

Marital conflict and adolescent distress:

A mediational model

by

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Signatures have been redacted for privacy

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DEDICATION

This thesis is dedicated to my father Gordon W. Harold. No son could ever wish for a greater role model than you. To my mother, Olive Harold, for your support and protection and for always understanding "the little child inside the man." And to my two beautiful sisters, Heather and Ruth Harold, for making it easy to be proud to be your brother.

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GENERAL INTRODUCTION

Marital conflict has received a great deal of attention with regard to developmental issues among children and adolescents. Many studies have linked marital quality with child functioning, showing that interparental conflict is associated with negative outcomes for children (Howes and Markman, 1989). Support for the hypothesis that negative environmental conditions which exist within the home are associated with maladjustment among adolescents has been provided by Emery (1982) and Patterson (1982). Although the link between marital conflict and adolescent psychopathology has been identified, the process by which an adolescent's cognitive, social, emotional, and physiological responses take place following exposure to marital conflict is largely unexplored.

The present research was designed to explore the following questions. Does an adolescent's perception of marital conflict affect his or her report of perceived parental hostility? More specifically, is the adolescent's perception of marital conflict a more salient factor in predicting adolescent psychopathology than the actual marital conflict itself? The present study suggests that an adolescent's general appraisal of marital conflict may mediate the association between such conflict and adolescent maladjustment.

Explanation of Thesis Format

The thesis which is being presented will be organized in a format appropriate for submission of the paper contained within the thesis to a professional journal. Following an abstract which describes the principle hypotheses, methods, and substantive results, there will be an introduction to previous literature which has been published in this area

and a concise statement regarding the research problem included in this study.

References cited in the paper are included in the paper. References which are cited in the general introduction and general summary will be included in a separate reference section following the general summary.

PAPER. MARITAL CONFLICT AND ADOLESCENT DISTRESS:
A MEDIATIONAL MODEL

ABSTRACT

A study of adolescents included as part of a longitudinal sample of 451 two-parent families living in the rural Midwest examined the role of children's cognitive appraisals of marital conflict and parental hostility in their symptoms of adolescent distress. The theoretical model indirectly linked marital conflict and adolescent report of parent hostility through the mediating effects of parent and observer reported hostility toward the adolescent and adolescent perceptions of marital conflict. Controlling for earlier levels of psychological distress, a direct path was hypothesized between adolescent report of parent hostility and adolescent distress. Following an analysis which employed structural equation modeling procedures, results show that marital conflict is significantly related to parent's and observer's report of parent hostility toward the adolescent and adolescent perceptions of marital conflict, which in turn significantly affect adolescent report of parent hostility. A significant direct effect existed between adolescent report of parent hostility and each of the assessed symptoms of psychological distress. A number of interesting gender differences were found in terms of level of distress as a response to reported level of parental hostility.

INTRODUCTION

Marital conflict has frequently been linked to emotional and behavioral problems among children and adolescents. The hypothesis that aversive environmental conditions within the home are related to psychopathology in children has received support for marital conflict, divorce (Emery, 1982), and coercive family processes (Patterson, 1982). Moreover, marital quality and adolescent distress are associated through the parent-child relationship as an intervening variable (Howes and Markman, 1989). Jouriles (1989) assessed the level and frequency of marital aggression among a sample of two-parent families with at least one child, and demonstrated that physical marital aggression contributed unique variance to a number of negative child outcomes. Recent research has tended to focus on marital conflict, as opposed to marital quality, as a predictor of child and adolescent distress. This is due, in part, to the idea that observed conflict between parents is a more salient indicator of marital problems in the eyes of children (Grych and Fincham, 1990). Researchers working within an adolescent stress-distress framework initially tended to confine their analyses to an examination of the negative impact which divorce elicited among children from broken families (Hetherington, 1982; Long, 1988). However, it now appears that it is actually marital discord, including its duration and intensity, rather than divorce, which accounts for the adverse effects which children may experience (Covell, 1987). According to Cummings (1989) and Long (1987), discord within the home may be an even more significant factor than the breakup of the marriage in the development of child behavioral or emotional problems.

The key explanatory variable which differentiates marital discord and divorce is anger. Anger, according to Cummings, can be viewed as a "socioenvironmental stressor." Exposure to anger can influence children at several levels. Cummings (1988) mentions that "process" dimensions (e.g., interparent hostility), relative to the quality of the family structure, explain a greater amount of variance related to negative child outcomes than do "structural" dimensions of the family (intact vs. non-intact).

Identifying the notion that it is actually the anger expressed through marital conflict which affects the psychological functioning of the child and adolescent, rather than simply the conflict itself, opened a new avenue for research aimed at better understanding the causes of psychopathology within children. Some conflict, according to Cummings (1988), is necessary and perfectly normal within a marriage. Even in the most perfect marriages there are moments of anger (Cummings, 1989). Through the observation of effective parental coping strategies during instances of marital discord, children learn effective coping strategies and skills which they then employ during instances of conflict within their own lives (Cummings, 1988). How much anger can be tolerated before it becomes detrimental is unknown. However, research directed at answering this question has highlighted a particularly important predictor of the effects of marital conflict on adolescent psychological well-being; the adolescent's perception and understanding of both the conflict and its content (Covell, 1987; Cummings, 1988).

Adolescent Perceptions of Marital Conflict

Understanding the role of perception as an explanatory variable in an attempt to better understand the effect of angry family environments on the development of psychopathological distress within children is a compelling challenge for modern research. Cummings (1985) reports that children who are exposed to angry adult interactions typically respond with some form of distress. However, these response patterns are usually mediated by an emotional reactivity. Enos (1985), for example, reported that perception of current high family-conflict was significantly related to psychological adjustment among children, regardless of parental marital status. Emery (1982), referring to previous research, suggests that it is perceived parental behavior which has the greatest impact on children, arguing that it is the perception of stimuli, rather than the stimuli themselves, which ultimately influence adolescent behavior (Mischel, 1973). Although these studies identify parameters in the link between marital discord and adolescent distress, the process by which exposure to parental conflict leads to psychological problems within children is largely unexplored (Grych and Fincham, 1990).

Necessary Directions

Grych and Fincham (1990) and Cummings (1988) make the important point that few empirical studies of hypothesized causal mechanisms between marital conflict and adolescent distress have been conducted. Available research, however, has demonstrated a modest but consistent relationship between marital conflict and children's adjustment.

Grych and Fincham (1990) argue that future research should investigate the mechanisms that account for the relationship between such conflict and particular adolescent outcomes. These authors suggest that specific dimensions of marital conflict such as frequency, intensity, content, rate of resolution, as well as adolescent demographic variables such as gender and age, likely play a significant role in explaining the effects of marital conflict on adolescent distress. Cummings (1988) also suggests that children's cognitive, social, emotional, and physiological responses to adult angry behavior need to be better understood in an attempt to identify causal mechanisms that may relate interparental conflict and child outcomes.

In an attempt to address these questions, Grych and Fincham (1990) have identified what they call a cognitive-contextual framework for understanding the influence of marital conflict on child and adolescent development. This framework emphasizes the meaning of the conflict to the child and highlights the idea that the child's interpretation of a particular stressor is critical for determining its impact on him or her. Grych and Fincham propose that children's understanding of marital conflict is dependent on their understanding of conflict in general, which may vary as a function of the characteristics of the conflict, contextual factors, and the level of the adolescent's cognitive development. A cognitive-contextual framework, according to Grych and Fincham (1990), would lay the foundation for a more complete understanding of the relationship between marital conflict and adolescent distress.

The Present Study

Grych and Fincham (1990) suggest that longitudinal research is necessary to investigate causal effects of marital conflict on children's adjustment over time. The present study investigates the relationship between marital conflict and adolescent distress, controlling for earlier levels of adolescent reported psychological distress. The causal relationships which are hypothesized within this conceptual model suggest that as marital conflict occurs within a family, adolescents experience an increase in levels of hostility directed toward them by their parents. Marital conflict also increases the adolescent's perceptions of interparental conflict. I propose that marital discord is linked to adolescent distress through the mediating effects of parental hostility toward the adolescent and adolescent perceptions of marital conflict. Both the increase in parent's hostility and adolescent perceptions of marital conflict directly affect adolescent report of parent's hostility. It is this measure, rather than marital conflict, which then directly effects adolescent distress (see Figure 1). Earlier levels of adolescent psychological distress are included in the model so as to control for the possible presence of a negativity bias in adolescent self-reported measures. Indeed, a study where such causal relationships have been suggested may be the first of its kind. Only a few studies have assessed children's perceptions of marital conflict, and none have investigated how children's understanding of the causes and consequences of conflict may affect their responses regarding existing levels of marital conflict (Grych and Fincham, 1990).

Figure 1 about here

In this study, three separate forms of adolescent psychological distress are considered. Internalization (depression, anxiety, hostility), externalization (delinquency, anti-social), and self-confidence (self-esteem, mastery). Analyses are conducted using three years of panel data, with results provided for both the combined sample of adolescents and separately for boys and girls. To decrease method variance bias, the present study relies on multiple respondents to provide family information. Using single respondents to assess the relationship between marital conflict and child behavior has been a fault of previous research within this area, the optimal approach to assessing such a relationship should involve the use of multiple sources of information for each construct (Grych and Fincham, 1990).

METHODS

Sample

The data for this study are taken from a longitudinal study of 451 rural families living in eight counties of North Central Iowa, known as the Iowa Youth and Families Project (IYFP). The present findings involve data collected annually in 1989, 1990, and 1991. The IYFP is an epidemiological study of rural two-parent households with a seventh grader (the target adolescent) and a near aged sibling. Only families containing biological parents of the target adolescent were eligible for participation; 78% agreed to be interviewed. To be included in the sample, all four family members (husband, wife, seventh grader, sibling) had to agree to participate.

The seventh graders (214 males, 234 females) were from white, predominately middle class families. For the total sample, 34% of the families lived on farms, 12% in the countryside, but not on a farm, and the remainder (54%) in small towns. Median family income from all sources (e.g. earnings, net farm income, interest, etc.) for the first year of data collection (1989) was \$33,700 and ranged from a net loss to over \$100,000; 11% of the families fell below the poverty line. These families were slightly poorer than married couples in the United States as a whole, a group that had a median income of \$38,164 in 1988 (Bureau of the Census, 1991). The fathers provided the primary source of income in most of the families as indicated by median earnings of \$20,000 compared to \$6,000 for wives. The median level of education for both husbands and wives was 13 years, quite comparable to the median of 13.1 years for whites between

35 and 44 years of age in the U.S. in 1989 (Bureau of the Census, 1991), and ranges from eighth grade to the completion of the doctoral degree. The median age of fathers and mothers was 39 and 37 years old, respectively. Because of the study's selection criteria, total family size was above average (median=4.95). The national median of 4.13 for married-couple families (Bureau of the Census, 1991) suggests that couples in this sample had one more child on average than their counterparts in the nation as a whole. Given the nature of the study questions, only data for the married couples and the seventh grade (target) child were considered in this analysis. Approval for this study was granted by the ISU Human Subjects Committee prior to the data collection process.

Procedures

The names and addresses of possible participants were obtained from the 34 schools with seventh-grade students in the eight counties. All public and private schools in these counties cooperated. Families were sent a letter explaining the project and then were contacted by telephone and asked to participate. A personal visit was made to those without a telephone. After agreeing to be interviewed, each family was visited twice at home.

During the first visit, the project interviewer explained the purpose of the study, obtained informed consent and demographic information (e.g., ages of all family members, number of people living in the home, etc.). Then each of the four family members separately completed a set of questionnaires that asked about topics such as recent life changes, family economic circumstances, the quality of family relationships,

styles of family interaction, psychological distress, and other issues relevant to the study. The first visit took an average of two hours.

During a second visit that occurred about two weeks after the first, the family participated in a series of videotaped interviews to be used for qualitative analyses of family process. The family members were videotaped as they engaged in several structured interaction tasks. A trained interviewer began the session by asking each individual to complete independently a short questionnaire designed to identify issues of concern that led to disagreements within the family (e.g., chores, recreation, financial conditions, etc.). Family members were gathered around a table and given a set of cards with questions for them to read and discuss. The family members were then videotaped as they engaged in four structured-interaction tasks, two involving all four family members, one for only the marital dyad, and one for only the two siblings. The family members were asked to discuss and try to resolve the issues and disagreements that they had identified as being most problematic.

Each family member's questionnaire responses were kept completely confidential from other family members, and only those participating in a given video task were present during taping. After explaining the procedures, completing a practice card with the family, and checking the video recording equipment, the interviewer left the room for another part of the house where they could not hear the discussion. Videotaped recordings were subsequently coded by trained observers and were used to assess several family and individual characteristics employed in subsequent analyses. Because

Multivariate analyses by structural equations require listwise deletion, any person with a missing value for a variable was deleted from the analyses. The combined sample of adolescents which remained in the study over three waves of data collection equalled 370 cases (173 males, 197 females).

Measures

The study involved five basic domains of measurement: marital conflict, parental hostility, adolescent perceptions of marital conflict, adolescent report of parental hostility, and adolescent psychological distress. Multiple indicators were used to measure each of the exogenous and endogenous latent constructs included in the model. All questionnaire items used in the construction of latent construct indicators were recoded where necessary so that a high score represents high levels of that particular measure.

Marital conflict focused on the interpersonal conflict which existed between mothers and fathers and was measured with information from two different sources. Each mother and father reported on their spouse's hostile behavior during the past month. To measure hostility, each spouse answered eleven questionnaire items which asked, for example, "how often during the past month has your spouse gotten angry at you," "criticized you or your ideas," "shouted or yelled at you because he or she was mad at you," "threatened to do something that would upset you if you didn't do what he or she wanted." Possible responses to these items ranged from always (1) to never (7). Both husband's and wife's report of spousal hostility were combined so as to create a parent's self-report indicator of marital conflict ($\alpha = .92$). Second, observer ratings

of husband's and wife's hostility, based on the videotaped data, were used as a second indicator of marital conflict. Two independent observers reported on a 5-point scale from low to high whether the husband or wife in the task demonstrated hostile, angry-coercive, reciprocal reactivity, or anti-social behavior toward their spouse. These separate ratings were summed to create an indicator of interparental hostility. The summative scale was internally consistent ($\alpha = .80$ fathers to mothers; $.84$ mothers to fathers).

Parents hostility towards the adolescent was measured in an almost identical fashion to that of marital conflict. Both the mother and father were asked to respond to four questionnaire items which indicated how often, during the past month, she or he had responded in the following ways toward the adolescent, "got angry at him or her," "criticized him or her for his or her ideas," "shouted or yelled at him or her because you were mad at him or her," and "argued with him or her whenever you disagreed about something." Possible responses to these items ranged from always (1) to never (7). Both the mother's and father's report of such hostility toward the adolescent were also combined so as to create a parental self-report indicator ($\alpha = .82$) of this particular latent construct. Observer ratings of mother's and father's hostility toward the child included the same items as those used for marital hostility. The resulting scale was internally consistent ($\alpha = .89$).

Adolescent perceptions of marital conflict were measured with two questionnaire items. The adolescent responded to the questions "how often do your parents argue about not having enough money," always (1) never (5), and "thinking about your parents, how

often would you say they argue or disagree with each other," often (1) never (4).

Because the possible responses to these times had an unequal range, both variables were standardized and then used as separate indicators of this latent construct.

Adolescent report of parent's hostility was measured using the adolescent's report of his or her mother's and father's hostility which had been directed towards them in the past month. The eleven questionnaire items which had been used to measure parent's self-report of spousal hostility were used again, this time with the adolescent as the respondent. The adolescent's report of mother's hostility ($\alpha = .83$) and father's hostility ($\alpha = .82$) were then used as separate indicators rather than as a combined single indicator.

Adolescent psychological distress was assessed using a number of subscales from the symptom checklist-90-revised (SCL-90-R; Derogatis, 1983). This instrument has demonstrated reliability and validity (Derogatis and Cleary, 1977) as a measure of psychological distress. The first set of subscales includes symptoms of internalization (depression, anxiety, and hostility). The second set of subscales includes symptoms of externalization (delinquency and anti-social behavior). The third set of subscales includes symptoms which may be described as indicators of self-confidence (self-esteem and mastery).

The SCL-90-R assesses symptoms experienced during the past week on a 5 point scale ranging from no discomfort (1) to extreme discomfort (5). The depression subscale utilizes 12 items and includes symptoms such as "feeling blue," "feeling lonely." Ten

items make up the anxiety subscale (e.g. feeling fearful, trembling), and six items (e.g. having urges to beat, injure, or harm someone) make up the hostility subscale. The delinquency subscale (22 items) includes symptoms such as "driven a car when drunk," "run away from home." This scale assesses behaviors which have taken place in the last year. Seven items make up the anti-social subscale (e.g. when I get mad, I say nasty things). The mastery (e.g. there is really no way I can solve some of my problems) and self-esteem (e.g. I feel that I have a number of good qualities) subscales contain 7 and 12 items respectively.

In developing these measures I specifically avoided the problem of relying on a single source of information. As a number of authors have pointed out (e.g., Emery and O'Leary, 1984; Grych and Fincham, 1990), ratings of marital conflict and parent-child relationships have, in the past, largely been obtained from single sources of information, most often parents. In order to overcome the problem of method variance bias, which results from measuring all variables through reports from a single source (for a discussion see Lorenz, Conger, Simons, Whitbeck, and Elder, 1991), I chose to incorporate multiple indicators of each construct contained within the model. As Grych and Fincham (1990) have pointed out, the optimal approach to assessing the relationship between marital conflict and child behavior involves the use of multiple sources of information for each construct.

RESULTS

Correlational Analyses

Means and standard deviations for all indicators of each latent construct in the model are presented in Table 1. Intercorrelations for all variables in the model are reported in Table 2. The same information, separated for boys and girls, is presented in Table 3. Boy's results appear below the main diagonal, girls results appear above it. