

Reliability and Validity of the Sound Relationship House Scales Introduction

John Gottman

This report may contain more than you care to know about the reliability and validity of The Sound Relationship House (SRH) Scales. They were designed based on the theory proposed originally in the book *The Relationship Clinic* (Gottman, 1999). They were designed to measure each of the following 16 constructs of the theory:

Friendship & Intimacy

- Love Maps
- Fondness and Admiration
- Turning Toward or Away
- Emotional Distance and Loneliness

Conflict

- Harsh Startup
- The Four Horsemen
- Gridlock on Perpetual Issues
- Accepting Influence
- Compromise

Conflict Processes

- Flooding
- Negative Sentiment Override
- Effective Repair Attempts

Meaning

- Shared Meaning Rituals
- Shared Meaning Roles
- Shared Meaning Goals
- Shared Meaning Symbols

The enormous difficulty obtaining a PROFILE of relationship functioning

The questionnaires were designed to obtain a *profile* of a couple's relationship instead of a global satisfaction or happiness score. Beginning in 1938 with Terman et al.'s classic study on marital happiness, sociologists realized that just about any dimension of a marriage that was assessed with self-report measures tended to load on only one single factor. They began to conclude that there were two halo effects creating this global unidimensionality of marital self-report measures. The first halo effect was that people in unhappy marriages tended to endorse almost any negative statement about their partner; the second halo effect was that people in happy marriages tended to endorse almost any positive statement about their partner (Burgess, Locke, & Thomes, 1971). These two halo effects combined to create a one-factor solution for any combination of self-report measures of marital relationships.

Needless to say, a uni-dimensional assessment of a relationship is particularly useless for a clinician. It stands to reason that most couples coming for relationship therapy will not be very surprised by the conclusion that they are unhappy. Nor will such an assessment help to instill confidence in the clinician's powers of observation, deduction, or clinical acumen. Thus, for clinical uses alone, creating a set of self-report measures of a relationship that gave a *profile* of the relationship was an obvious goal.

The design of the Sound Relationship House theory followed from the longitudinal studies of marriages and same-sex relationships conducted by Gottman and his colleagues over a period of 27 years before the publication of *The Relationship Clinic*. These studies replicated an ability of a particular set of variables to predict the longitudinal course of a relationship, particularly stability and happiness. These variables were obtained from the following data sources: (1) Specific Affect (SPAFF) Coding of a couple's conflict discussion of an area of major continuing disagreement; (2) Buehlman Oral History Interview (OHI) coding of a couple's history and philosophy of their relationship; (3) their autonomic physiology during their interaction.

There were some obvious limitations in the SRH scales. In particular, although the SRH scales appeared to be clinically useful, there was no way of knowing if a profile were simply mapping people's perception of the relationship, or if they were actually valid. Also, the scales contained many items, which made the scales have high Cronbach alpha (internal consistency) reliability (Ryan & Gottman, unpublished). This high number of items is useful for research purposes, and they are helpful in clinical assessment of a relationship, but many of our Relationship Clinics clinicians thought that the scales were unwieldy for clinical use, because they required so much time for the couple to complete, and they also required so much time for the clinician to analyze.

Our First Study

Participants in Study 1 were 51 couples taking a two-day workshop in marital communication. They filled out the Sound Marital House questionnaires (SMH), the Locke-Wallace, the Symptom Checklist SCL-90 (Derogatis, Lipman, & Covi, 1973), the Weiss Cerreto Marital Status Inventory, which measures persistent thoughts and actions about divorce (Weiss & Cerreto, 1980). They received no subject fees. Husbands were an average of 45.3 years old ($SD = 8.8$), had education college plus .1 years graduate work, earned an average of \$80,080, and wives were an average of 43.7 years old ($SD = 8.5$), and had education of 3.7 years of college, and earned an average of \$67,200. The sample of husbands was 91.5% Caucasian, 1.5% African-American, 1.5% Asian-American, 3.1% Hispanic-American, and 2.3% Native-American; wives were 92.1% Caucasian, 3.2% African-American, 3.2% Asian-American, 0% Hispanic-American, and 1.6% Native-American. The mean Locke-Wallace scores were: husband 66.69 ($SD=15.71$), wife 72.16 ($SD=16.36$).

The following scales were administered to these couples. In the area of friendship: Love Maps (20 items, sample item: I know my partner's current worries), Fondness and Admiration (20 items, sample item: I am really proud of my partner), Turning Toward (sample item: My partner is usually interested in hearing my views on things), and Emotional Disengagement (20 items, sample item: Sometimes our marriage feels empty to me). In the area of Sex, Romance, and Passion (two 6-item scales from the

