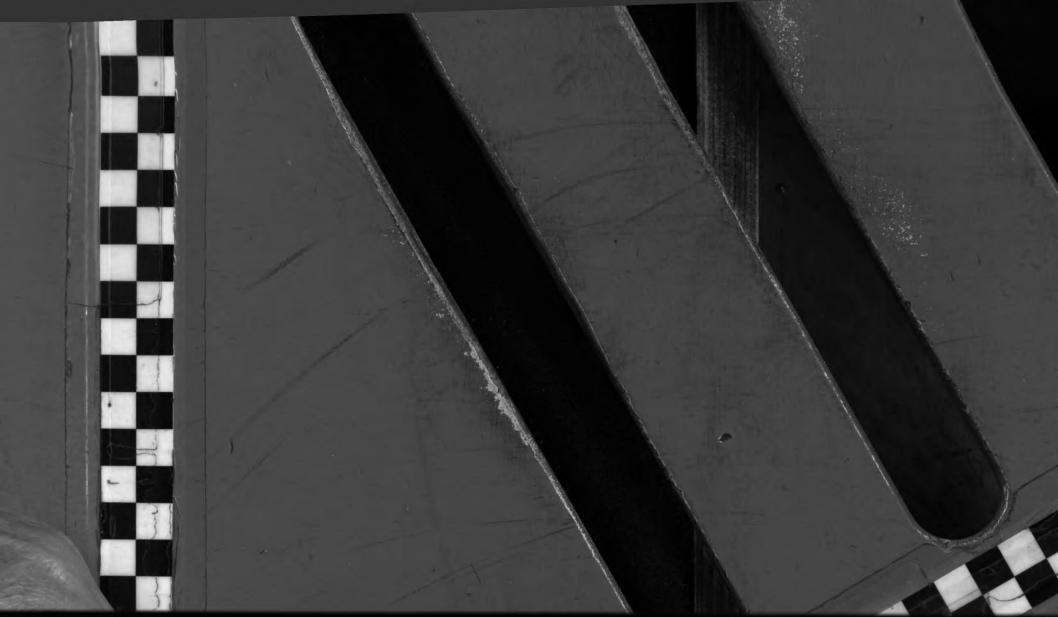

BERT H. TINKER Ph. D.

DOMINANCE IN MARITAL INTERACTION

Thesis for the Degree of Ph. D.
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This is to certify that the

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ABSTRACT

DOMINANCE IN MARITAL INTERACTION

BY

Robert H. Tinker

The purpose of the present study was to investigate the effects of different amounts of dominant behavior upon the interaction of student married couples. Dominance is a major dimension of interpersonal behavior, but little is known of its interpersonal consequences in a marital relationship.

Twenty-four married couples, or 65% of a target sample, randomly selected from all couples living in Michigan State University two-bedroom married housing units, participated in the experimental procedure. This consisted of having each marital partner (1) complete an opinionnaire in a separate room from his spouse; (2) interact with his spouse in Discussion I to reach joint agreement on three lists previously filled out individually on the opinionnaire (a revealed difference technique); (3) complete a marital adjustment measure, again in a separate room from his spouse; (4) interact in Discussion II to complete jointly three more lists from the opinionnaire; (5) interact in Discussion III to reach agreement on a final set of revealed differences from the opinionnaire. The married couples were randomly assigned to one of four groups: a high, medium, or low dominance, or control group. If the couple was assigned to one of the dominance

groups, a randomly selected spouse (called the Selected Spouse), was given special instructions for Discussion II. The Selected Spouse was asked to do his "utmost" to get all, or the two most important of his individual choices to be the ones on the couple's joint list, for the high and medium dominance groups respectively. The Selected Spouse from the low dominance group was asked to let his spouse determine the two most important choices on the joint list. The partner of the Selected Spouse was unaware of the special instructions. The discussions were tape recorded with each couple's knowledge.

One main rater judged three-minute segments of interaction from the middle of each discussion period. Each speech was rated as to whether it was high, medium, or low on each of four categories: Negative-hostile (N-H), Positive-Affectionate, Dominant, and Submissive. Ratings were also made of the clarity of the interaction segments, and the time needed to reach agreement on each discussion was recorded. Independent ratings by a second rater on every sixth couple furnished evidence that all ratings were highly reliable.

Analyses of variance indicated that the couples were only partially able to carry out the instructions to be high, medium, or low dominant, which might have obscured or diminished differences among the four groups. The number of Negative-hostile speeches was the only dependent variable affected by the amount of dominance. Specifically, spouses of either sex allowed a moderate increase in partner dominance (medium dominance group) without an increase in N-H speeches, but when the Selected Spouse was instructed to greatly increase the amount of dominance (the high dominance group), an increase in the number of N-H

speeches, but not greater dominance, resulted. Overall, the wives made more Submissive and Positive-affectionate speeches than their husbands, and both spouses gradually became less submissive over the three discussion periods.

Correlational analyses, based on the data from Discussion I, supported the analyses of variance findings in that the number of high Dominant speeches significantly correlated with the number of Negative-hostile speeches, while the number of medium Dominant speeches did not. However, the number of medium Dominant speeches was significantly related to the number of Positive-affectionate speeches, which was not supported by the analyses of variance.

It was concluded that high dominance had a negative-hostile effect on the married couples' interaction, while moderate dominance did not.

These findings, while not at variance with present interactional theories, would not have been predicted by them. Further, the results go beyond much present interactional research in indicating a causal relationship between two interactional variables.

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DOMINANCE IN MARITAL INTERACTION

By

Robert H. Tinker

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To Marti, who still happens to be a lovable wife.

And to Mike and Joni, who live in the present, but belong to the future.

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"...psychopathology is a product of a power struggle between persons rather than between internal forces (Haley, 1963, p. 156)."

INTRODUCTION

Since the present research is concerned with dominating behavior in a marital relationship, several pertinent questions about this topic come to mind. First, why study marital relationships? Second, why study the effects of dominance in such a relationship? Third, what is presently known about the marital relationship in general and about marital dominance in particular? The present review of the literature deals with these rather basic questions.

Although the author is much indebted to the concepts of communication theory, these concepts will not be reviewed. Rather, the interested reader is referred to the seminal works by Haley (1963), and Watzlavick, Beavin, and Jackson (1967).

One of the author's reasons for studying marital dominance, is that he became intrigued by the difficulties which couples in marital therapy showed in trying to reach agreement on almost any issue, no matter how trivial. Each spouse seemed to be putting pressure on the other to come around to his own point of view. The more one spouse tried to convince the other, the more the other resisted, either overtly or covertly. It thus seemed that the more involved that the marital partners became in trying to circumscribe, change or direct the behavior of each other, the more they resisted each other's attempts by refusing to negotiate, compromise, or change. Even the simplest disagreements could become battlegrounds for control. Another way of

stating this, is that these couples seemed to have problems in handling controlling, or dominating behavior.

From such observations, the author tentatively formulated the idea that marital dominance would be a worthwhile topic to investigate, in that it seemed to be a highly problematic area for married couples having difficulties.

REVIEW OF THE LITERATURE

Why Study Marital Relationships?

Lack of Study

There is a great deal of ignorance about marital relationships. This is in spite of surveys on various aspects of marriage, which have been shown to be of doubtful validity because married persons have been repeatedly shown to be poor observers and reporters of their own behavior (Kenkel and Hoffman, 1956; Levinger, 1963; Olson, 1969; and Weller and Luchterhand, 1969). It is also in spite of numerous marriage manuals which are short on data, but long on prescriptive standards. Further, this ignorance persists even though the vast majority of Americans get married, and a large percentage (about one-third) subsequently get divorced. It persists even though the family is the basic social unit in almost all societies. In short, it persists in the face of an exceedingly pervasive institution.

As Lederer and Jackson (1968) state:

"On their wedding day, a young man and a young woman, standing before the priest, minister, or justice of the peace, usually have a high opinion of one another. They overflow with joyous thoughts. Each has a firm intention of pleasing and nourishing the cherished person who is

about to become a partner for life.

Some years later (the highest incidence of divorce, excluding teenagers, is after ten or so years), these same two people may be living in a chronic situation of hate, fear, and confusion. Each spouse in such a marriage may blame the other and defensively emphasize how hard he tried to be loving, tried to make the marriage a success, and tried to keep the other from sabotaging the effort.

What causes such frightful changes? What brings about such startling emotional and behavioral metamorphoses (p. 15)?"

The above description of what frequently happens in marriage is doubly unfortunate, in that the couple involved likely has only a vague and inaccurate idea of what went wrong. Several pieces of research (Kenkel and Hoffman, 1956; Levinger, 1963; Olson, 1969; and Weller and Luchterhand, 1969) indicate that most couples lack even rudimentary awareness of their interaction with each other. In fact, Kenkel and Hoffman state: "The couples were unpracticed at even the relatively superficial degree of analysis necessary to recognize the part they play in a simple and structured interaction (p. 316)."

Thus, the first basic reason to study marital relationships is that they are pervasive, but relatively unstudied.

The Relationship between Marital Disturbances and Offspring Disturbances

Another major reason to study marital relationships is that there is an association between marital disturbances and psychological disturbances in their offspring. While there is a large body of literature supporting this statement, only a few illustrative studies will be reviewed here. For more complete reviews, the reader is referred to Oaklander (1971), Hoffman (1969), and MacKenzie (1968). Such

studies have indicated that schizophrenic, neurotic, and normal parents differ from each other on measures of clarity and agreement.

With respect to clarity, Morris and Wynne (1965), Singer and Wynne (1965a & b, 1966), Beavers, Blumberg, Timken and Weiner (1965), Lerner (1964), and Levin (1966) have found that different measures of clarity differentiate between parents of schizophrenics, neurotics and normals, with parents of schizophrenics being least clear in their communication and parents of normals most clear.

With respect to agreement, Fisher, Boyd, Walker, and Sheer (1959), Caputo (1963), and Lerner (1964), have found that parents of schizophrenics have most difficulty in reaching definite agreement on various tasks, and that parents of normals are most able to reach definite agreement (with parents of neurotics intermediate).

More recent family interaction research has been getting more sophisticated and complicated. Earlier studies have been found to have possible methodological shortcomings. Thus despite a careful attempt at replicating Singer and Wynne's research (1965a & b, 1966), Hirsch and Leff (1971), were unable to come up with similar results. Singer and Wynne correctly identified 85-90% of the parents of typical schizophrenics and neurotics from their Rorschach protocols, and there was no overlap of the scores of the parents of schizophrenics and neurotics. In contrast, Hirsch and Leff correctly identified only 61% of the parents on the basis of their Rorschachs, with a 97.5% overlap in the distribution of the two groups. They suggest the discrepant findings were a result of methodological shortcomings in Singer and Wynne's research. Another methodological error has likely been resolved by Waxler and Mishler

(1970), who found that when participation rates are controlled, there is no difference between normal and schizophrenic families in predictibility of act sequences. Previously there had been disagreement in the literature on whether schizophrenic families were more rigid in their act sequences.

Sojit's studies (1969 & 1971) are good examples of the more recent pieces of research. In the earlier study, Sojit compared the interaction of 20 sets of parents of ulcerative colitis children, eight sets of parents of delinquents, nine sets of parents of normal children, nine sets of cystic fibrosis children, and found basic interactional differences. The total number of interchanges of ulcerative colitis couples was small and disagreement between them was rare. They seldom expressed understanding of the other's verbalizations. They seemed highly restrictive, Sojit concluded. Delinquent couples seemed to encourage indiscriminate action, to be perceptive about others to gain control, and to use disqualifications and disaffirmations to disagree covertly. They disagreed less than normal parents, more than ulcerative colitis parents. Cystic Fibrosis parents weren't different from normal parents who were characterized by frequent disagreement, and less use of disqualifications and disaffirmations. In the more recent study (1971), Sojit also compared parents of schizophrenics with these previous groups.

O'Connor and Stachowiak (1971) compared patterns of interaction in families with low adjusted, high adjusted, and mentally retarded children, and found basic differences. Novak and van der Veen (1970) studied the families of disturbed adolescents where there was a normal

sibling, and suggested on the basis of their results that rather than bad parents "causing" a disturbed child, a more appropriate model would be that a particular type of child in interaction with a particular set of parents becomes disturbed. This model fits in very well with research by Thomas, Chess, and Birch (1968), who found individual temperamental differences among neonates which persisted over several years. Some of these temperamental differences, in interaction with parental behaviors, gave rise to behavioral disorders in the children. Thomas, Chess, and Birch conclude that a given child needs to be handled in a manner appropriate to his temperamental characteristics.

Evaluation of Research which Shows Relationships between Marital Disturbances and Offspring Disturbances

Two kinds of articles predominate in the family interaction literature: the kind which demonstrates a linkage between abnormal parental behavior and abnormal child behavior, and the kind which advocates the use of family therapy and various techniques of family therapy. The two go hand in hand. If the parents and children are influencing each other in some sort of system, as the research articles seem to indicate, it seems logical to make changes with several persons in the system, rather than with just one (i.e. the disturbed child).

However, the research articles which demonstrate the association between abnormal parental and abnormal child behavior are almost all of one type, where different groups of parents are compared with each other. This research has great value in that it specifies what the connections are. Lerner's research (1964) is a good example of how specific parental interactions seem tied to certain offspring behaviors, and not

others. Lerner studied 36 pairs of parents: 24 sets of parents of schizophrenic sons, and 12 sets of parents of sons hospitalized for nonpsychiatric reasons. Initially the parents of the 24 schizophrenic sons were dichotomized on the basis of their son's social competence scores, and later on the basis of their son's "thought disorder". When the schizophrenic sample was dichotomized on the basis of a social competence score, disproportionate patterns of parental dominance and submission appeared, and the sex of the dominant parent appeared to be related to the patient's premorbid level of social maturity, such that excessive maternal dominance was associated with low social competence on the part of the schizophrenic sons, and excessive paternal dominance with higher social competency. However, when the schizophrenic sample was dichotomized on the basis of the severity of "thought disorder" similar patterns of disproportionate dominance and submission failed to emerge, but severity of "thought disorder" was related to the degree of parental distortions. Lerner interpreted this as indicating that the entire intrafamilial environment did not exert an indiscriminant influence, but that role structure was specifically related to the offspring's social competence, while parental distortion was related to offspring "thought disorder".

