would emerge as separate indices subsumed under a latent construct of biased responding (Objective 2.2).

Figure 4

Single Factor Marital Aggrandizement CFA Model

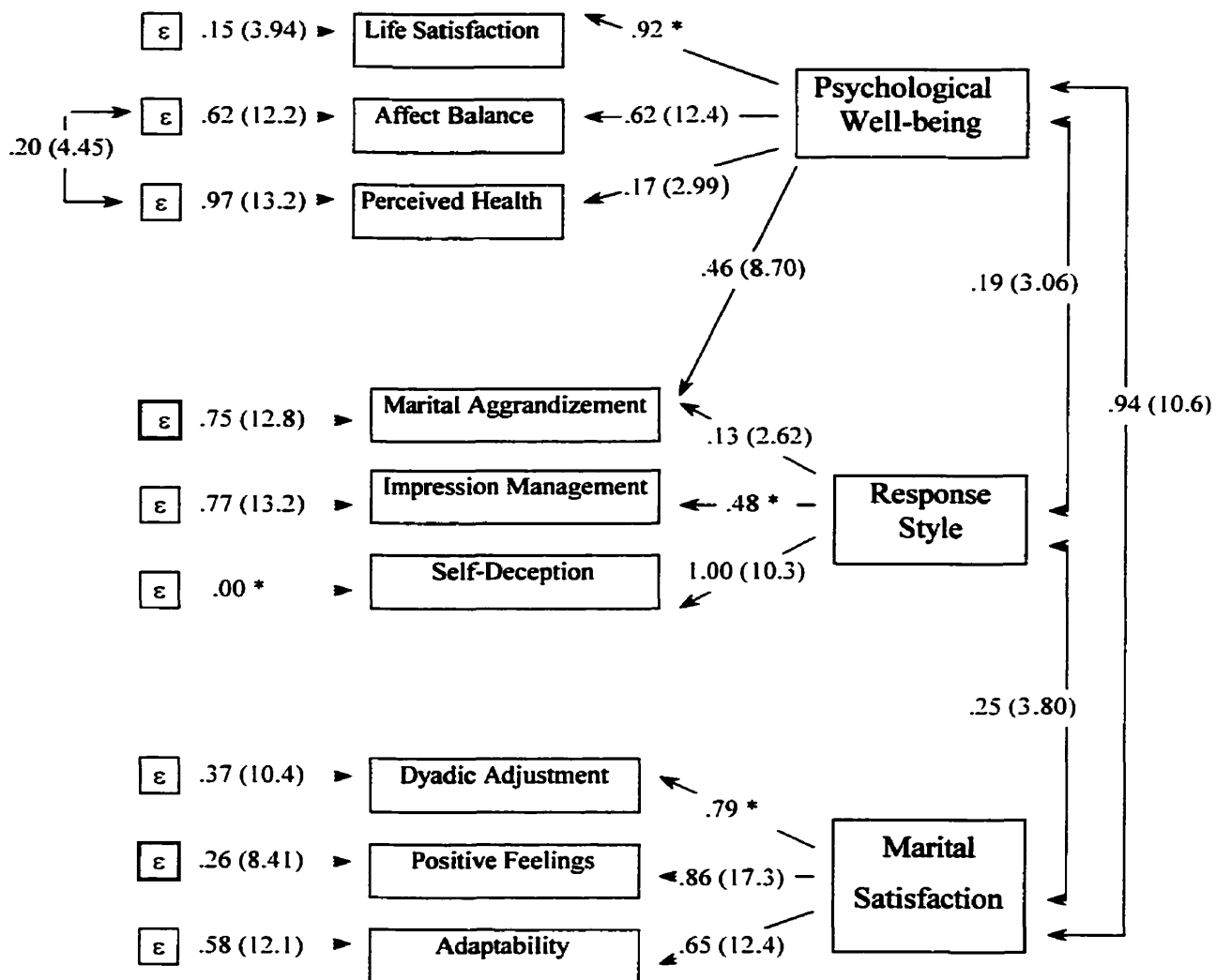
*Note.* Maximum likelihood estimates (completely standardized solution and significance levels). Asterisk (\*) denotes parameters initially fixed to 1.0 for purposes of scaling and statistical identification (significance level cannot be computed).

This result was sought to demonstrate convergent validity for the revised measure relative to existing indices of socially desirable responding. In contrast, marital satisfaction (Objective 2.3) and psychological well-being (Objective 2.4) and marital satisfaction were assumed to emerge as distinct latent constructs. These results were sought to demonstrate the divergent validity of the revised measure. This model was computed to test the assertion that marital aggrandizement measures a distinct couples response style.

The initial solution converged after 20 iterations ( $\chi^2[df=25] = 185.45, p < .01$ ). Each parameter estimate and error term differed from zero (i.e.,  $t$ -values  $> |1.96|$ ). However, modification indices suggested that certain post hoc model revisions were required to obtain adequate fit of derived data. The first revision allowed the revised measure to load on both the response bias and psychological well-being latent constructs ( $\Delta\chi^2[df=1] = 75.51, p < .01$ ). A subsequent revision corrected for significant correlation between perceived health and affect balance error estimates ( $\Delta\chi^2[df=1] = 21.66, p < .01$ ). This revision was reasonable given that both variables are hypothesized to be related (i.e., subsumed under the same latent construct). Of note, the coefficient between maximum likelihood parameter estimates for the initial and revised models indicates near perfect correlation ( $r[10] = .99$ ). This suggests that revisions do not significantly alter estimates from the original theory-based, more parsimonious model.

Each parameter estimate and error term estimate remains significantly different from zero (see Figure 5). The Adjusted Goodness of Fit (AGFI = .96) and Comparative Fit Indices (CFI = .99) both indicate an effective fit of data for the derived model. acceptable limits.

Figure 5

Confirmatory Model of the Convergent and Discriminant Validity of the Revised Measure (1)

*Note:* Maximum likelihood estimates (completely standardized solution and significance levels). Asterisks (\*) denote parameters initially fixed to 1.0 for purposes of scaling and statistical identification (significance levels cannot be computed).

At first it may appear curious that the revised measure would load significantly upon both psychological well-being and biased responding latent constructs (contrary to Objective 2.4). In part, this finding may explain divergent findings regarding the original scale and contradictory interpretation of the construct(s) measured by the MCS (cf. Fowers et al., 1994; O'Rourke & Wenaus, 1998). The CFA model would suggest that the revised measure taps both well-being and biased responding. Item selection criteria (Study One) would appear to have effectively restricted measurement of marital satisfaction (i.e., does not load significantly upon the marital satisfaction). However, the revised measure remains a measure of multiple constructs. Also of note, the relative significance of estimates is greater for the parameter leading from the revised measure to psychological well-being ( $t = 8.70$ ) compared to biased responding ( $t = 2.62$ ). This may indicate that more points along response keys gauge the former as opposed to biased responding. It may be that only upper end responses tap the propensity to aggrandize one's spouse and marriage.

For this reason, computation of scores for the revised measure was refined such that only responses at the two upper points of response keys registered endorsement whereas all others were not tallied (i.e., responses 1 to 5). It was assumed that this revised procedure would differentiate marital aggrandizement from psychological well-being. This is also the recommended scoring method for the BIDR.

This scoring protocol effectively leads to binary scoring of items of the revised measure. Jöreskog and Sörbom recommend computation and analysis of tetrachoric correlations and resulting matrices with dichotomous data. According to Byrne (1998), however, this is unnecessary and unduly complex as resulting solutions rarely very lead to



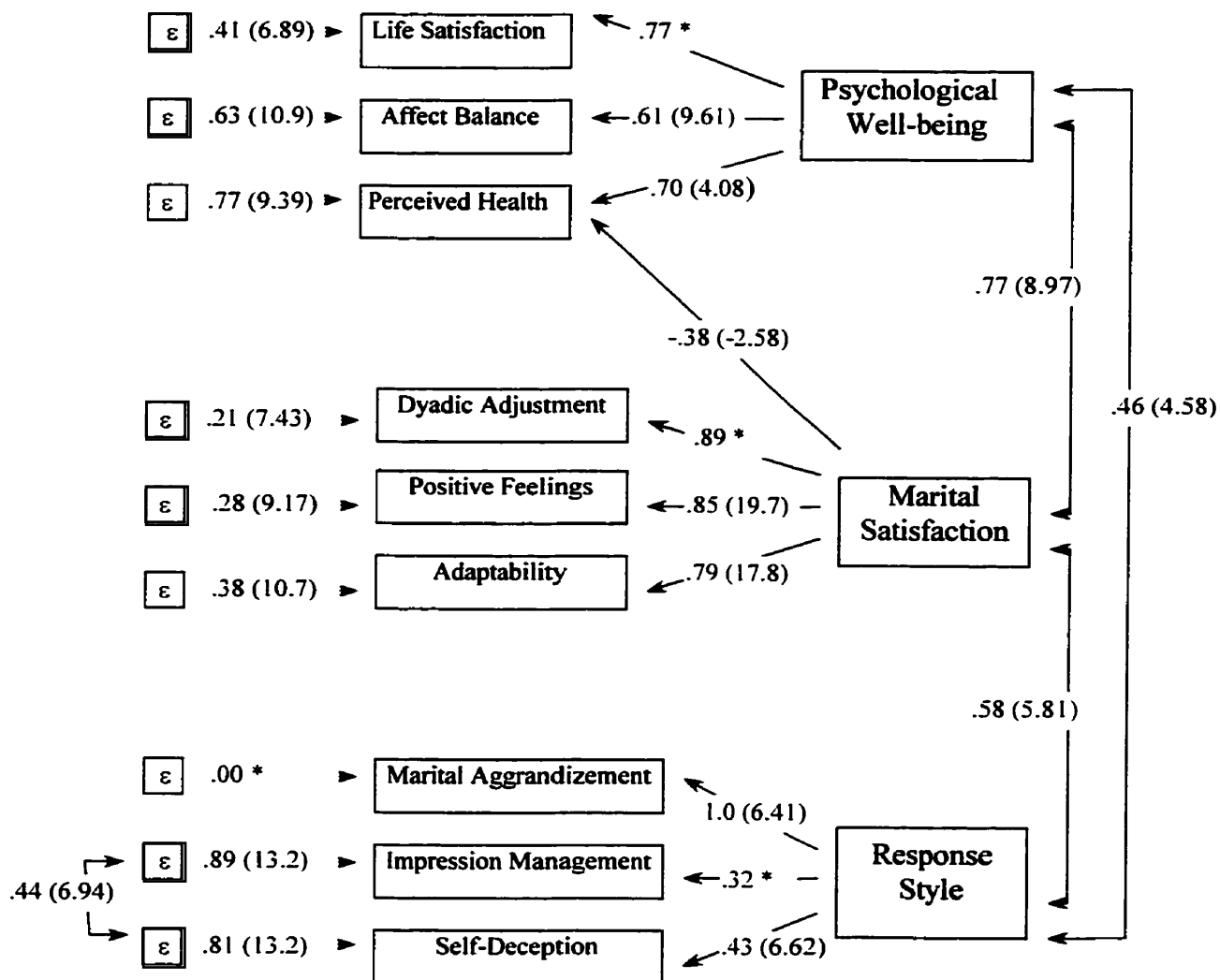
solutions which vary from more traditional analyses.

The CFA model as first hypothesized was recomputed subsequent to recalculation of scores for the revised measure ( $\chi^2[df=25] = 107.68, p < .01$ ). The program subsequently indicated that revision was warranted to correct for significant correlated error between BIDR subscales ( $\Delta\chi^2[df=1] = 60.95, p < .01$ ). This revision was a tenable given similar item content and identical response keys. A second modification was made to allow for significant cross-loading for perceived health upon both psychological well-being and marital satisfaction ( $\Delta\chi^2[df=1] = 9.54, p < .01$ ). See Figure 6.

Also of note, allowing revised measure scores to load across response bias and psychological well-being fails to improve the fit of data ( $\Delta\chi^2[df=1] = .34, ns$ ) as the path between the revised measure and psychological well-being does not differ significantly from zero ( $t = .27, ns$ ). This indicates that restriction of measurement to the upper ends of response keys (i.e., 6 or 7 after reversal of negatively-keyed items) significantly reduces covariance with well-being instruments. This means of computation enables the revised measure to primarily gauge biased responding thus satisfying all objectives of Study Two. Also of note, internal consistency is not significantly affected by this revision to item scoring ( $\alpha = .83$ ). For both men ( $\alpha = .83, M = 5.87, SD = 3.98$ ) and women ( $\alpha = .83, M = 5.53, SD = 3.92$ ), response levels remain indistinguishable ( $t[326] = .90, ns$ ). Table 5 presents correlations coefficients for the revised measure (0 to 18 range of possible scores) relative to other study measures.

As before, post hoc revisions did not significantly change parameter estimates relative to the hypothesized model ( $r[10] = .98$ ). However, these revisions provide a strong fit of data to the revised model ( $\chi^2[df=23] = 37.19, p < .05$ ). The Adjusted

Figure 6

Confirmatory Model of the Convergent and Discriminant Validity of the Revised Measure (2)

*Note.* Maximum likelihood estimates (completely standardized solution and significance levels). Asterisks (\*) denote parameters initially fixed to 1.0 for purposes of scaling and statistical identification (significance levels cannot be computed).



Goodness of Fit (AGFI = .96) and Comparative Fit Indices (CFI = .99) indicate optimal fit. Comparison of Expected Cross Validation Indices for this model (ECVI = .23) as compared to the prior CFA model (ECVI = .38) suggests greater likelihood of replication for the former (Figure 5) across similar samples from this population of comparable size (Byrne, 1998). Not only do revisions restrict measurement of the revised measure to a single construct but this refinement provides improved fit to the CFA model.

A hierarchical regression equation was computed as an alternate means to convey the significance of results. With Dyadic Adjustment Scale (DAS) scores as the dependent measure, the self-deception and impression management subscales of the BIDR were entered as a first block ( $R^2 = .03, p < .01$ ). Although statistically significant, this initial step explained only 3% of observed variance in DAS scores. Next, the other marital measures (Positive Feelings Questionnaire, adaptability subscale of FACES II) were included. It was assumed that each taps a general factor of marital well-being common among couples measures to be parcelled out from the DAS. This step provided a significant increase in the strength of the regression equation ( $\Delta R^2 = .63, p < .01$ ). The revised measure was entered as a final step (revised scoring method) again providing a significant increase in prediction ( $\Delta R^2 = .01, p < .01$ ). Revised measure scores contribute unique variance to this regression equation not provided by other measures of marital satisfaction and socially desirable responding ( $F[5,344] = 13.86, p < .01$ ). Of note, Mahalanobis' distance suggests no multivariate outliers (see Table 6).

Although significant, it should be noted that the revised measure accounts for only 1% of observed variance in DAS scores. This being said, the standard was set high as the revised measure was required to provide unique variance over and above both BIDR

Table 6

**Hierarchical Regression Analysis of Dyadic Adjustment Scale Scores**

	<i>B</i>	<i>SE B</i>	$\beta$
BIDR SD	-.14	.20	-.03
BIDR IM	-.06	.18	-.01
PFQ	.42	.05	.39
FACES II	.78	.09	.39
Revised measure	.18	.04	.16

*Note.*  $R^2 = .04$  for initial set of variables;  $\Delta R^2 = .62$  as a result of step two;  $\Delta R^2 = .02$  subsequent to entry of the revised measure ( $ps < .001$ ). BIDR SD = Balanced Inventory of Desirable Responding, Self-Deception, BIDR IM = Balanced Inventory of Desirable Responding, Impression Management, PFQ = Positive Feelings Questionnaire, FACES II = Family Adaptability and Cohesion Evaluation, Adaptability Scale.

subscales and two marital measures. The contribution of this third step is low relative to other independent variables; however, the finding that it added significantly to prediction is notable given that two-thirds of observed variance had previously been claimed.

### Study Three

After the item content of the revised scale was determined, Internet respondents were asked to complete the abbreviated measure. (Only Internet participants were asked to participate in order to limit further expenditures for printing and postage). Participants were also asked to complete the BIDR and PFQ a second time so as not to focus inordinate attention to the revised measure. One-hundred and five participants completed Internet questionnaires 43 days on average after first participation (47 men and 51 women, gender not specified by 7 participants). These participants did not differ in terms of original responses to the revised measure ( $t[562] = .82, ns$ ), nor age ( $t[511] = .91, ns$ ), years married ( $t[510] = .19, ns$ ), years of education ( $t[502] = .06, ns$ ), or gender composition ( $\chi^2[1.513] = 2.06, ns$ ).

The correlation coefficient between the revised measure across time suggests good test-retest reliability for this instrument ( $r[102] = .75$ ; Objective 3.1). This coefficient is comparable to those obtained for both the impression management ( $r[75] = .78$ ) and self-deception subscales of the BIDR ( $r[76] = .73$ ). Correlation coefficients between baseline and time two scores do not differ for the revised measure as compared to either BIDR subscale (i.e., difference of Fisher Z scores within 95% confidence intervals). All three social desirability constructs appear to be reliable measures over time among older adults.

Also of note, internal consistency for the revised measure remains within optimal parameters (revised scoring method,  $\alpha = .84$ ) and greater than that for self-deception

( $\alpha = .71$ ) and impression management BIDR subscales ( $\alpha = .75$ ). This estimate of internal consistency for the revised measure satisfies Objective 3.2.

In addition to previous results which support the validity of the revised measure, these findings attest to its reliability. The challenge is now to see if these supportive findings can be replicated across other populations such as same-gender couples, newlyweds and those with young children.

## DISCUSSION

*Tout ceci est ce qu'il y a de mieux...car il est impossible que les choses ne soient pas comme elles sont; car tout est bien.*  
(Voltaire, 1759)

Study One has led to the development of a new couples measure of biased responding. Responses were examined within the extended item pool of prospective items (15 items from the existing MCS, 9 from Edmonds' original validation study, 10 written for this study). Various *a priori* inclusion criteria were applied consistent with psychometric theory, previous social desirability research, and the operational definition of marital aggrandizement leading to the selection of 18 items (see Table 7).

Internal consistency of core items is within optimal parameters ( $.90 \geq \alpha \geq .80$ :  $\alpha = .87$ ). A similar alpha level was obtained among test validation participants at baseline ( $\alpha = .86$ ) and follow-up ( $\alpha = .84$ ). Responses at Time 2 also enabled estimation of test-retest reliability over a 43 day average interval ( $r[102] = .75$ ). This coefficient compares favourably with both BIDR subscales (i.e., no significant difference among the three).

As noted previously, 12 of 18 items selected for the revised measure are not part of the existing MCS. Four items are from the item pool of Edmonds' (1967) original validation study whereas the remaining eight were written specifically for this dissertation. A change of name is warranted given the distinction between the original and revised measures. In keeping with the evolution of theory regarding this construct, it is recommended that the new measure be known as the Marital Aggrandizement Scale (MAS). This name is congruent with contemporary research and the results of this study.



Table 7

**Marital Aggrandizement Scale Items**

1. I cannot imagine having married anyone other than my spouse.
2. My marriage has not been a perfect success. \*
3. There is never a moment I don't feel completely in love with my spouse.
4. I have been completely honest at all times with my spouse throughout our marriage.
5. Most times, I know what my spouse is thinking before uttering a word.
6. My spouse has never made me angry.
7. If my spouse has any faults, I am not aware of them.
8. I do not recall a single argument with my spouse.
9. My spouse and I understand each other perfectly.
10. I have never known a moment of sexual frustration during my marriage.
11. My spouse and I sometimes annoy each other. \*
12. My spouse has never made me unhappy.
13. Some of my dealings with my spouse are prompted by selfish motives. \*
14. I have never regretted my marriage, not even for a moment.
15. I always place the needs and wishes of my spouse before my own.
16. I have never imagined what it would be like to be intimate with anyone other than my spouse.
17. My marriage could be happier than it is. \*
18. If every person in the world of the opposite sex had been available and willing to marry me, I could not have made a better choice.

*Note.* Asterisked items are reverse keyed.

Results of the second study suggest that the MAS is a valid measure of biased responding. Confirmatory factor analysis supports the model in which indices of psychological well-being and marital satisfaction appear to be subsumed within separate latent constructs whereas the MAS and BIDR subscales appear as distinct measures of biased responding. Initial analyses, however, suggested that the MAS is a complex measure tapping both biased responding and well-being constructs. To address this limitation, calculation of MAS scores was revised such that only upper end responses were tallied similar to the Balanced Inventory of Desirable Responding (Paulhus, 1994). Subsequent to this revision, cross-loading of MAS scores was eliminated such that the scale emerged strictly as a measure of biased responding. This empirical method to establish a scoring procedure for the MAS differs from trial-and-error procedures often used in scale development. This scoring method is recommended for the MAS (range of possible scores 0 to 18).