17-areas scale, the Romance and Passion scale, and the sex problems scale. Sample romance item: The fire has gone out of this marriage; sample sex item: One problem is the amount of love in our love making). In the area of conflict: Harsh Startup (sample item: I hate the way my partner raises an issue), Accepting Influence (20 items, sample item: I believe in lots of give and take in our discussions), Compromise (20 items, sample item: In discussing issues we can usually find our common ground of agreement), The Four Horsemen (33 items, sample item: I can get mean and insulting in our disputes), and Gridlock on Perpetual Issues (20 items, sample item: The same problems keep coming up again and again in our marriage). In the area of shared meaning: Shared goals (10 items, sample item: We share many of the same goals in our life together), shared roles (7 items, sample item: My partner and I have compatible views about the role of work in one's life), shared rituals (20 items, sample item: During weekends we do a lot of things together that we enjoy and value), and shared symbols (20 items, sample item: We see eye-to-eye about what a "home" means). There were also separate scales for Negative Sentiment Override (20 items, sample item: In the recent past in my marriage: I felt innocent of blame for this problem), Flooding (15 items, sample item: I have a hard time calming down), and Repair (20 items, sample item: I can say that I am wrong). The scales had the following Cronbach alphas. For husband and wife, respectively: friendship: Love Maps (.61, .59), Fondness and Admiration (.91, .91), Turning Toward (.91, .90), and Emotional Distance (.91, .91); for Sex, Romance, and Passion (.90, .89); in the area of conflict: Harsh Startup (.93, .91), Accepting Influence (.39, .37), Compromise (.62, .61), The Four Horsemen (.94, .93), and Gridlock on Perpetual Issues (.91, .90); in the area of shared meaning: Shared goals (.86, .72), shared rituals (.77, .76) shared roles (.45, .49), shared symbols (.85, .80); for the scales of Negative Sentiment Override (.92, .92), Flooding (.89, .88), and Repair (.87, .87). The scales Accepting Influence, and Shared Meaning via Roles were deemed to have reliabilities too low to be useful, unless combined with other scales. For data reduction purposes, data from these scales were combined to form the seven constructs previously described. The friendship score was the sum of the following scales: love maps, fondness and admiration, turning toward, minus emotional distance. Sex, romance, and passion was a combination of two 6-item scales. Destructive-to-constructive conflict was the sum of the following scales: harsh startup, plus the four horsemen, and gridlock, minus accepting influence, and minus compromise; lower or more negative scores on this composite indicate constructive rather than destructive conflict. The shared meaning total score was the sum of the four shared meaning scales, rituals, roles, goals, and symbols. The final Cronbach alphas were, for husband and wife, respectively: Friendship: .95, .94; Sex, romance and passion: .90, .89; Negative sentiment override: .92, .92; Destructive or constructive marital conflict (abbreviated as "destructive conflict"): .94, .94; Repair effectiveness: .87, .87; Flooding: .89, .88; and Shared meaning total score: .93, .90.

The correlations of the SMH variables with SCL-90 total score and the Weiss-Cerreto are summarized in Table 1. As can be seen from the table, as expected, the SMH variables all correlate with these two established scales².

Table 1. Validity check on the seven SMH variables.

	Weiss-Cerreto	SCL-90
Wife Flooding	.33*	-.31*
Wife Repair	-.43**	.35**
Wife NSO	.25*	-.37**
Wife Sex/Passion/Rom	-.42**	.44**
W Shared Meaning	-.42**	.38**
Wife Friendship	-.41**	.48***
Wife Destructive Conflict	.40**	-.48***
Husband Flooding	.27*	-.36**
Husband Repair	-.41**	.31*
Husband NSO	.19	-.24
Husband Sex/Passion/Rom	-.40**	.33*
Husband Shared Meaning	-.37**	.41**
Husband Friendship	-.43**	.45***
Husband Destructive Conflict	.33*	-.38**

- p< .05; ** p< .01; *** p< .001. NSO = negative sentiment override.

Thus, our initial reliability and validity study was conducted by John Gottman with Kim Ryan. We tested the validity and reliability of the long form of the Sound Relationship House Scales, examining their relationships with the Locke-Wallace (1959) Marital Adjustment Test (MAT) – a widely used measure of relationship satisfaction, the Weiss-Cerreto Marital Status Scale (MSI) – a widely used measure of the potential for relationship breakup, and the SCL-90R, a widely-used measure of psychopathology. The Tables below summarize the correlations for summary scores with the Locke-Wallace.

	Husband Lock-Wallace
Husband Flooding	-.42**
Husband Repair	.62***
Husband Negative Sentiment Override	-.47***
Husband Expansiveness	.65***
Husband Shared Meaning	.68***
Husband Friendship	.70***
Husband Conflict	-.71***

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

	Wife Lock-Wallace
Wife Flooding	-.36**
Wife Repair	.58***
Wife Negative Sentiment Override	-.45***
Wife Expansiveness	.67***
Wife Shared Meaning	.68***
Wife Friendship	.70***
Wife Conflict	-.66***

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

Cronbach Alphas (N=61 couples)

Cronbach alpha (α) represents one kind of reliability, called the “internal consistency reliability” of a set of items. It is the most standard type of reliability reported. Low reliabilities can be due to the scale measuring more than one thing (factor), or random error (that is, poor measurement).