By relating specific parental behaviors to specific child behaviors, psychotherapists can be helped with setting therapeutic interventions. For example, as Sojit (1969) found that children with ulcerative colitis had overly restrictive parents, a psychotherapist might direct his efforts at getting the parents to be less restrictive, and then the child's ulcerative colitis should improve.

All this seems simple and straightforward. Find out what parental behaviors are causing the child's problems, and then intervene appropriately. The problem is that none of the family interaction research shows causality, but it is very tempting to infer such causality. That this can lead to unwarranted conclusions can be suggested by the following example: Let's say that two parents are mentally retarded for genetic reasons, and that they have a child who is retarded for the same reasons. If their family interaction were studied, one would find that the parents were interacting with each other in deviant ways, and that their child's interaction was deviant in the same way. On the face of it, if one didn't know the origin of the mental retardation, one would be tempted to infer that the child "learned" his retardation from his parents.

In a similar way, one is tempted to infer that schizophrenic children "learned" their deviant communication patterns from their parents. This may not be entirely so, in that the causes of schizophrenia may be genetic, constitutional and environmental, with the environment fostering learned maladaptive interpersonal behaviors, as well as furnishing the specific environmental stresses.

Sarnoff Mednick has begun longitudinal research on schizophrenics with fascinating preliminary results (Mednick, 1970; Mednick, 1971; Mednick and McNeil, 1968; Mednick and Schulsinger, 1968). Noting that schizophrenic women tended to have a higher incidence of schizophrenic children than nonschizophrenic women, he followed schizophrenic women over eight years, starting before they had children. He found that the combination of pregnancy and birth complications plus a schizophrenic

mother was highly likely to produce a schizophrenic child.

More specifically, in 1962, Mednick examined 207 children who were likely to become schizophrenic (they had schizophrenic mothers). He also tested 104 controls (no mental illness for three generations), matched for sex, age, social class, education, residence, and children's home experience. Ages were between nine and twenty. The subjects were given personality and IQ tests, a psychiatric interview, physiological measures (heart rate, muscle tension, respiration, and GSR). Mednick also interviewed parents, obtained school reports and midwife's report. After eight years, 27 in the high risk group became psychotic. These subjects were matched with a high risk subject who did not become psychotic and with a control from the low risk group. Five critical variables were found:

1. Future psychotic Ss lost schizophrenic mothers to hospitalization at an earlier age, and these mothers were more severely schizophrenic.
2. Future psychotic S's tended to be disruptive in class: they were domineering, aggressive, and posed disciplinary problems, (more than 50% versus 18% in the well group, and 11% in the control group).
3. On the word association test, the future psychotics gave series of words that drifted away from the stimulus word, or restricted themselves to one or two words.
4. In nine stress trials, the well and control groups' GSR habituated, but the group that later became psychotic became more irritable; the latency of their GSR decreased 75%. In extinction trials, the future psychotics showed great resistance to extinction.

They also showed remarkably fast recovery from autonomic imbalance (rate GSR returned to normal). These measures almost perfectly discriminated between the future psychotics and well group.
5. Seventy per cent of the future psychotics' mothers had suffered one or more serious pregnancy and birth complications, in contrast to 15% of the Well groups, and 33% of the controls (these were such things as anoxia, prematurity, prolonged labor). The S's with the pregnancy and birth complications were almost all the ones with the abnormal GSR's.

Mednick interprets these findings as evidence that genetic predisposition from the schizophrenic mother and pregnancy and birth complications interact to produce a schizophrenic. He also suggests that the pregnancy and birth complications damage the body's ability to regulate its stress response mechanisms, and notes that rats with hippocampal lesions parallel the behavior of the subjects who had pregnancy and birth complications.

Mednick generally advocates the use of the "high risk" methodology in social science research; i.e. define a group of high risk subjects, and then design a prevention program, into which half of the high risk subjects could be put. The two groups of high risk subjects could then be compared to evaluate the effectiveness of the preventative programs. This kind of methodology could be used with some of the presently available data on parental and family interactions. For example, if parental restrictiveness is associated with ulcerative colitis in children, couples who interact in highly restricted ways could be followed longitudinally, and their children evaluated. When some children developed the disorder,

they could be compared, and their family interactions could be compared with the high risk children and controls who did not develop the disease. Later, family therapy (and other programs) could be evaluated with respect to their efficiency in reducing the incidence of ulcerative colitis in the high risk children.

The major point, however, is that the descriptive and comparative family interaction research which has been gathering data for the last ten years is not enough. There is an additional need for research which will indicate causal relationships. If one compares different groups of parents, there is practically an infinity of different groups that can be compared, and a large number of variables. Just because significant differences are found, it does not mean that these differences are meaningful or causal. Even when differences are found between groups, these differences need to be cross-validated.

Marital Research

Since the present research is an interactional study, concerned with the effects of different amounts of dominance on the quality of the interaction, the previous research on marital dominance, and the previously completed studies actually observing marital interaction will be most pertinent to the present review. In order to place these topics in some kind of context, however, the present review will take a look at some of the general conclusions reached in marital research over the past 20 or 30 years.

Ryder (1970), divided marital research into two major areas: research which contrasts "happy" or "successful" marriages with their opposites, and research which focuses on marital power. Ryder noted

that there are problems with the orientation which contrasts happy with unhappy marriages, in that it is too gross a distinction by which to evaluate marriages, and in that such research tries to treat such evaluations as descriptive facts. Cuber and Harroff's research (1965) supports Ryder's contention that contrasting successful or happy marriages with their opposites is too gross a comparison. In their study of the marriages of 437 upper-middle-class Americans, they found five major kinds of marital relationships, with successful and unsuccessful marriages within most types. Ryder also noted problems with the research on marital power. It seems almost impossible to determine an answer to such questions as "Who has more power, the husband or wife?" Safilios-Rothschild (1970), in her review of family power structure, indicated that even though there are a large number of studies on family power structure, one would have an impossible task describing the power structure in the American family, unless one were willing to accept the results of just one major study. She further noted that the present data on power structure are based predominantly on wives' answers, and rarely on data from both spouses.

Barry's (1970) Review divides marital research into studies of mate selection, and studies of marital adjustment. Tharp (1963) has written a definitive review of the research in mate selection, which indicates that individuals getting married choose each other on the basis of homogamy (like choosing like), not only for cultural and social variables (race, age, religion, ethnic origin, and social class), but also in regard to personality variables as measured by tests. Even if it is known that like chooses like, the question re-

mains as to how this is accomplished. Barry (1970) points out that there are several theories as to how this is accomplished, but one of the most interesting is one proposed by Coombs (1966). His theory (based on a review of research on interpersonal attraction), is that value consensus fosters mutually rewarding interaction and leads to interpersonal attraction. To test the theory, Coombs sponsored a dance, pairing computer-selected college students of varying degrees of value consensus, and obtained results in the hypothesized direction concerning interpersonal attraction.

In considering the studies of marital adjustment, Barry (1970), like Ryder (1970), also notes problems with defining marital "success". It has been variously defined on the basis of number of years married, on the absence of marital counseling, or on reported or judged happiness. The trouble with the first two standards is that a marriage may be in deep difficulty, and yet not end in divorce, separation, or even at the marriage counselor. Reported happiness is also a problem in that such ratings are subject to halo effects from areas outside the marital relationship itself. In spite of these limitations, Barry feels that the studies of marital adjustment have some value in terms of tentative data, and in terms of developing more sophisticated methodology.

He concludes from these studies that factors pertaining to the husband appear to be crucial to marital success. He writes: "Background factors generally considered to lead to a stable male identity, such as happiness of the husband's parents' marriage and the husband's close attachment to his father, are related to happiness in

marriage. The higher the husband's socioeconomic status and educational level, the greater the marital happiness. The more stable and non-neurotic the husband portrays himself on personality inventories at the time of marriage and the more consistent he is in such self-portrayal over the course of the marriage, the happier the marriage. The higher the wife rates him on emotional maturity as well as on fulfilling his role as husband in conformity to cultural expectations, the happier the marriage. The more the wife comes to resemble her husband on attitude and personality inventories over time, the happier the marriage. It would appear--to generalize a bit--that a solid male identification, established through affectional ties with the father and buttressed by academic and/or occupational success and the esteem of his wife, is strongly related to happiness in marriage for the couple. (p. 47)."

General conclusions then, from the most researched questions in marital relationships are that homogamy is the rule in mate selection, family power structure is still obscure, and that marital success is more related to qualities of the husband than to qualities of the wife.

Research in Marital Dominance

Much of the research which has been completed on marital or family power structure has had serious shortcomings, as has been congently pointed out by Safilios-Rothschild (1970). A good part of the difficulty has been the nature of the question which has been asked. Instead of asking the question, "Who really has the power here?", which is held to be relatively unanswerable (it seems likely that husbands are in charge in some areas, wives in others, and that these areas vary from couple to couple, and probably within each couple over time), the present research

instead asks the question, "What happens to the interaction when one spouse acts in a highly dominant fashion toward the other spouse?". It would seem that answers to the latter question would be less situation specific, than answers to the former, and hence more researchable.

Some studies have sought to determine if aberrant dominance patterns on the part of the parents are associated with offspring deviancy of various sorts, by comparing different groups of parents with each other on measures of dominance. A second type of research has dealt primarily with couples, rather than families, and typically has focused upon how dominance affects marital happiness or stability. Before reviewing these two groups of research, however, it would be pertinent to take a look at dominance itself as an interpersonal variable.

Studies of Dominant Behavior

A substantial number of studies and reviews indicate that dominant behavior is a major category of interpersonal behavior. Hurley (1972), in an extensive review of relevant literature, concluded that there was a strong evidence for two prepotent interpersonal dimensions: Acceptance/Rejection of Others (often labeled affection-hostility), and Self-Acceptance/Rejection (often referred to as a dominance-submission dimension). A number of other reviews of the literature (Adams, 1964; Foa, 1961, and Shaefer, 1959, 1961) have suggested that a large number of studies converge in their findings toward an arrangement of interpersonal behaviors in a circumplex around two orthogonal axes: a dominance-submission axis and a hostility-affection axis. Leary (1957) who used such a circumplex model in his theory of interpersonal behavior (16 interpersonal reflexes arranged around a circumplex), suggested that certain interpersonal behaviors

on the part of one person, tended to "pull" interpersonal behaviors of a specific sort from another person. For example, dominant behavior would tend to "pull" submissive behavior from another person. He wrote, "The facade of power and control provokes others to obedience, deference and respect (p. 315)." However, Leary did go on to say that the nature of the response was altered by the personality of the other person. For example, he noted that two managerial types might generate a power struggle. In general, though, the theory stated that dominance pulled submission, except in special circumstances. The important thing is that Leary's hypotheses are testable. Does dominance pull submission in all relationships or only in some? Does submission pull dominance? Does dominance pull submission in a marital relationship? Leary's hypotheses remain largely unexplored, although there is some research which bears on these questions.

Theories of Dominant Behavior

In addition to the evidence that dominant behavior is a major dimension of behavior, a number of communication theorists have accorded dominance a major place in their theories, either implicitly or explicitly. Haley (1963) argued that each and every communication that one person makes to another contains an element in it which relates to the control of that relationship. The other person, in each response that he makes, has the choice of accepting or rejecting the first person's control maneuver. Also, in any relationship, two people are faced with deciding what kinds of behavior are to take place in the relationship, and with deciding who is to control what is to take place in the relationship and thereby control the definition of the relationship.

Thus, the more one person controls the relationship, the more he is dominant in it. The present study poses the question: What happens when one spouse tries to be highly in control, or highly dominant in the relationship? Haley also argues that when the struggle for control between two people becomes extreme, it may lead to symptom formation.

Watzlawick, Beavin, and Jackson (1967) state that each communication has a report and a command function. The report function conveys information, and is synonymous with the content of the message. The command aspect refers to the relationship between communicants. They further state that relationships are only rarely defined deliberately or with full awareness, and that the healthier a relationship, the more the relationship aspect of communication recedes in importance. On the other hand, less healthy or satisfactory relationships are characterized by a constant struggle about the nature of the relationship, with the content aspect of communication becoming less and less important. Bach and Wyden (1968), while devoting very little space to the concept of dominance in marriages, in their book on how intimates can fight effectively, do mention that all couples must fight, because each person has his own ideas, some of which will conflict with the other person's idea. Each person wants his own ideas to be dominant, and all marital struggles can be reduced to the issue of who or whose ideas are to be dominant in a particular situation.

Definition of Dominance

While the concept of dominance is being discussed, it might be well to provide an indication of how the term is used in the present research.

It is used exactly in the way that Safilios-Rothschild uses the term "influence": "the degree to which formal or informal, overt or covert pressure exerted by the one spouse upon the other is successful in imposing that spouse's point of view about a pending decision, despite initial opposition (p. 540)."

Studies of Parental and Familial Dominance

Interactional studies on parental and familial dominance have yielded inconsistent results. Some studies have shown no differences in dominance patterns between normal and abnormal families, while others have reported that normal families are more equalitarian in their dominance patterns, abnormal families being more authoritarian and yet others have reported the opposite result that normal families are more authoritarian, abnormal families more equalitarian. Comparisons between studies, however, are quite difficult, in that the studies differ from each other in several major respects. First of all, different normal and abnormal groups are compared. For example, one study might compare dominance relationships between normal and schizophrenic families, while another might compare normal and neurotic families, while a third study might compare high-adjusted-offspring families with low-adjusted-offspring families. Secondly, few studies except those reported by the same author have used the same measures of dominance. Thirdly, different interactional tasks have been used to elicit family interaction. Barry (1968), Swain (1969), Smith (1970), and Hofman (1969) have all shown that the nature of the interaction task has a significant effect upon the interaction obtained. Finally, some studies have not controlled for relative participation rates,

which Waxler and Mishler (1970) have shown to produce results of spurious statistical significance.

No differences in dominance have been reported by Caputo (1963), who found no differences in the dominance patterns of parents of schizophrenics and parents of disabled veterans; Farina and Holzberg (1968), who found no difference in dominance patterns between the families of good premorbid schizophrenics, poor premorbid schizophrenics, and nonschizophrenic psychiatrically impaired families; Becker and Iwakami (1969), who found no differences in dominance patterns between nonclinic families and nonpsychotic clinic families, after adjusting for verbal activity; and Hofman (1969), who found no dominance differences between clinic and nonclinic families.

Of the studies reporting equalitarian dominance patterns in normal families and authoritarian dominance patterns in abnormal families, both Farina (1960) and Lerner (1964) found that parents of poor premorbid male schizophrenics were characterized by excessive maternal dominance, parents of good premorbid male schizophrenics by excessive paternal dominance, with controls being intermediate. Haley (1962) found that normal families shared equally in wins, while in schizophrenic child families, the father won most, with the schizophrenic child winning hardly at all. Haley (1964) also reported that normal families participated more equally than abnormal families.

The preponderance of evidence, however, seems to lie with the studies which report at least a moderate trend toward dominance on the part of one parent in normal families, with less dominance noted in abnormal families.

Bachove and Zubaly (1965) found that in nonclinic families, the father was generally the dominant figure. Mishler and Waxler (1968) reported that with respect to "attention control" families with a normal son demonstrated a pattern with the father most powerful, and the son least powerful. In families with a schizophrenic son, mothers and sons took high power with fathers last. With respect to "person control" normal families directly confronted each other to maintain the recognized power structure, while the power structure was less clear in families with schizophrenic sons. MacKenzie (1968), found that clinic mothers were aggressively dominant compared to nonclinic mothers who were friendly dominant. Pienaar (1969) found that parents of high-adjusted children provided more overall dominance, and tended toward paternal dominance, compared to parents of low-adjusted children. Murrell and Stachowiak (1967) found nonclinic families distributed their interaction less evenly than clinic families. Schuhan (1970) reported that normal families had a clearer power structure than clinic families, with the father winning most, the child least. In the clinic families, the child won more than the father.

A family interaction study by Cancian (1971) deserves particular attention, in that its methodology and results are especially relevant to the present research. As with the present study, the major variables of interest were a dominance-submission axis and an affection-hostility axis. Fourteen upper-middle class, two-children families were observed in their homes for 14 hours over several days and their interaction was coded by raters unfamiliar with the study's hypotheses. An interaction was coded into five modes (seek, give, deprive, accept, reject), three

resources (information, support or affection, direction). The initiater and recipient of the act was also recorded. It was hypothesized that the greater the dominance from A to B, the greater the submissiveness would be from B to A; the more the affection was from A to B, the more the affection would be from B to A. These hypotheses are of special interest both because they are tests of Leary's formulations, and because they explore the relationships among the four previously mentioned variables. In contrast, the present study is an attempt to determine whether dominance level is causally related to the other three interpersonal variables. Cancian's study does not show causality, but attempts to determine whether there is an association between affection and affection, and between dominance and submissiveness. Cancian found that for the mother-father dyad, there was a .53 correlation between A to B and B to A dominance, a result opposite to their hypothesis (however, the hypothesis was supported by one mother-child, and for the child-child dyad). Cancian's affection hypothesis was generally supported. Such findings suggest that Leary's idea that dominance pulls submission may be true for unequal status dyads, and may not be true for relatively equal persons, such as marital partners. Cancian's research also deserves note in that it is one of the few studies on family interaction which has broken out of the mold of comparing one group of parents with another group, in order to find interactional differences. Rather, he seeks to find associations among major interaction variables, surely an area which deserves more attention in interactional research. It would also be of interest to explore causal relations among major interactional variables as well as association, and the present research is an attempt in that direction.

Studies of Dominance with Married Couples

In some respects, it is surprising that marital interaction has attracted less attention than family interaction. A dyadic marital system is much simpler to study, it is the initial family relationship, it is usually more stable and enduring than the other family relationships, and it is often the most intimate family relationship. However, one reason family interaction has likely attracted more attention and research, is that the interest seems to have grown out of clinical practice, where it became more and more clear that disturbed children had come from a disturbed family. Thus, the study of the family seems to have grown out of the pressing need to help disturbed children.

Self-report studies. Because of the poverty of research on marital interaction, there are relatively few studies of marital dominance. There are a few studies which show that husbands and wives who say they share decision making in an equalitarian fashion are happier (Jansen, 1952; Blood and Wolfe, 1960; Wolfe, 1962). Also it appears that wife-dominated couples are the most unhappy with marriage (Jansen, 1952; Blood and Wolfe, 1960; Wolfe, 1962). Of course, a problem with the self-report method of determining dominance, is that it does not answer the question of whether couples who say they are equalitarian, really act that way.

Jacobson (1952) found that a discrepancy between spouses; ideas on dominance was associated with divorce. Studying 100 randomly selected divorced couples, and 100 randomly selected married couples by interviews and questionnaires, he found that the divorced males had scores indicating the greatest husband dominance, and divorced females

had scores indicating the strongest equalitarian views. The difference between the mean scores for divorced couples was four times larger than for married couples.

Studying 641 problem marriages presented by one or two spouses at the Marriage Guidance Council in Australia, Krupinski, Marshall, and Yule (1970), found three main dimensions of marital maladjustment: a dominance-submission power struggle, the alienation pole of an affection-alienation dimension, and the avoidance pole of an intimacy-avoidance dimension.

The studies by Jacobson (1952), and Krupinski, Marshall and Yule (1970), suggest that the problems concerning the dominance-submission dimension are of major importance in marriage, and in the dissolution of marriage. Further study could well be directed toward this dimension.

Interaction studies. With respect to interactional studies of marital dominance, Bauman and Roman (1966), using a revealed difference technique (RDT), obtained a split-half reliability for dominance of .54 (statistically significant), and concluded that couples could be reliably characterized as to degree of dominance. Bahr and Rollins (1971) found that the more equalitarian the conjugal power structure in a noncrisis situation, the more likely the relative marital power was to change during a crisis. They concluded that a democratic couple adjusted to a crisis more flexibly than a dominant couple. Comparing 20 alcoholics and their wives with 20 nonalcoholics and their wives, Gorad (1971) found that alcoholics and their wives did not have a dominant-submissive relationship, but were locked in a "one-ups-man-ship" battle, with both spouses highly competitive, and with

the alcoholic's wife accepting responsibility, while her husband avoided it. Control couples did not show such extreme patterns.

An N.I.M.H. project has been in existence over the past several years which has been studying the early stages of family development. A number of published studies document the work of this group which has been following newlywed couples longitudinally (Goodrich, 1968; Goodrich and Boomer, 1963; Goodrich, Ryder, and Raush, 1968; Olson and Ryder, 1970; Raush, Goodrich, and Campbell, 1963; Ryder, 1966; Ryder 1970a; Ryder, 1970b; Ryder and Goodrich, 1966). Much of this research has been descriptions of their data collecting, their techniques for eliciting interaction, and descriptions of the types of newlywed marriage that they have found. As part of this larger project, Barry (1968) studied among other things the expression of dominant behavior in a marital relationship. Barry had 48 white, middle-class newlywed couples role-play in four different conflict situations. The interaction was tape recorded, transcribed, and coded into 36 categories, which was narrowed down to six categories (cognitive acts, resolving the conflict acts, reconciling the relationship acts, appeals, and coercion or personal attack) for the actual data analysis. Barry presents evidence that the coding system was highly reliable, even after a year's lapse between codings. Six-by-six contingency matrices were computed for each individual, and each couple, for each scene and all scenes combined. These contingency matrices tallied the frequencies with which each category was used in response to each category. Barry found that cognitive acts followed cognitive acts; resolving acts followed resolving acts; reconciling acts followed reconciling acts; appeals, and coercion or personal attack followed

rejection; rejection, and coercion or personal attack followed coercion or personal attack. Barry also found that husbands used more resolving and reconciling acts, while wives used more coercion or personal attacks, and more appeals, which he related to previous research which shows that middle-class wives are more dependent and anxious, less self-confident, self-sufficient, and self-accepting. Barry hypothesized that those factors in wives might lead them to be more concerned with winning in conflicts, especially at the newlywed stage, which also is probably a more difficult transitional stage for them than their husbands.

Independent work at N.I.M.H. on all data except Barry's yielded four bi-polar factors and scores on each factor for each couple (Ryder, 1970a). Barry put extreme scores (one standard deviation or more from the mean) on each factor into factor groups and combined the contingency matrices of the individuals of each group. The factor III+ group were six couples who reported trouble with the marriage, and frequent disagreements and whose marriage was negatively evaluated by the interviewers. Wives in this group reported difficulties with their families of origin. Three of the six couples were divorced as of 1968 (the only three marital breakups in the whole sample as of that time.) The most noteworthy thing about the contingency matrices of these couples was the way the husbands exceeded all husbands and their own wives (thus reversing the general sex difference found) in the proportionate use of coercion or personal attack. These husbands were very punitive, especially in response to a coercion or personal attack. Their wives, on the other hand, did not differ much from all wives in

their matrices. In addition, these couples averaged significantly more acts than did all couples, thus indicating a propensity to extended conflicts. Barry related this finding to research which indicates that husband characteristics are more crucial to marital success (than wives' characteristics.)

Seven couples comprised the group at the opposite end of factor III. These couples were characterized by the factor scores as showing great mutual empathy and support, an easy decision process, and a couple rather than individual identification. These couples were found to be polar opposites to the factor III+ group in Barry's interaction situations. Both spouses avoided the relationship-threatening categories (rejection and coercion or personal attack) and were high on resolving and reconciling acts, with both of these things being much more true of husbands than wives. Moreover, they averaged less acts than the average of all couples, thus corroborating the ratings from other data of easy decision process.

Barry found that the eight couples who comprised the factor II- (role-sharing couples) had just as easy a decision process as the III- couples, but, unlike the III- couples, they engaged in heated exchanges which were almost required by Barry's instructions. Goodrich (1968) speculated that the II- couples in contrast to the III- couples might have the greater degree of marital harmony and stability, because of their ability to express hostility constructively.

Barry's research is significant for a number of reasons: First of all, he studied (along with others in the N.I.M.H. project), a

sample of normal couples, instead of comparing couples of differing pathologies. As such, for the first time, normative data on married couple interaction is becoming available. Secondly, through this normative interactional data, beginning attempts at classifying couples through their interaction are being made. With respect to specific findings, it is interesting that Barry's study indicates that dominance is associated with dominance, at least with respect to married couples (in Barry's language coercion or personal attack is associated with coercion or personal attack). Also that when the husband acts in highly dominant (coercive) ways, it is associated with relationship difficulties and even divorce, and in fact appears to be the main factor associated with such difficulties in this small sample of relative newlyweds.

Conclusions about marital dominance. Although there has been little research on marital dominance, that available, suggests that dominance is a major variable which is strongly related to the stability and happiness of marriages. Although it seems clear that dominance is associated with dominance and not submissiveness (in contrast to Leary's formulation) on the following act (Cancian, 1971; Barry, 1968), and with relationship difficulties in the long run, there is no information available as to how different amounts or degrees of dominance affect the quality of the subsequent interaction beyond the act immediately following the highly dominant act, or for how long the quality of the subsequent interaction is altered. The present study

is an attempt to provide some answers to these questions, by experimentally inducing different degrees of dominanting behavior in married couples, and determining how this affects the quality of the subsequent interaction. Although the familial research on dominance has widely differing results, there is some suggestion that moderate amounts of dominance are associated with normal or well-adjusted offspring behavior. For this reason, moderate, as well as high and low dominance levels were included in the present study.

Methodological Considerations

The present study takes into account some of the methodological considerations which have been mentioned in the preceding review, as well as some which have not yet been mentioned.

As it was suggested that the group comparison method has been over-used, the present study randomly sampled couples in married housing at Michigan State University. A "normal" sample was thus obtained, although the sample was drawn from a highly restricted population.

The present study uses a Revealed Differences Technique (RDT), which has been employed in a large number of interaction studies to elicit interaction. The RDT appears to have been successful in generating involved participation from families and couples, but it must be borne in mind that the setting in which the interaction is obtained, the effect of the observer, and the nature of the interactional task itself, have all been demonstrated to have a significant effect on the interaction sample. O'Rourke (1963) found that in the

lab context, there was more disagreement between spouses, more activity, less efficiency at decision making, and less emotionality registered than in the respondents' home. Harris (1969) found that the known presence of an observer in the home affected family interaction rates. Kenkel (1961) found that the sex of the observer greatly influenced the decision making process and affected the observed power structure. When the O was a woman, wives tended to take a more powerful and active role in the decision making. Barry (1968), Swain (1969), Hofman (1969), and Smith (1970) have found that the nature of the interaction task has a significant effect upon the interaction obtained.

Even after a sample of marital interaction is obtained, a decision has to be made on what to attend to in that sample of interaction. At the present time, different investigators have developed a wide variety of interactional measures, and there seems to be little agreement (and little knowledge) on the utility of these different rating systems. What is perhaps needed sometime in the near future, is an omnibus study, where a large number of these rating systems would be applied to a given sample of couples.

Basically, there seems to be three major types of interaction analysis reported in the literature. One is a logical analysis, which generally focuses on distortions and inconsistencies in logical process, such as if a person says one thing, and then disqualifies it shortly after. Sojit (1969 & 1971) and Singer and Wynne (1965a & 1965b) are examples of researchers who have used this type of interactional analysis. A second general type could be called a

structural analysis, which deals with variables such as spontaneous agreement, choice fulfillment, who wins the conflict, the number of interruptions, the amount of time a person spends talking, who speaks to whom. Winter and Ferreira (1969), Farina (1960), and Farina and Holzberg (1968) are examples of researchers who have used this type of analysis. The third type of analysis pays attention to the type of relationship implied in a communication. The relationship analysis has been infrequently used (Crowder, 1972; Cancian, 1971; Barry, 1968; MacKenzie, 1968; Tinker, 1967), although it seems to give a wealth of interpersonal data, and has produced highly interesting results. For example, MacKenzie (1968) found that clinic fathers primarily responded to their wives' hostile dominant behavior with passive hostility and next most often with dominant hostility. Clinic fathers' passive hostility and dominant hostility most frequently elicited active hostility from their wives. When clinic fathers did send dominant friendly behavior, clinic mothers were most likely to respond with dominant hostility. In contrast, nonclinic fathers sending dominant friendly communications elicited friendly dominant or friendly passive behavior from their wives. She also found that both nonclinic and clinic mothers manifested dominant behavior with fathers and sons, but clinic mothers were more dominant than the nonclinic mothers. Also clinic mothers were aggressively dominant while nonclinic mothers were friendly dominant. Tinker (1967) found that by attending to the relationship aspects of communication, families could be ranked accurately from most to least disturbed in their communication patterns,

on the basis of only two to three minutes of interaction. Crowder (1972) used Leary's system to study therapist-client interactions, with reliable and interesting results.

