This article was downloaded by: [Universita Studi la Sapienza] On: 16 December 2013, At: 07:59 Publisher: Routledge Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Divorce & Remarriage

Publication details, including instructions for authors and subscription information: <u>http://www.tandfonline.com/loi/wjdr20</u>

Dysfunctional Marital Conflict and Everyday Marital Interaction

John M. Gottman^{a b} & Janice L. Driver^c

^a University of Washington, USA

^b Relationship Institute , USA

^c Relationship Research Institute, USA Published online: 15 Sep 2010.

To cite this article: John M. Gottman & Janice L. Driver (2005) Dysfunctional Marital Conflict and Everyday Marital Interaction, Journal of Divorce & Remarriage, 43:3-4, 63-77, DOI: <u>10.1300/</u><u>J087v43n03_04</u>

To link to this article: http://dx.doi.org/10.1300/J087v43n03_04

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, Ioan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at http://www.tandfonline.com/page/terms-and-conditions

Dysfunctional Marital Conflict and Everyday Marital Interaction

John M. Gottman Janice L. Driver

ABSTRACT. Fifty newlywed couples participated in a conflict discussion and an unstructured, seminatural interaction. This paper explores the relationship between these two interactions. Two sets of hypotheses were tested. One hypothesis was derived from a traditional, personality theory model that would predict consistency in behavior across the two settings. The other hypothesis was derived from Wile's suggestion that conflict is the result of unspoken interactions. Path analyses were used to compare the two hypotheses. Results supported the Wile hypotheses. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <htp://www.HaworthPress.com> © 2005 by The Haworth Press, Inc. All rights reserved.]

KEYWORDS. Divorce, divorce potential, marital communication, marital interaction

In a report of the predictors of marital stability in a 14-year longitudinal sample, Gottman and Levenson (2000) found evidence for a bi-

Address correspondence to: John M. Gottman, Department of Psychology, University of Washington, Box 351525, Seattle, WA 98195 (E-mail: jgottman@gottman.com). This research was supported by NIMH grant MH3943 to Janice L. Driver.

> Journal of Divorce & Remarriage, Vol. 43(3/4) 2005 Available online at http://www.haworthpress.com/web/JDR © 2005 by The Haworth Press, Inc. All rights reserved. doi:10.1300/J087v43n03_04

John M. Gottman, PhD, is Emeritus Professor of Psychology, University of Washington and Executive Director, Relationship Institute. Janice Driver, PhC, is on the staff of the Relationship Research Institute.

modal distribution of the time a marriage lasts until divorce. There were two points of maximum divorce potential in this longitudinal sample, one in approximately 5 years after the wedding, and one approximately 16 years after the wedding. In that study, at time-1, the couples' interaction during conflict had been videotaped and coded. Two different modes or patterns of time-1, marital interaction during a conflict discussion predicted early versus later divorcing. A high conflict "attack-defend" mode (with affects like criticism, anger, contempt, belligerence, and defensiveness) predicted early divorcing, whereas a "withdrawing" mode, (with withdrawal negative affects such as sadness, disgust, and listener withdrawal or "stonewalling"), perhaps indicative of emotional disengagement, predicted later divorcing. Higher levels of time-1 positive affect during the conflict discussion predicted marital stability.

In the present paper, we report our work attempting to link these two dysfunctional modes of marital conflict interaction to everyday marital interaction. The current study examined newlywed couples in two different interactional environments. The first was a conflict interaction where the couple argued for 15 minutes about an on-going problem in their relationship. The second was a seminatural interaction where the couple would live in an apartment laboratory for 24 hours and live much as they would at home. We then used the 600 hours of videotape to develop an observational coding system for describing the apartment laboratory interactions.

Following Jourard's (1964) model, we were initially guided by the concept that moments of reciprocal self-disclosure would be the most important units of intimacy. Unfortunately, this concept did not help organize the bulk of the interaction we observed. We saw little self-disclosure, reciprocal or otherwise. Instead, we eventually detected another unit of intimacy. We noticed that people regularly made what we came to call "bids for emotional connection" from their partners, and their partners responded by "turning toward," "turning away" or "turning against" these bids. People's bids appeared to be organized hierarchically in order of increasing demand for emotional involvement. At the lowest level of the demand hierarchy, we observed they could bid for their partner's attention (example: "There's a pretty boat"); next on our hierarchy was bidding for their partner's interest (requiring a more energetic response; example: "Didn't your dad sail on a boat just like that?"); next is a bid for enthusiastic engagement (example: "Hey, with a boat like that we could sail around the world"); next a bid for extended conversation (example: "Have you called your brother lately? He

64

seemed real down to me last time we talked."); next a bid for play (example: rolls up newspaper and bops partner lightly on the head saying, "There. I've been meaning to do that all day."); next a bid for humor (example: "A guy goes into a psychiatrist with a chicken on his head."); next a bid for affection (example: most examples were nonverbal but some were verbal as in "I need a hug."); next a bid for emotional support (example: "I still can't understand why I got fired from that job."); next a bid for self disclosure (example: "What kind of bread did you enjoy eating at home growing up?"). These bids did not necessarily progress sequentially in an orderly fashion up and down a hierarchy. We suggest a hierarchy only because as one moves up and down the hierarchy, the bids entail quantitatively different amounts of emotional response from a partner.

The "turning" responses could involve ignoring the partner as one example of "turning away," or reacting in an appropriate, connected fashion as examples or "turning toward" (with various levels of enthusiasm, varying from a grunt of acknowledgment to an excited, eager, wholehearted response), or from an irritable to a hostile response (example: "Please, I am trying to read.") we called "turning against."

Hypotheses. In examining the relationship between a couple's everyday interactions in the apartment laboratory and the couple's conflict discussions, we realized that we could take two perspectives, which would entail two sets of hypotheses, one set of hypotheses consistent with a traditional personality theory approach and one set of hypothesis consistent with Wile's (1993) suggestions that a great deal of marital conflict may be a result of the conversation the couple never had, but needed to have. Let us explain both perspectives.

A traditional personality theory approach would predict consistency across context to similar marital interactions within each spouse. In particular it would predict that: (1) each partner's turning away codes will be related to that partner's withdrawal mode during conflict interaction, and (2) each partner's turning against codes will be related to that partner's attack-defend mode during conflict interaction.

On the other hand, Wile's (1993) approach argues for a more complex relationship between everyday interaction and conflict interaction. Wile suggested that in everyday interaction people try to have intimate interactions in various ways, and then, when these attempts at intimacy fail, they generate various forms of marital conflict. He suggested that the form the conflict takes can either be a collaborative mode (characterized by self-disclosure and positive affect), or an attack-defend mode (characterized by anger, blaming, criticism, and subsequent defensiveness), or an avoiding-withdrawal mode (characterized by avoiding conflict in various ways like stonewalling). The turning away pattern in everyday interaction communicates to the bidder "Go away. I am not available to respond to your needs," and this pattern should generate anger and resentment in the bidder, thus leading to the attack-defend mode. Thus, Wile might predict that turning away should lead to attack-defend by the partner. This is the primary pattern analyzed in Wile's (1993) book, After the fight. Continuing Wile's reasoning, we suggest that the turning against pattern communicates, "Don't tread on me. Don't raise an issue because I am dangerous even when not riled up." This pattern should generate fear in the bidder; the bidder is left only to imagine what escalated negative affects would result in raising an issue with this crabby or hostile partner. This fear should thus lead to the withdrawal mode on the bidder's part. Hence, we think that Wile would probably predict that turning against should lead to withdrawal by the partner. Consistent with Wile's suggestions, we then predicted that: (1) turning away codes will be related to the attack-defend mode by the partner, and (2) turning against codes will be related to the withdrawal mode by the partner. Both personality and Wile arguments would predict that playful bidding and enthusiastic turning toward would be related to positive affect in the conflict discussion interaction, so positive affect would not discriminate the two points of view. Positive affect is not discussed in this paper.

METHOD

The methods for the conflict session of this study have been published in detail in Gottman et al. (1998). And the methods for the Apartment Laboratory have been published in Driver and Gottman (2004). However, a review of the methods is presented here.

Participants

The couples selected for this study were newlyweds who had been married less than six months, were in their first marriage and were childless. The 130 newlywed couples selected represented an even, rectangular distribution of marital satisfaction based upon the Marital Adjustment Test (MAT, Krokoff, 1987; Locke & Wallace, 1959). The strategy of over-sampling the tails of the marital satisfaction continuum was employed so that statistical power would be uniform across the range of marital satisfaction. As required by the National Institute of Mental Health, this study matched the major racial and ethnic groups of the Seattle area. Approximately 5% of the couples were from non-white ethnic groups and 25% were mixed-ethnic-racial couples. Although our sample included ethnic minorities, racial distinctions are not made in this research. This kind of evaluation would require over-sampling a particular ethnic group to observe specific patterns in couple interactions. Other demographic characteristics for these newly married couples are available in the Gottman et al. (1998) article.

Conflict Discussion Procedures and Measures

For the Conflict Discussion Session, the couples sat in opposite chairs approximately five feet apart. They were instructed to discuss an on-going area of disagreement in their relationships for 15 minutes. Two remotely controlled cameras and microphones filmed the conflict discussion. As the couple sat facing each other, the cameras filmed separate frontal views of each subject's head and upper torso. A video special-effects generator then combined the images from these remote cameras into a split-screen image. This gave coders a full frontal view of the facial expressions of both the husband and wife simultaneously.

Observational Measures

The Specific Affect Coding System (SPAFF) (Gottman, Coan, & Mc-Coy 1996) was used to code the couples' conflict interactions. SPAFF focuses solely on the affects expressed, drawing on facial expression, gestures, movement, vocal tone, and speech content to characterize the emotions displayed. There are 5 positive codes (interest, validation, affection, humor, joy), 10 negative affect codes (disgust, contempt, belligerence, domineering, anger, fear/tension, defensiveness, whining, sadness, stonewalling) and a neutral affect code. Domineering and belligerence emerged from our previous research on spouse abuse as codes having an opposite function. In that research, belligerence was a provocative code that tended to result in negative affect from the partner (example: "What are you gonna do about it if I go drinking with Dave? Nothing you can do?" resulted in "That is the typical irresponsible behavior I've come to expect from you"), whereas domineering (a more controlled, persistent form of persuasion, perhaps with some potential threat behind

68 JOURNAL OF DIVORCE & REMARRIAGE

it) tended to result in a "squelch the partner" pattern in which the partner backed down and decreased confrontation and negative affect.

Reliability Measures

Every videotape was coded in its entirety by two independent observers using a computer-assisted coding. The Cronbach's alpha generalizability coefficients ranged between .65 and .99 and averaged .91 for the entire coding of all 130 videotapes.

Operationalizing the Constructs

In the conflict interaction discussion we computed two sums of negative affect codes for each partner. One variable indexed withdrawal and was the sum of fear, stonewalling, sadness, whining, and domineering. Recall that domineering was included with the withdrawal affects because it is a "squelch the partner" code. The other variable indexed attack-defend; it was the sum of anger, criticism, belligerence, contempt, and defensiveness.

Apartment Laboratory Procedures and Measures

The Apartment Laboratory consisted of a single-room, studio-type apartment with a small kitchenette, television, stereo, sofa, loveseat, and dining table. Each couple was asked to spend 24 hours in this apartment usually beginning at 9:00 a.m. on Sunday. They were filmed for 12 of those 24 hours, usually 9 a.m. to 9 p.m. Each couple was asked to bring groceries and enjoyable weekend activities, such as videos, CDs, books, or work. The only instruction given to the couple was to spend the day as they would at home.

We selected only the interaction segments of dinner-time conversations as our first coding from the 12 hours of apartment laboratory interaction because all couples ate dinner together at some time during the 12 hours. The Turning Toward versus Turning Away (Turning System, Driver & Gottman, 2004) was used to code the couples' interactions. All the dinnertime interactions were also coded with the SPAFF coding system.

Observational Measures

The Turning System is described in detail in Driver and Gottman (2004), but a brief description of the bids used in this paper follows for

purposes of discussion. Bids, in general, are any attempt to initiate interaction in either a positive or negative manner. Negative bids are those which use negative affect to begin a discussion. The response to bids studied in this paper is Turing Against where the partner uses negative affect when responding to a bid. The bid does not need to be negative to receive a Turning Against response. When a bid (either positive or negative) is ignored, it is coded as a Turning Away. There are three types of Turning Away (Preoccupied, Interrupt, and Disregard), but these have been combined for analysis in this paper.