Scale	Husband	Wife
Love Maps	.61	.58
Fondness & Admiration	.90	.91
Turning Toward	.90	.89
Negative Sentim. Override	.92	.92
17-areas	.77	.73
Harsh Startup	.93	.89
Accepts Influence	.39	.33
Repair	.86	.88
Compromise	.53	.50

Gridlock	.91	.89
Four Horsemen	.94	.91
Flooding	.89	.86
Emotional Distance & Loneliness	.89	.88
Shared Meaning Total	.92	.89

Individual Shared Meanings Scales: Husband - Rituals .68, Roles .45, Symbols .85; Wife - Rituals .80, Roles .73, Symbols .70.

Accepts Influence: We were worried about the low reliability of the accepting influence scale; at the time of the first study we also did not know if the scale had any validity. Was it measuring anything of value? Was it measuring only how much influence people *thought they accepted*? There may have been a lot of social desirability response bias in this scale. The second study allayed our fears about that scale.

Our Second Study

Recently, we conducted a study with 130 couples going through the transition to parenthood in which we were able to obtain both SRH self-report data, as well as the predictive domain variables from other methods of measurement (SPAFF and Buehlman Oral History Coding --OHI). In each case specific predictions were made to test the validity of the items. For example, do love maps on the five-item scales correlate with the Buehlman Oral History Interview Coding? The following tables summarize these reliabilities and validities for reduced 5-item scales. Our clinicians were asking for scales that took less time for couples to complete.

Overall 5-Item Scale Score Results

Reliabilities (Cronbach Alphas)

We repeat that Cronbach alpha (α) represents one kind of reliability, called the “internal consistency reliability” of a set of items. It is the most standard type of reliability reported. Low reliabilities can be due to the scale measuring more than one thing (factor), or random error (that is, poor measurement). The alpha is strongly affected by the number of items. Longer scales usually have larger alphas; however, if the reduced set of items measures a purer construct, the alpha could actually increase with fewer items (but this is not too likely). The following are the Cronbach alpha reliabilities for the SRH scales. In italics are the long-scale reliabilities.

Friendship & Intimacy

- Love Maps (H α = .37; W α = .54) (*H α = .52; W α = .68*)
- Fondness and Admiration (H α = .67; W α = .81) (*H α = .83; W α = .87*)
- Turning Toward or Away (H α = .67; W α = .74) (*H α = .83; W α = .87*)
- Emotional Distance and Loneliness (H α = .78; W α = .85) (*H α = .81; W α = .88*)

Conflict

- Harsh Startup (H α = .76; W α = .75) (*H α = .90; W α = .91*)
- The Four Horsemen (H α = .70; W α = .76) (*H α = .92; W α = .94*)

- Gridlock on Perpetual Issues ($H \alpha = .65$; $W \alpha = .72$) ($H \alpha = .87$; $W \alpha = .91$)
- Accepting Influence ($H \alpha = .55$; $W \alpha = .43$) ($H \alpha = .75$; $W \alpha = .75$). *Much better!*
- Compromise ($H \alpha = .69$; $W \alpha = .77$) ($H \alpha = .75$; $W \alpha = .73$)

Conflict Processes

- Flooding ($H \alpha = .73$; $W \alpha = .81$) ($H \alpha = .88$; $W \alpha = .90$)
- Negative Sentiment Override ($H \alpha = .83$; $W \alpha = .84$) ($H \alpha = .92$; $W \alpha = .93$)
- Effective Repair Attempts ($H \alpha = .73$; $W \alpha = .68$) ($H \alpha = .85$; $W \alpha = .82$)

Meaning

- Shared Meaning Rituals ($H \alpha = .34$; $W \alpha = .63$) ($H \alpha = .60$; $W \alpha = .74$)
- Shared Meaning Roles ($H \alpha = .57$; $W \alpha = .64$) ($H \alpha = .49$; $W \alpha = .68$)
- Shared Meaning Goals ($H \alpha = .58$; $W \alpha = .81$) ($H \alpha = .70$; $W \alpha = .85$)
- Shared Meaning Symbols ($H \alpha = .59$; $W \alpha = .57$) ($H \alpha = .80$; $W \alpha = .87$)
- (*Over all Meaning Scales $H \alpha = .87$; $W \alpha = .93$*)

Validities

The following tables present correlations across the entire sample. Only specific tables are presented because these predictions were made in advance of examining the items. (* $p < .05$; ** $p < .01$; *** $p < .001$).

Friendship & Intimacy

- Love Maps. *5-Item Questionnaires Love Maps with Oral History Love Maps*

Oral History Interview Coding Love Map Score

	Husband	Wife
H Love Maps	.28***	.47***
W Love Maps	.24**	.32***

- Fondness and Admiration. *5-Item Questionnaires Fondness & Admiration with Oral History Fondness & Admiration*

Oral History Interview Coding F&A Score

	Husband	Wife
H F&A	.38***	.36***
W F&A	.48***	.44***

- Turning Toward or Away. *5-Item Questionnaires Turning Toward with Oral History We-ness*

Oral History Interview Coding We-ness Score

Husband	Wife
---------	------

H Turning Toward	.48***	.49***
W Turning Toward	.49**	.51***

- Emotional Distance and Loneliness.