MAS scores may be used as a validity check in future research. Should covariation with the MAS not alter the observed relationship between dependent and independent variables, this would allow for greater confidence in conclusions drawn. With consideration of marital aggrandizement, measurement and reporting of marital satisfaction can occur with less concern for erroneous associations due to biased responding. It is assumed that enhanced measurement of factors confounding marital measures will enhance future research.

One surprising result to emerge from this study was the significant cross-loading of perceived health upon both psychological well-being and marital satisfaction. This finding is particularly significant given the negative valence of the parameter estimate

( $t = -.38, p < .05$ ). In other words, those who perceive their health as poor are more likely to present as satisfied with their spouse and marriage. This may suggest that older adults who perceive their physical well-being at risk see their spouse as a prospective caregiver. Greater investment in the marriage results from the fear of being alone at a vulnerable point in one's life. In effect, the relationship may derive value as security from spending one's final days in institutional care. Future research is warranted to confirm this interpretation or identify other plausible explanations.

A further finding of note pertains to the non-significant correlation for the MAS between spouses ( $r[81] = .30$ ). In contrast to the interpretation of elevated MCS scores by Fowers and Applegate (1996), this construct does not appear to be a systemically determined mode of deception. In other words, the propensity to distort recollections of one's marital history can occur irrespective (or in contrast to) the beliefs of one's spouse.

This finding also negates one interpretation for elevated levels of marital aggrandizement stemming from research with spouses of dementia patients (O'Rourke & Wenaus, 1998). It was assumed that the propensity to aggrandize one's spouse and marriage was more likely among caregivers of persons with dementia. Given that the unaffected spouse serves as the sole bearer of relational memories due to the effects of neurodegeneration, cognitive impairment precludes reinforcement of shared autobiographical memories. In effect, the propensity for selective recall cannot be challenged by a spouse with a memory disorder (e.g., Alzheimer disease). The low correlation between spouses in the current study suggests that marital aggrandizement can result when the memory of both spouses is intact. This finding reinforces the assertion that the individual is the unit of analysis in terms of biased recall of one's relational

history and not the system itself (cf. Fowers and Applegate, 1996).

This study provides greater certainty regarding the measurement of marital aggrandizement. The results of studies one through three suggest that the MAS is a valid and reliable instrument among older adults. The question remains as to the factors which lead to the etiology and maintenance of marital aggrandizement.

It should be noted that measurement of this construct in this study has entailed an inherent selection bias. By definition, those who had not attained 20 years of marriage were excluded. As a result, marital aggrandizement may only describe a phenomenon which exists among a distinct population.

According to the reactivity hypothesis of Jacobson, Follette and Waggoner McDonald (1982), distressed couples differ from those in more stable relationships in terms of the relative importance placed upon recent events. By extrapolation, those in enduring relationships may not only minimize the salience, but negate the existence of negative interpersonal experience. As the marriage extends over decades, the impetus to reconcile the continuity of the relationship with recollections incongruent with the decision to remain with one person may become more pronounced. Over the long term, happily married persons may choose to recall only those events which reinforce a positive appraisal of one's spouse and marriage.

Similar to the notion of depressive realism (Alloy & Abramson, 1988), persons who perceive themselves as happily married may selectively attend to interpersonal information. In order to maintain the perception that one is happy, memories which conflict with this belief may not be retained. This implies that marital aggrandizement entails a bias toward positive affectivity in which negative memories are discounted. A

preference for positive sentiment may predispose memory function in support of interpersonal self-deception. Over the long term, it may not be distressed persons who distort perceptions of their spouse and marriage but those who retain the belief that they are happy (and maintain the marriage).

### Generalizability of Findings

It would appear that this is the first dissertation to make use of the Internet with older adults as a means of data collection. This had allowed for recruitment of participants across five continents. Although a significant proportion of Internet respondents identified their country of origin, roughly one-third did not provide geographic information. This precluded definitive nation-by-nation comparisons. As a result, there may be country-specific patterns of response which cannot be identified. The likelihood of this is not great, however, given the current interpretation of marital aggrandizement. As the vast majority of participants live in cultures of Anglo-Saxon origin, the social institutions in these countries are relatively similar (cf. New Zealand, Canada). Cultural similarity across these countries outweighs differences.

Use of the Internet has afforded participants considerable anonymity advantageous in social desirability research (Paulhus, 1991). Routing through the Internet service provider masked both the e-mail address and time zone in which responses originated. With added anonymity, however, comes concern regarding misrepresentation. Even though the title page requested the assistance of persons over 49 who had been married more than 19 years, it cannot be stated definitively that all respondents met these inclusion criteria.

From the outset, various steps were taken to minimize the likelihood that responses were obtained from ineligible participants. For instance, the website was publicized primarily in media targeted directly to older adults. Although younger persons certainly access sites such as 50+ Net or read Today's Senior, one can assume that the majority are older adults.

The time required to participate in this study would likely have dissuaded mischievous respondents given that it took roughly 40 minutes to complete all questionnaires. As well, descriptive data were sought as part of the final questionnaire allowing participant information to be checked against inclusion criteria. Ineligible participants who did not read the title page yet responded to questionnaires were excluded. Two widowed persons were identified this way.

In contrast to Internet participants, those who completed printed-page questionnaires were drawn from a more circumscribed geographic area (i.e., the U.S., Canada, with a large percentage from the National Capital Region). As noted previously, response levels for each measure (including the MAS) are similar between groups. As well, printed-page and Internet respondents appear remarkably similar. Recruitment of participants via the Internet would not appear to introduce an apparent selection bias. To the contrary, this means of data collection may enable recruitment of older adults inaccessible with more traditional research methodologies (e.g., house-bound, physically frail, rural communities).

Despite this, it cannot be said that this sample is representative of the current cohort of older adults given that participants had completed an average of 14.7 years of formal education. This grouping is more educated than the norm as the majority had

undertaken some post-secondary training. In a study by O'Rourke and Tuokko (2000), for instance, a representative sample of older Canadians ( $M = 65.3$  years,  $SD = 13.3$ ) reported that they had completed an average of 10.3 years of education ( $SD = 3.75$ ). Similar to most research with self-selected participants, persons choosing to take part in the current study are more educated than the population from which they are drawn. This limits generalizability as responses may not correspond to older adults with less education. Therefore responses to the MAS may differ from the broader population. This observation underscores the need to replicate findings from this study with other samples and research methodologies (e.g., randomly identified participants).

#### Limitations of Study

As noted previously, response levels to counterbalanced forms indicate between group differences as responses to the Positive Feelings Questionnaire (PFQ) and the Life Satisfaction Inventory (LSI-Z) were significantly higher for one version. There is no obvious explanation to account for these differences as response levels to the other marital and well-being measures did not differ. It is unlikely that the order of presentation led to these between form differences as the PFQ appeared earlier within Form A yet the LSI was later in the order of Form B. Thus differences do not appear to be attributable to novelty of content (i.e., the first marital or well-being set of questions encountered by respondents).

#### Directions for Future Research

The results of this study suggest that marital aggrandizement is a bona fide phenomenon. At this time, however, few conclusions can be drawn regarding the etiology of this construct. At what point is it necessary to aggrandize one's relationship?

What life events precipitate selective recall of the past? Longitudinal research will be required to measure the correlates and antecedents of marital aggrandizement over time.

It is also unknown if marital aggrandizement persists after the death of one's spouse. It is unclear if the same factors endure to maintain selective recall of one's relational history. After many years of marriage, it is probable that the conditions remain to maintain embellished perceptions of one's spouse and relationship as a widow or widower.

Aside from traditional empirical research, observational and qualitative study may help shed light upon the nature of marital aggrandizement. The latter would entail in-depth, semi-structured interviews with persons endorsing MAS items at the upper end of response keys. This type of inquiry would help identify the meaning ascribed to these items by respondents. Ideally, such research would also indicate whether they had insight regarding the implausibility of such statements. This information would foster subsequent research seeking to identify factors related to the etiology of marital aggrandizement.

The next phase of this research has been undertaken to validate of a French language version of the MAS: *L'Échelle d'embellissement conjugal*. The existing website was modified so that participants choose in which official language they would like to respond. Successful completion of this study allows for use of the MAS in the U.S., Canada and much of Western Europe. Cross-cultural research regarding marital aggrandizement between language groups is now possible. For instance, comparisons between English- and French-Canadians within the same communities (e.g., Winnipeg, Montréal) will provide new insight as to the etiology of this construct. Should differences



emerge between groups within the same city or region, this will provide clues as to the causal factors and direction for subsequent research.

This study has advanced the measurement of this construct. It remains to be determined, what (if anything) should be done to counter this propensity for selective recall. Should married persons be encouraged to adopt more realistic beliefs and perceptions? Previous research contends that marital aggrandizement may be an effective coping strategy for spouses of persons with dementia (O'Rourke et al., 1996).

Interpretation of results from the current study suggests that this may be a universal response to the constraints of marriage over the long term. Until more is understood about the nature of marital aggrandizement, it would be premature to challenge beliefs which may have significant adaptive value. Social/institutional change may be warranted, not individual intervention. As eloquently expressed by the old adage: ignorance is bliss. The results of this study gives this phrase new meaning.

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## Recruitment Script

Hello, my name is Norm O'Rourke. I am a doctoral student in clinical psychology working under the supervision of Dr. Philippe Cappeliez at the University of Ottawa. We would appreciate the assistance of married persons in a research study. If you and your spouse are over 49 years of age, have been married for at least 20 years, we would appreciate if you would complete a set of anonymous questionnaires.

**The purpose of this study is to better understand the perceptions and beliefs of married persons within enduring relationships.** Completion of these questionnaires would require roughly 45 minutes of your time. These questionnaires have been pre-assigned code numbers and we ask that you do not disclose the identity of you or your spouse. Completed questionnaires will be kept in a secure place and no individual responses will be disclosed. Only aggregate data will be reported.

Your participation in this study is strictly voluntary and you are free to withdraw at any time. If you choose not to participate, this will in no way affect any future involvement with the University of Ottawa.

If you think that you might like to participate, I will pass you a package with two sets of questionnaires to take home to complete. If willing, we would appreciate if your spouse would also complete the questionnaires. Separate postage-paid return envelopes are provided for both of you.

A lottery ticket has been included with each set of questionnaires; this is a small token of our appreciation for your time and effort.

Thank you for your consideration.



## **Perceptions and Beliefs of Older Married Adults**

**Participant No:** \_\_\_\_\_

## Information Sheet

The current study examines the perceptions of married persons over 49 years of age. This package contains questions regarding your marriage, beliefs regarding yourself, emotional well-being, and personal information (e.g., age, years married, physical health). It is our hope that this information will provide us with greater understanding of the beliefs and perceptions of married persons within enduring relationships.

We would appreciate both you and your spouse completing these questionnaires (it does not matter who completes which form). Completion of this set of eight questionnaires will require about 45 minutes of your time. If you choose to participate, please respond ***without discussing questions or consulting with your spouse***. Once complete, place the questionnaires within one of the two postage-paid, return envelopes and place in the mail. We have enclosed two lottery tickets with questionnaires as a token of our appreciation.

Please note that each package has been pre-assigned a code number. Questionnaires will be kept in a secure place and no individual responses will be disclosed. Only combined data will be reported. If you have any questions or concerns, please feel free to call Dr. Philippe Cappeliez at the number below.

If you choose not to complete these questionnaires or choose not to return the package, this will not affect any future involvement with the University of Ottawa. Participation in this study is strictly voluntary. You are free to discontinue at any time. Completion and return of these questionnaires will indicate your willingness to participate.

Thank you for taking the time to consider participating in this study.

With regards,



Norm O'Rourke, MA

Philippe Cappeliez, Ph.D.

Ph.D. student, School of Psychology

Professor, School of Psychology

562-5800 x4456

562-5800 x4806

**Affect Balance Scale**

Please **CIRCLE** the appropriate number to the right of each statement to indicate how much you agree with the following statements. During the past few weeks, have you felt...

- 1 = Often**  
**2 = Sometimes**  
**3 = Never**

- |  |          |          |          |
|--|----------|----------|----------|
| 1. Particularly excited or interested in something?                      | <b>1</b> | <b>2</b> | <b>3</b> |
| 2. Did you feel so restless that you couldn't sit long in a chair?       | <b>1</b> | <b>2</b> | <b>3</b> |
| 3. Proud because someone had complimented you on something you had done? | <b>1</b> | <b>2</b> | <b>3</b> |
| 4. Very lonely or remote from other people?                              | <b>1</b> | <b>2</b> | <b>3</b> |
| 5. Pleased about having accomplished something?                          | <b>1</b> | <b>2</b> | <b>3</b> |
| 6. Bored?  | <b>1</b> | <b>2</b> | <b>3</b> |
| 7. On top of the world?  | <b>1</b> | <b>2</b> | <b>3</b> |
| 8. Depressed or very unhappy?  | <b>1</b> | <b>2</b> | <b>3</b> |
| 9. That things were going your way?                                      | <b>1</b> | <b>2</b> | <b>3</b> |
| 10. Upset because someone criticized you?                                | <b>1</b> | <b>2</b> | <b>3</b> |

### Life Satisfaction Index - Z

Here are some statements about life in general that people feel differently about. Please read each statement and CIRCLE one response to indicate whether or not you agree with each statement.

- |     |  |              |                 |
|-----|--|--------------|-----------------|
| 1.  | As I grow older, things seem better than I thought they would be                             | <b>Agree</b> | <b>Disagree</b> |
| 2.  | I have gotten more of the breaks in life than most of the people I know                      | <b>Agree</b> | <b>Disagree</b> |
| 3.  | This is the dreariest time of my life  | <b>Agree</b> | <b>Disagree</b> |
| 4.  | I am just as happy as when I was younger   | <b>Agree</b> | <b>Disagree</b> |
| 5.  | These are the best years of my life  | <b>Agree</b> | <b>Disagree</b> |
| 6.  | Most of the things I do are boring or monotonous   | <b>Agree</b> | <b>Disagree</b> |
| 7.  | The things I do are as interesting to me now as they ever were                               | <b>Agree</b> | <b>Disagree</b> |
| 8.  | As I look back on my life, I am fairly well satisfied  | <b>Agree</b> | <b>Disagree</b> |
| 9.  | I have made plans for things I'll be doing a month or a year from now                        | <b>Agree</b> | <b>Disagree</b> |
| 10. | When I think back over my life, I didn't get most of the important things I wanted           | <b>Agree</b> | <b>Disagree</b> |
| 11. | Compared to other people, I get down in the dumps too often                                  | <b>Agree</b> | <b>Disagree</b> |
| 12. | I've gotten pretty much what I expected out of life  | <b>Agree</b> | <b>Disagree</b> |
| 13. | In spite of what most people say, the lot of the average person is getting worse, not better | <b>Agree</b> | <b>Disagree</b> |



## Dyadic Adjustment Scale

### Part 1

Most persons have disagreements over the course of their relationships. Using the scales provided, indicate the approximate extent to which these statements/questions apply to your marriage. Please **CIRCLE** one response for each item below.

- 1** = Always agree  
**2** = Almost always agree  
**3** = Occasionally disagree  
**4** = Frequently disagree  
**5** = Almost always disagree  
**6** = Always disagree

- |  |          |          |          |          |          |          |
|--|----------|----------|----------|----------|----------|----------|
| 1. Handling family finances                    | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 2. Matters of recreation                       | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 3. Religious matters                           | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 4. Demonstrations of affection                 | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 5. Friends                                     | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 6. Sexual relations                            | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 7. Correct or proper behaviour                 | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 8. Philosophy of life                          | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 9. Ways of dealing with parents or in-laws     | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 10. Aims, goals, and things believed important | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 11. Amount of time spent together              | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 12. Making major decisions                     | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 13. Household tasks                            | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 14. Leisure time interests and activities      | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 15. Career decisions                           | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |

### Dyadic Adjustment Scale (Cont.)

#### Part II

- 1** = All the time  
**2** = Most of the time  
**3** = More often than not  
**4** = Occasionally  
**5** = Rarely  
**6** = Never

- |   |          |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|
| 16. How often do you discuss or have you considered divorce, separation, or terminating you relationship? | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 17. How often do you or your spouse leave the house after a fight?  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 18. In general, how often do you think that things between you and your spouse are going well?            | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 19. Do you confide in your spouse?  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 20. Do you ever regret that you married?  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 21. How often do you and your spouse quarrel?   | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |
| 22. How often do you and your spouse <i>get on each others' nerves</i> ?                                  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> |

- 1** = Everyday  
**2** = Almost everyday  
**3** = Occasionally  
**4** = Rarely  
**5** = Never

- |                                       |          |          |          |          |          |
|---------------------------------------|----------|----------|----------|----------|----------|
| 23. How often do you kiss your spouse | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|---------------------------------------|----------|----------|----------|----------|----------|

- 1** = All  
**2** = Most  
**3** = Some  
**4** = Very few  
**5** = None

- |  |          |          |          |          |          |
|--|----------|----------|----------|----------|----------|
| 24. Do you engage in outside interests together? | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|--|----------|----------|----------|----------|----------|

### Dyadic Adjustment Scale (Cont.)

#### Part III

How often would you say that the following occur between you and your spouse?

- 1 = Never
- 2 = Less than once a month
- 3 = Once or twice a month
- 4 = Once or twice a week
- 5 = Once a day
- 6 = More often

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 25. Have a stimulating exchange of ideas | 1 | 2 | 3 | 4 | 5 | 6 |
| 26. Laugh together                       | 1 | 2 | 3 | 4 | 5 | 6 |
| 27. Calmly discuss something             | 1 | 2 | 3 | 4 | 5 | 6 |
| 28. Work together on a project           | 1 | 2 | 3 | 4 | 5 | 6 |

There are some things about which couples sometimes agree and sometimes disagree. Please indicate if either item below has caused differences of opinions or were problems in your marriage during the past few weeks (circle yes or no).

- |                             |            |           |
|-----------------------------|------------|-----------|
| 29. Being too tired for sex | <b>Yes</b> | <b>No</b> |
| 30. Not showing love        | <b>Yes</b> | <b>No</b> |

The points on the following line represent different degrees of happiness in your relationship. The middle point, *happy*, represents the level of happiness of most marriages. Please indicate the precise point which best describes the degree of happiness (all things considered) of your relationship.

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Extremely <u>UN</u> happy	Fairly <u>UN</u> happy	A little <u>UN</u> happy	<i>Happy</i>	Very Happy	Extremely Happy	Perfect
------------------------------	---------------------------	-----------------------------	--------------	---------------	--------------------	---------

**Dyadic Adjustment Scale (Cont.)**

32. Which of the following statements best describes how you feel about the future of your relationship? Please place a check mark on the appropriate line (one only).

- I want desperately for my marriage to succeed, and would go to almost any length to see that it does.
- I want very much for my marriage to succeed, and will do all I can to see that it does.
- I want very much for my marriage to succeed, and will do my fair share to see that it does.
- It would be nice if my marriage succeeds, but I can't do much more than I am doing now to help it succeed.
- My marriage will never succeed, and there is no more that I can do to keep the relationship going.

### Positive Feelings Questionnaire

Below is a list of 17 questions about various feelings between married persons. Please answer each one of them in terms of how you generally feel about your spouse taking into account the past few months. The responses you select should reflect how you actually feel, not how you think you should feel or would like to feel. Using the scale below as a guide, please choose only one response for each question.

1	2	3	4	5	6	7
Extremely negative	Quite negative	Slightly negative	Neutral	Slightly positive	Quite positive	Extremely positive

- |   |               |
|---|---------------|
| 1. How do you feel about your spouse as a friend to you?  | 1 2 3 4 5 6 7 |
| 2. How do you feel about the future of your marital relationship?   | 1 2 3 4 5 6 7 |
| 3. How do you feel about having married your spouse?  | 1 2 3 4 5 6 7 |
| 4. How do you feel about your spouse's ability to put you in a good mood so that you can laugh and smile? | 1 2 3 4 5 6 7 |
| 5. How do you feel about your spouse's ability to handle stress?  | 1 2 3 4 5 6 7 |
| 6. How do you feel about the degree to which your spouse understands you?                                 | 1 2 3 4 5 6 7 |
| 7. How do you feel about the degree to which you can trust your spouse?                                   | 1 2 3 4 5 6 7 |
| 8. How do you feel about how your spouse relates to other people?   | 1 2 3 4 5 6 7 |
| 9. Touching my spouse makes me feel...  | 1 2 3 4 5 6 7 |
| 10. Being alone with my spouse makes me feel...   | 1 2 3 4 5 6 7 |
| 11. Having sexual relations with my spouse makes me feel...   | 1 2 3 4 5 6 7 |
| 12. Talking and communicating with my spouse makes me feel...   | 1 2 3 4 5 6 7 |

**Positive Feelings Questionnaire (Cont.)**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
	Extremely negative	Quite negative	Slightly negative	Neutral	Slightly positive	Quite positive	Extremely positive
13. My spouse's encouragement of my individual growth makes me feel...	1	2	3	4	5	6	7
14. My spouse's physical appearance makes me feel...	1	2	3	4	5	6	7
15. Seeking comfort from my spouse makes me feel...	1	2	3	4	5	6	7
16. Kissing my spouse makes me feel...	1	2	3	4	5	6	7
17. Sitting or lying close to my spouse makes me feel...	1	2	3	4	5	6	7

**Marital Adaptability and Cohesion Evaluation Scales - II**  
**(Adaptability Subscale)**

Below is a list of items about you and your spouse. Using the following scale, CIRCLE the appropriate response to the right of each item to indicate which best describes your marriage.