Reliability Measures

All apartment video segments were coded by two independent coders using the Turning System (Driver & Gottman, 2004). The percent agreement for bids was 88.29% and for responses was 76.51%. The free marginal Cohen's kappa for bids .88, and for responses was .77, with z-scores (checking for agreement by chance alone) of 42.76 and 43.06, respectively. We also computed the Cronbach alpha generalizability scores, which averaged .78 across the codes for the entire Turning System.

Operationalizing the Constructs

To control for individual differences in verbal output during the dinnertime interaction, we computed the ratios of each turning category by calculating the total number of codes in each category divided by the total number of verbal responses. The apartment laboratory interactions were computed for each partner: (1) the sum of the proportions of turning away, and (2) the sum of the proportions of turning against.

RESULTS

Table 1 is a summary of the correlations between husband and wife attack-defend and withdrawal during conflict and the amount of turning away or turning against in the apartment laboratory. The personality hypothesis prediction is that the husband's turning away should be significantly related to the husband behaviors that imply withdrawal from conflict, and that correlation was .16, not significant; the wife's turning away should be significantly related to the wife's withdrawal, and that correlation was .05, not significant; the husband's turning

TABLE 1. Intercorrelations Between Conflict Modes and Apartment Lab Turning Codes

Variable	1	2	3	4	5	6	7	8
Husband								
1. Turning Against	1.00							
2. Turning Away	.05	1.00						
3. Attack-Defend	.06	.06	1.00					
4. Withdraw	.47***	.16	.06	1.00				
Wife								
5. Turning Against	.30*	.14	.06	.14	1.00			
6. Turning Away	20	.23	.18	01	.23	1.00		
7. Attack-Defend	.07	.44**	.49***	.21	.08	.08	1.00	
8. Withdraw	.17	.30*	.09	.48***	.20	.05	.16	1.00

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

against should be significantly related to the husband's attack-defend, and that correlation was .06, not significant; the wife's turning against should be significantly related to wife attack-defend, and that correlation was .22, not significant. Hence, none of the four correlations predicted by the personality hypothesis were significant. The Wile hypothesis is that the husband's turning away should be significantly related to the wife's attack- defend, and that correlation was .44, significant at p < 1.01; the wife's turning away should be significantly related to the husband's attack-defend, and that correlation was .18, not significant; the husband's turning against should be significantly related to wife withdrawal, and that correlation was .15, not significant; the wife's turning against should be significantly related to husband withdrawal, and that correlation was .14, not significant. There is evidence that more correlations are significant with the Wile hypotheses than with the personality hypotheses, but the simple analysis of Pearson correlations is not the most powerful analysis for distinguishing between the two sets of hypotheses.

Instead, to further clarify relationships between apartment laboratory and conflict variables, two types of path analyses were conducted. To examine a path analysis, one looks for a non-significant chi-square, which indicates that the model and the data's covariance matrices were not significantly different; also, the Bentler-Bonnet Normed Goodness of Fit statistic (BBN) indexes the goodness of fit of the model; ideally, this index should be as close to 1.0 as possible.

The traditional personality-based hypotheses would predict significant pathways between each person's turning away in the apartment laboratory and that person's withdrawal during conflict, and between each person's turning against in the apartment laboratory and that person's use of the attack-defend mode during conflict. The appropriate pathways are depicted in Figure 1A. The Wile hypotheses would predict that each person's turning away would be related to the partner's attack-defend during conflict and that each person's turning against would be related to the partner's withdrawal during conflict. The appropriate pathways are depicted in Figure 1B. Other pathways in both models than those indicated in Figure 1 may be necessary for the model to fit the data; for example, a pathway from husband against to wife turning against may be necessary for the model to fit the data.

Figure 2 is the result of the personality hypotheses path analysis. The model fit the data, with χ^2 (19) = 24.39, p = .18, BBN = .404. The major pathways to examine are the pathways between the apartment laboratory data and the conflict discussion. None of these path coefficients were statistically significant. Therefore, the data did not support the hypotheses derived from this personality model.

Figure 3 is the result of the Wile hypotheses path analysis. The model in Figure 3 fit the data a bit better than the model in Figure 2, with χ^2 (19) = 19.93, p = .399, BBN = .528. The path model supports the hypotheses derived from the Wile model. The path model also shows that the husband is driving the Wile model. The husband's turning away in the apartment laboratory was significantly related to the wife's withdrawal during the conflict discussion, which, in turn, was significantly related to the husband's turning against in the apartment laboratory was not significantly related to the wife's attack-defend during the conflict discussion; the wife's attack-defend during the conflict discussion was significantly related to the husband's attack-defend during the conflict discussion.