OHI Overall Negativity

	Husband	Wife
H Emot Distance	.37***	.39***
W Emot Distance	.39***	.43***

Conflict

- Harsh Startup

SPAFF Neg/(Neg+Pos)

	Husband	Wife
H Harsh Startup	.18*	.24**
W Harsh Startup	.20*	.32***

- The Four Horsemen
- Gridlock on Perpetual Issues

	SPAFF: Hcrit	Hdefens	Hcontempt	HStone
H Four Horsemen	.44***	.29***	.36***	.30***
W Four Horsemen	.37***	.24**	.32***	.30***
H Gridlock	.36***	.24**	.43***	.14
W Gridlock	.40***	.19*	.19*	.21*

	SPAFF: Wcrit	Wdefens	Wcontempt	Wstone
H Four Horsemen	.47***	.26**	.39***	.34***
W Four Horsemen	.35***	.24**	.22*	.32***
H Gridlock	.31***	.18*	.39***	.47***
W Gridlock	.30***	.32***	.12	.15

- Accepting Influence

SPAFF Neg/(Neg+Pos)

	Husband	Wife
H Accepting Influence	-.25**	-.26**
W Accepting Influence	.21*	-.40***

The accepts influence in its short form – the scale's reliability and validity was demonstrated. This made me feel better about the scale.

- Compromise

	SPAFF Neg/(Neg+Pos)	
	Husband	Wife
H Compromise	-.15	-.22*
W Compromise	-.26**	-.39***

Conflict Processes

- Flooding

	SPAFF Neg/(Neg+Pos)	
	Husband	Wife
H Flooding	.32***	.34***
W Flooding	.23**	.31***

- Negative Sentiment Override

	SPAFF Overall Negative/ (Neg+Pos)	
	Husband	Wife
H NSO	.27**	.32***
W NSO	.25**	.30***

- Effective Repair Attempts

	SPAFF Neg/(Neg+Pos)	
	Husband	Wife
H Accepts Repair	-.15	-.24**
W Accepts Repair	-.37***	-.41***

Meaning

- Shared Meaning Rituals
- Shared Meaning Roles
- Shared Meaning Goals
- Shared Meaning Symbols

OHI Overall Negativity

	OHI Glorifying	OHI Chaos
H Ritual	.11	-.42***
W Ritual	.09	-.33***
H Roles	.18*	-.26**
W Roles	.13	-.38***
H Goals	.25**	-.37***
W Goals	.10	-.35***
H Symbols	.12	-.33***
W Symbols	.13	-.36***

The table above shows that there is a significant relationship between the shared meaning scales and the Oral History Interview Chaos and Glorifying the Struggle scales.

Specific Processes Were Then Examined

Several process predictions were made to test the validity of the Sound Relationship House Scales. One prediction was that high scores on the meaning scales would be related to lower anger (particularly for men) and lower sadness (particularly for women). The findings were that the meaning scales were related to anger and sadness for both genders, but more clearly for women. The following table presents these results.

Meaning Scale Scores and SPAFF Anger & Sadness

Meaning Scale	H Anger	H Sadness	Wanger	W Sadness
H Rituals	-.12	.01	-.21*	-.24**
W Rituals	.04	.01	-.04	-.38***
H Roles	-.08	.02	-.07	-.19*
W Roles	-.06	.00	-.22**	-.45***
H Goals	-.41***	-.07	-.31***	-.21*
W Goals	.01	.00	-.17*	-.53***
H Symbols	-.23**	-.03	-.16	-.01
W Symbols	-.15	.00	-.26**	-.31***

Sadness and Anger and Emotional Disengagement and Loneliness

The following tables test the prediction that in conflict discussions SPAFF anger is higher when people report also report being emotionally disengagement and lonely. The tables below show that when people report being emotionally disengagement and lonely, both people are more angry, but only the wife is more sad during conflict discussions.

Overall Scale Scores

	H Anger	H Sadness	W Anger	W Sadness
H Emotional Disengagement	.18*	.04	.22*	.12
W Emotional Disengagement	.00	-.05	.22*	.38***

The specific item correlations follow:

SPAFF Anger

Husband Scale

	Husband	Wife
1.I often find myself disappointed (1)	.28***	.20*
2.In will at times be quite lonely(3)	.27**	.14
3.Hard for my deepest feelings to get attention (4)	.04	.15
4.There is not enough closeness between us (14)	-.08	.13
5. I have adapted to a lot, not a good idea (17)	.28**	.19*

Wife Scale

	Husband	Wife
1.I often find myself disappointed (1)	.01	.20*
2.In will at times be quite lonely(3)	.08	.19*
3.Hard for my deepest feelings to get attention (4)	-.03	.13
4.There is not enough closeness between us (14)	-.02	.26**
5. I have adapted to a lot, not a good idea (17)	-.01	.05

SPAFF Sadness

Husband Scale

	Husband	Wife
1.I often find myself disappointed (1)	.05	.16
2.In will at times be quite lonely(3)	.11	.06
3.Hard for my deepest feelings to get attention (4)	.03	.11
4.There is not enough closeness between us (14)	-.08	.16
5. I have adapted to a lot, not a good idea (17)	.07	-.06

Wife Scale

	Husband	Wife
1.I often find myself disappointed (1)	-.01	.35***
2.In will at times be quite lonely(3)	-.07	.26**
3.Hard for my deepest feelings to get attention (4)	-.04	.28***
4.There is not enough closeness between us (14)	-.05	.25**
5. I have adapted to a lot, not a good idea (17)	-.01	.44***

Physiological Variables

Many will be wondering about physiology. Unfortunately, physiology was not available in this sample for the Time-1 interactions, due to equipment and software

problems, but it was available for the Time-3 interactions (when the babies were one year old), using laptop J&J Engineering technology, recorded in couples' homes during conflict discussions and synchronized with the video.