	1	2	3	4	5
	Almost Never	Once in a While	Sometimes	Frequently	Almost Always
1. In our relationship, it is easy for both of us to express our opinion	1	2	3	4	5
2. We each have input regarding major family decisions				1	2 3 4 5
3. We are flexible in how we handle differences				1	2 3 4 5
4. We discuss problems and feel good about the decisions				1	2 3 4 5
5. We shift household responsibilities between us				1	2 3 4 5
6. It is hard to know what the rules are in our relationship				1	2 3 4 5
7. We freely say what we want				1	2 3 4 5
8. We have a good balance of leadership in our family				1	2 3 4 5
9. We operate on the principle of fairness in our marriage				1	2 3 4 5
10. We try new ways of dealing with problems				1	2 3 4 5
11. In our marriage, we share responsibilities				1	2 3 4 5
12. It is difficult to get a rule change in our relationship				1	2 3 4 5
13. When problems arise, we compromise				1	2 3 4 5
14. We are afraid to say what is on our minds				1	2 3 4 5

### Balanced Inventory of Desirable Responding - Version 6

Using the scale below as a guide, CIRCLE one number beside each statement to indicate how much you agree with it.

1	2	3	4	5	6	7
Not True			Somewhat True			Very True

- |  |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|
| 1. My first impressions of people usually turn out to be right           | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. I sometimes tell lies if I have to                                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. It would be hard for me to break any of my bad habits                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. I never cover up my mistakes  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. I don't care to know what other people really think of me             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. There have been occasions when I have taken advantage of someone      | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. I have not always been honest with myself                             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. I never swear   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. I always know why I like things                                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. I sometimes try to get even rather than forgive and forget           | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. When my emotions are aroused, it biases my thinking                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. I always obey laws, even when I'm unlikely to get caught             | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. Once I've made up my mind, other people can seldom change my opinion | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. I have said something bad about a friend behind his/her back         | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. I am not a safe driver when I exceed the speed limit                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. When I hear people talking privately, I avoid listening              | 1 | 2 | 3 | 4 | 5 | 6 | 7 |



**Balanced Inventory of Desirable Responding (Cont.)**

	1	2	3	4	5	6	7
	Not True	-----		Somewhat True	-----		Very True
17. I am fully in control of my own fate	1	2	3	4	5	6	7
18. I have received too much change from a salesperson without telling him or her	1	2	3	4	5	6	7
19. It's hard for me to turn off a disturbing thought	1	2	3	4	5	6	7
20. I always declare everything at customs	1	2	3	4	5	6	7
21. I never regret my decisions	1	2	3	4	5	6	7
22. When I was young, I sometimes stole things	1	2	3	4	5	6	7
23. I sometimes lose out on things because I can't make up my mind soon enough	1	2	3	4	5	6	7
24. I have never dropped litter on the street	1	2	3	4	5	6	7
25. The reason I vote is because my vote can make a difference	1	2	3	4	5	6	7
26. I sometimes drive faster than the speed limit	1	2	3	4	5	6	7
27. My parents were not always fair when they punished me	1	2	3	4	5	6	7
28. I never read sexy books or magazines	1	2	3	4	5	6	7
29. I am a completely rational person	1	2	3	4	5	6	7
30. I have done things that I don't tell other people about	1	2	3	4	5	6	7
31. I rarely appreciate criticism	1	2	3	4	5	6	7
32. I have taken things that don't belong to me	1	2	3	4	5	6	7
33. I am very confident of my judgements	1	2	3	4	5	6	7

**Balanced Inventory of Desirable Responding (Cont.)**

	1	2	3	4	5	6	7
	Not True	-----		Somewhat True	-----		Very True
34. I have taken sick-leave from work or school even though I wasn't really sick	1	2	3	4	5	6	7
35. I have sometimes doubted my ability as a lover	1	2	3	4	5	6	7
36. I have never damaged a library book or store merchandise without reporting it	1	2	3	4	5	6	7
37. It's all right with me if some people happen to dislike me	1	2	3	4	5	6	7
38. I have some pretty awful habits	1	2	3	4	5	6	7
39. I don't always know the reasons why I do the things I do	1	2	3	4	5	6	7
40. I don't gossip about other people's business	1	2	3	4	5	6	7

### Marital Conventionalization Scale

Using the scale below as a guide, CIRCLE the number beside each statement to indicate which applies to *you, your spouse, or your relationship.*

---

1	2	3	4	5	6	7
Not True	-----		Somewhat True	-----		Very True

---

- |     |  |               |
|-----|--|---------------|
| 1.  | My spouse has all the qualities I ever wanted in a mate *                              | 1 2 3 4 5 6 7 |
| 2.  | I have set up an independent bank account in my name to protect my own interests **    | 1 2 3 4 5 6 7 |
| 3.  | At times, my spouse does things that make me unhappy *                                 | 1 2 3 4 5 6 7 |
| 4.  | There are things about my marriage that do not entirely please me ***                  | 1 2 3 4 5 6 7 |
| 5.  | I cannot imagine having married anyone other than my my spouse ****                    | 1 2 3 4 5 6 7 |
| 6.  | My marriage has not been a perfect success *   | 1 2 3 4 5 6 7 |
| 7.  | There is never a moment I don't feel completely in love with my spouse ***             | 1 2 3 4 5 6 7 |
| 8.  | Thoughts of separation or divorce occur to me as often as once a week or more **       | 1 2 3 4 5 6 7 |
| 9.  | I have been completely honest at all times with my spouse throughout our marriage **** | 1 2 3 4 5 6 7 |
| 10. | Most times, I know what my spouse is thinking before uttering a word ****              | 1 2 3 4 5 6 7 |
| 11. | My spouse has never made me angry ****   | 1 2 3 4 5 6 7 |
| 12. | If my spouse has any faults, I am not aware of them *                                  | 1 2 3 4 5 6 7 |
| 13. | I do not recall a single argument with my spouse ****                                  | 1 2 3 4 5 6 7 |

**Marital Conventionalization Scale (Cont.)**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
	Not True	-----		Somewhat True	-----		Very True
14. My spouse and I understand each other perfectly *	1	2	3	4	5	6	7
15. We are as well adjusted as any two people in the world can be *	1	2	3	4	5	6	7
16. I have never known a moment of sexual frustration during my marriage ***	1	2	3	4	5	6	7
17. I have some needs that are not being met by my marriage *	1	2	3	4	5	6	7
18. I have discussed separation or divorce with my spouse recently **	1	2	3	4	5	6	7
19. Every new thing I have learned about my spouse has pleased me *	1	2	3	4	5	6	7
20. I would have been happier had I married someone else ***	1	2	3	4	5	6	7
21. My spouse and I sometimes annoy each other ***	1	2	3	4	5	6	7
22. There are times I don't feel a great deal of love or affection for my spouse *	1	2	3	4	5	6	7
23. Our marriage has been a complete success ****	1	2	3	4	5	6	7
24. I have filed for and am proceeding with legal separation or divorce **	1	2	3	4	5	6	7
25. My spouse has never made me unhappy ****	1	2	3	4	5	6	7
26. I don't think that anyone could possibly be happier than my spouse and I *	1	2	3	4	5	6	7
27. My spouse and I agree on all matters ****	1	2	3	4	5	6	7
28. There are some things about my spouse that I do not like ***	1	2	3	4	5	6	7
29. I don't think any couple could live together with greater harmony than my spouse and I *	1	2	3	4	5	6	7

**Marital Conventionalization Scale (Cont.)**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>						
	Not True	-----		Somewhat True	-----		Very True						
30.	I have recently discussed separation or divorce with someone other than my spouse (e.g., trusted friend, sibling, therapist) **						1	2	3	4	5	6	7
31.	My spouse completely understands and sympathizes with my every mood *						1	2	3	4	5	6	7
32.	There are times when I wonder if I made the best of all possible choices ***						1	2	3	4	5	6	7
33.	Some of my dealings with my spouse are prompted by selfish motives ***						1	2	3	4	5	6	7
34.	I have never regretted my marriage, not even for a moment *						1	2	3	4	5	6	7
35.	If I had my life to live over, I wouldn't think of marrying another person ***						1	2	3	4	5	6	7
36.	I always place the needs and wishes of my spouse before my own ****						1	2	3	4	5	6	7
37.	I have contacted a lawyer recently regarding divorce **						1	2	3	4	5	6	7
38.	I have never imagined what it would be like to be intimate with anyone other than my spouse ****						1	2	3	4	5	6	7
39.	My marriage could be happier than it is *						1	2	3	4	5	6	7
40.	If every person in the world of the opposite sex had been available and willing to marry me, I could not have made a better choice *						1	2	3	4	5	6	7

\* Core items from the 15-item MCS

\*\* Obfuscation items

\*\*\* Additional items from Edmonds' (1967) validation study

\*\*\*\* New items written for this study

### Demographics Questionnaire

Your gender (male/female) \_\_\_\_\_ Age \_\_\_\_\_  
 Spouse's gender (male/female) \_\_\_\_\_ Age \_\_\_\_\_

Number of years married \_\_\_\_\_  
 Number of previous marriages: Self \_\_\_\_\_ Spouse \_\_\_\_\_  
 At what age were you married to your (current) spouse \_\_\_\_\_

How would you describe the quality of your relationship? (circle one response):

<input type="radio"/> Very poor	<input type="radio"/> Somewhat poor	<input type="radio"/> Poor	<input type="radio"/> Satisfactory
<input type="radio"/> Good	<input type="radio"/> Very Good	<input type="radio"/> Excellent	

As compared to the average couple, we are... (circle one response):

<input type="radio"/> Less Happy	<input type="radio"/> As happy	<input type="radio"/> More happy
----------------------------------	--------------------------------	----------------------------------

What is (or do you have) a religious affiliation? (e.g., Jewish, Roman Catholic):

Self \_\_\_\_\_  
 Spouse \_\_\_\_\_

How often have you attended religious services over the past 12 months? (if at all):

Self \_\_\_\_\_  
 Spouse \_\_\_\_\_

How many **years** of formal education did you complete?

Self \_\_\_\_\_  
 Spouse \_\_\_\_\_

What are/were your work or occupations (e.g., housewife, carpenter)?  
 (please describe fully in the space provided):

Self \_\_\_\_\_  
 Spouse \_\_\_\_\_

What is your current employment status? \_\_\_\_\_  
 If retired, year you left the paid work force \_\_\_\_\_

### Demographics Questionnaire (Cont.)

How would you say your health is these days? (circle one response):

- Very poor      • Somewhat poor      • Poor      • Satisfactory
- Good      • Very Good      • Excellent

Is your health better now, about the same or worse than a year ago? (circle one response):

- Better      • About the same      • Worse

Would you say your health is better, about the same, or worse than most people your age? (circle one response):

- Better      • About the same      • Worse

How much do health troubles stand in the way of doing the things you want to do? (circle one response):

- Not at all      • A little (some things)      • A great deal

Regarding your health over the past year, do you have, or have had any of the following conditions. Please CIRCLE either *Yes* or *No* as appropriate:

Allergies of any kind	<b>Yes</b>	<b>No</b>
Fractures or broken bones	<b>Yes</b>	<b>No</b>
Chest problems (e.g., asthma, TB, emphysema, pneumonia, bronchitis)	<b>Yes</b>	<b>No</b>
Heart condition or disease	<b>Yes</b>	<b>No</b>
Kidney trouble (including bladder troubles)	<b>Yes</b>	<b>No</b>
Cancer	<b>Yes</b>	<b>No</b>
Diabetes (insulin dependent)	<b>Yes</b>	<b>No</b>
High blood pressure	<b>Yes</b>	<b>No</b>
Arthritis or rheumatism	<b>Yes</b>	<b>No</b>
Troubles with your stomach (or digestive problems)	<b>Yes</b>	<b>No</b>
Stroke or the effects of a stroke	<b>Yes</b>	<b>No</b>
Parkinson's disease	<b>Yes</b>	<b>No</b>

Total family income (all sources) for the past year (circle one category):

- \$ 0 - 9,999      • \$ 40,000 - 49,999
- \$ 10,000 - 19,999      • \$ 50,000 - 69,999
- \$ 20,000 - 29,999      • \$ 70,000 - 89,999
- \$ 30,000 - 39,999      • \$ 90,000 +

- Would you like to receive a summary of findings following completion of this study?  
(If yes, please check the box).
- Can we contact you in future and ask you to complete ONE of the previous scales a second time? This will allow us to determine if this scale is sensitive to change over time. (If yes, please check the box).

If so, please write your name and address below.

Yes, I would like to receive a summary of study findings and/or would be willing to complete ONE of the previous scales a second time. Please provide your complete mailing address and phone number.

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

City \_\_\_\_\_ Prov \_\_\_\_\_

PCode \_\_\_\_\_ Phone (\_\_\_\_\_) \_\_\_\_\_

Are there any other comments or suggestions you might like to provide regarding this study? Your input would be most welcome: \_\_\_\_\_

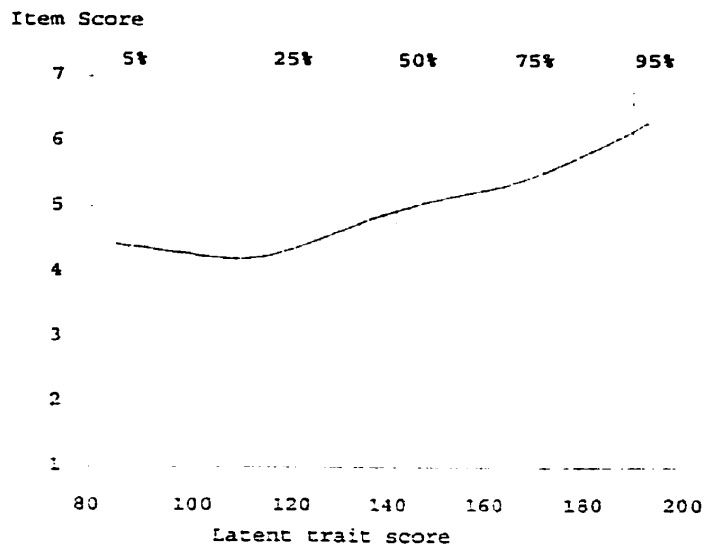
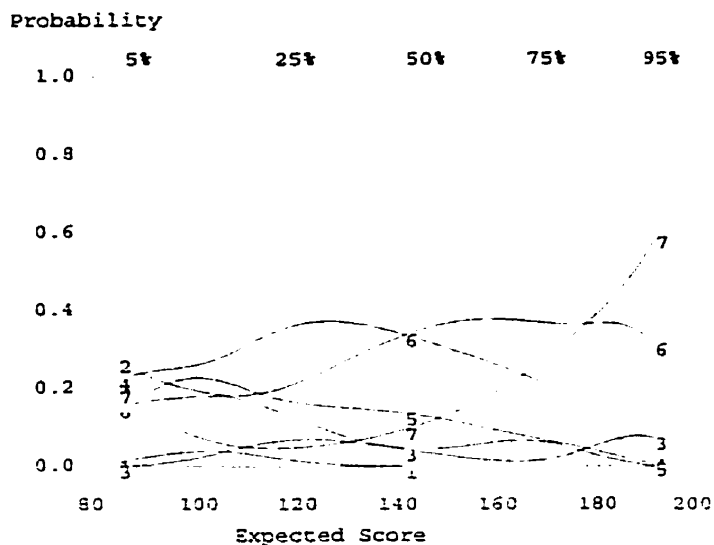
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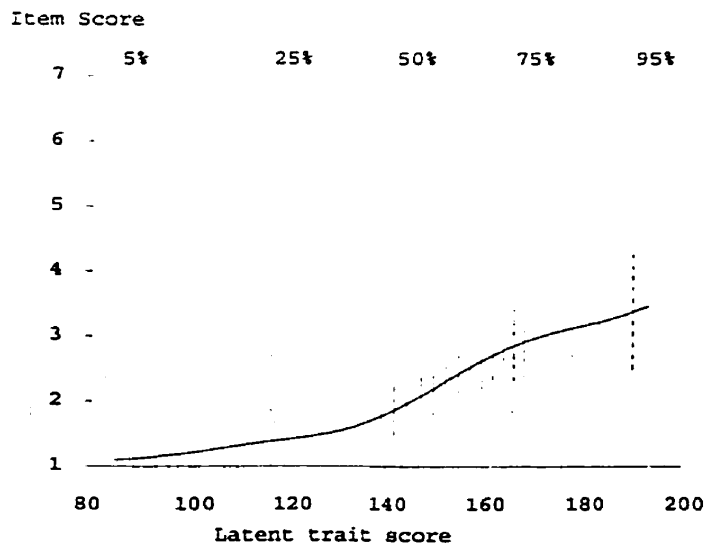
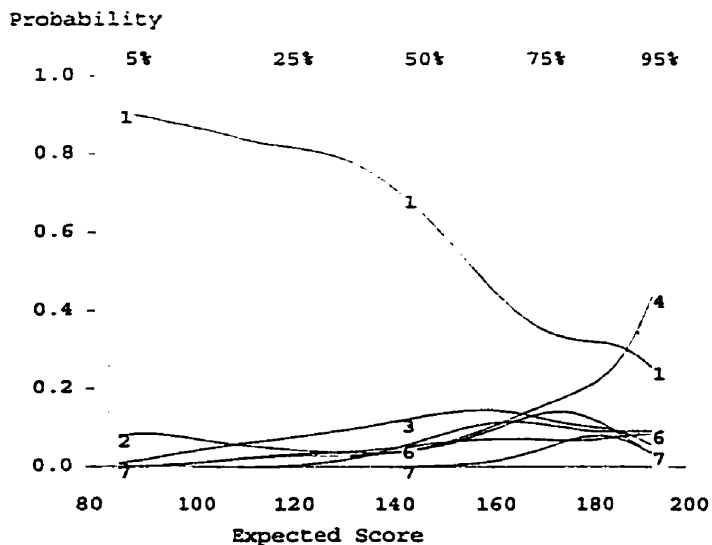


TestGraf Analyses of Pool Items

1. My spouse has all the qualities I ever wanted in a mate

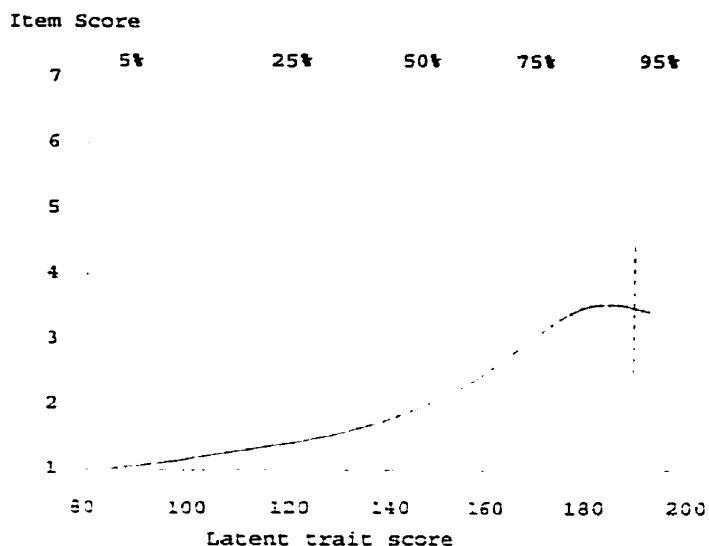
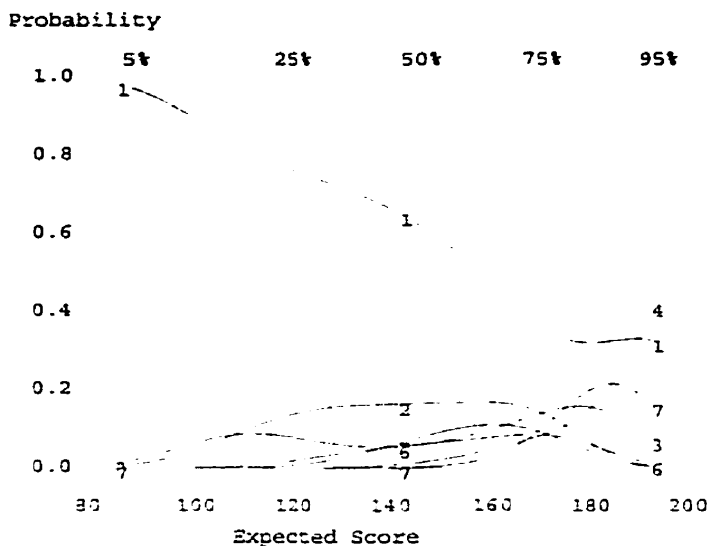


3. At times, my spouse does things that make me unhappy

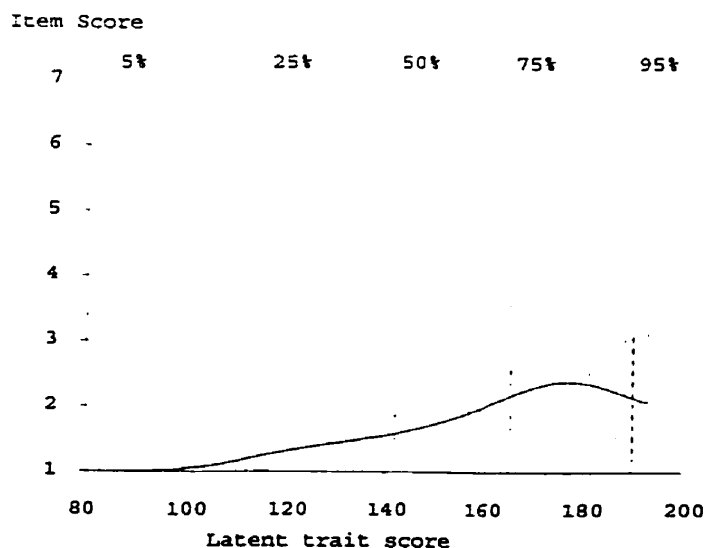
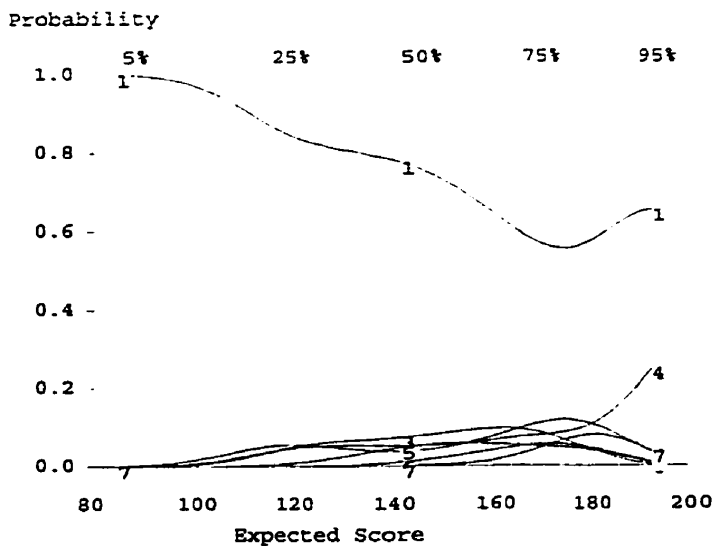


TestGraf Analyses of Pool Items

4. There are things about my marriage that do not entirely please me

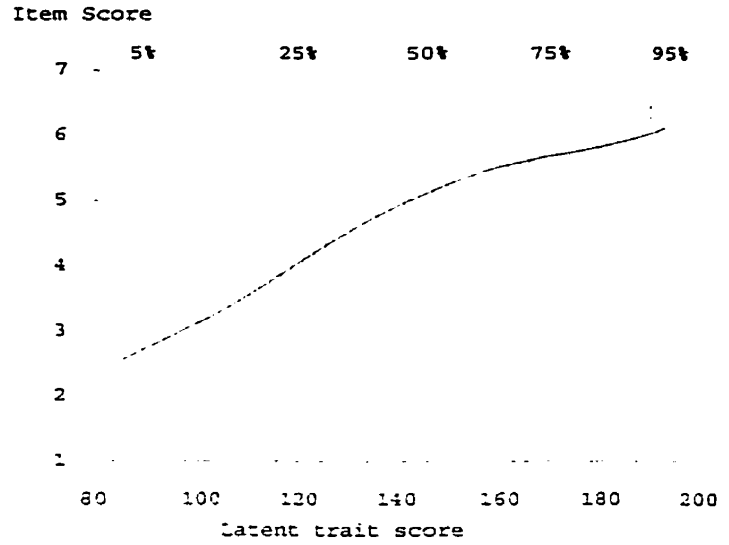
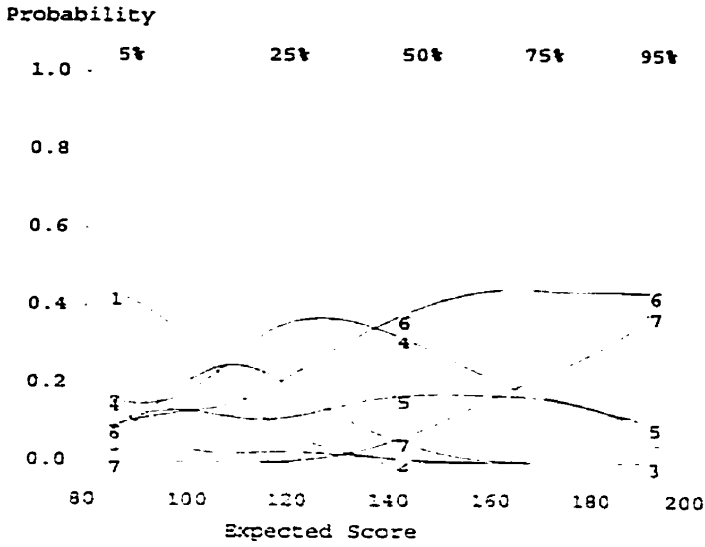


5. I cannot imagine having married anyone other than my my spouse

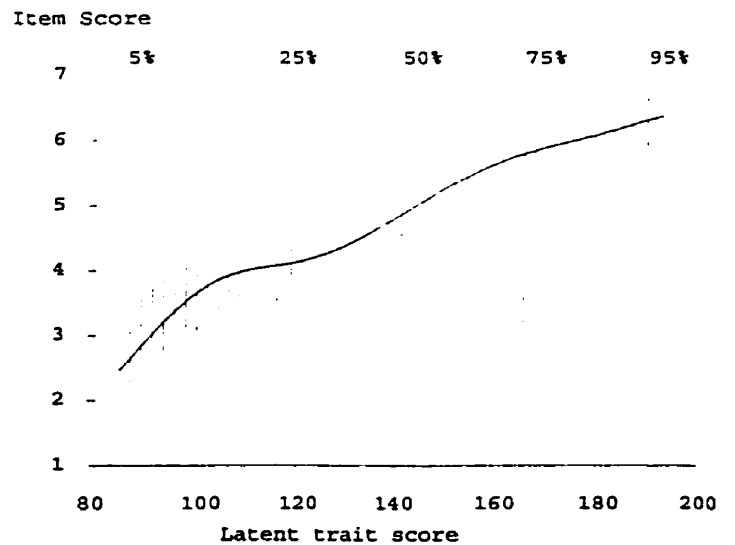
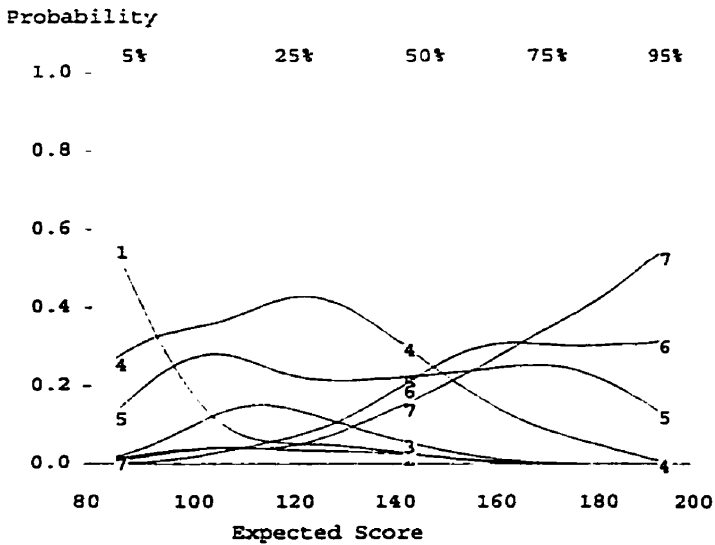


TestGraf Analyses of Pool Items

6. My marriage has not been a perfect success

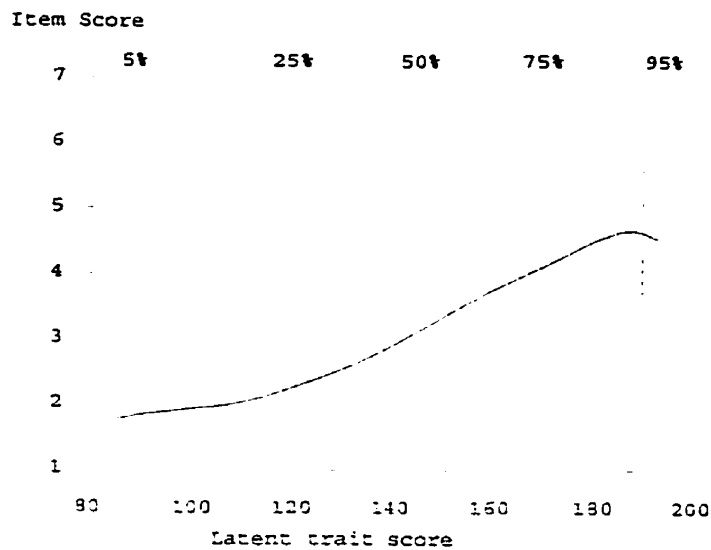
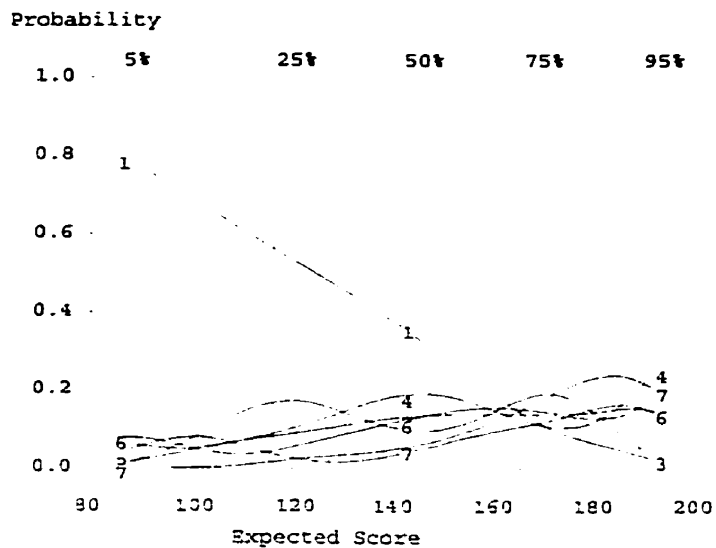


7. There is never a moment I don't feel completely in love with my spouse

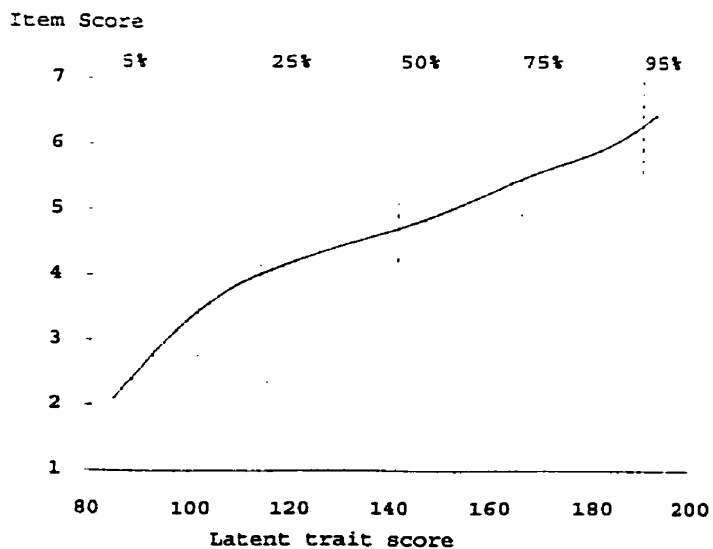
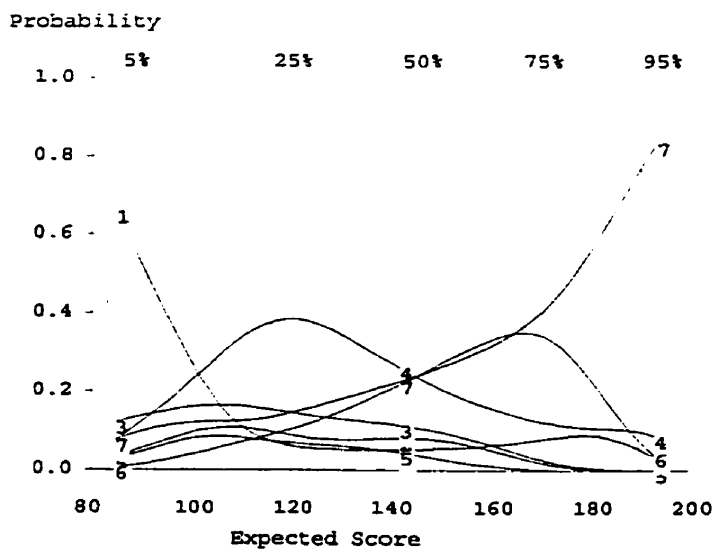


TestGraf Analyses of Pool Items

9. I have been completely honest at all times with my spouse throughout our marriage

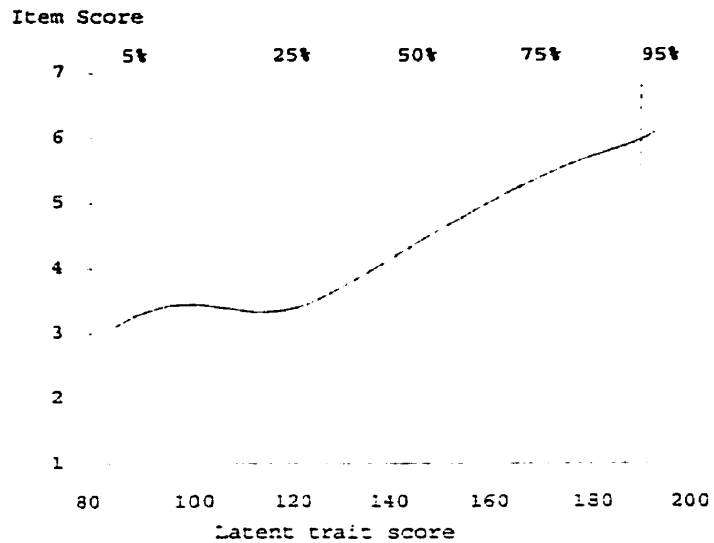
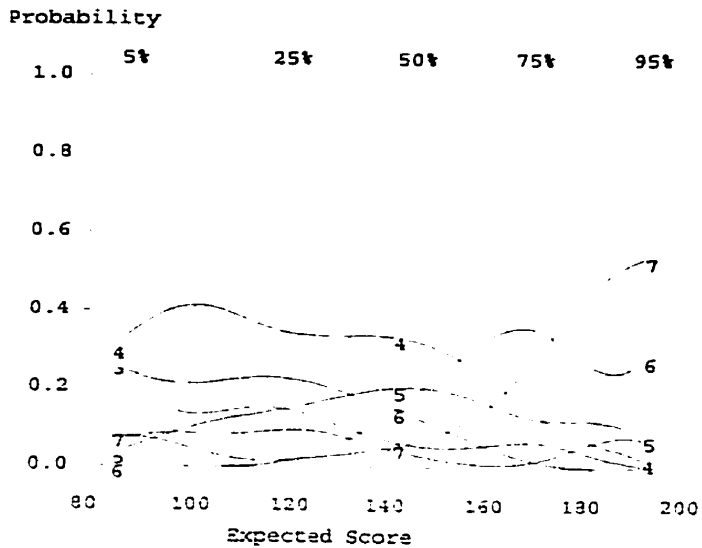


10. Most times, I know what my spouse is thinking before uttering a word

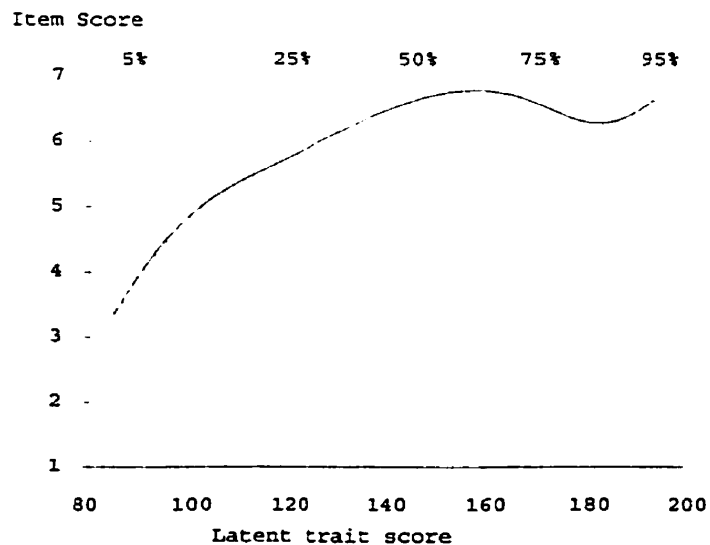
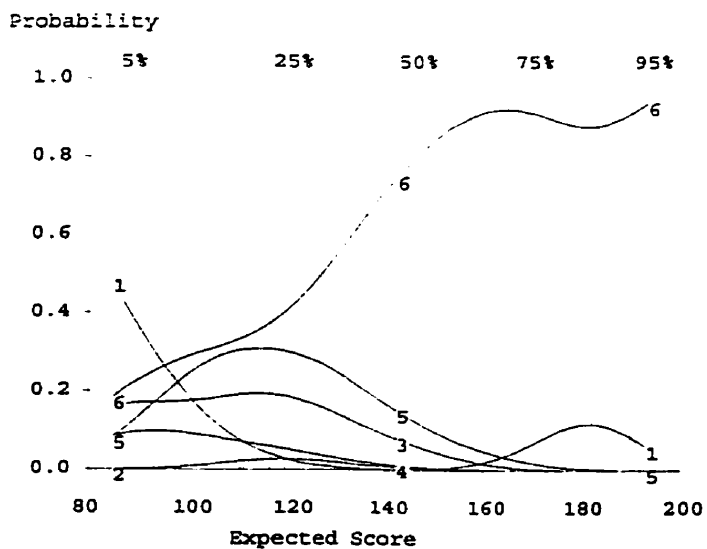


TestGraf Analyses of Pool Items

11. My spouse has never made me angry

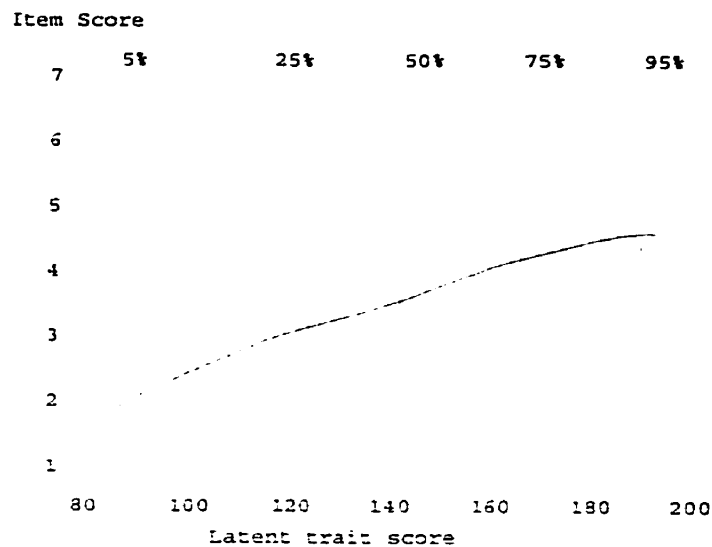
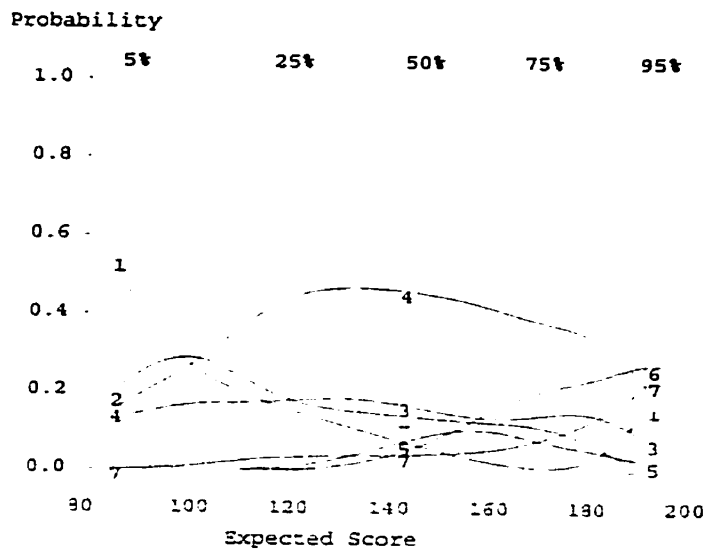


12. If my spouse has any faults. I am not aware of them

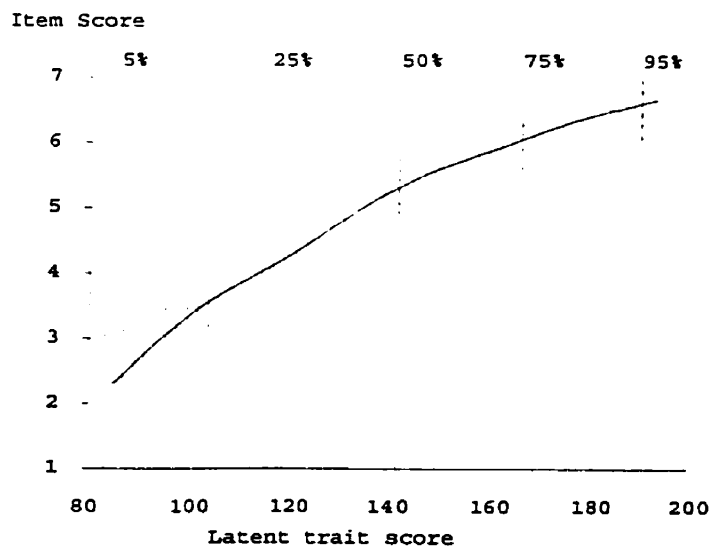
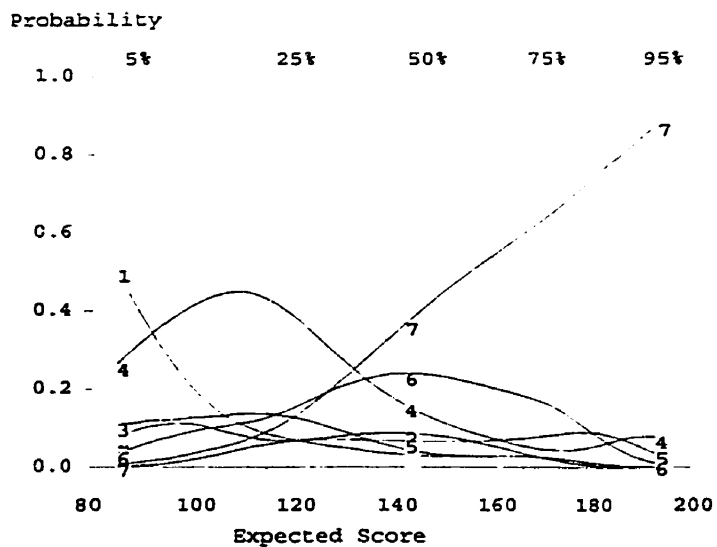


TestGraf Analyses of Pool Items

13. I do not recall a single argument with my spouse

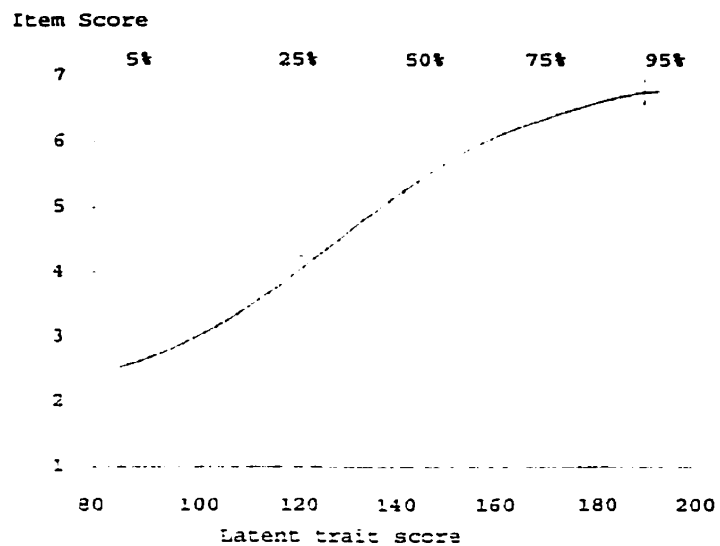
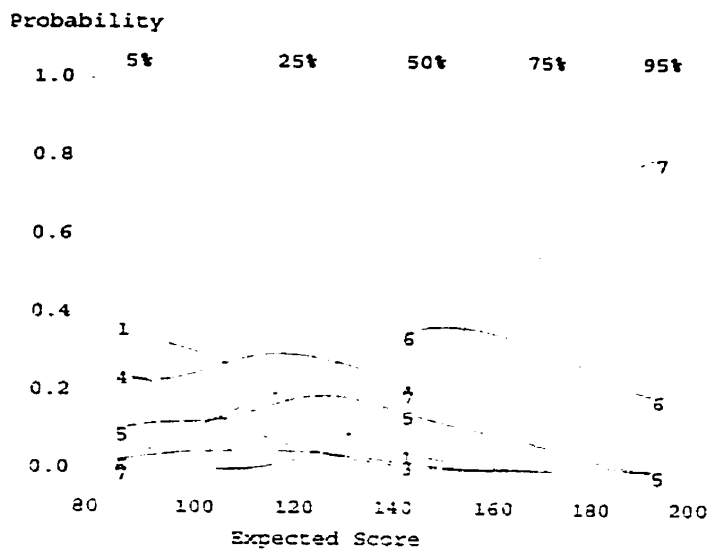


14. My spouse and I understand each other perfectly

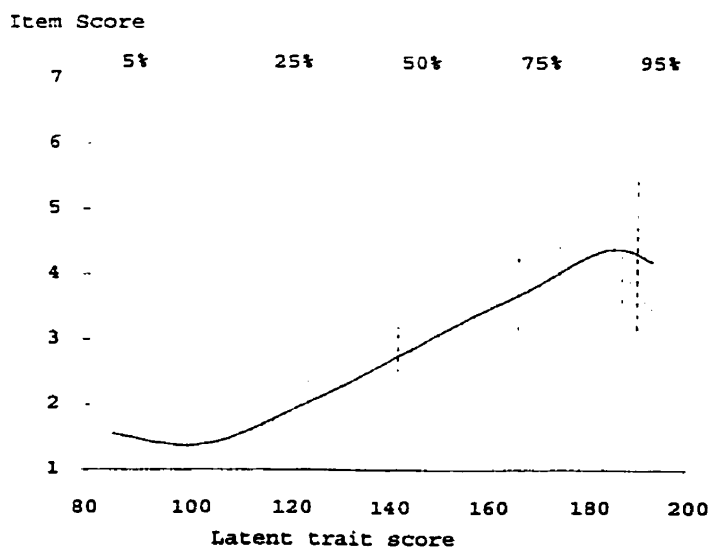
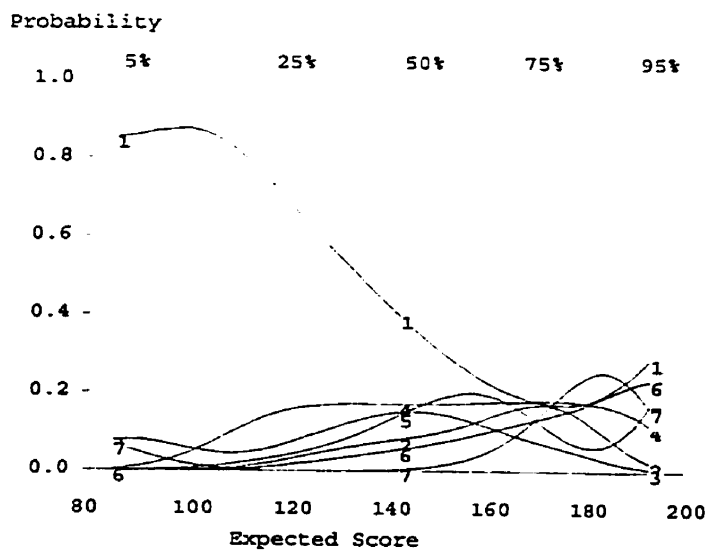


TestGraf Analyses of Pool Items

15. We are as well adjusted as any two people in the world can be

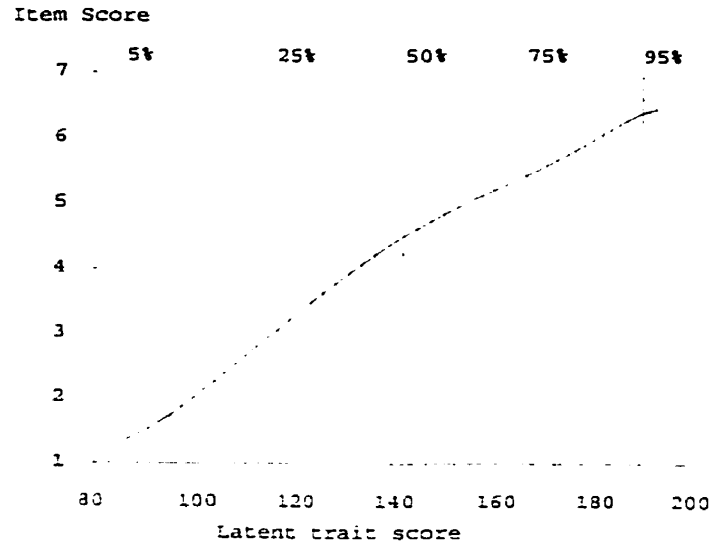
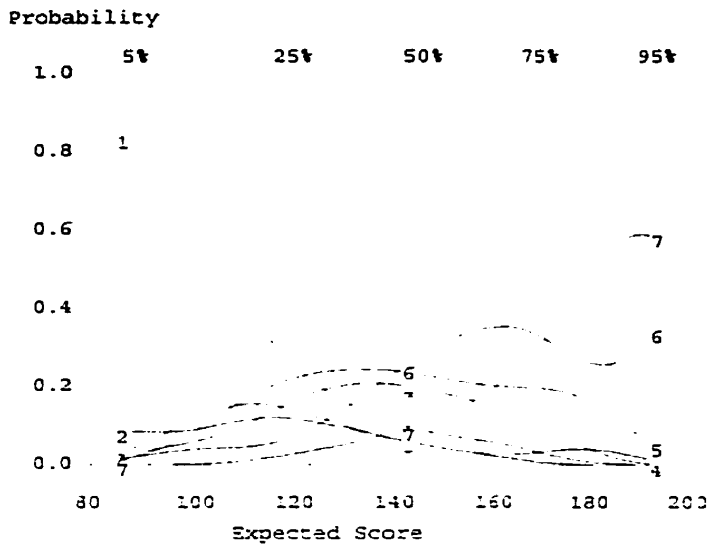


16. I have never known a moment of sexual frustration during my marriage

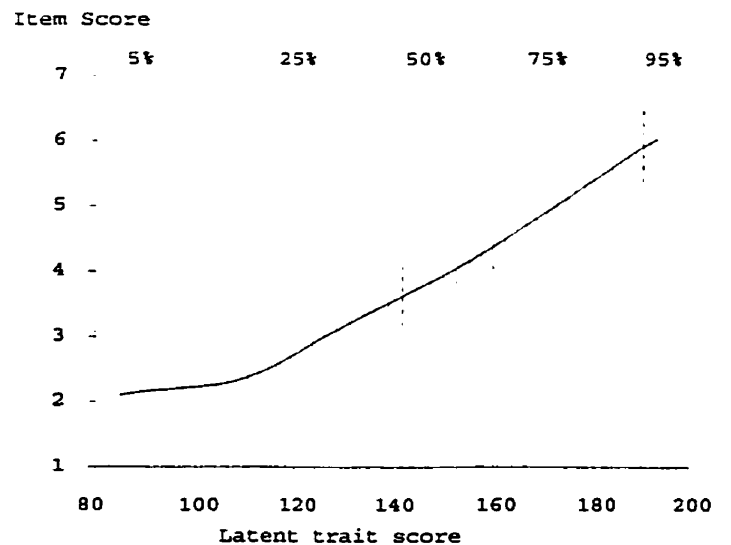
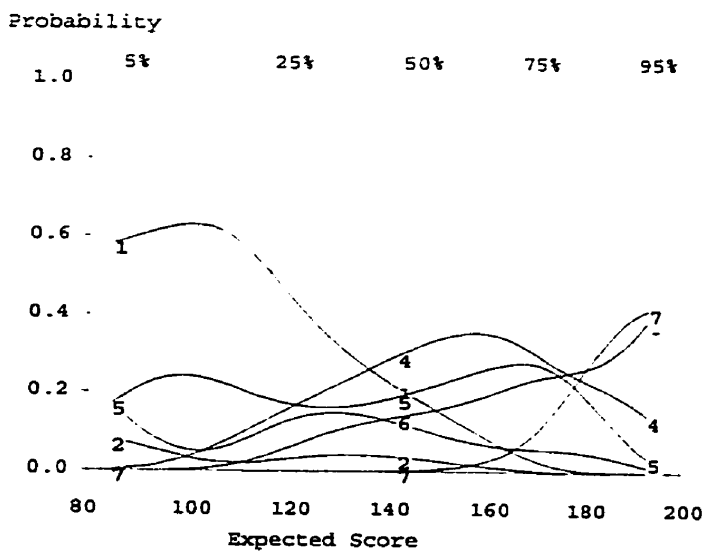


TestGraf Analyses of Pool Items

17. I have some needs that are not being met by my marriage



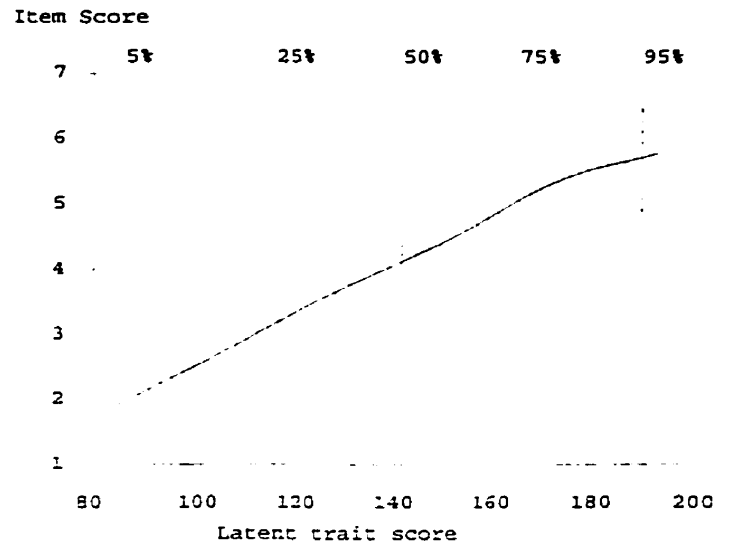
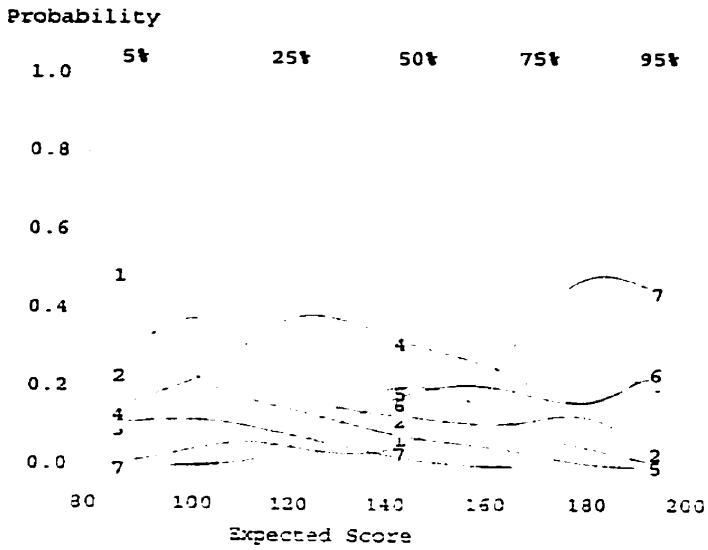
19. Every new thing I have learned about my spouse has pleased me



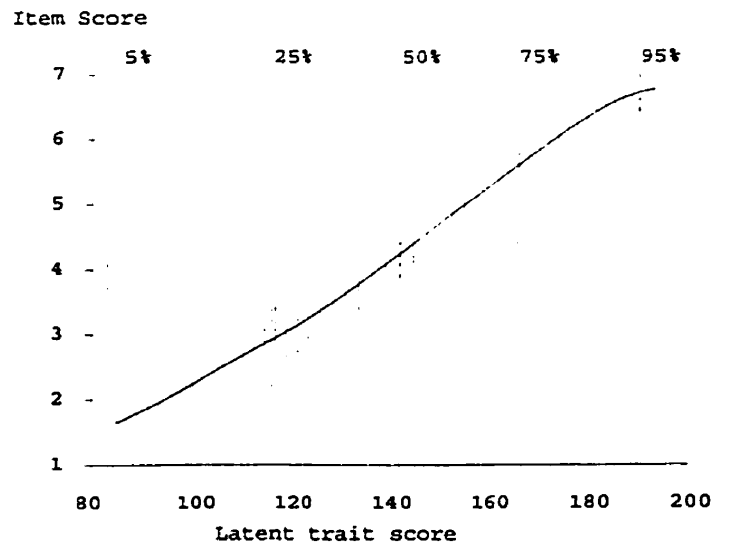
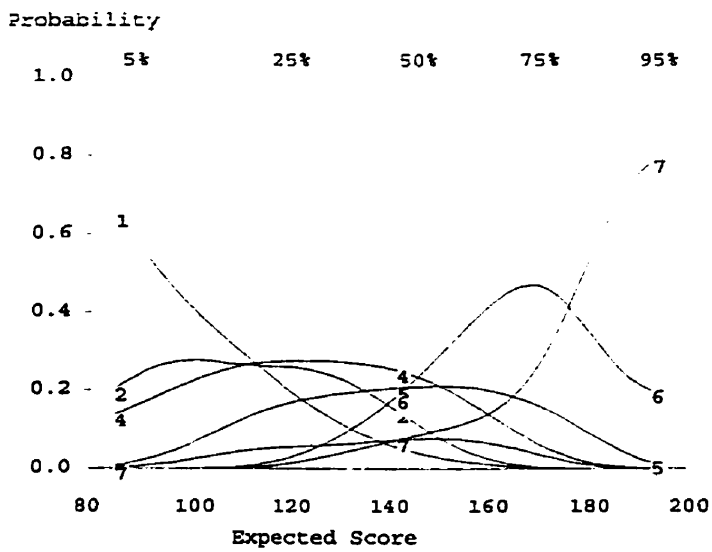


TestGraf Analyses of Pool Items

20. I would have been happier had I married someone else

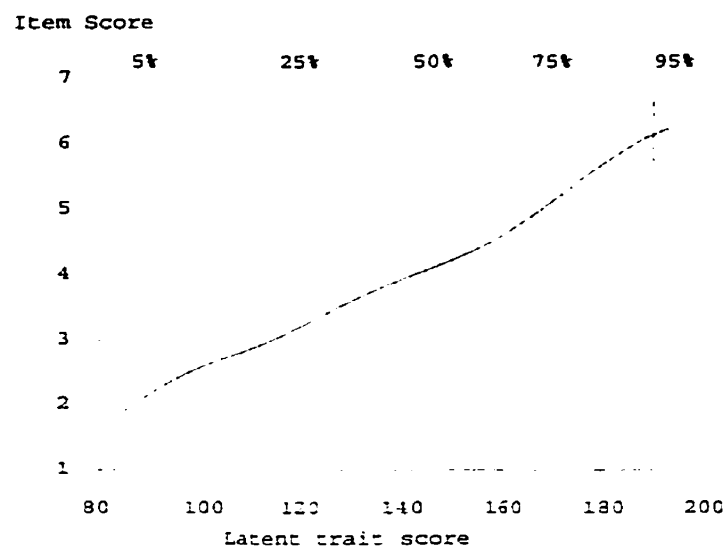
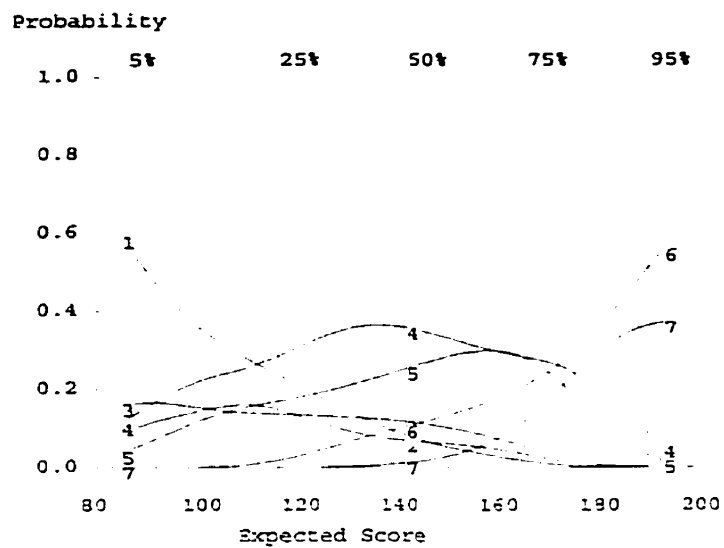


21. My spouse and I sometimes annoy each other

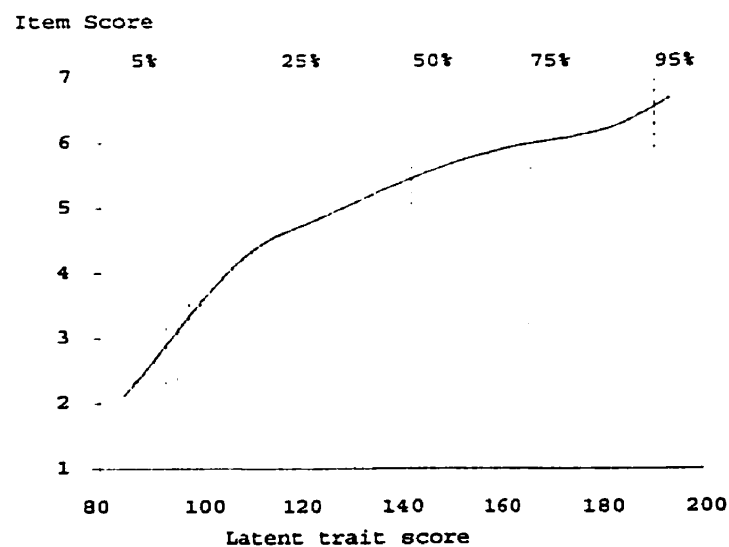
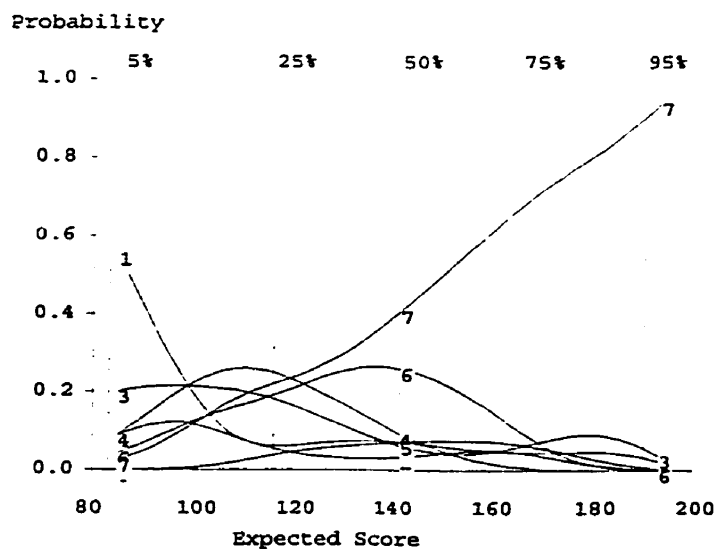


## TestGraf Analyses of Pool Items

22. There are times I don't feel a great deal of love or affection for my spouse

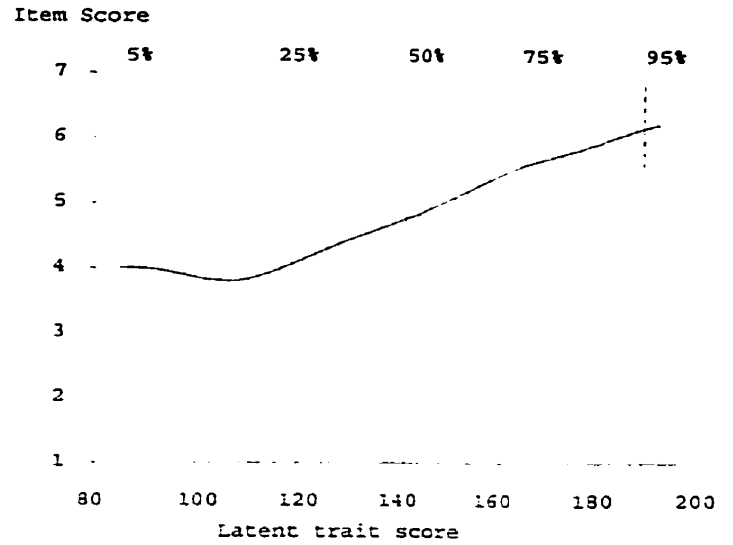
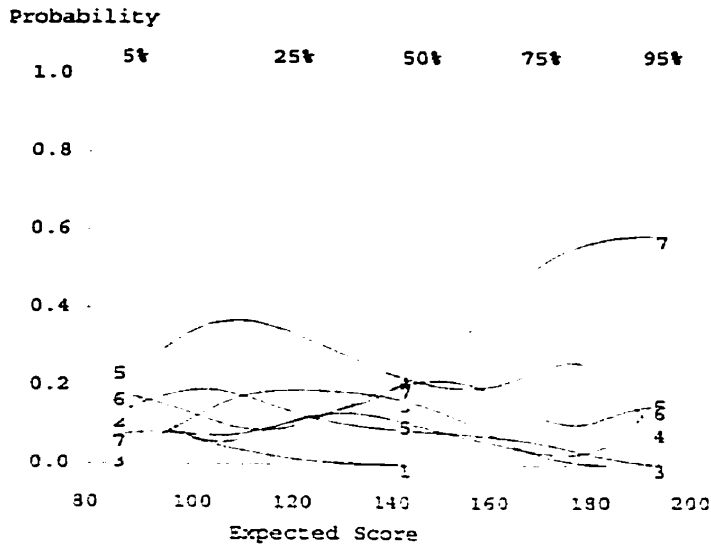


23. Our marriage has been a complete success

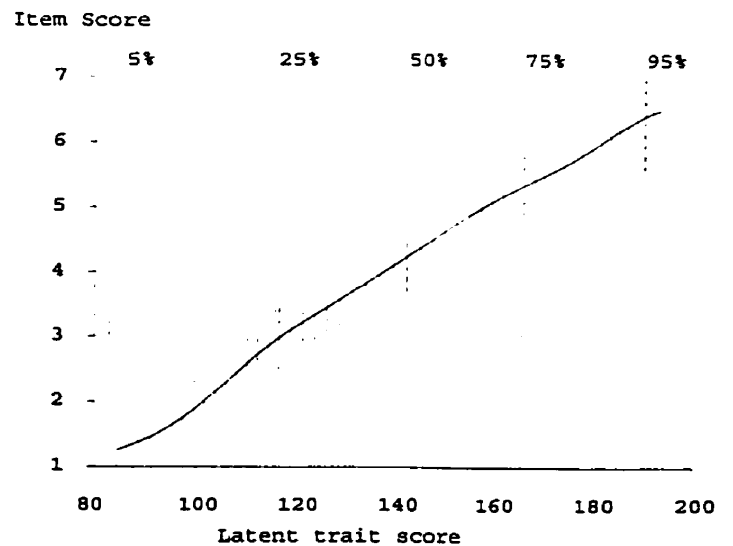
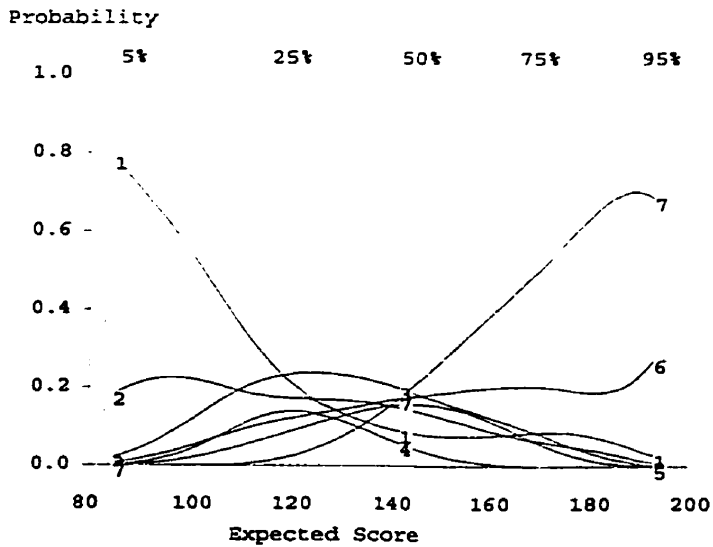


TestGraf Analyses of Pool Items

25. My spouse has never made me unhappy

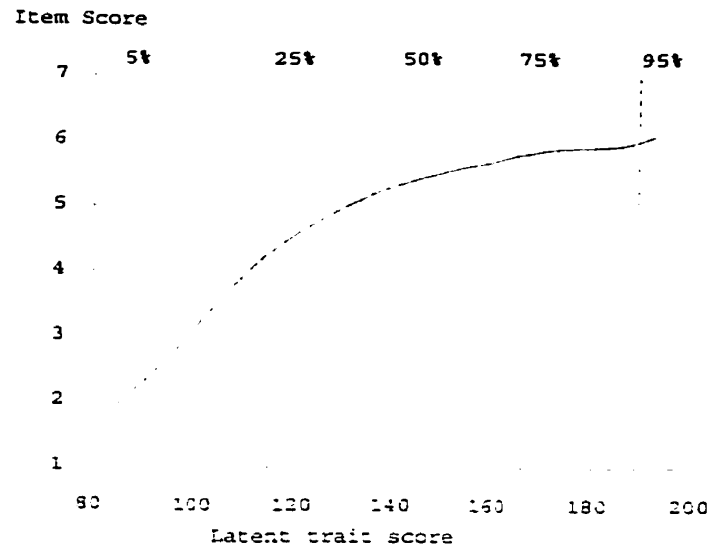


26. I don't think that anyone could possibly be happier than my spouse and I

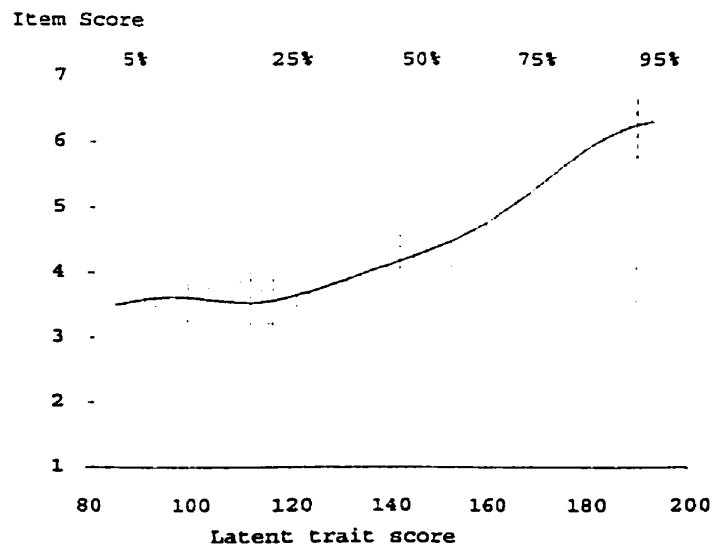
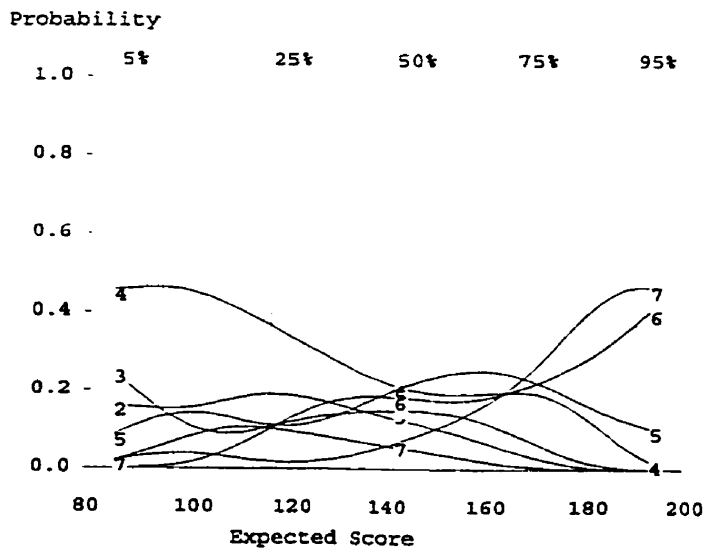


TestGraf Analyses of Pool Items

27. My spouse and I agree on all matters

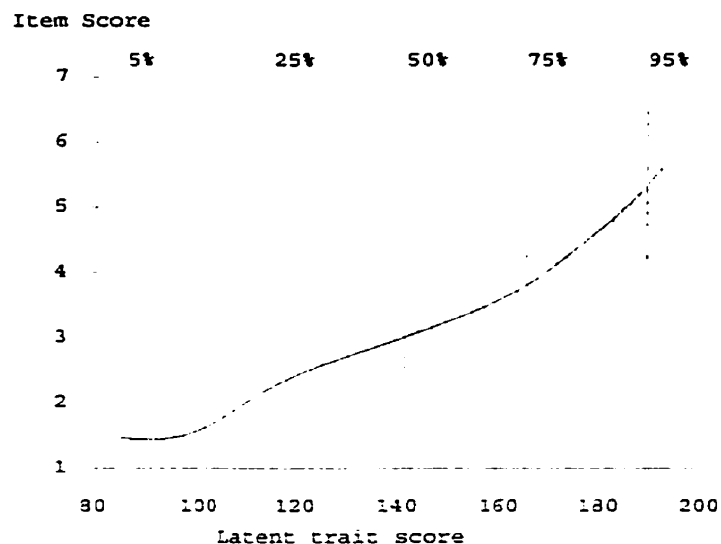
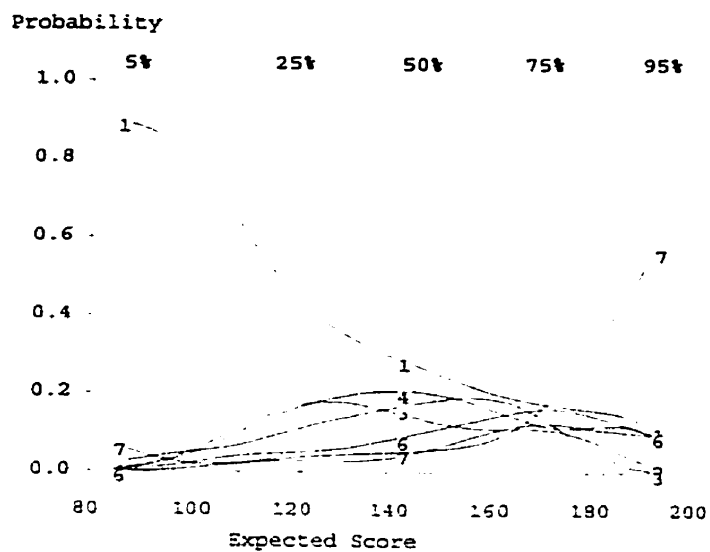


28. There are some things about my spouse that I do not like

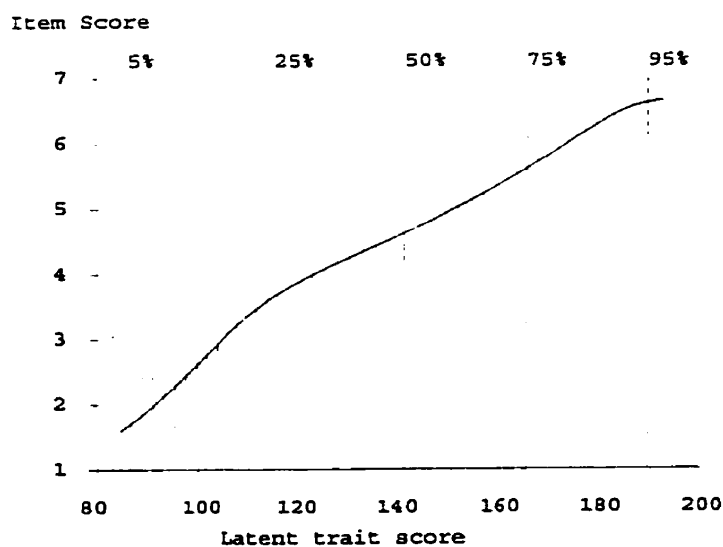
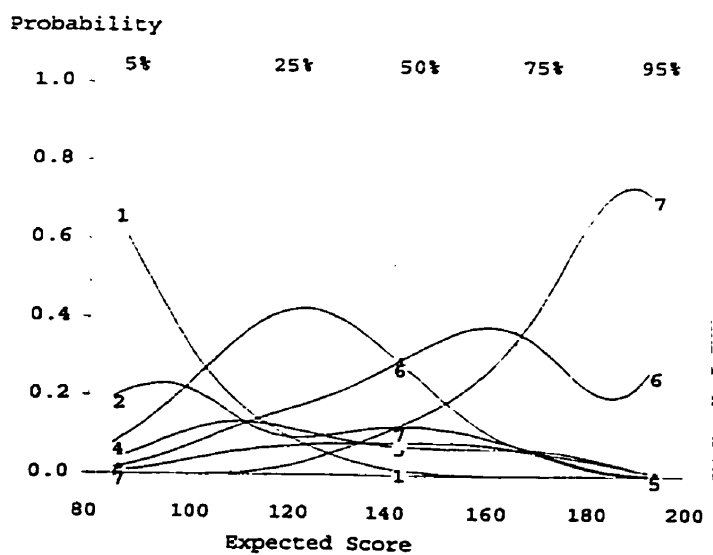


TestGraf Analyses of Pool Items

29. I don't think any couple could live together with greater harmony than my spouse and I

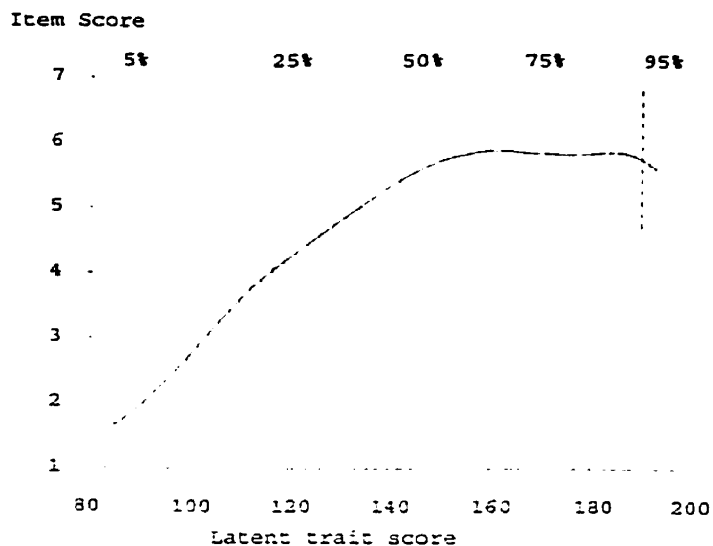
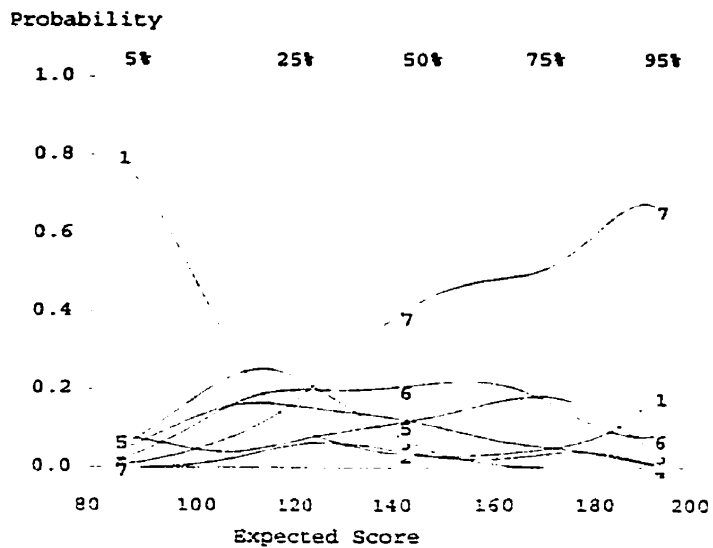