We continued refining this model by fitting the Wile model with an additional pathway from the husband's turning against to the *husband's* withdrawal during the conflict discussion. This model fit the data extremely well, with χ^2 (18) = 11.71, p = .862, BBN = .722. The data in Figure 4 show that the additional pathway is significant, with path coefficient equal to .45 (z = 3.60). It then made more sense theoretically to reverse the arrow between the husband and the wife's withdrawal.





The resulting final model (Figure 5) had χ^2 (18) = 12.40, p = .826, BBN = .706. In this model two pathways significantly related specific patterns of interaction in the apartment laboratory interactions to the two modes of dysfunctional marital conflict.

Clarification of Husband's Role

To clarify why the husband and not the wife appears to be driving the Wile model, we computed two paired t-tests comparing husband and wife means on turning away and turning against. For turning away the husband mean was 1.44 and the wife mean was 1.09, t(48) = 2.10, p = .034. For turning against the husband mean was .25 and the wife mean was .11, t(48) = 2.65, p = .011.

FIGURE 2. Path Model for Away and Against and Two Modes of Dysfunctional Marital Conflict with the Personality Hypothesis



FIGURE 3. Path Model for Away and Against and Two Models of Dysfunctional Marital Conflict with Wile Hypotheses



DISCUSSION

The data were clear in supporting a version of the set of hypotheses derived from Wile's discussion of conflict as the conversation that the couple never had but needed to have. A personality-based set of hypotheses failed to be supported by the data.

The bids and turning observational system extends our current notions both of how couples create intimacy and how that might relate to dysfunctional marital conflict. It may very well be the case that couples FIGURE 4. Path Model for Away and Against and Two Modes of Dysfunctional Marital Conflict with Wile Hypotheses, with Direct Path Added Between Husband Against and Husband Withdraw



FIGURE 5. Path Model for Away and Against and Two Modes of Dysfunctional Marital Conflict with Wile Hypotheses, with Direct Path Maintained Between Husband Against and Husband Withdraw and Direction of Arrow Reversed Between Husband Withdraw and Wife Withdraw



do not create intimacy simply by reciprocal self disclosure. They may create intimacy in a hierarchical fashion by making small bids during everyday interaction; self-disclosure is an end state in a very long chain that establishes responsiveness and connection.

One must be careful in arguing from correlation to causation, and our data are clearly correlational data. Ideally one would wish to do an

experiment changing bids and turning and testing whether conflict interaction is affected as a result of this experiment. However, in a purely speculative manner, we might suggest that turning away from bids may have serious consequences, particularly the husband's turning away. It may be related to his wife's using the attack-defend mode during conflict discussions; this in turn may be related to the husband's attack-defend mode during conflict.

Turning against bids for connection, which suggests an irritable response, once again particularly the husband's turning against his wife's bids for connection, may be related to his own withdrawal from interaction during conflict discussions; this, in turn, in our data, was related to his wife's withdrawal during conflict discussions.

In the path models the husband's role was most critical. Why should this be the case? Perhaps the answer to this question lies in considering why the husband might wish to regulate negative affect during conflict interactions. The data suggest that husbands significantly exceed wives in both turning away and turning against. We have suggested elsewhere (Gottman & Levenson, 1988) that some forms of physiological arousal may be more difficult for men than for women to regulate. And recently Gottman, Coan, Swanson, and Carrère (1998) reported evidence that the physiological soothing of the husband (but not of the wife) predicted marital stability. Perhaps husbands inadvertently regulate the amount and type of intimacy in everyday marital interaction as an indirect means of regulating conflict. We would expect different levels of physiological reactivity for husbands who typically turn toward, away, or against. Husbands who turn toward should be the least physiologically reactive; those who turn away should be next in reactivity, and those who turn against should be the most reactive physiologically. These analyses should be conducted in subsequent examinations of these data.