One interesting result was that the husband's Four Horsemen (self-report, reduced scale) at Time-1 was significantly predictive of lower wife vagal tone ($r = -.23$, $p < .05$) and higher wife sympathetic nervous system arousal ($r = .22$, $p < .05$) at Time-3. These variables were both computed from the heart period spectrum at Time-3.

The purpose of this study was to conduct initial reliability and validity analyses for the Sound Marital House questionnaires.

Specific Item Correlations with Validity Variables

The following tables present the individual item correlations with the SPAFF and Oral History variables.

1. Love Maps

<u>Husband Scale</u>	OHI Love Maps	
	Husband	Wife
1. I can tell you some of my partner's life dreams (4)	.18*	.27**
2. I can list the relatives my partner likes the least (7)	.13	.25**
3. My partner familiar with my current stresses (10)	.20*	.28***
4. I can list partner's major aspirations and hopes (13)	.13	.29***
5. I know my partner's current worries (14)	.12	.18*

<u>Wife Scale</u>	OHI Love Maps	
	Husband	Wife
1. I can tell you some of my partner's life dreams	.10	.15
2. I can list the relatives my partner likes the least	.16	.28**
3. My partner familiar with my current stresses	.11	.05
4. I can list partner's major aspirations and hopes	.10	.13
5. I know my partner's current worries	.23**	.30***

2. Fondness and Admiration

<u>Husband Scale</u>	OHI Fondness	
	Husband	Wife
1. My partner really respects me (5)	.30***	.38***
2. I feel loved and cared for (6)	.22***	.28***
3. Romance is something we have (11)	.23**	.24**
4. Come into room partner glad to see me (17)	.21*	.24**
5. Partner appreciates what I do (18)	.22*	.17

	OHI Fondness	
<u>Wife Scale</u>	Husband	Wife
1. My partner really respects me (5)	.39***	.39***
2. I feel loved and cared for (6)	.37***	.38***
3. Romance is something we have (11)	.32***	.35***
4. Come into room partner glad to see me (17)	.32***	.37***
5. Partner appreciates what I do (18)	.35***	.41***

3. Turning Toward or Away

	OHI We-ness	
<u>Husband Scale</u>	Husband	Wife
1. Really enjoy discussing things (5)	.28***	.32***
2. Always have a lot to say to each other (10)	.23**	.21*
3. We have a lot of fun in everyday lives (11)	.42***	.44***
4. A lot of interests in common (15)	.34***	.30***
5. Like to do a lot of the same things (17)	.32***	.39***
<u>Wife Scale</u>	Husband	Wife
1. Really enjoy discussing things (5)	.30***	.30***
2. Always have a lot to say to each other (10)	.40***	.41***
3. We have a lot of fun in everyday lives (11)	.34***	.39***
4. A lot of interests in common (15)	.36***	.30***
5. Like to do a lot of the same things (17)	.34***	.40***

4. Emotional Disengagement and Loneliness

	OHI Disillusionment	
<u>Husband Scale</u>	Husband	Wife
1. I often find myself disappointed (1)	.37***	.35***
2. In will at times be quite lonely(3)	.39***	.36***
3. Hard for my deepest feelings to get attention (4)	.38***	.38***
4. There is not enough closeness between us (14)	.45***	.45***
5. I have adapted to a lot, not a good idea (17)	.33***	.39***
<u>Wife Scale</u>	Husband	Wife
1. I often find myself disappointed (1)	.40***	.43***
2. In will at times be quite lonely(3)	.29***	.35***
3. Hard for my deepest feelings to get attention (4)	.42***	.39***
4. There is not enough closeness between us (14)	.49***	.49***
5. I have adapted to a lot, not a good idea (17)	.23**	.18*

5. Harsh Startup

	SPAFF: Hcrit	Hdefens	Hcontempt	Hstone
<u>Husband Scale</u>				
1.Arguments out of nowhere (3)	.25**	.15	.22*	.21*
2. I get blamed (6)	.18*	.18*	.16	.10
3. Spouse Crit My Personality (12)	.10	.29**	.24**	.19*
4. Our Calm Is Shattered (18)	.00	-.03	.07	.11
5. Partner's Negativity Unnerv (19)	-.02	.00	.05	.31***

<u>Wife Scale</u>				
1.Arguments out of nowhere (3)	.20*	.12	.03	.13
2. I get blamed (6)	.34***	.11	.24**	.35***
3. Spouse Crit My Personality (12)	.31***	.02	.10	.27**
4. Our Calm Is Shattered (18)	.26**	.13	.08	.27**
5. Partner's Negativity Unnerv (19)	.24**	.15	.15	.20*

	Wcrit	Wdefens	Wcontempt	Wstone
<u>Husband Scale</u>				
1.Arguments out of nowhere (3)	.26**	.21*	.16	.21*
2. I get blamed (6)	.24**	.05	.15	.19*
3. Spouse Crit My Personality (12)	.25**	.04	.29***	.33***
4. Our Calm Is Shattered (18)	.06	.09	.01	.06
5. Partner's Negativity Unnerv (19)	.12	.04	.20*	.07

<u>Wife Scale</u>				
1.Arguments out of nowhere (3)	.22**	.23**	.11	.05
2. I get blamed (6)	.10	.22*	.13	.04
3. Spouse Crit My Personality (12)	.17*	.28***	.15	-.05
4. Our Calm Is Shattered (18)	.27**	.10	.08	.04
5. Partner's Negativity Unnerv (19)	.24**	.28***	.20*	.07

6. Four Horsemen

	Hcrit	Hdefens	Hcontempt	Hstone
<u>Husband Scale</u>				
1.I have to defend myself (4)	.34***	.23**	.25**	.18*
2. Feel Unappreciated (5)	.36***	.16	.29***	.00
3. Partner Doen't face issues (19)	.34***	.18*	.26**	.25**
4. I am not guilty but accused (28)	.25***	.30***	.21*	.41***
5. Partner Not Rational (33)	.23**	.14	.20*	.19*

<u>Wife Scale</u>				
1.I have to defend myself (4)	.25**	.08	.17	.11

2. Feel Unappreciated (5)	.36***	.16	.31***	.19*
3. Partner Doen't face issues (19)	.16	.21*	.16	.07
4. I am not guilty but accused (28)	.25**	.20*	.26**	.44***
5. Partner Not Rational (33)	.30***	.23**	.26**	.27**

Wcrit Wdefens Wcontempt Wstone

Husband Scale

1.I have to defend myself (4)	.42***	.24**	.26**	.21*
2. Feel Unappreciated (5)	.23**	.23**	.18*	.31***
3. Partner Doen't face issues (19)	.25**	.04	.23**	.27**
4. I am not guilty but accused (28)	.39***	.18*	.30***	.17
5. Partner Not Rational (33)	.30***	.20*	.34***	.20*

Wife Scale

1.I have to defend myself (4)	.28***	.16	.26**	.19*
2. Feel Unappreciated (5)	.24**	.26**	.10	.16
3. Partner Doen't face issues (19)	.23**	.15	.05	.34***
4. I am not guilty but accused (28)	.19*	.20*	.20*	.27**
5. Partner Not Rational (33)	.34***	.11	.21*	.23**

7. Gridlock on Perpetual Issues

Hcrit Hdefens Hcontempt Hstone

Husband Scale

1.We Keep Hurting Each Other(3)	.24**	.12	.17*	.09
2. Long List of Unreas Demands (5)	.23**	.14	.37***	.19*
3. Don't feel respected (9)	.29***	.29***	.34***	-.04
4. Partner Acts Selfishly (10)	.20*	.01	.25**	.06
5. Partner is totally right (20)	.17	.24**	.28**	.18*

Wife Scale

1.We Keep Hurting Each Other(3)	.36***	.17	.07	.15
2. Long List of Unreas Demands (5)	.43***	-.01	.20*	.35***
3. Don't feel respected (9)	.36***	.11	.16	.09
4. Partner Acts Selfishly (10)	.26**	.24**	.16	.30***
5. Partner is totally right (20)	.12	.10	.13	.00

Wcrit Wdefens Wcontempt Wstone

Husband Scale

1.We Keep Hurting Each Other(3)	.06	.02	.10	.25**
2. Long List of Unreas Demands (5)	.38***	.05	.33***	.39***
3. Don't feel respected (9)	.23**	.24**	.29***	.40***
4. Partner Acts Selfishly (10)	.19*	.16	.29***	.23**
5. Partner is totally right (20)	.23**	.09	.27**	.26**

Wife Scale

1. We Keep Hurting Each Other(3)	.37***	.34***	.11	.08
2. Long List of Unreas Demands(5)	-.03	.16	-.03	-.03
3. Don't feel respected (9)	.18*	.42***	.04	.08
4. Partner Acts Selfishly (10)	.33***	.13	.18*	.06
5. Partner is totally right (20)	.10	.11	.06	.25**

8. Accepting Influence

	Hcrit	Hdefens	Hcontempt	Hstone
<u>Husband Scale</u>				
1. Want partner feel influential (4)	-.38**	-.40***	-.51***	-.12
2. Can listen to partner (5)	-.10	-.14	-.22*	-.15
3. Partner has common sense (6)	-.20*	-.13	-.05	-.21*
4. Don't reject part's opinions (9)	-.17	-.26**	-.14	-.12
5. Partner is great prob solver(15)	-.27**	-.21*	-.24**	-.17

Wife Scale

1. Want partner to feel influential (4)	.05	.05	.03	.05
2. Can listen to partner (5)	-.25**	-.16	-.24**	-.19*
3. Partner has common sense (6)	-.05	-.27**	-.24**	-.14
4. Don't reject part's opinions (9)	-.12	.01	.25**	.06
5. Partner is great prob solver(15)	-.14	-.11	-.07	-.13

	Wcrit	Wdefens	Wcontempt	Wstone
<u>Husband Scale</u>				
1. Want partner to feel influential (4)	-.39***	-.13	-.39***	-.90***
2. Can listen to partner (5)	-.23*	-.18*	-.21*	-.14
3. Partner has common sense (6)	-.15	-.14	-.03	-.01
4. Don't reject part's opinions (9)	-.18*	.09	-.09	-.28***
5. Partner is great prob solver(15)	-.09	-.13	-.10	-.18*

Wife Scale

1. Want partner to feel influential (4)	.02	.10	.03	.03
2. Can listen to partner (5)	-.25**	-.17	-.25**	-.18*
3. Partner has common sense (6)	-.37***	-.03	-.06	-.22*
4. Don't reject part's opinions (9)	-.15	-.08	-.08	-.10
5. Partner is great prob solver(15)	-.24**	-.14	-.08	-.21*

9. Compromise

	Percent Negative SPAFF	
	Husband	Wife
1. Usually Good at Resolving Differences (2)	-.09	-.10
2. Meet each other half way (8)	-.03	-.16
3. Find Common Ground (12)	-.11	-.18*
4. Not difficult for me to yield power (18)	-.10	-.11
5. Give and Take in Decisions not a problem (19)	-.18*	-.19*

<u>Wife Scale</u>	Husband	Wife
1. Usually Good at Resolving Differences (2)	-.20*	-.29***
2. Meet each other half way (8)	-.20*	-.31***
3. Find Common Ground (12)	-.17*	-.26**
4. Not difficult for me to yield power (18)	-.18*	-.32***
5. Give and Take in Decisions not a problem (19)	-.18*	-.23**

10. Shared Meaning Rituals

<u>Husband Scale</u>	OHI Glorifying The Struggle	OHI Chaos
1. Reunions at End of Day are special (3)	.01	-.36***
2. Weekends Do things we enjoy (6)	.06	-.13
3. Enjoy vacations and travel together (10)	.00	-.12
4. Good Time doing Errands together (12)	.16	-.21*
5. Can refresh when burned out or fatigued (13)	.07	-.24**

<u>Wife Scale</u>	Husband	Wife
1. Reunions at End of Day are special (3)	-.06	-.09
2. Weekends Do things we enjoy (6)	.08	-.21*
3. Enjoy vacations and travel together (10)	.19*	-.28***
4. Good Time doing Errands together (12)	.08	-.24**
5. Can refresh when burned out or fatigued (13)	.05	-.26**

11. Shared Meaning Roles

<u>Husband Scale</u>	OHI Glorifying The Struggle	OHI Chaos
1. Similar Values as Lovers and Partners (14)	.08	-.14
2. Compatible views about role of work (17)	.04	-.04
3. Balancing Work and Family together (18)	.24**	-.29***
4. Partner supports my basic missions in life (19)	.15	-.12
5. Importance of family and kin (20)	.07	-.13

<u>Wife Scale</u>	Husband	Wife
1. Similar Values as Lovers and Partners (14)	.16	-.32***
2. Compatible views about role of work (17)	.12	-.30***
3. Balancing Work and Family together (18)	.08	-.22*
4. Partner supports my basic missions in life (19)	.10	-.30***
5. Importance of family and kin (20)	.02	-.16

12. Shared Meaning Goals

	OHI Glorifying The Struggle	OHI Chaos
<u>Husband Scale</u>		
1.Old Age View Paths Had Merged Well (22)	.18*	-.19*
2.Partner Values My Accomplishments (23)	.06	-.25**
3.Partner Honors My personal Goals (24)	.13	-.29***
4. We have similar Financial Goals (26)	.23**	-.27**
5. Hopes and Aspirations Similar (28)	.14	-.11
<u>Wife Scale</u>		
1.Old Age View Paths Had Merged Well (22)	.09	-.33***
2.Partner Values My Accomplishments (23)	.18*	-.31***
3.Partner Honors My personal Goals (24)	.04	-.23**
4. We have similar Financial Goals (26)	.01	-.22*
5. Hopes and Aspirations Similar (28)	.07	-.22*

13. Shared Meaning Symbols

	OHI Glorifying The Struggle	OHI Chaos
<u>Husband Scale</u>		
1.Similar on what a home means (31)	.15	-.20*
2.Similar Views about the role of sex (35)	.01	-.21*
3.Similar Views on Love and Affection (36)	.10	-.28***
4. The Meaning of Money (38)	.04	-.01
5. The Meaning of Autonomy & Independence (44)	.11	-.38***
<u>Wife Scale</u>		
1.Similar on what a home means (31)	.06	-.22**
2.Similar Views about the role of sex (35)	.02	-.24**
3.Similar Views on Love and Affection (36)	.17*	-.21*
4. The Meaning of Money (38)	.13	-.22**
5. The Meaning of Autonomy & Independence (44)	.02	-.22*