31. My spouse completely understands and sympathizes with my every mood

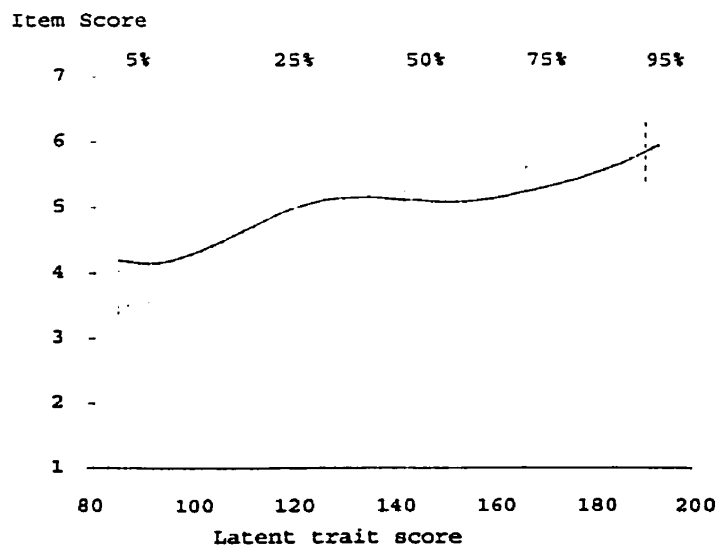
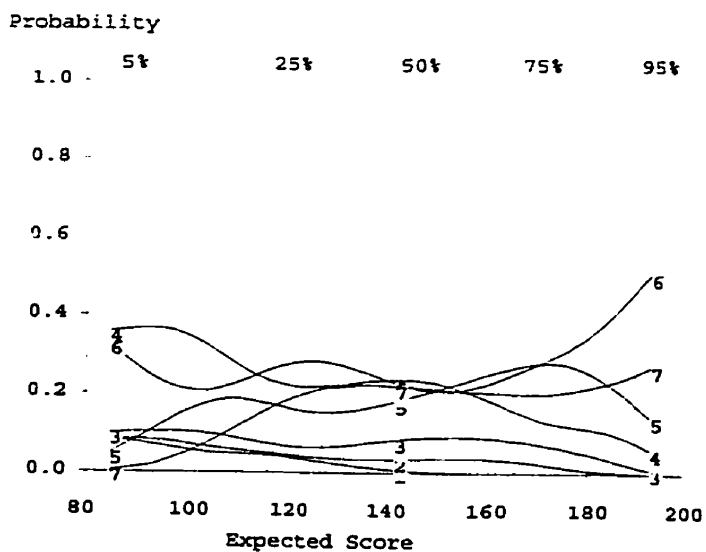


TestGraf Analyses of Pool Items

32. There are times when I wonder if I made the best of all possible choices

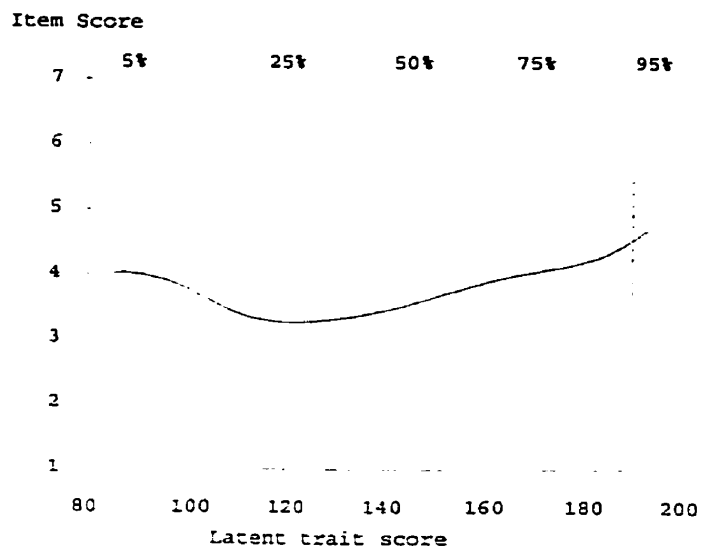
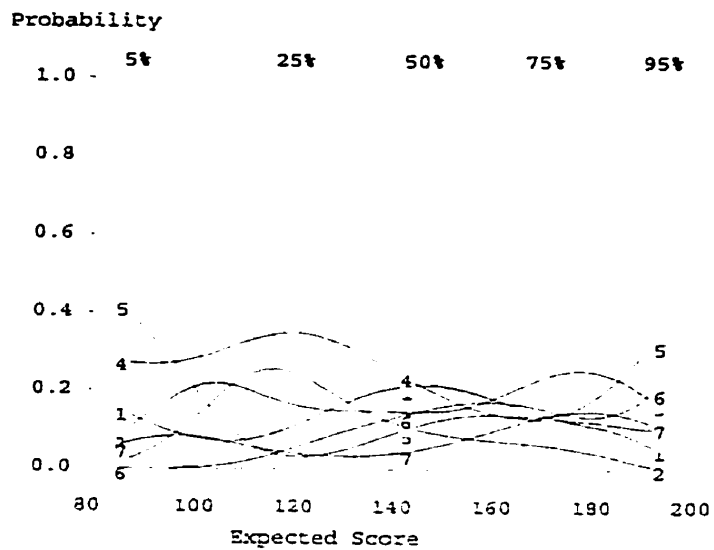


33. Some of my dealings with my spouse are prompted by selfish motives

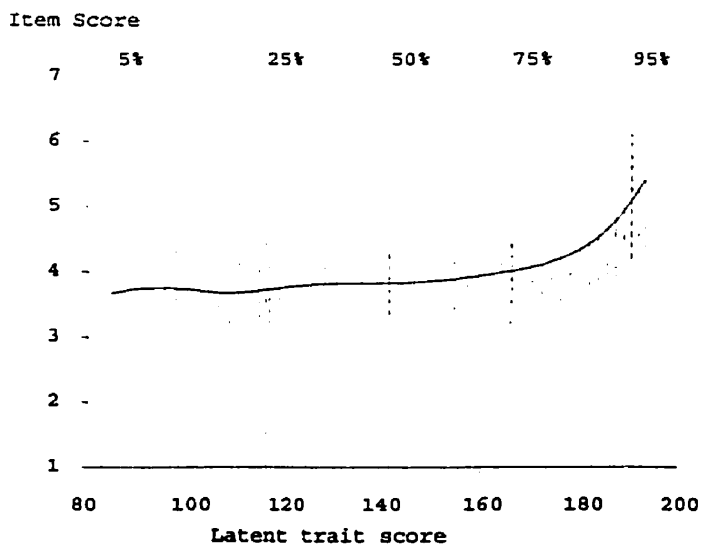
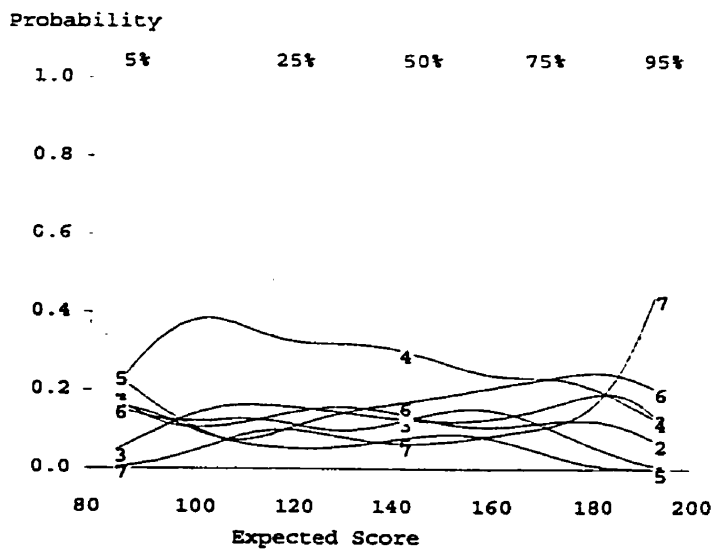


TestGraf Analyses of Pool Items

34. I have never regretted my marriage, not even for a moment

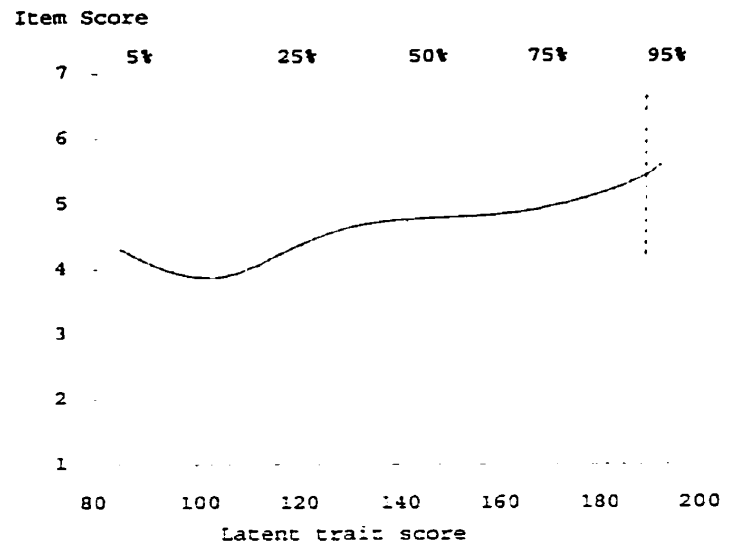
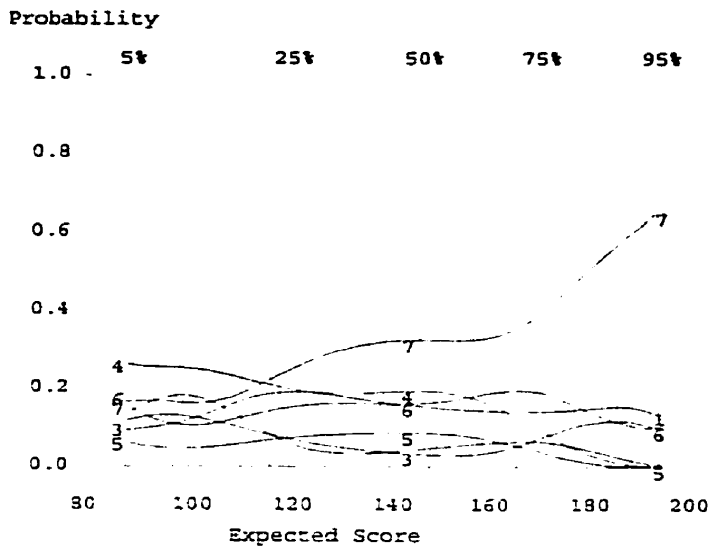


35. If I had my life to live over, I wouldn't think of marrying another person

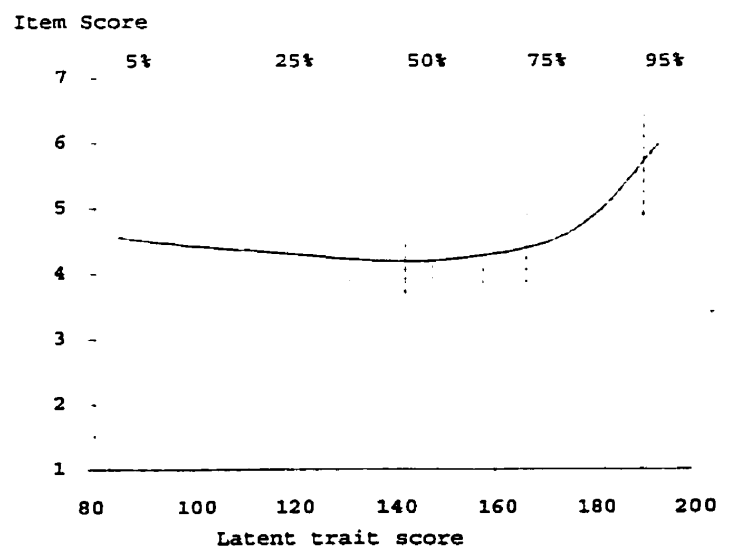
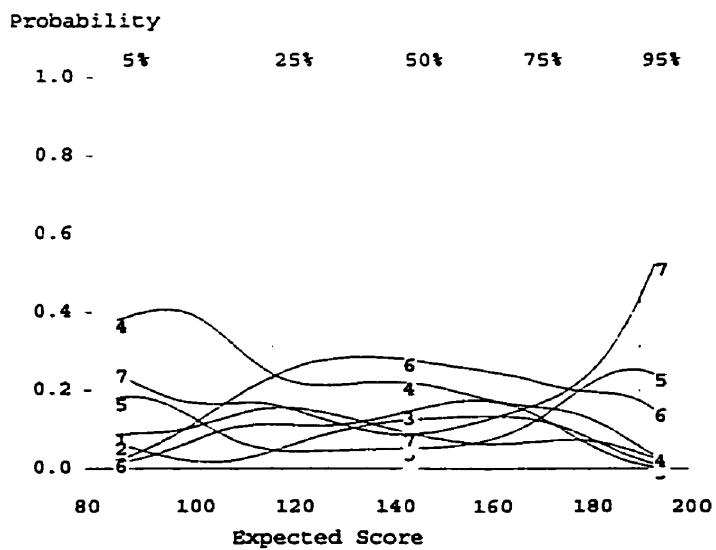


TestGraf Analyses of Pool Items

36. I always place the needs and wishes of my spouse before my own



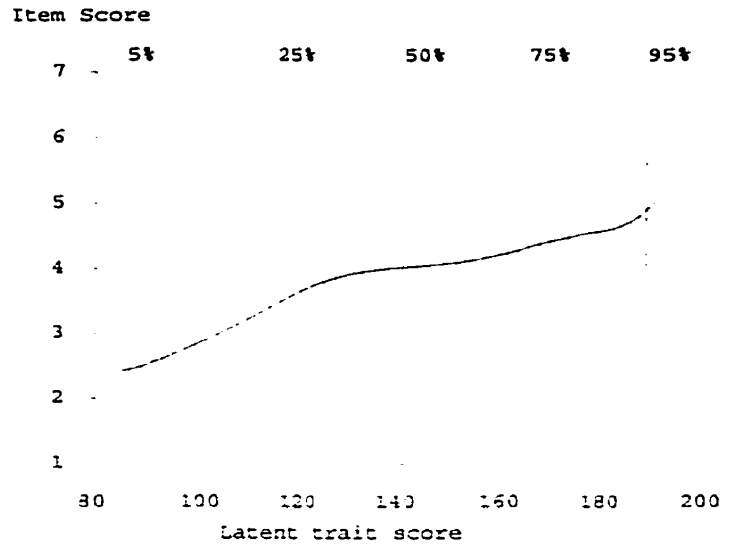
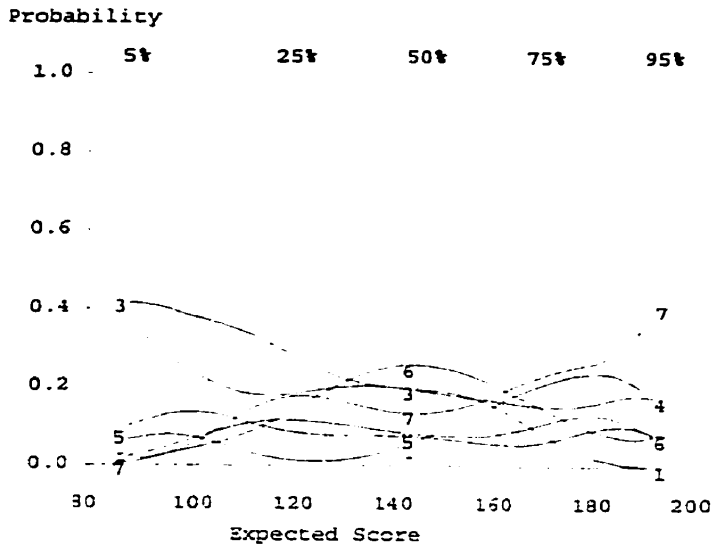
38. I have never imagined what it would be like to be intimate with anyone other than my spouse



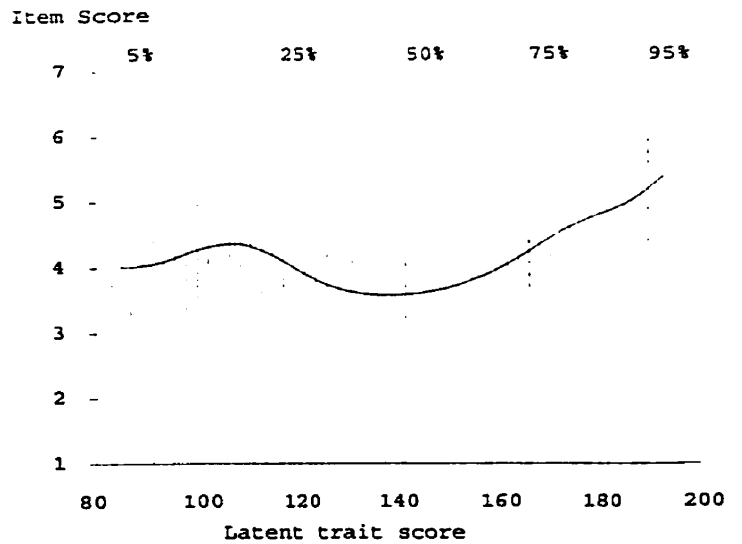
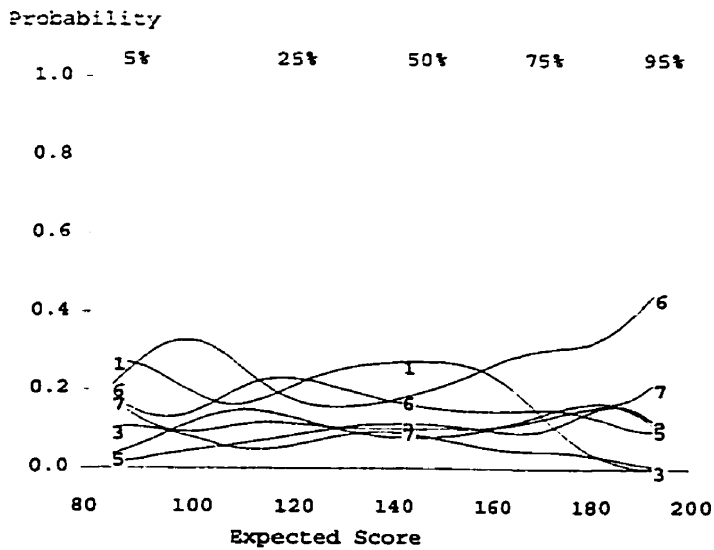


TestGraf Analyses of Pool Items

39. My marriage could be happier than it is



40. If every person in the world of the opposite sex had been available and willing to marry me, I could not have made a better choice





English

Français



# University of Ottawa

## School of Psychology

### Beliefs and Perceptions of Older Married Adults

**Are you and your spouse over 49 years of age? Have you been married for at least 20 years?**

**If so, your participation in the following research study would be greatly appreciated!**

This study examines the perceptions of married persons over 49 years of age. The following pages ask questions regarding your marriage, beliefs regarding yourself and emotional well-being, and descriptive information (e.g., age, years married, physical health). It is our hope that this information will provide us with greater understanding of the beliefs and perceptions of married persons within enduring relationships.

We would appreciate both you and your spouse completing these questionnaires (at separate times). Completion of this set of eight questionnaires will require about 45 minutes. If you choose to participate, please respond without discussing questions or consulting with your spouse.

Responses are forwarded automatically as you proceed from one page of this website to the next. No individual responses from this study will be disclosed. Only combined data will be reported. If you have any questions or concerns, please contact Norm O'Rourke ([norourke@istar.ca](mailto:norourke@istar.ca)) or Dr. Philippe Cappeliez ([pcappeli@uottawa.ca](mailto:pcappeli@uottawa.ca)).

Participation in this study is strictly voluntary. You are not required to answer questions which make you uncomfortable and you are free to discontinue at any time. Completion of questionnaires will indicate your willingness to participate.

Thank you for taking the time to consider participating in this study.

With regards,

A handwritten signature in black ink, appearing to be 'Norm O'Rourke'.

Norm O'Rourke, MA Ph.D. student, School of Psychology

Philippe Cappeliez, Ph.D. Professor, School of Psychology



## **SCALE A**

- 1. Almost Never**
- 2. Once in a While**
- 3. Sometimes**
- 4. Frequently**
- 5. Almost Always**



## Welcome to the First Page (questionnaire one of eight)

At the beginning of each page, we need you to fill in your personal identification word. It is kind of like being in school and writing your name on each page of a test, but don't worry this is not a test!

We need you to do this because at the same time you are answering these questions, many other people across the world may be as well. We don't want your answers to get mixed up with anyone else's. Your word should be from four to seven letters long; it can have numbers as well.

You may want to write it on a piece of paper so you won't forget while you fill out the questions. Some suggestions may be a name of a child, pet, or a nick name. Please don't use your full name.

Write your word here

**clear responses**

Below is a list of items about you and your spouse. Using the scale to the right, scale A CLICK the appropriate response below each item to indicate which best describes your marriage.