These data extend our thinking that has resulted from Wile's ideas in several ways. First, in Wile's work a clinician derives the conversation the couple needed to have but did not have solely from the content of their conflict interaction. In his example, the couple needed to talk about the stresses of their days and each receive emotional support. The wife needed to do this immediately upon reunion after the husband returned from work, but the husband wanted a brief cooling down period. Instead of metacommunicating about this, they had a fight. The content of the fight provided leads as to what they needed to do to avoid the fight. Even though it was clear how to do this in the example in Wile's book, this may not always be as clear from arguments that a couple has in non-textbook cases. Our data suggest that the place to look for the conversation they needed to have but did not have is in their everyday failed bids for emotional connection. This means that, clinically, we are suggesting that the therapist specifically look with the couple at *failed bids for emotional connection* that happened during the week as well as conflicts that are upsetting to the couple. This suggests a therapeutic focus beyond the conflict context.

Second, these results suggest that the two dysfunctional modes of marital conflict, attack-defend and withdraw, which are predictive of earlier and later divorcing, respectively, may have a basis in specific forms of failed bids everyday interactions in which couple's are seeking emotional connection with one another. These two dysfunctional modes are pervasive in the clinical literature. In individual psychopathology there are externalizing and internalizing styles. In attachment theory they are the avoidant insecure style and the more aggressive insecure or preoccupied style. But these data suggest potential precursors of these two ubiquitous dysfunctional response patterns in mundane everyday interaction. They may even suggest a potential mechanism for change.

Third, and this follows from our previous point, these data suggest that perhaps some marital conflict may be changed merely by changing the way couples make bids and/or the way they respond to them. Of course, an experiment is required to test these hypotheses. However, in our clinical work these results have become helpful in working on the friendship a couple has and in knowing how to help people build that friendship. The bids and turning unit can help people become more attentive and mindful to this mundane part their everyday relationship, to the everyday times when they are just "hanging out," when nothing important seems to be happening but when actually very important things are happening. It is our clinical experience that failed bids for connection and subsequent loneliness are a major source of marital conflict. Just helping a couple become mindful of these moments and investigating the "anatomies" of bidding and turning can provide insight that is capable of changing the nature of marital intimacy and the nature of conflict interactions as well.

We suggest that subsequent research will do well to more fully explore this other non-conflict aspect of the bid-and-turning interaction unit, that is, its relationship not just to conflict, but to building romance, passion, and satisfying sex in the marriage through the affectional system. In our view, the bid-and-turning unit has the potential to integrate sex and marital therapy. We have begun to address this linkage in our clinical work and hope to extend it to the research domain as well.

REFERENCES

- Bakeman, R., & Gottman, J. (1986). Observing interaction. New York: Cambridge University Press.
- Burgess, E.W., Locke, H.J., & Thomes, M.M. (1970). *The family*. New York: Van Nostrand Reinhold.
- Driver, J.L., & Gottman, J.M. (2004). Turning Toward versus Turning Away: A Coding System of Daily Interactions. In P.K. Kerig & D.H. Baucom (Eds.), *Couple Observational Coding Systems*. New Jersey: Lawrence Erlbaum Associates.
- Ekman, P., & Friesen, W. V. (1978). *The facial action coding system*. Palo Alto, CA: Consulting Psychologists Press.
- Gottman, J., Coan, J., & McCoy, K. (1996). The Specific Affect Coding System. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gottman, J.M., Coan, J., Swanson, C., & Carrere, S. (1998). Predicting marital happiness and stability from newlywed interactions, *Journal of Marriage & the Family*, 60, 5-22.
- Gottman, J., & Levenson, R.W. (2000). The timing of divorce: Predicting when a couple will divorce over a 14-year period. *Journal of Marriage & the Family*, 62, 737-745.
- Gottman, J.M., & Levenson, R.W. (1988). The social psychophysiology of marriage. In P. Noller and M.A. Fitzpatrick (Eds.), *Perspectives on Marital Interaction*. Philadelphia: Multilingual Matters.
- Gottman, J., Markman, H., & Notarius, C. (1977). The topography of marital conflict: A sequential analysis of verbal and nonverbal behavior. *Journal of Marriage & the Family*, 39, 461-477.
- Jourard, S.M. (1964). The transparent self. New York: Van Nostrand.
- Krokoff, L. (1987). The anatomy of negative affect in working-class marriages. *Disser*tation Abstracts International, 45, 7A (University Microfilms No. 84-22 109).
- Locke, H.J., & Wallace, K.M. (1959). Short marital adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living*, *21*, 251-255.
- Wiggins, J. (1977). *Personality and prediction*. New York: Addison-Wesley.
- Wile, D. (1993). After the fight. New York: Guilford.