The present study uses a relationship analysis of communication, because of the apparently productive and relevant type of information it provides. The rating system in the present study has been simplified as much as possible, as previous research with relationship analyses has generally started with overly complex rating systems, which had to be simplified to raise interrater reliability, and to provide interpretable results.

The need for causal research, instead of just correlational research, prompted the analysis of variance design of the present study.

METHOD

Subjects

The subjects were 24 married couples who were living in Michigan State University married housing two-bedroom apartments. The fact that they were living in two-bedroom apartments indicated that they had at least one child, and thus were not newlywed couples, but persons who had likely spent at least the better part of a year establishing a marital relationship. Five married housing units were randomly selected from all two-bedroom units, and letters sent to all couples living in each of the five buildings. A copy of the letter requesting participation from each couple is included as Appendix A. Within a few days after receiving the letter, each couple was phoned and encouraged to participate in the study. If the couple agreed, an appointment was arranged. Each couple was paid $15.00 for participating.

In all, 47 letters were sent, with seven couples being dropped from the sample for the following reasons: could not be contacted (2), foreign students (2), divorced or separated (2), married less than one year (1).

Twenty-six couples out of the remaining 40 couples participated, a 65% participation rate. Of the 14 couples who did not participate, the following were the reasons given: moving away within two weeks (eight couples), unwilling (six couples). Since the letters requesting participation were sent out just prior to the end of summer term, it is

possible that eight couples were actually moving.

Of the 26 couples who participated, two were used to train raters. The data from these two couples were not included in the present study, leaving 24 couples who were the actual subjects. With respect to these 24 couples, the average age of the husband was 27; the average age of the wife was 26; the average length of marriage was five years; the average number of children was 1.5, the average number of years of education for the husband was 17.6; for the wife, 14.5. Ninety-six per cent of the husbands were part-time or full-time students, while 75% of the wives were working and were not students. When the couples were randomly assigned to four different groups for the purposes of the study, analyses of variance indicated that there were no significiant differences between the groups on any of the variables contained in the couple correlation matrix (see Table 12).

Procedure

Only one couple at a time participated in the experimental procedure. This consisted of having each spouse individually complete an opinionnaire, a marital adjustment scale, and having them engage in three discussions which were tape recorded. After the couple entered the discussion room, E explained the presence of the tape recorder, and the order of the experimental procedure.

After the initial orientation, E asked the couple to complete an opinionnaire, with the husband completing it in one room, the wife in another. The exact instructions, read to each couple, are given in Appendix B. The opinionnaire consisted of nine lists (see Appendix C).

Each list required four opinions to be given, in order of declining preference. Also, after the spouse had completed the nine lists, he ("he" is used throughout the present section without respect to sex) was required to rank them in order of declining importance to him. Part of these rankings were later used to determine which topics the couple would discuss in each discussion period.

When the opinionnaire had been completed, E randomly assigned the couple to one of four groups, using a table of random numbers: High Dominance (HD), Medium Dominance (MD), Low Dominance (LD), or Control (C). Six couples were assigned to each group. E also selected one spouse from each couple. This "Selected Spouse" would later receive special instructions, if in one of the three experimental groups. E used the topic rankings of the Selected Spouse to determine which topics would be discussed in each of the three discussion periods. The Selected Spouse was randomly selected, again using a table of random numbers, but within the restrictions that three were the husbands and three were the wives, within each of the four groups.

After each spouse from the couple had completed the nine lists, but was still in a separate room from his spouse, E told each of them that the next task would be to compose a joint list. This would be accomplished through discussion with his spouse, on three of the topics they had just completed. E then brought the couple into the room with the tape recorder, started it, and advised the couple he would be in an adjoining room. This first discussion is called Discussion I. When the couple indicated they had completed discussing the three joint

topics by calling E, he asked them to fill out the Family Concept Inventory (FCI), a measure of marital adjustment, again in separate rooms. The FCI is presented in Appendix D.

When each had completed the FCI, E asked the partners to compose joint lists through discussion with each other on three additional topics from the nine lists they had completed previously. Again these instructions were given to each spouse while he was still in the separate room in which he had filled out the FCI. Unknown to his partner, the Selected Spouse was given additional instructions while still in the separate room, for each of the couples that had been assigned to one of the three dominance groups. E asked each Selected Spouse from the HD Group to do his "utmost" to get all four of his individual choices to be the ones on the joint list, for each of the three topics he was to discuss. He asked each Selected Spouse from the MD Group to do his "utmost" to get two of his four individual choices to be the first two on the joint list, for each of the three topics the couple was to discuss. With respect to the LD Group, E asked each Selected Spouse to let his spouse determine the first two most important choices on the joint list for each of the three topics to be discussed. Couples in the C Group received no additional instructions.

After both spouses had completed the FCI and received their particular instructions, E brought them together in the room with the tape recorder, where they interacted to reach agreement on three lists (Discussion II). E then returned, and explained what the procedure had been on the previous discussion period. He then asked the couple to

reach agreement without any special instructions on the final three topics (Discussion III). E asked couples in the C Group merely to interact as before to produce three more joint lists.

When the couple had completed Discussion III, E returned to the room, discussed the reactions of the couple to the experimental procedure, answered their questions, and explained to them the full extent of the research. He asked them not to talk to any of their neighbors about any part or aspect of the research, for if another couple had prior knowledge of the research, he would not be able to use them as subjects. Each couple was also asked if they had heard anything about the research from their neighbors who had already participated, and if so, what (they were assured they would be paid no matter what their answers were). Because no couple reported hearing any significant information from their neighbors, none was eliminated.

In summary, each couple went through the following sequence of events:

1. The marital partners filled out the opinionnaire, each spouse in a separate room. Then the couple was randomly assigned to one of four groups (HD, MD, LD, or C Group).
2. The couple interacted in Discussion I.
3. The marital partners filled out the FCI, each in a separate room. The Selected Spouse was given special instructions for Discussion II, if the couple was in one of the three experimental conditions.
4. The couple interracted in Discussion II.
5. The couple interacted in Discussion III.

The Opinionnaire

There were nine lists of four opinions or preferences that each spouse completed on the opinionnaire (see Appendix C). Each spouse listed his opinions in order of declining preference, on each of the nine topics. When he had completed the nine lists, each spouse ranked the topics from one to nine, in order of declining importance to him. The rankings of the Selected Spouse was used to equalize the intensity of the topics discussed from one discussion period to another. For example, in Discussion I, a particular couple in the HD group would discuss the topics that the Selected Spouse had ranked one, five, and nine; in Discussion II, topics ranked two, six, and seven; and in Discussion III, topics ranked three, four, and eight. Each of these rank sums totals 15. Table I indicates how the topic rankings were distributed within groups and across Discussion periods. Within the dictates of this experimental design, E randomly assigned the couples to each of the different orders within each group. Pilot research with seven couples had indicated that the couples became involved in discussions on these nine topics, and found them interesting.

The Marital Adjustment Measure

The Family Concept Inventory (FCI) was chosen as a quickly administered marital adjustment test, which has reasonable evidence of its reliability and validity. It is a 48 item, five choice (strongly agree-strongly disagree) marital adjustment measure based on Q-sort developed by van der Veen, Huebner, Jorgens, and Neja (1964), who reported significant mean differences between high and low marital

Table 1

Rankings by the Selected Spouse of Topics Discussed within each Discussion Period

Group	Discussion Period		
	I	II	III
High Dominance			
$\underline{N}$ = 2	159	267	348
$\overline{N}$ = 2	267	348	159
$\underline{\overline{N}}$ = 2	348	159	267
Medium Dominance			
$\underline{N}$ = 2	267	348	159
$\overline{N}$ = 2	348	159	267
$\underline{\overline{N}}$ = 2	159	267	348
Low Dominance			
$\underline{N}$ = 2	348	159	267
$\overline{N}$ = 2	159	267	348
$\underline{\overline{N}}$ = 2	267	348	159
Control			
$\underline{N}$ = 2	159	267	348
$\overline{N}$ = 2	267	348	159
$\underline{\overline{N}}$ = 2	348	159	267

adjustment groups, which was further substantiated with another low adjustment group (van der Veen, 1965). Van der Veen et al. (1964, 1965) reported median test-retest reliabilities of .71 and .80. Hofman (1966) administered both the Q-sort and a true-false version of the test to a sample of 50 and reported a correlation of .72 between the two forms and an internal consistency measure of .84 for the true-false version. Palonen (1966) used the five-choice, 48 item form and reported a split-half reliability of .85. The FCI correlated .73 with the Locke-Wallace Marital Adjustment Test (Palonen, 1966) using 40 couples, while the Family Concept True-False version correlated .76 with the Locke-Wallace Test on a sample of 25 couples (Hofman, 1966), and the Family Concept Q-sort correlated .68 (Hofman, 1966) and .67 (van der Veen et al., 1964) with the Locke-Wallace. Hofman (1969) also found that on a sample of 15 clinic and 15 nonclinic couples, that the FCI discriminated between the two groups better than the Locke-Wallace.

Influence Scores

The Influence Scores were computed by comparing the couple's joint list with one spouse's individual list, and scoring one to four points for each choice on the individual list which appeared on the joint list. For each of the nine topics discussed, four, three, two, or one points were scored if the spouse's individual choices were ranked first, second, third, or fourth, respectively on the joint list. Two Influence Scores were computed for each couple, one for the Selected Spouse and one for the Non-selected Spouse.

The Dominance Index

A Dominance Index was also computed for each couple by subtracting the Non-selected Spouse's Influence Score from the Selected Spouse's Influence Score. This gave an Index of Dominance which was based solely on the difference between the two scores. A negative score indicated that the Selected Spouse was the less dominant.

Evaluation of Ability to Carry Out Instructions

Two measures were used to evaluate the Selected Spouse's ability to follow instructions: an analysis of variance for the Influence Scores obtained by the Selected Spouse, and an analysis of variance for the Dominance Index. The Scheffe method (Hays, 1963) was used for post-hoc comparisons.

Both Influence Scores and an Index of Dominance were used because of the different information each provided. The Influence Scores were used to indicate how closely the Selected Spouse was able to come to an ideal score, or range of scores on Discussion II. For the HD group, 30 (4+3+2+1 = 10 points X 3 topics = 30 points) was the ideal score, as the Selected Spouse was asked to try to get all of his individual choices to be the ones on the joint list. For the MD group, 21-30 points was the ideal as the Selected Spouse was instructed to try to get two of his individual choices to be the first two on the joint list (4+3 = 7 points X 3 topics = 21 points). Zero to nine points was the ideal range for the LD group, as the Selected Spouse was asked to allow the other spouse to determine the first two choices on the joint list (1+2 = 3 points X 3 topics = 9 points). The Index of Dominance, on

the other hand, indicated how much the couple's dominance pattern was changed by the Selected Spouse's responding to the instructions in Discussion II. For example, in the HD group, if the less dominant spouse (as determined by the Influence Score in Discussion I) were the Selected Spouse, and managed to become much more dominant in Discussion II, to cut down on the other's dominance, but not come close to 30 points, this increase in relative dominance would be reflected in the Dominance Index scores.

Evaluation of the Nature of the Interaction

In order to evaluate the nature of each couple's interaction, a three-minute segment was selected from the middle of each of the three discussion periods. Thus, a total of nine minutes of interaction was rated for each couple. This small amount of interaction was judged sufficient, both from the pilot research, and from previous evidence (Tinker, 1967), that small amounts (two to four minutes) of interaction which have been minutely analyzed furnish sufficient information for accurate global judgments.

Each "speech" was rated as to whether it was high, medium or low in four categories: Negative-hostile, Positive-affectionate, Dominant, and Submissive. Terrill and Terrill's (1965) definition of a "Speech" was followed:

"A scorable speech consists of a relatively continuous utterance by an individual which is either uninterrupted, or if interrupted, apparently uninfluenced by the interruption. In this definition, the term 'relatively continuous' refers to situations where a person begins a

sentence of a train of thought, is briefly interrupted, but continues with the same sentence of thought as if he had not heard the interruption (p. 264).

Also, if the speaker changed topics without pausing, a separate speech was scored each time the topic was changed, because changing topics often implied a change in the relationship.

The criteria for rating the speeches are listed below. Some categories have several statements, only one of which is necessary for a speech to be rated in that category.

Negative-hostile

High: Angry shouting. Strong condemnation of other. Disparagement. Disagreement with negative vocal inflection.

Medium: Disagreement without negative vocal inflection. Negative tone in voice without disagreement.

Low: No negative tone. Can't tell.

Positive-affectionate

High: Direct positive comment. Friendly laughing. Agreement with positive vocal inflection.

Medium: Agreement without positive vocal inflection. Affectionate tone, not related to agreement.

Low: No positive tone. Can't tell.

Dominant

High: Firm, spirited vocal emphasis on own point of view. No concession. Demanding other person change.

Medium: Expression of own point of view, respecting other. Asks question.

Low: Clarifies the other's point of view. No dominance expressed. Can't tell.

Submissive

High: Acquiesces to other (a terminal act).

Medium: Yes, but... Answers question. Asks clarification from other. Disparages own view in favor of other's.

Low: No submissiveness expressed. Can't tell.

The scale used in the present research are modifications of the scales developed by Terrill and Terrill (1965). Their scales were modified on the basis of previous research (Tinker, 1967), and on the basis of pilot work for the present study. The present scales differ from Terrill and Terrill's scales, in three important respects: Firstly, they are greatly simplified. Secondly, they contain a measure of intensity. Thirdly, they allow speeches to be rated independently with respect to the four main categories. The present scales permit a given speech to be rated as both medium Hostile and medium Affectionate, or as both medium Dominant and Submissive, for example. This feature helped to deal with some of the conflicting elements within a speech. For example, if a spouse answered his partner's question, at the same time expressing his own opinion, should that be rated dominant, because he was expressing his own opinion, or submissive, because he was answering his partner's question? The present scales made it possible to rate it as both medium Dominant and medium Submissive.

In pilot research, two raters independently rated seven couples' interaction on the above scales (these couples were not used in the results of the present study). A total of 23 minutes of interaction was

rated, approximately three to four minutes of interaction per couple. Using a speech-by-speech comparison of ratings for establishing interrater agreement, it was found that the two raters had an overall agreement rate of 83%. If one rater rated speech number one as high in Dominance, high in Hostility, medium in Submissiveness, and low in Affection, and the other rater rated the speech the same, except medium in Affection, it would be scored as three agreements and one disagreement. It can be seen that the speech-by-speech comparison is a considerably more stringent measure of establishing interrater reliability, than the method of comparing how many speeches each rater scored high Dominant, medium Dominant, and so on. With the present method of determining interrater reliability, the overall agreement rate of 83% seemed to be an acceptable level of agreement. It was much superior to the 40% average agreement previously reported with Terrill and Terrill's scales (Tinker, 1967). Only one main rater E was used in the present research, with a second rater rating every sixth couple as a reliability check on the main rater. The main rater scored the tapes blindly. He had not previously heard the taped discussions, and did not know to which experimental group the couple had been assigned. Each couple was identified by a randomly assigned letter of the alphabet. E rated the couples in alphabetical order.

The rated speeches were compared statistically by the use of analyses of variance. Analysis of covariance would have been possible if the particular dependent variable had been linearly correlated with marital adjustment scores on the FCI. In the present study no significant correlations appeared (see Tables 11 and 12), with analyses of variance

consequently being the statistic employed. The form of the analyses of variance was that of a three-factor analysis with repeated measures, with sex nested within each group (Winer, 1962). The Scheffe method for post-hoc comparisons was used for individual comparisons. Twelve separate analyses concerned the number of speeches labeled: (1) high Negative-hostile, (2) high Positive-affectionate, (3) high Dominant, (4) high Submissive, (5) medium Negative-hostile, (6) medium Positive-affectionate, (7) medium Dominant, (8) medium Submissive, (9) total (high plus medium) number of speeches labeled Negative-hostile, (10) total number of speeches labeled Positive-affectionate, (11) Dominant, (12) Submissive. The "low" categories were of the wastebasket variety, used when the speech could not definitely be rated high or medium, so no analyses of variance were made of that data. Table 2 indicates the relative usage of the different categories.

Evaluation of the Clarity of the Interaction

Each of the three-minute periods of interaction, which had been selected from each of the three discussion periods, was given a global rating on a four part clarity scale:

1. All speeches are clear in meaning.
2. Most speeches are clear in meaning.
3. Some speeches are clear in meaning, most are not.
4. All speeches are unclear in meaning.

The statistical analysis here was a two-way analysis of variance. Again, the Scheffe method was used for individual comparisons where appropriate.

TABLE 2

Relative Usage of the Speech Categories

Category	Low	Medium	High	Total
Negative-Hostile	1429	426	49	1904
Positive-Affectionate	1466	411	27	1904
Submissive	1202	537	165	1904
Dominant	45	1668	191	1904
Total	4142	3042	432	7616+

+7616 ratings were made on 1904 speeches (4 ratings for each speech)

In the pilot research, the two raters made these ratings on seven different couples for a total of 23 minutes. Twenty-three different ratings of clarity were made by each rater. The raters were in exact agreement 83% of the time, and on 17% of the ratings they had one-step errors. Since this degree of interrater agreement was comparable to that for the interaction categories, it was decided again to use one main rater in the actual research, with a second rater checking reliability by rating every sixth couple on the clarity categories.

Evaluation of the Ability to Reach Agreement

The length of time in minutes that was required for a couple to reach agreement on a joint list was used as the measure of ability to reach agreement. Again, a two-way analysis of variance was the statistic used, with the Scheffe method used for post-hoc comparisons.

The Correlational Analyses

The data from Discussion I, prior to any instruction as to how the couples should interact, are presented in two intercorrelational matrices. One matrix was based on individual data, and one from couple data. It could be determined whether there were similarities between the significant relationships from the experimental manipulations, and the significant relationships from the correlations. It could be argued that the experimental manipulations created an artificial situation, in that forcing one spouse to be highly dominant would have negative effects on the couple's communication, which would not be found in a couple where one spouse was naturally highly dominant, or that it was the disruption of normal communication patterns which produced the significant findings. An intercorrelation matrix showing for example, what variables were

correlated with the number of high dominant speeches would help resolve this problem. If there were correspondences between the analyses of variance and the correlations, it would buttress the experimental findings, indicating that they were not due to an unnatural situation. If there were no correspondence between the analysis of variance and the correlations, it would call into question the validity of the experimental findings. Two intercorrelation matrices were completed in order to be able to compare the effects of individual dominance with dominance expressed bilaterally by both members of the couple.

No correlational analysis was completed on Discussions II or III, because of the likelihood that the special instructions (in Discussion II), or residual effects from the instructions (in Discussion III), distorted the interaction patterns of the couples. The information sought from the correlations pertained to whether the same relationships would appear in the correlations when the couples were interacting "naturally" in Discussion I, as appeared through the experimental manipulations.

Individual correlations. The following variables were included in the individual correlation matrix:

1. Number of speeches labeled high Negative-hostile (HNH)
2. Number of speeches labeled medium Negative-hostile (MNH)
3. Total number of speeches labeled Negative-hostile (TNH)
4. Number of speeches labeled high Positive-affectionate (HPA)
5. Number of speeches labeled medium Positive-affectionate (MPA)
6. Total number of speeches labeled Positive-affectionate (TPA)

7. Number of speeches labeled high Dominant (HD)
8. Number of speeches labeled medium Dominant (MD)
9. Total number of speeches labeled Dominant (TD)
10. Number of speeches labeled high Submissive (HS)
11. Number of speeches labeled medium Submissive (MS)
12. Total number of speeches labeled Submissive (TS)
13. Sex
14. Age
15. Education (Ed)

Couple Correlations. In addition to variables 1-12 of the individual correlation matrix, the couple correlation matrix included the following:

13. Average Age (Age)
14. Average education (Ed)
15. Education discrepancy between husband and wife (EdD)
16. Number of children (# Chdrn)
17. Child Density (CD)
18. Degree of Dominance ($^{\circ}$Dom)
19. Husband (+) or wife (-) dominance (H or W Dom)
20. Spontaneous agreement (SA)
21. Clarity
22. Time
23. Choice of fulfillment (CF)
24. FCI total

It should be kept in mind that variables 1-12 on the couple correlation matrix are total number of speeches for the couple, and not the individual

RESULTS

Interrater Reliability

E rated the tapes, with a second rater rating every sixth couple as a reliability check. Both raters thus rated the interaction of four couples. They rated one, three-minute segment of interaction taken from the middle of each of the three discussion periods, for each couple. In this way, 905 ratings of speeches were independently made by both raters, with agreement on 806 ratings, and disagreement on 99 ratings. This is an 89.1% agreement rate, comparable to the 83% agreement rate obtained in pilot research. It suggests that the couples continued to be rated in a reliable fashion throughout the rating process. Table 3 which indicates the results of the rating process for each of the four couples, provides further evidence that the rating process remained stable and reliable, despite the stringency of the speech-by-speech method of comparison. No decline in reliability is evident over the ratings of the four couples.

With respect to the interrater reliability on ratings of the clarity of interaction, each rater made one rating for each segment of interaction. As there were three segments of interaction for each of the four couples, a total of twelve clarity ratings were made by both raters. The raters agreed on eleven of the twelve ratings, for 91.7% agreement. Only one disagreement, a one-step discrepancy, occurred on this four category scale.

Evaluation of Ability to Carry Out Instructions

Influence Scores of the Selected Spouse

The mean Influence Scores for the Selected Spouses are presented in Table 4. Significant differences between means are designated by letter

Table 3

Interrater Reliability for Four Couples

Couple	Number of Ratings			% of Ratings	
	Agree	Disagree	Total	% Agree	% Disagree
F	253	27	280	90.4	9.6
L	212	33	245	86.5	13.5
R	198	18	216	91.7	8.3
X	143	21	164	87.2	12.8
Total	806	99	905	89.1	10.9

superscripts. For example, the two means with an "a" superscript are significantly different from each other, the two numbers with a "b" superscript are significantly different, and so on. The analysis of variance and post-hoc comparisons indicate that the HD and MD groups are significantly higher than the LD group on the Influence Scores for Discussion II. The Selected Spouses in the HD and MD groups increased their Influence Scores (but not significantly over the C group) and the Selected Spouses in the LD group decreased their Influence Scores (but not significantly under the Control group), although sufficiently that the HD and MD groups differed significantly from the LD group. Examination of Table 4 reveals that the Selected Spouses in the HD group were unable to score at 30 on Discussion II as desired, and the Selected Spouses in the LD group were unable to score close to the nine point mark or less as desired. However, the Selected Spouses in the MD group did obtain a score in the desired range between 21 and 30 points.

Dominance Index Scores

The Dominance Index scores, presented in Table 5, indicate that the Selected Spouses were partially able to carry out the instruction. In fact, the MD group seems to have been completely able to carry out its instructions, in that its Dominance Index scores were significantly greater than those of the C and LD groups for Discussion II. Further, the MD Selected Spouses significantly increased their Dominance Index scores from the first to the second discussion period. Also, in Discussion II, the HD and LD groups were significantly different from

TABLE 4

Mean Influence Scores of the Selected Spouses

Group	Discussion Period		
	I	II	III
HD	16.17	21.67[a,c]	14.72[c]
MD	16.67	22.00[b]	17.17
LD	17.50	13.17[a,b]	14.50
C	17.33	15.83	18.83

a-a $p < .05$

b-b $p < .05$

c-c $p < .05$

TABLE 5

Dominance Index Scores (Totals)

Group	Discussion Period		
	I	II	III
HD	-7	44[a]	-12
MD	-9[d]	52[b,c,d]	5
LD	11[e]	-68[a,b,e,f]	-9[f]
C	-10	-17[c]	-8

a-a $p < .05$

b-b $p < .05$

c-c $p < .05$

d-d $p < .05$

e-e $p < .05$

f-f $p < .05$

each other, but not from the C group, indicating that the Selected Spouse had been influential in the expected direction, but not strongly enough to obtain significance over the C group. However, in Discussion II, the Selected Spouses in the LD group significantly reduced their Dominance Index scores under the first and third discussion periods. This finding suggests that the LD group had moderate success in carrying out their instructions on Discussion II.

In general, the Influence Scores and the Dominance Index scores indicated that the experimental groups were at least partially successful in carrying out the instructions for Discussion II. Presumably, if they had been completely successful, greater differences would have been found on the dependent variables. Therefore, differences manifested between the groups on the dependent variables, were observed under less than optimal conditions. The limited impact of these instructions may also have obscured other differences.

Evaluation of the Effects of Different Amounts of Dominance upon the Dependent Variables

The effect of the independent variable (amount of dominance: high, medium, and low) was measured upon six main dependent variables:

1. Number of speeches labeled Negative-Hostile (N-H)
2. Number of speeches labeled Dominant (D)
3. Number of speeches labeled Submissive (S)
4. Number of speeches labeled Positive-Affectionate (P-A)
5. The clarity of the interaction
6. The amount of time in minutes needed to reach agreement

Within the category N-H, three separate analyses of variance were completed: (1) the number of speeches labeled high N-H, (2) the number of speeches labeled medium N-H, and (3) the total number of speeches labeled N-H, obtained by summing the high and medium categories. As mentioned previously, no analyses were completed for speeches classified low (all speeches which could not be rated high or medium). The same procedure was followed for the number of speeches labeled Dominant, Submissive, and Positive-Affectionate, with three separate analyses of variance completed for each main category. The summary tables for all analyses of variance are presented in Appendix E. The design of the analyses for the speech ratings, was a three-factor analysis with repeated measures (four groups X three discussions X two sexes), with sex nested within each group. Two-factor analyses of variance were used (group X discussion) for the clarity ratings, and for the Time Needed to Reach Agreement. The Scheffe method for post-hoc comparisons was used in all cases for individual comparisons.

Speeches Labeled Negative-Hostile

There were significant differences among the four groups, with respect to speeches labeled medium N-H, as indicated in Table 6. The HD group had significantly more of these speeches than the LD group in Discussion II. This finding indicates that the HD condition increased the number of medium N-H speeches (but not significantly over the C group), and the LD condition decreased the number of these speeches (but not significantly under the C group), but enough that the HD and LD groups differed significantly from each other. It was also found that the HD group decreased in the number of medium N-H

TABLE 6

Total Number of Speeches Labeled Medium N-H

Group	Discussion Period			
	I	II	III	Grand Total
HD	47	58[a,b]	27[b]	132[c]
MD	37	27	21	85
LD	33	15[a]	30	78[c]
C	51	28	52	131

a-a
$p < .05$
b-b
$p < .05$
c-c
$p < .05$

speeches, from Discussion II to Discussion III. Further, the HD group had more of these speeches than the LD group. While this finding is statistically significant, it is not really meaningful as the Group X Discussion interaction revealed that all the significant differences among the groups occurred on the second discussion period. This overall difference among the groups indicates only that the differences on Discussion II were large enough to retain significance across all three discussion periods.

With respect to the total number of speeches labeled N-H, again, the interaction of Group X Discussion was significant, with the HD group having significantly more total N-H speeches than the MD and LD groups in Dicusssion II. It is interesting that even though the N-H speeches were significantly increased by the HD group (over the MD and LD groups, but not over the C group), there was not increased dominance over the MD group as measured by the Influence Scores or Dominance Index, or by the number of dominant speeches (as will be shown later). This suggests that although the HD Selected Spouses may have tried to be highly dominant, their efforts did not result in greater dominance, but rather in increased hostility in their interaction. It also suggests that a spouse cannot be increasingly dominant unless the other spouse allows it; otherwise it will result in increased friction, but not increased dominance. This interpretation is somewhat further supported by the increase in dominance of the MD group over the C group (as measured by the Dominance Index scores), while the MD group did not increase the number of N-H speeches. It

TABLE 7

Total Number of Speeches Labeled N-H (High plus Medium)

	Discussion Period			
Group	I	II	III	Grand Total
HD	50	68[a,b,c]	29[c]	147
MD	42	29[a]	22[d]	93
LD	34	16[b]	31	81[e]
C	57	33	64[d]	154[e]

a-a $p < .05$

b-b $p < .05$

c-c $p < .05$

d-d $p < .05$

e-e $p < .05$

appeared that a spouse of either sex would allow moderate dominance by the other spouse, without an increment in hostile interaction, but that higher amounts of spouse dominance generated increased hostility rather than more dominance. Further attention will be given this issue in the Discussion section.

In the Group X Discussion Interaction, it was also found that the HD group decreased significantly in total N-H speeches from the second to the third discussion period suggesting that the increased hostility was rather transitory. Further, the C group had significantly more total N-H speeches in Discussion III than the MD group. This finding does not seem interpretable. Finally, the C group had significantly more total N-H speeches than the LD group, probably because of the low initial incidence of such speeches in the LD group, plus the Discussion II decline in these speeches within the LD group.

On speeches labeled high N-H, there were no significant F ratios, indicating that the amount of dominance had no effect on the number of high N-H speeches.

Speeches Labeled Dominant

There were some significant F ratios on the total number of Dominant speeches, as indicated in Table 8. First of all, the Group X Discussion interaction was significant, with the C group having significantly more total dominant speeches than the MD group and the LD group in Discussion II. This finding is despite the fact that the MD group actually became more dominant in Discussion II (i.e. more dominant than the C or LD groups, and more dominant than itself in Discussion I, as measured by the Dominance Index scores). It poses an

TABLE 8

Total Number of Speeches Labeled Dominant

Group	Discussion Period			
	I	II	III	Grand Total
HD	172	148	155	475
MD	162	128[a]	129	419
LD	163	134[b]	166	463
C	165	179[a,b]	158	502
Total				1859

a-a
$p < .05$

b-b
$p < .05$

interesting and perplexing problem: If the number of speeches labeled dominant does not reflect the actual amount of dominance which was occurring in the interaction, what interactional measure would? And why doesn't the number of speeches labeled dominant reflect the actual amount of dominance going on? These questions will be dealt with in the Discussion.

Also with respect to total dominant speeches, there was a significant Group X Sex Interaction in which C group males had more of these speeches than MD group females. This does not seem to be meaningful.

For speeches labeled high Dominant and speeches labeled medium Dominant, there were no significant F ratios, indicating that the amount of dominance did not affect the number of speeches that were labeled high Dominant or medium Dominant.

Speeches Labeled Submissive

While there were a number of findings that were statistically significant, generally the number of speeches labeled submissive was not affected by the independent variable.

With respect to speeches labeled high Submissive, the wives had more speeches labeled high Submissive than the husbands, which corresponds to a cultural stereotype. While the Group X Discussion Interaction was significant, it was not meaningful: The MD group in the first discussion period had more high Submissive speeches than the C group in the third discussion period.

On speeches labeled medium Submissive, the number significantly declined from Discussion I to Discussion II, and while there was a further decline from the second to the third period, it was not

significant. At any rate, it was apparent that the groups were less submissive on Discussion II and III than they were on Discussion I. Also the groups differed across the three discussion periods on these speeches with the C group having significantly more of them than the HD group.

Examination of Table 9 indicates that with respect to the total number of speeches labeled Submissive, the C group significantly exceeded the HD group. This finding does not appear to be a result of the experimental manipulations, as the C group initially started off at a higher level. For example, the C wives made more total Submissive speeches than the HD wives in the first discussion period (not shown on Table 9).

The wives in toto made more submissive speeches than the husbands. Again this fits in with commonly accepted cultural norms that wives are more submissive, and supports the validity of the submissive classification. Further, the groups had less Submissive speeches on Discussion III than on Discussion I. While there was a general decline from Discussions I to II to III, only the I-III difference was significant. The groups generally became less submissive the longer they interacted, which could suggest a facade which wore off, or increasing fatigue as the experiment wore on. There was also a three-way interaction, which indicated that on Discussion I, the C wives gave more submissive speeches than the HD wives. The C and HD husbands differed in the same direction on Discussion I, but not significantly so. Further the C wives had significantly less submissive speeches on Discussion III than on Discussions I and II.

TABLE 9

Total Number of Speeches Labeled Submissive

	Sex		
Group	Husband	Wife	Total
HD	70	71	141[a]
MD	84	94	178
LD	68	95	163
C	91	129	220[a]
Total	313[b]	389[b]	702

a-a $p < .05$

b-b $p < .05$

Speeches Labeled Positive-Affectionate

Generally, the number of speeches labeled Positive-affectionate was not affected by the independent variable. With respect to the total number of speeches labeled P-A, the wives had a higher number than the husbands, as indicated by Table 10. Generally speaking then, the wives were more submissive and Positive-affectionate in their discussions than their husbands. This finding seems to fit with cultural stereotypes, and suggests further face validity for the scales. For speeches labeled high P-A, the Sex X Discussion Interaction was significant: wives in Discussion III had more high P-A speeches than husbands in Discussion I. The significant effects for speeches labeled medium P-A were that the LD group had more speeches labeled P-A than the C group, and the wives had more medium P-A speeches than the husbands.

Clarity of the Interaction

Clarity was not influenced by the independent variable.

Time Needed to Reach Agreement

The amount of time needed to reach agreement was not influenced by the independent variable.

Summary of Major Findings from the Analyses of Variance

1. The experimental groups were partially, but not completely, able to follow the dominance instructions. This partial success may have obscured or diminished differences between groups.

2. Only N-H speeches were affected by the independent variable. Spouses of either sex allowed a moderate increase (MD group) in partner dominance

TABLE 10

Total Number of Speeches Labeled Positive-affectionate

	Sex		
Group	Husband	Wife	Total
HD	49	58	107
MD	46	54	100
LD	56	87	143[a]
C	39	49	88[a]
Total	190[b]	248[b]	438

a-a $p < .05$

b-b $p < .05$

without an increase in N-H speeches, but when the Selected Spouse was instructed to greatly increase (HD group) the amount of dominance, an increased number of N-H speeches, but not greater dominance, was observed. This indicates that in couples where one spouse is not normally highly dominant, attempted high dominance had a negative-hostile effect on the interaction. An examination of the intercorrelation matrices later on in the Results section will show whether this same conclusion was true with couples where one member was naturally highly dominant.

3. The number of speeches classified Dominant did not reflect the actual amount of dominance going on (as measured by the Dominance Index scores). Assuming the validity of the Dominance Index, the actual dominance must have been expressed through some means other than by those speeches classified as high or medium dominant.

4. The wives were more submissive and Positive-affectionate than the husbands.

5. The quality of the interaction changed over the three disussion periods, with both spouses gradually becoming less submissive.

6. Clarity and Time needed to reach agreement were not influenced by the independent variable.

The Correlational Analysis

The information sought from the correlations pertained to whether the same relationships would appear in correlations when the couples were interacting "naturally" in Discussion I, as appeared through the experimental manipulations. The reader is referred to p. 48 for a complete listing of the variables contained in the intercorrelation matrices.

Individual Correlations

In Table 11, the expected correlations between speeches labeled high, medium, and total Dominant (for example) were bracketed by a dashed line. This was done for each of the four major speech categories. Further, as most of the significant correlations were related to speeches labeled high and medium Dominant, these two categories were enclosed by solid lines. The same procedure was followed in Table 12, for the couple correlations.

As Table 11 reveals, the number of high Dominant speeches correlated significantly with the number of Negative-hostile speeches. Specifically, the number of high Dominant speeches correlated significantly with the number of high N-H speeches, the number of medium N-H speeches, and the total number of N-H speeches. These findings correspond to the experimental finding that the HD group had more medium and total N-H speeches than the MD and LD groups, in Discussion II.

It was also found that the number of medium Dominant speeches was significantly correlated with the number of P-A speeches. More specifically, the number of medium Dominant speeches was significantly correlated with the number of medium P-A speeches, and the total number of P-A speeches. The fact the high Dominant speeches correlated significantly with N-H speeches, but medium Dominant did not, exactly parallels the findings from the analyses of variance, where the HD group had more high N-H speeches than the MD group in Discussion II. However, unlike the correlational analysis, the experimental analysis did not find a relationship between medium Dominant and P-A speeches.

TABLE 11

Product-Moment Correlations Among All Individuals (N = 48)[+]

		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	HNH	35	58*	-11	-14	-16	48*	03	26	-20	01	-07	03	-06	-10	26
2.	MNH		97*	04	-14	-12	58*	03	31	-06	24	18	02	-18	-05	23
3.	TNH			00	-16	-15	64*	03	34	-11	21	14	02	-18	-07	28
4.	HPA				17	40*	08	23*	26	19*	-16	-07	-09	10	00	-05
5.	MPA					97*	-31	49*	31	51*	-02	18	-23	16	-14	10
6.	TPA						-27	51*	35	52*	-06	16	-24	17	-13	08
7.	HD							-13	36*	-13	23	14	10	-10	06	29
8.	MD								88*	32	11	22	05	-06	05	01
9.	TD									23	21	28*	09	-10	08	15
10.	HS										13	52*	-32	-03	-28	08
11.	TS											92*	-10	-09	-08	34
12.	MS												-21	-09	-18*	32
13.	SEX													06	63*	-12
14.	AGE														28	25
15.	EDUCATION															02
16.	FCI															

[+]All decimal points omitted

*$p < .01$ using the two-tailed test

It was also found on the correlational analysis that the number of high Submissive speeches correlated significantly with the number of P-A speeches (medium and total), and sex (male) correlated significantly with education. An unexpected finding was that the number of N-H speeches (high, medium, and total) correlated positively (but nonsignificantly) with FCI scores.

Couple Correlations

Examination of Table 12 indicates that the number of high N-H speeches correlated signficantly with the degree of dominance (irrespective of whether it was husband or wife dominance). Degree of dominance differs from the number of speeches labeled Dominant, in that the degree of dominance is based upon the Dominance Index scores. The finding that the greater the degree of dominance, the greater the number of high N-H speeches, buttresses the finding that high dominance has a negative-hostile effect on the interaction within a relationship. Similarly, it was found that the number of high Dominant speeches correlated significantly with N-H (high, medium, and total) speeches, which further supports the individual correlation findings as well as the analyses of variance findings.

The number of medium Dominant speeches correlated significantly with the number of P-A speeches (medium and total). This supports the idea that positive affect tends to be associated with speeches of moderate, but not high dominance, and supports the same finding on the individual correlations. In contrast to the individual correlations,

TABLE 12

Product-Moment Correlations Among All Couples (N = 24)[+]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. HNH		64	75*	08	-10	-08	70*	24	50	02	10	09	-13	-20	28	-12	-19	52*	08	00	03	-01	11	28
2. MNH			99*	-12	-31	-32	79*	01	33	-06	25	21	-21	-06	29	-14	-18	17	17	21	30	-23	09	24
3. TNH				-09	-28	-29	82*	06	38	-05	24	20	-21	-09	31	-14	-20	25	16	18	26	-20	10	26
4. HPA					06	32*	-06	19*	15	22	-30	-20	17	18	02	07	-18	-03	-23	23	08	-18	07	-06
5. MPA						96*	-25	69*	53*	23	-02	05	31	51*	12	35	-30	-20	-10	05	-50	09	03	07
6. TPA							-25	71*	54*	27	-10	00	34	53*	12	35	-33	-19	-15	11	-45	04	05	05
7. HD								01	42*	17	32	34	-14	-14	18	-25	-28	11	-10	11	22	-25	-06	41
8. MD									91*	33	20	28	02	24	03	-01	-30	01	-03	12	-26	-26	32	18
9. TD										37	31	39	-07	16	10	-11	-38	05	-06	15	-15	-34	27	33
10. HS											18	47*	-02	11	-03	-04	-28	-10	-12	08	-04	-31	19	06
11. MS												95*	-10	05	22	-33	-36	01	22	33	-25	-35	23	36
12. IS													-10	08	19	-30*	-41	-03	16	32	-23	-41	26*	34
13. AGE														39	12	72	-42	08	-14	-03	-07	26	-52*	27
14. EDUCATION															26	42	-40	-16	-03	25	-27	10	-10	30
15. EDUCATION DISCREPANCY																08	-48	04	51	07	-21	-13	23	09
16. # CHILDREN																	02	12	-20	11	-11	28	-28	02
17. C.D.																		09	-05	10	08	10	19	-35
18. °DOM.																			-09	03	-08	02	25	10
19. H or W DOM.																				-20	-02	15	06	15
20. S.A.																					-19	-28	46	01
21. CLARITY																						-35	-25*	-14
22. TIME																							-52*	08
23. CF																								-15
24. FCI																								

[+]All decimal points omitted.

*$p < .01$ using the two-tailed test.

total number of Dominant speeches correlated with the number of P-A speeches (medium and total) on the couple correlations.

Other findings were that amount of education was significantly associated with the total number of P-A speeches; choice fulfillment was negatively correlated with time and age; and age was significantly related to number of children. Again, surprisingly, N-H speeches (high, medium, and total) correlated positively (but not significantly) with FCI scores.

The correlational matrices indicate that high dominance is quite different from medium dominance in two major ways: the number of HD speeches correlated with the number of N-H speeches (high, medium, and total) while the number of MD speeches did not. On the other hand, the number of MD speeches correlated positively and significantly with the number of P-A speeches, (medium and total), while the number of HD speeches correlated negatively (but not significantly) with these speeches.

DISCUSSION

Major Findings

As no prior factorially-designed investigation of married couples' interaction is known to the author, one major question facing the present research was whether such an experimental design would be feasible, in terms of getting the couples to modify their interaction patterns to suit the experimental conditions. A second major question was even if the couples could modify their patterns, would these new interactions be at all similar to normally-occurring patterns under non-experimental conditions. The answers to both of these questions appears to be a qualified "yes": the couples were able to modify their interaction patterns within limits and were partially able to carry out the instructions. Also the correspondences between the analyses of variance and the correlations suggest that the experimental results are at least partly similar to more normally-occurring interactions.

The Issue of Causality

The main advantage of using such a factorial design, in studying marital relationships or interpersonal relationships more generally, is that causal linkages can be identified. To date only two researchers, Barry (1968) and Cancian (1971), have investigated causal relationships in interactional behavior between marital partners. A review of the literature indicates that there are many studies of marital and family interaction which demonstrate statistical relationships, but it would be hazardous to infer causality from them. However, it is very tempting to

do so, and it is obvious that many mental health professionals do attribute causality to many of these relationships. To remedy this situation, more studies of causal relationships are needed. The present study is a step in this direction. Perhaps the major overall finding of the present study is that such a factorial study, indicating causal relationships, is feasible with married couples.

The Dominance-Hostility Relationship

The major finding was that only Negative-hostile speeches were affected by the level of dominance. A high level of attempted dominance caused an increase in N-H speeches (medium and total), while a moderate level of attempted dominance generated no similar increase in N-H speeches, even though the Selected Spouses were successful in increasing their dominance over their spouse. In fact, the HD Selected Spouses were no more successful in increasing their dominance than were the MD Selected Spouses.

The present study found that a moderate increase in dominance by one spouse was allowed by the other, but that a greater increase was not allowed, and instead, resulted in greater hostility (increased N-H speeches). This lends experimental support to the clinical notion that a dominant-submissive marital dyad consists of two willing partners. If one partner is willing to be dominant and the other is willing to be submissive, it is difficult to say that one is taking advantage of the other, or that one is controlling the other more than the other way around. The present results suggest that if one spouse feels that the other is trying to become too dominant, he will resist the other's dominating attempts, with

increase hostility resulting. At least, that is the indication for the short run. In the longer run, Barry's research (1968) indicates that marriages where the husband is highly dominant (coercive) tend to have much reported trouble, many disagreements, to be negatively evaluated by trained observers, and tend to end in early divorce.

A result from the correlations supports the analysis of variance finding that high attempted dominance caused an increase in N-H speeches. In both the individual and couple correlation matrices it was found that the number of HD speeches was significantly correlated with the number of N-H speeches (high, medium, and total). Further, the correlations indicated that the greater the degree of dominance of one spouse over the other, the greater the number of high N-H speeches. It is rather exciting to find such close correspondence between the two different analyses, both of which demonstrate a relationship between high dominance and hostility. To generalize from the analysis of variance finding: high dominance causes hostility.

The analysis of variance shows causality; the correlations do not. However, the causality demonstrated by the analyses of variance suggests that part of the reason for the similar significant correlations could be that the HD speeches caused, or led to the N-H speeches. This cannot be proven; however when both analyses of variance and correlations on the same sample point to the same relationships, it would seem that the analysis of variance would give a suggestion of causality to the correlations. At the very least, these correlations buttress the analyses of variance linkage between high dominance and negative affect.

As indicated in the Results, an unexpected, though nonsignificant, positive relationship appeared between the number of N-H speeches (high, medium, and total) and FCI scores. The positive correlations appeared both on the individual and couple correlations. Previous self-report studies have shown a negative relationship between hostility and marital adjustment (Tharp, 1963). It may be that the willingness to express negative-hostile affect readily in the moderate amounts produced in the present study is different from the (possibly) more extreme and chronic amounts reported in the self-report studies. Another possibility is that negative-hostile affect expressed readily in the short run, prevents the build-up of hostile affect over a longer period of time. Thus the self-report studies may be reporting on a different kind of hostility.

At any rate, the nonsignificant but positive correlations found here (between N-H speeches and FCI scores) indicate that although high dominance fostered increased hostility, it cannot necessarily be taken as destructive of the relationship, unlike the hostility reported in the self-report studies.

The Difference between High Dominance and Medium Dominance

A second major finding was that moderate dominance did not cause an increase in hostile communication per the analyses of variance, nor was it associated with hostile communication on the correlational matrices. Rather, the correlations indicated that the MD speeches were significantly related to Positive-affectionate speeches. Thus a picture emerged indicating that high dominance was very different from medium dominance,

High dominance caused negative-hostile interaction, and was negatively (but not significantly) related to Positive-affectionate interaction. Medium dominance did not cause negative-hostile interaction, but was positively and significantly related to Positive-affectionate interaction.

These findings seem to imply that in a marital relationship where one spouse is constantly trying to be highly dominant over the other, there will also be a great deal of interpersonal friction in the form of hostilely-toned interaction and possibly a reduction in affectionate interaction. In the long run, this form of interaction may be destructive of the relationship, but that is not clear from the present results. Any couple likely engages in interaction from time to time where one spouse tries to be highly dominant. It might be speculated that this only becomes destructive in terms of the relationship when such behavior becomes a frequent or constant occurrence. On the other hand, these negative consequences do not seem to hold with moderate dominance or a moderate increase in dominance.

It is not clear why the analyses of variance did not show a relationship between the number of medium Dominant and P-A speeches, as the correlations did. Perhaps this relationship was obscured by the partial ability of the Selected Spouses to carry out the experimental instructions. Another possibility is that the experimental instructions in Discussion II created a situation which was dissimilar to the interaction situation in Discussion I, on which the correlations were based. In this view, attempted moderate dominance would be different from the situation where one or both spouses were normally moderately dominant. While Discussion

I and Discussion II had similar results with respect to high dominance, it is possible that the two periods were dissimilar with respect to medium dominance. That is, medium dominance occurring naturally might be associated with positive-affectionate interaction as a function of general emotional expressiveness, but attempted medium dominance might not show such an association with positive-affectionate interaction, since it is an attempt to change an established interaction pattern. Further research will be needed to clarify this discrepancy, although the author favors this latter explanation.

The Relationship of Dominance with the other Major Variables

The level of attempted dominance did not affect the number of P-A, Dominant, or Submissive speeches; neither did it affect the Clarity of the interaction, nor the Time Needed to Reach Agreement. The fact that Clarity and Time were not affected by the independent variable, is worth noting, in that it indicates that these couples did not become more similar in these characteristics to parents of neurotic and psychotic offspring. It was previously pointed out in the review of the literature that these two measures were ones that had been repeatedly shown to discriminate between parents of psychotic, neurotic and normal offspring.

It is also interesting that attempted dominance did not affect the number of P-A, Dominant, or Submissive speeches. One might expect, for example, that attempted high dominance not only would increase the number of N-H speeches, but also would increase the number of Dominant speeches, and decrease the number of P-A and Submissive speeches. Again, perhaps this is due to the fact that the Selected Spouses were not completely able to carry out the experimental instructions, so that all but the

strongest relationships were obscured. However, it could be a valid finding, which might be substantiated in the future.

Sex Differences

There were surprisingly few sex differences which appeared in the results. It appeared that attempted high dominance produced more hostility whether it was attempted by the husband or the wife. Also the more one spouse was dominant over the other, irrespective of sex, the higher was the number of high N-H speeches. This is in contrast to Barry's (1968) finding that extreme husband dominance was more destructive of the marital relationship than extreme wife dominance.

However, there were two major sex differences which did appear. The wives made more Submissive speeches (high and total) and more Positive-affectionate speeches (medium and total) than their husbands. The finding that the wives were more submissive and affectionate than their husbands seems in line with cultural expectations, especially since the husbands tended to be the spouse getting an advanced degree.

Persistence of Experimental Effects

As Tables 6 and 7 indicate, the increased hostility engendered in the HD group in Discussion II, decreased significantly in Discussion III. This indicates that the experimental condition had a rather transitory effect. This is some indication that it would take more highly dominant behavior, over a longer period of time than the present experiment provided, to produce longer and more substantial residual effects. In a sense, it is reassuring to note that the small experimental increases in dominance did not produce residual effects.

Interactional Changes over Time

The fact that both spouses became less submissive over the three discussion periods seems difficult to interpret. However, two tentative hypotheses might be advanced. One is that spouses probably do not typically interact for up to an hour and a half to resolve a number of disagreements. Perhaps this was a strain which made them less willing to see the other's point of view, or change their own. Or it might be that they were initially more submissive to each other because they wanted to look good to the E, but that this "facade" wore off as they got involved in the experiment. It does seem likely that the couples' behavior would be affected by the experimental situation, but what is not so clear, is why that would only affect submissive behavior, and not any of the other three interaction categories.

It will be interesting to see if this finding is substantiated in other research. It certainly has implications for argumentative behavior of spouses. It is likely that research will be needed which will have couples interact over a much longer period of time than what the present research used. It might be speculated that submissiveness would be curvilinear, with couples becoming less submissive with each other up to a point, and later becoming increasingly submissive (out of exhaustion?) in order to resolve the disagreements.

The Rating Scales

The rating scales appear to be simple, easily taught to raters, and highly reliable. A similar form of the scales appears to have high validity as well (Tinker, 1967). In addition, the present scales appear to have a good deal of face validity. In short, they seem to be a highly

useful research tool, and could well be used by investigators who are interested in further explorations of the relational aspects of verbal communication.

One qualification of the above statements concerns the Dominance scale for rating speeches high, medium, or low Dominant. It was found that even though the MD Selected Spouses significantly increased their dominance over their spouses and over the LD group, as measured by the Dominance Index scores, the MD couples did not increase the number of speeches labeled dominant. Although separate analyses of variance were not computed, it was obvious by "eyeballing" the data, that the MD Selected Spouses (as opposed to the MD couple) had not increased their dominant speeches either. One possibility is that the Dominance Scale is not valid, although there is no apparent evidence for this. Assuming that the scale is valid, it suggests that the Selected Spouse effected his increase in dominance without altering the quality of dominance in his speeches. One way this might have been accomplished, is that the Selected Spouse might have talked more and been more persistent about his own viewpoint without changing the nature of his speeches. Strodtbeck (1954) found that the one who talked the most on a Revealed Difference Test, also won the most. It would be possible to investigate this possibility by measuring the speaking time of each spouse on the original tapes.

Another possibility is that the MD speech category is not discriminating enough. Table 2 indicates that the MD category had three times more speeches assigned to it as the next highest medium category (speeches labeled medium Submissive).

A third possibility is that the increase in dominance took place at the beginning of Discussion II, where the speeches were not rated. Only three minutes of interaction in the middle of each discussion period were rated. This possibility could be investigated by re-examining the original tapes.

Although lacking conclusive evidence, the author feels that the basis for rating speeches on dominance is relatively valid. This conclusion is based on the author having rated the tapes: He could discern no increase in dominance quality on the tapes. Also, since the other scales seem to be valid, and the method for rating speeches Dominant was similarly constructed, it does not seem plausible that the other scales would be valid, and the speeches rated Dominant would not.

The Clarity scale did not seem to be very useful or discriminating on the present sample. Perhaps its usefulness would be greater if various pathological groups were being compared. In the present sample of "normal" highly educated university couples, however, it added no information of value.

Limitations of Study

It should be borne in mind, in assessing the results of the analyses of variance, that the couples were only partially able to carry out the instructions. Had the couples been completely successful in carrying out the instructions, the differences which did turn up, might have been even more pronounced, or other relationships might have become evident. However, this is not true of the correlational analyses, as they involved only Discussion I, and were in no way dependent upon the couples' ability to carry out the experimental instructions, which involved Discussion II.

Another limitation of the present study relates to the extent to which the findings can be generalized from the present sample. Although a random sample was taken, and the results can likely be generalized safely to all married couples living in two-bedroom apartments in MSU married housing, this is a highly circumscribed sample in terms of the total United States population of married couples. The reader should bear in mind that generalizing beyond this campus population is unwarranted.

Comparison of Results with other Studies

Barry (1968) found that extreme coerciveness by the husband was associated with marital difficulties. The present findings seem supportive to the extent that high dominance was found to be productive of hostility in the relationship. On the other hand, the present study found no sex differences related to high dominance. Barry also found that coercion and personal attack led to coercion and personal attack, and rejection on the following speech. In terms of the present rating system, Barry's category of coercion and personal attack would be rated as dominance and hostility, respectively. Rejection would be rated as negative-hostile in the present study. Thus translated into the terms of the present study, Barry found that dominance and hostility led to dominance and hostility on the following speech. The present study found attempted high dominance led to hostility in the subsequent interaction, but did not lead to further dominance. This is an apparent discrepancy in results, but since Barry did not discriminate between dominance and hostility in his categories, it is not possible to determine whether just one or the

other, or both occurred as a consequent. This is one indication of the difficulty in comparing research results derived from different interactional rating schemes.

Cancian (1971) found that mother-to-father dominance was significantly correlated with father-to-mother dominance, contrary to his (and Leary's) hypothesis that dominance would be correlated with submission. Again, the present study did not find an association between dominance and dominance, either on the analyses of variance or on the correlations. Perhaps this difference is due to the more discriminating rating system used in the present study. If a spouse promoted his own position, without attacking his partner's, his speech was rated as highly dominant, but not highly hostile. If he attacked his spouse's position, without advocating his own, his speech was rated as highly hostile, but not highly dominant. The rating systems used by Cancian and Barry did not permit such discriminations. It is also possible that the discrepancy between the present findings and Cancian's is due to the possibility that the dominance scale used in the present research, for some reason, did not measure the actual amount of dominance going on.

As mentioned in the review of the literature, with respect to dominance patterns in families, the preponderance of evidence favors the view that normal and well-adjusted families are characterized by moderate paternal dominance. In the present study moderate dominance was associated with Positive-affectionate speeches (medium and total), an indication that such moderate dominance was associated with positive qualities in the married couples' interaction patterns. There was no indication,

however, that husband dominance was associated with marital adjustment.

The present study also lends interactional support to the self-report studies which indicate that couples who are equalitarian in their marital relationship are happier than those with extreme dominance patterns, in that the present study found that high dominance caused hostility, but that moderate dominance did not, and was associated with Positive-affectionate interaction.

Directions for Future Research

Directions for future research can be culled both from examining the strengths of the present study as well as its limitations.

With respect to the strengths, this study indicates that explorations into causal relationships among interpersonal variables, through factorial designs are possible. Further, the rating scales used, appear to be highly reliable and valid, and seem to be promising tools for future interactional research.

The limitations also suggest research possibilities. One question of major importance concerns whether the major findings from this sample of university married couples, would be found in a more general population of married couples.

Another major issue concerns how the Selected Spouses increased their dominance over their partners, if not through speeches that could be labeled high or medium Dominant. Did they talk more? Did they increase their dominance at the beginning of Discussion II, and maintain a "set" throughout this discussion period? Future research on this issue could be highly interesting.

Also of interest is the finding that attempted medium dominance is different from medium dominance occurring naturally. Will this be substantiated in the future? Although it seems less likely, it could be that attempted medium dominance causes Positive-affectionate interaction, but that this relationship was obscured by the only partial ability of the Selected Spouses to carry out the instructions. While the present research has indicated some interpersonal consequents of dominant behavior, the above issues indicate that much still remains unknown concerning dominance. Hopefully, other researchers will resolve these issues.

The finding that the marital partners became less submissive with each other over the three discussion periods is very interesting. Is there some point at which they become more submissive later on? Why is submissiveness affected, and not the other main interactional categories? What happens when married couples interact over revealed differences for long periods of time (e.g. three to four hours)?