1. In our relationship, it is easy for both of us to express our opinion

click answer     1     2     3     4     5

2. We each have input regarding major family decisions

click answer     1     2     3     4     5

3. We are flexible in how we handle differences

click answer     1     2     3     4     5

4. We discuss problems and feel good about the decisions

click answer     1     2     3     4     5

5. We shift household responsibilities between us

click answer       1       2       3       4       5

6. It is hard to know what the rules are in our relationship

click answer       1       2       3       4       5

7. We freely say what we want

click answer       1       2       3       4       5

8. We have a good balance of leadership in our family

click answer       1       2       3       4       5

9. We operate on the principle of fairness in our marriage

click answer       1       2       3       4       5

10. We try new ways of dealing with problems

click answer       1       2       3       4       5

11. In our marriage, we share responsibilities

click answer       1       2       3       4       5

12. It is difficult to get a rule change in our relationship

click answer       1       2       3       4       5

13. When problems arise, we compromise

click answer       1       2       3       4       5

14. We are afraid to say what is on our minds

click answer

1

2

3

4

5

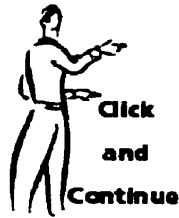




# Did you know?



The United Nations estimates that one-quarter of Europe's population will be over 60 years of age by 2020



## **SCALE B**

**1** Always agree

**2** Almost always agree

**3** Occasionally disagree

**4** Frequently disagree

**5** Almost always disagree

**6** Always disagree

## **SCALE B-1**

**1** All the time

**2** Most of the time

**3** More often than not

**4** Occasionally

**5** Rarely

**6** Never

## SCALE C

**1** Never

**2** Less than once a month

**3** Once or twice a month

**4** Once or twice a week

**5** Once a day

**6** More often



Before you procede, click here to display the next scale you need to answer the following questions. After you click, you should see Scale B.

**Clear responses**

Write your word here

Most persons have disagreements over the course of their relationships. Using the scales provided on the right of the screen, indicate the approximate extent to which these statements/questions apply to your marriage. Please click one response for each item below.

1. Handling family finances

click answer  1  2  3  4  5  6

2. Matters of recreation

click answer  1  2  3  4  5  6

3. Religious matters

click answer  1  2  3  4  5  6

4. Demonstrations of affection

click answer  1  2  3  4  5  6

5. Friends

click answer  1  2  3  4  5  6

6. Sexual relations

click answer  1  2  3  4  5  6

7. Correct or proper behaviour

click answer  1  2  3  4  5  6

8. Philosophy of life

click answer  1  2  3  4  5  6

9. Ways of dealing with parents or in-laws

click answer  1  2  3  4  5  6

10. Aims, goals, and things believed important

click answer  1  2  3  4  5  6

11. Amount of time spent together

click answer  1  2  3  4  5  6

12. Making major decisions

click answer  1  2  3  4  5  6

13. Household tasks

click answer  1  2  3  4  5  6

14. Leisure time interests and activities

click answer  1  2  3  4  5  6

15. Career decisions

click answer  1  2  3  4  5  6

**Before you procede, click here to display the next scale you need to answer the following questions. After you click you should see Scale B-1.**

16. How often do you discuss or have you considered divorce, separation, or terminating you relationship?

click answer  1  2  3  4  5  6

17. How often do you or your spouse leave the house after a fight?

click answer  1  2  3  4  5  6

18. In general, how often do you think that things between you and your spouse are going well?

click answer  1  2  3  4  5  6

19. Do you confide in your spouse?

click answer  1  2  3  4  5  6

20. Do you ever regret that you married?

click answer  1  2  3  4  5  6

21. How often do you and your spouse quarrel?

click answer  1  2  3  4  5  6

22. How often do you and your spouse get on each others' nerves?

click answer  1  2  3  4  5  6

23. How often do you kiss your spouse? Click  one:

- Everyday
- Almost everyday
- Occasionally
- Rarely
- Never

24. Do you engage in outside interests together?

- click**  All  Most  Some  Very few  None

**Before you procede, click here to display the next scale you need to answer the following questions. After you click you should see Scale C.**

How often would you say that the following occur between you and your spouse?

25. Have a stimulating exchange of ideas

- click answer**  1  2  3  4  5  6

26. Laugh together

- click answer**  1  2  3  4  5  6

27. Calmly discuss something

- click answer**  1  2  3  4  5  6

28. Work together on a project

- click answer**  1  2  3  4  5  6

There are some things about which couples sometimes agree and sometimes disagree. Please indicate if either item below has caused differences of opinions or were problems in you marriage during the past few weeks (indicate yes or no).

29. Being too tired for sex

- click answer**  yes  no

30. Not showing love

- click answer**  yes  no

31. The descriptions that follow represent different degrees of happiness in your relationship. The middle point, happy.

represents the level of happiness of most marriages. Please indicate the point which best describes the degree of happiness (all things considered) of your relationship (click one ).

- Extremely Unhappy    Fairly Unhappy    A little Unhappy    Happy  
 Very Happy    Extremely Happy    Perfect

32. Which of the following statements best describes how you feel about the future of your relationship? Please click  the appropriate response.

- I want desperately for my marriage to succeed, and would go to almost any length to see that it does.  
 I want very much for my marriage to succeed, and will do all I can to see that it does.  
 I want very much for my marriage to succeed, and will do my fair share to see that it does.  
 It would be nice if my marriage succeeds, but I can't do much more than I am doing now to help it succeed.  
 My marriage will never succeed, and there is no more that I can do to keep the relationship going.

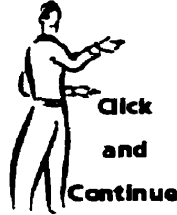




# Did you know?



Persons over 84 years of age constitute the fastest growing segment of Canada's population





Before you begin, click here.

**clear responses**

Write your word here

Here are some statements about life in general that people feel differently about. Please read each statement and provide one response to indicate whether or not you agree with each statement. Please be sure to answer every question on the list.

1. As I grow older, things seem better than I thought they would be.

click answer  agree  disagree

2. I have gotten more of the breaks in life than most of the people I know.

click answer  agree  disagree

3. This is the dreariest time of my life.

click answer  agree  disagree

4. I am just as happy as when I was younger.

click answer  agree  disagree

5. These are the best years of my life.

click answer  agree  disagree

6. Most of the things I do are boring or monotonous.

click answer  agree  disagree

7. The things I do are as interesting to me now as they ever were.

click answer  agree  disagree

8. As I look back on my life, I am fairly well satisfied.

click answer  agree  disagree

9. I have made plans for things I'll be doing a month or a year from now.

click  agree  disagree  
answer

10. When I think back over my life. I didn't get most of the important things I wanted.

click  agree  disagree  
answer

11. Compared to other people. I get down in the dumps too often.

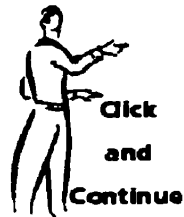
click  agree  disagree  
answer

12. I've gotten pretty much what I expected out of life.

click  agree  disagree  
answer

13. In spite of what most people say. the lot of the average person is getting worse. not better.

click  agree  disagree  
answer



# Did you know?



Over 30% of older adults live alone; four-fifths of these persons are female. (Mid-Florida Area Agency on Aging).



## SCALE D

**1 Often**

**2 Sometimes**

**3 Never**



Before you procede, click here to display the next scale you need to answer the following questions. After you click you should see Scale D



Write your word here

Using the scale to the right, indicate the appropriate number below each statement to indicate how much you agree with the following statements. During the past few weeks, have you felt...

1. Particularly excited or interested in something?

- click answer       1       2       3

2. Did you feel so restless that you couldn't sit long in a chair?

- click answer       1       2       3

3. Proud because someone had complimented you on something you had done?

- click answer       1       2       3

4. Very lonely or remote from other people?

- click answer       1       2       3

5. Pleased about having accomplished something?

- click answer       1       2       3

6. Bored?

**click answer**       1       2       3

7. On top of the world?

**click answer**       1       2       3

8. Depressed or very unhappy?

**click answer**       1       2       3

9. That things were going your way?

**click answer**       1       2       3

10. Upset because someone criticized you?

**click answer**       1       2       3



# Did you know?



There are now more than  
70,000 centenarians today in  
the United States





## SCALE E

1 Not True

2

3

4 Somewhat True

5

6

7 Very True



Before you proceed, click here to display the next scale you need to answer the following questions. After you click, you should see Scale D.

Write your word here

Using the scale to the right as a guide, indicate the number beside each statement which applies to you, your spouse, or your relationship.

1. I cannot imagine having married anyone other than my spouse

click answer     1     2     3     4     5     6     7

2. My marriage has not been a perfect success

click answer     1     2     3     4     5     6     7

3. There is never a moment I don't feel completely in love with my spouse

click answer     1     2     3     4     5     6     7

4. I have been completely honest at all times with my spouse throughout our marriage

click answer     1     2     3     4     5     6     7

5. Most times, I know what my spouse is thinking before uttering a word

click answer     1     2     3     4     5     6     7

6. My spouse has never made me angry

click answer     1     2     3     4     5     6     7

7. If my spouse has any faults, I am not aware of them

click answer       1     2     3     4     5     6     7

8. I do not recall a single argument with my spouse

click answer       1     2     3     4     5     6     7

9. My spouse and I understand each other perfectly

click answer       1     2     3     4     5     6     7

10. I have never known a moment of sexual frustration during my marriage

click answer       1     2     3     4     5     6     7

11. My spouse and I sometimes annoy each other

click answer       1     2     3     4     5     6     7

12. My spouse has never made me unhappy

click answer       1     2     3     4     5     6     7

13. Some of my dealings with my spouse are prompted by selfish motives

click answer       1     2     3     4     5     6     7

14. I have never regretted my marriage, not even for a moment

click answer       1     2     3     4     5     6     7

15. I always place the needs and wishes of my spouse before my own

click answer       1     2     3     4     5     6     7

16. I have never imagined what it would be like to be intimate with anyone other than my spouse

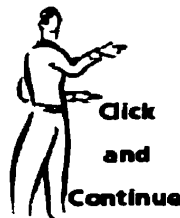
click answer     1     2     3     4     5     6     7

17. My marriage could be happier than it is

click answer     1     2     3     4     5     6     7

18. If every person in the world of the opposite sex had been available and willing to marry me. I could not have made a better choice

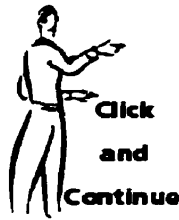
click answer     1     2     3     4     5     6     7



# Did you know?



Average life expectancy is expected to surpass 90 years of age within this century



## SCALE F

**1** Not True

**2**

**3**

**4** Somewhat True

**5**

**6**

**7** Very True



Before you procede, click here to display the next scale you need to answer the following questions. After you click, you should see Scale F.

**clear response**

Write your word here

Using the scale to the right, provide one response to each statement to indicate how much you agree with it.

1. My first impressions of people usually turn out to be right

click answer     1     2     3     4     5     6     7

2. I sometimes tell lies if I have to

click answer     1     2     3     4     5     6     7

3. It would be hard for me to break any of my bad habits

click answer     1     2     3     4     5     6     7

4. I never cover up my mistakes

click answer     1     2     3     4     5     6     7

5. I don't care to know what other people really think of me

click answer     1     2     3     4     5     6     7

6. There have been occasions when I have taken advantage of someone

click answer     1     2     3     4     5     6     7

7. I have not always been honest with myself

click answer       1     2     3     4     5     6     7

8. I never swear

click answer       1     2     3     4     5     6     7

9. I always know why I like things

click answer       1     2     3     4     5     6     7

10. I sometimes try to get even rather than forgive and forget

click answer       1     2     3     4     5     6     7

11. When my emotions are aroused, it biases my thinking

click answer       1     2     3     4     5     6     7

12. I always obey laws, even when I'm unlikely to get caught

click answer       1     2     3     4     5     6     7

13. Once I've made up my mind, other people can seldom change my opinion

click answer       1     2     3     4     5     6     7

14. I have said something bad about a friend behind his/her back

click answer       1     2     3     4     5     6     7

15. I am not a safe driver when I exceed the speed limit

click answer       1     2     3     4     5     6     7

16. When I hear people talking privately, I avoid listening

click answer       1     2     3     4     5     6     7

17. I am fully in control of my own fate



**click answer**       1     2     3     4     5     6     7

18. I have received too much change from a salesperson without telling him or her

**click answer**       1     2     3     4     5     6     7

19. It's hard for me to turn off a disturbing thought

**click answer**       1     2     3     4     5     6     7

20. I always declare everything at customs

**click answer**       1     2     3     4     5     6     7

21. I never regret my decisions

**click answer**       1     2     3     4     5     6     7

22. When I was young, I sometimes stole things

**click answer**       1     2     3     4     5     6     7

23. I sometimes lose out on things because I can't make up my mind soon enough

**click answer**       1     2     3     4     5     6     7

24. I have never dropped litter on the street

**click answer**       1     2     3     4     5     6     7

25. The reason I vote is because my vote can make a difference

**click answer**       1     2     3     4     5     6     7

26. I sometimes drive faster than the speed limit

**click answer**       1     2     3     4     5     6     7

27. My parents were not always fair when they punished me

click answer     1     2     3     4     5     6     7

28. I never read sexy books or magazines

click answer     1     2     3     4     5     6     7

29. I am a completely rational person

click answer     1     2     3     4     5     6     7

30. I have done things that I don't tell other people about

click answer     1     2     3     4     5     6     7

31. I rarely appreciate criticism

click answer     1     2     3     4     5     6     7

32. I have taken things that don't belong to me

click answer     1     2     3     4     5     6     7

33. I am very confident of my judgements

click answer     1     2     3     4     5     6     7

34. I have taken sick-leave from work or school even though I wasn't really sick

click answer     1     2     3     4     5     6     7

35. I have sometimes doubted my ability as a lover

click answer     1     2     3     4     5     6     7

36. I have never damaged a library book or store merchandise without reporting it

click answer     1     2     3     4     5     6     7

37. It's all right with me if some people happen to dislike me

**click answer**     1     2     3     4     5     6     7

38. I have some pretty awful habits

**click answer**     1     2     3     4     5     6     7

39. I don't always know the reasons why I do the things I do

**click answer**     1     2     3     4     5     6     7

40. I don't gossip about other people's business

**click answer**     1     2     3     4     5     6     7



# Did You Know?



More than 70% of physicians surveyed consider the amount of information available on senior's health to be inadequate



## Scale G

1. Extremely negative
2. Quite negative
3. Slightly negative
4. Neutral
5. Slightly positive
6. Quite positive
7. Extremely positive



Before you procede, click here to display the next scale you need to answer the following questions. After you click you should see Scale G

Write your word here

**clear responses**

Below is a list of questions about various feelings between married persons. Please answer each in terms of how you generally feel about your spouse taking into account the past few months. The responses you select should reflect how you actually feel, not how you think you should feel or would like to feel. Using the scale below as a guide, please choose only one response for each question.

1. How do you feel about your spouse as a friend to you?

- click answer
- 1
- 2
- 3
- 4
- 5
- 6
- 7

2. How do you feel about the future of your marital relationship?

- click answer
- 1
- 2
- 3
- 4
- 5
- 6
- 7

3. How do you feel about having married your spouse?

- click answer
- 1
- 2
- 3
- 4
- 5
- 6
- 7

4. How do you feel about your spouse's ability to put you in a good mood so that you can laugh and smile?

- click answer
- 1
- 2
- 3
- 4
- 5
- 6
- 7

5. How do you feel about your spouse's ability to handle stress?

- click answer
- 1
- 2
- 3
- 4
- 5
- 6
- 7

6. How do you feel about the degree to which your spouse understands you?

- click answer
- 1
- 2
- 3
- 4
- 5
- 6
- 7

7. How do you feel about the degree to which you can trust your spouse?

click answer  1  2  3  4  5  6  7

8. How do you feel about how your spouse relates to other people?

click answer  1  2  3  4  5  6  7

9. Touching my spouse makes me feel...

click answer  1  2  3  4  5  6  7

10. Being alone with my spouse makes me feel...

click answer  1  2  3  4  5  6  7

11. Having sexual relations with my spouse makes me feel...

click answer  1  2  3  4  5  6  7

12. Talking and communicating with my spouse makes me feel...

click answer  1  2  3  4  5  6  7

13. My spouse's encouragement of my individual growth makes me feel...

click answer  1  2  3  4  5  6  7

14. My spouse's physical appearance makes me feel...

click answer  1  2  3  4  5  6  7

15. Seeking comfort from my spouse makes me feel...

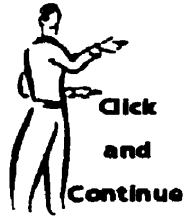
click answer  1  2  3  4  5  6  7

16. Kissing my spouse makes me feel...

click answer  1  2  3  4  5  6  7

17. Sitting or lying close to my spouse makes me feel...

- click answer  1  2  3  4  5  6  7

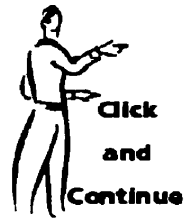




# Did you know?



Walking each day is significantly related to increased longevity among older people who do not smoke





Write your word here

indicate your gender

male

female

indicate your spouse's gender

male

female

Your Age

Spouse's Age

Number of years married

Number of previous marriages:

Self

Spouse

At what age were you married to your (current) spouse

How would you describe the quality of your relationship? (click  one):

Very poor

Somewhat poor

Poor

Satisfactory

Good

Very Good

Excellent

As compared to the average couple, we are... (click  one):

Less Happy

As happy

More happy

What is (or do you have) a religious affiliation? (e.g., Jewish, Roman Catholic):

Self

Spouse

How often have you attended religious services over the past 12 months? (if at all):

Self

Spouse

How many years of formal education did you complete?

Self

Spouse

What are/were your work or occupations (e.g., housewife, carpenter)?

Self

Spouse

What is your current employment status (e.g., retired)?

If retired, year you left the paid work force

How would you say your health is these days? (click  one):

- Very poor       Somewhat poor       Poor       Satisfactory
- Good       Very Good       Excellent

Is your health better now, about the same or worse than a year ago? (click  one):

- Better       About the same       Worse

Would you say your health is better, about the same, or worse than most people your age? (click  one):

- Better       About the same       Worse

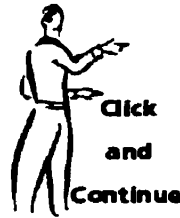
How much do health troubles stand in the way of doing the things you want to do? (click  one):

- Not at all       A little (some things)       A great deal

Regarding your health over the past year, do you have, or have had any of the following conditions. Please indicate either **Yes** or **No** as appropriate:

- Allergies of any kind  **yes**  **no**
- Fractures or broken bones  **yes**  **no**
- Chest problems (e.g., asthma, TB, emphysema, pneumonia)  **yes**  **no**
- Heart condition or disease  **yes**  **no**
- Kidney trouble (including bladder troubles)  **yes**  **no**
- Cancer  **yes**  **no**
- Diabetes  **yes**  **no**
- High blood pressure  **yes**  **no**
- Arthritis or rheumatism  **yes**  **no**
- Troubles with your stomach (or digestive problems)  **yes**  **no**
- Stroke or the effects of a stroke  **yes**  **no**
- Parkinson's disease  **yes**  **no**
- Other problems not mentioned  **yes**  **no**

If yes, specify \_\_\_\_\_





Write your word here | \_\_\_\_\_

**Thank you for taking the time to take part in this study.**

**Your participation is greatly appreciated!**

Would you like to receive a summary of findings following completion of this study? If yes, please provide your e-mail address below. (click one )

yes  no

Can we contact you in future and ask you to complete certain scales a second time? This will allow us to determine if this scale is sensitive to change. If yes, please provide your e-mail address below. (click one )

yes  no

City | \_\_\_\_\_

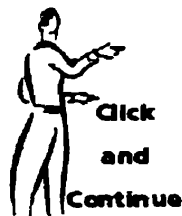
Province/State | \_\_\_\_\_

Post / Zip | \_\_\_\_\_

Country | \_\_\_\_\_

e-mail | \_\_\_\_\_

**Are there any other comments or suggestions you might like to provide regarding this study? Your input would be most welcome!**





**Thank you** once again for filling out these questionnaires. Here are links to other pages which you may find of interest.

Age Concern England

American Association of Retired Persons

Australian Pensioners' and Superannuants' Federation

Canadian Association of Retired Persons

Canadian Association on Gerontology

Canadian Senior Citizens Information and Services Centre

The Canadian Seniors Policies and Programs Database

Centre for Activity and Ageing (Canada)

Centre for Policy on Ageing (UK)

Eurolink Age

[Health Canada - Division of Aging and Seniors](#)

[National Council on Aging \(USA\)](#)

[National Seniors Association \(Australia\)](#)

[One Voice: The Canadian Seniors Network](#)

[Resource Directory for Older People \(USA\)](#)

[Seniors Computer Information Program \(Canada\)](#)