14. Negative Sentiment Override

	SPAFF Postive/(Negative+Positive)	
	Husband	Wife
<u>Husband Scale</u>		
1.Felt Innocent of Blame (3)	.26**	.19*
2.Felt Unjustly Accused (8)	.26**	.27**
3.Felt Personally Attacked (11)	.14	.29***
4. Felt Unjustly Criticized (19)	.15	.31***
5. Wanted the Negativity to Just Stop (20)	.27**	.20*

Wife Scale

1.Felt Innocent of Blame (3)	.21*	.24**
2.Felt Unjustly Accused (8)	.12	.23**
3.Felt Personally Attacked (11)	.24**	.20*
4. Felt Unjustly Criticized (19)	.18*	.30***
5. Wanted the Negativity to Just Stop (20)	.28**	.22*

15. Effective Repair Attempts

SPAFF Postive/(Negative+Positive)

Husband Wife

Husband Scale

1.We are good at taking breaks (1)	-.22*	-.27**
2. Maintain Humor when arguing (2)	.06	-.19*
3. Good listeners even when different views (8)	-.04	-.15
4. When things get heated we can pull out of it (9)	-.07	-.14
5. Partner can soothe me when I'm upset (10)	-.17	-.13

Wife Scale

1.We are good at taking breaks (1)	-.08	-.13
2. Maintain Humor when arguing (2)	.02	-.07
3. Good listeners even when different views (8)	-.24**	-.37***
4. When things get heated we can pull out of it (9)	-.26**	-.23**
5. Partner can soothe me when I'm upset (10)	-.28***	-.39***

16. Flooding

Hcrit Hdefens Hcontempt Hstone

Husband Scale

1.Our Discussions Get Too Heated(1)	.22**	.15	.14	.13
2. Have hard time calming down (2)	.24**	.20*	.20*	.22*
3. One will say something to regret (3)	.34***	.29***	.24**	.22*
4. Why can't we be logical? (9)	.22*	.19*	.09	.13
5. Partner long list unreasonable (15)	.26**	.12	.27**	.07

Hcrit Hdefens Hcontempt Hstone

Wife Scale

1.Our Discussions Get Too Heated(1)	.26**	.11	.10*	.20*
2. Have hard time calming down (2)	.23**	.17*	.06	.22*
3. One wil say something to regret (3)	.34***	.28***	.21*	.20*
4. Why can't we be logical? (9)	.31***	.27***	.14	.12
5. Partner long list unreasonable (15)				

Wcrit Wdefens Wcontempt Wstone

Husband Scale

1.Our Discussions Get Too Heated(1)	.12	.11	.18*	.23**
-------------------------------------	-----	-----	------	-------

2. Have hard time calming down (2)	.11	.17	.04	.19*
3. One wil say something to regret (3)	.38***	.29***	.26**	.23**
4. Why can't we be logical? (9)	.26**	.30***	.25**	.18*
5. Partner long list unreasonable (15)	.26**	.05	.23**	.31***
	Wcrit	Wdefens	Wcontempt	Wstone

Wife Scale

1.Our Discussions Get Too Heated(1)	.26**	.11	.19*	.20*
2. Have hard time calming down (2)	.23**	.17*	.06	.22*
3. One wil say something to regret (3)	.34***	.28***	.21*	.20*
4. Why can't we be logical? (9)	.31***	.27***	.14	.12
5. Partner long list unreasonable (15)	.18*	.11	.13	.34***

References

- Bray, J. H. & Jouriles, E.N. (1995). Treatment of marital conflict and prevention of divorce. Journal of Marital and Family Therapy, 21(4), 461-473.
- Burgess, E.W., Locke, H.J., & Thomes, M.M. (1971). The family. New York: Van Nostrand Reinhold.
- Derogatis, L.R., Lipman, R.S, & Covi, L. (1973). The SCL-90: An outpatient psychiatric rating scale – preliminary report. Psychopharmacology Bulletin, 9, 13-25.
- Doherty, W. J. (1997). The intentional family. Reading, MA: Addison-Wesley.
- Gottman, J.M. (1999). The relationship clinic. New York: Norton.
- Gottman, J.M. & Silver, N. (1999). The seven principles for making marriage work. New York, NY: Crown Publishers, Inc.
- Locke, H.J., & Wallace, K.M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. Marriage and Family Living, 21, 251-255.
- Raush, H.L., Barry, W.A., Hertl, R.K., & Swain, M.A. (1974). Communication, conflict, and marriage. San Francisco: Jossey-Bass.
- Straus, M.A. (1986). Measuring intra-family conflict and violence: The Conflict Tactics Scale (CTS). Journal of Marriage and the Family, 48, 466-479.
- Terman, L.M., Bittenweiser, P., Ferguson, L.W., Johnson, W.B., & Wilson, D.P. (1938). *Psychological factors in marital happiness*. Stanford, CA: Stanford University Press.
- Weiss, R. L. & Cerreto, M., (1980). Marital status inventory: Development of a measure of dissolution potential. The American Journal of Family Therapy, 8, 80-86.