The review of the literature also suggested some directions for future research. Again, there is a need for more causal research. Mednick (1971) has demonstrated the usefulness of high-risk and preventive research methodology. Perhaps certain interactional patterns could be designated as high-risk patterns. High dominance, on the basis of the present research and previous marital research could well be designated as a high-risk pattern, in terms of producing marital dissatisfaction, hostility and divorce. Couples displaying this pattern could be followed longitudinally with adequate controls.

The review of the literature also indicated that there are a great number of ways of analyzing interaction reported in the literature. It is likely that some of these are more useful than others, and that some are relatively worthless. A large scale study, comparing the usefulness of the different rating schemas, on one set of interactional data would be of great service for future research. Such research would help ensure that the rating scales be selected on the basis of objective criteria, rather than on the uninformed personal preferences of the investigator.

Implications for Therapy

High attempted dominance produces hostility, in a university sample of married couples. If this turns out to be a cause-effect relationship with married couples in general, the finding could be valuable in working with couples in conjoint marital therapy.

If the therapist knows that high dominance causes hostile interaction, his uncertainty as to what elements of the relationship to focus on, for therapeutic intervention, is somewhat reduced. If he is faced with a couple having marital difficulties, where one member is attempting to be highly dominant, and where the couple's interaction is also highly hostile, he could focus on reducing the highly dominating behavior, with the knowledge that the dominance struggle was producing a good part of the hostile interaction. How he would focus on the dominating behavior, would still be a problem of therapeutic choice. Suffice to say, that the more different techniques the therapist was conversant with, the more able he would be to select one appropriate for the circumstances and characteristics of the couple, be the technique behavioral, educational, or insight-oriented.

When one considers applying research findings to therapy, however, the limitations of present interactional knowledge become excruciatingly evident. While the knowledge that dominance causes hostility reduces therapeutic uncertainty somewhat, there are still many unanswered questions. The present research sheds no light on whether hostility could produce dominance conflicts. While it doesn't sound as plausible as the other way around, it is possible. If research indicated that it did, then the therapist would be faced with the dilemma that dominance causes hostility and hostility causes dominance, and still further research would be necessary to indicate whether focusing on the hostility would be more productive than focusing on the dominance. Finally, both hostility and dominance might be related to some other factor of which the therapist should be aware.

Until these other issues have been explored, however, the practitioner would have to be guided by the best available knowledge, which presently is that he would do well to focus on the dominance aspect of the relationship.

Concluding Statement

It will be interesting to see if further research substantiates the findings of the present study, as the results have not been predicted by any existing interpersonal theory. Generally, such theories have predicted that dominance would cause further dominance, or its polar opposite, submission. Prior research has suggested that dominance tends to produce dominance in symmetrical dyads, but generates submission in complementary dyads. No theory or research known to the author has

suggested that dominance might produce hostility as a major consequence. Further, no theory or research seems to have suggested that the amount or level of dominance would be a significant consideration in determining its effects, as the present study found. For these reasons, it is felt that this study is a beginning step in identifying causal relationships among major interpersonal variables, and it is hoped that further research will be undertaken along similar lines in the future.

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APPENDICES

APPENDIX A

LETTER FOR SOLICITING COUPLES

August 4, 1969

Dear Mr. and Mrs.

I would like to request your participation as a couple, in my Ph.D. research on marital communication. Your married housing unit is one of several which was randomly selected from among those on campus; all couples in your building are being asked to participate.

Perhaps because I have been working with couples in professional setting and also perhaps because I am married, I have chosen marital communications as the topic of my dissertation. Although the marital relationship is both exceedingly demanding and complex, it is among the least studied interpersonal relations in our society. Probably these very complexities are among the reasons for our presently limited knowledge. But also, it is often difficult to obtain the cooperation of married couples in research studies. Despite such problems, I am hopeful of gaining your assistance in this effort to further our understanding of marital communication processes.

Participation entails a single session of 60 to 120 minutes, in Olds Hall on campus, during which you would fill out two questionnaires (taking about 15 minutes each) and engage in three brief discussion periods with your spouse, which will be tape recorded. Each couple completing this procedure will receive $15.00 for their time and assistance. You may well find participation in the study quite interesting, as many of the couples who were in the pilot phase commented to that effect.

Your cooperation is crucial; I hope you will be willing to participate. I will be telephoning you a few days after your receive this letter to arrange a mutually convenient time, if this meets with your approval.

Thank you very much.

Sincerely,

Robert Tinker
Doctoral Candidate
Department of Psychology
Michigan State University
East Lansing, Michigan 48823

APPENDIX B

COMPLETE INSTRUCTIONS TO COUPLES

After the initial orientation, E asked the couple to separately fill out a series of nine lists. He read the following instructions: "I'm going to give you some lists which I'd like you each to fill out separately, giving your own personal opinions on each list. (Name of wife) may stay in this room; (name of husband) may use the room two doors down. When you finish filling out the lists, let me know and I will come to the room you're in to give you the next set of instructions".

Following that:

"I'm going to ask you next, to compose a joint list, through discussion with your spouse on three of the topics you just completed. Thus, through your discussion you will end up with three joint lists of items that you have both agreed upon. The three topics you are to discuss will be circled by me on a fresh answer sheet. Your discussion will be tape recorded and I will wait in the next room. Please call me when you have completed the three joint lists. Any questions here?"

E brought the couple together, started the tape recorder and left the room. When the couple indicated they had completed the three joint topics by calling E, they were asked to fill out the Family Concept Inventory (FCI).

"Next I'm going to give you a second questionnaire which I'd like you each to fill out, again in separate rooms. When you finish filling out the questionnaire, let me know, and again I will come to the room you're in to give you the next set of instructions."

On completion of the FCI, E asked all marital partners to compose joint lists through discussion with each other on three more topics from

the nine lists they had filled out previously:
I'm going to ask you again to compose a joint list, through discussion with your spouse on three more topics from the nine topics you filled out previously. Again, through your discussion you will end up with three joint lists of items that you have both agreed upon. As before, the three topics to be discussed will be circled."

Again these instructions were given to each spouse while he or she was still in the separate room in which he had filled out the lists. Unknown to his partner, the Selected Spouse was given additional instructions while still in the separate room, for each of the couples that had been assigned to one of the three dominance groups.

For the Selected Spouse from each couple in which the high dominance group, the additional instructions were as follows:
"Secondly, in discussing each topic, I would like you to do your utmost to get all four of your individual choices to be the ones on the joint list, for each of the three topics you are to discuss. (Name of husband of wife) will not know you are trying to do this, as he/she will be given only the first part of the instructions. Any questions here?"

For the Selected Spouse from each couple in the medium dominance group, the additional instructions were as follows:
"Secondly, in discussing each topic, I would like you to do your utmost to get two of your four individual choices to be the first two on the joint list, for each of the three topics you are to discuss. (Name of husband or wife) will not know you are trying to do this, as he/she will be given only the first part of the instructions. Any questions here?"

For the Selected Spouse from each couple in the low dominance group, the additional instructions were as follows:
"Secondly, in discussing each topic, I would like you to do your utmost to let your spouse determine the first two most important choices on the joint list for each of the three topics you are to discuss and limit your influence to getting no more than the last two on each of the 3 topics."

Couples in the control group received no additional instructions.

After the two spouses had completed the lists, and received their instructions, they were brought together in a single room, where they interacted to reach agreement on three joint lists. E then returned and gave the couple a form of the following instructions, depending on which of the two experimental groups they were in:
"In the discussion you just completed, I asked one of you to (1.2. or 3.) (1. determine the outcome of all four items on each list; 2. determine the outcome of the first two of the four items on each list; 3. determine the outcome of no more than the last two of the four items on each list.), and the second spouse did not know this. In this third and last discussion period, I'm going to ask you to compose three more joint lists. Only this time you may reach agreement on the lists in any way that you like. In other words, there are no special instructions to either of you. Just reach agreement on the joint lists in any way that you wish with each other."
If the couple had been assigned to the control group, they were instructed:
"In this third and last discussion period, I'm going to ask you to compose three more joint lists. Again, just reach agreement on a joint list through discussion with each other."

APPENDIX C

THE OPINIONNAIRE

Age:
Number of years married:
Number of children:
Number of years of education:
Full-time student _____; part-time _____; not a student_____.

In filling in your answers, please list your choices in order of decreasing preference on each of the nine topics, with your most preferred choice number one, and least preferred choice number four.

1. List four places you would most like to go on a vacation, if you could go anywhere you wanted.

    1.

    2.

    3.

    4.

2. List four political leaders you would like to meet.

    1.

    2.

    3.

    4.

3. List four characteristics of a good spouse.

    1.

    2.

    3.

    4.

4. List four things you consider to be most beautiful.

    1.

    2.

    3.

    4.

5. List four inventions in the last hundred years that you consider to be most important.

   1.

   2.

   3.

   4.

6. List four persons who have made the greatest contributions to history.

   1.

   2.

   3.

   4.

7. List four main problems that you think married couples face.

   1.

   2.

   3.

   4.

8. List your four favorite magazines.

   1.

   2.

   3.

   4.

9. List your four favorite sports or forms of recreation.

   1.

   2.

   3.

   4.

When you have completed filling out all nine lists, please write number one in the margin next to the list that you have the strongest opinions about, number two next to the list that you have the next strongest opinions about, and so on until you have rank ordered all nine lists.

APPENDIX D

THE FAMILY CONCEPT INVENTORY

#112 FAMILY CONCEPT INVENTORY

Instructions: Indicate the degree of your agreement or disagreement with each of the following items as it applies to your immediate family (husband or wife and children) and encircle the letter(s) representing the appropriate response. First impressions are satisfactory, and most people are able to complete this inventory in ten minutes. It is quite important that you give a response to each item, even though it may sometimes be difficult to make a decision.

	SA Strongly Agree	a Tend to Agree	N Neither Agree Nor Disagree	d Tend to Dosagree	SD Strongly Disagree
1. We usually can depend on each other.	SA	a	N	d	SD
2. We have a number of close friends.	SA	a	N	d	SD
3. We feel secure when we are with each other.	SA	a	N	d	SD
4. We do many things together.	SA	a	N	d	SD
5. Each of us wants to tell the others what to do.	SA	a	N	d	SD
6. There are serious differences in our standards and values.	SA	a	N	d	SD
7. We feel free to express any thoughts or feelings to each other.	SA	a	N	d	SD
8. Our home is the center of our activities.	SA	a	N	d	SD
9. We are an affectionate family.	SA	a	N	d	SD
10. It is not our fault that we are having difficulties.	SA	a	N	d	SD
11. Little problems often become big ones for us.	SA	a	N	d	SD
12. We do not understand each other.	SA	a	N	d	SD
13. We get along very well in the community.	SA	a	N	d	SD
14. We often praise or compliment each other.	SA	a	N	d	SD
15. We do not talk about sex.	SA	a	N	d	SD
16. We get along much better with persons outside the family than with each other.	SA	a	N	d	SD
17. We are proud of our family	SA	a	N	d	SD
18. We do not like each other's friends.	SA	a	N	d	SD
19. There are many conflicts in our family.	SA	a	N	d	SD
20. We are usually calm and relaxed when we are together.	SA	a	N	d	SD
21. We respect each other's privacy.	SA	a	N	d	SD
22. Accomplishing what we want to do seems to be difficult for us.	SA	a	N	d	SD
23. We tend to worry about many things.	SA	a	N	d	SD
24. We are continually getting to know each other better.	SA	a	N	d	SD
25. We encourage each other to develop in his or her own individual way.	SA	a	N	d	SD
26. We have warm, close relationships with each other.	SA	a	N	d	SD
27. Together we can overcome almost any difficulty.	SA	a	N	d	SD
28. We really do trust and confide in each other.	SA	a	M	d	SD
29. The family has always been very important to us.	SA	a	N	d	SD
30. We get more than our share of illness.	SA	a	N	d	SD
31. We are considerate of each other.	SA	a	N	d	SD
32. We can stand up for our rights if necessary.	SA	a	N	d	SD
33. We have very good times together.	SA	a	N	d	SD
34. We live largely by other people's standards and values.	SA	a	N	d	SD
35. Usually each of us goes his own separate way.	SA	a	N	d	SD
36. We resent each other's outside activities.	SA	a	N	d	SD
37. We have respect for each other's feelings and opinions even when we differ strongly.	SA	a	N	d	SD
38. We sometimes wish we could be an entirely different family.	SA	a	N	d	SD
39. We are sociable and really enjoy being with people.	SA	a	N	d	SD
40. We are a disorganized family.	SA	a	N	d	SD
41. We are not really fond of one another.	SA	a	N	d	SD
42. We are a strong, competent family.	SA	a	N	d	SD
43. We just cannot tell each other our real feelings.	SA	a	N	d	SD
44. We are not satisfied with anything short of perfection.	SA	a	N	d	SD
45. We forgive each other easily.	SA	a	N	d	SD
46. We usually reach decisions by discussion and compromise.	SA	a	N	d	SD
47. We can adjust well to new situations.	SA	a	N	d	SD
48. Our decisions are not our own, but are forced on us by circumstances.	SA	a	N	d	SD

APPENDIX E

F RATIOS FROM ANALYSES OF VARIANCE

F Ratios from Analyses of Variance

Analysis	Source of Variation						
	A (Group)	B (Sex)	AB	C (Discussion Period)	AC	BC	ABC
Influence Scores	1.52	4.01	1.34	1.63	3.96**	.85	2.11
Dominance Index	1.78	2.72	.04	.37	5.37**	1.77	1.94
HNH	2.41	.07	.18	.08	1.69	.10	.44
MNH	3.16*	.02	.15	2.00	2.42*	.10	.26
TNH	3.44*	.00	.07	1.27	2.72*	.09	.15
HPA	.50	-2.49	1.20	1.46	.78	3.51*	.23
MPA	3.38*	4.46*	.83	.19	1.70	1.84	.49
TPA	3.24*	4.86*	.70	.02	1.54	1.06	.70
HD	.33	.59	.36	.41	1.28	.16	.80
MD	1.22	.00	.11	2.03	1.72	.00	.56
TD	-207.03	.11	208.17**	3.10	376.25**	.03	-374.13
HS	.10	24.07**	.53	1.21	2.54*	1.12	.75
MS	5.55**	.06	1.09	8.89**	1.02	.42	.40
TS	3.64*	301.86**	-98.14	7.38*	2.03	-241.15	81.17**
Clarity	.65			.04	.21		
Time	1.10			2.08	.04		

*$p < .05$

**$p < .01$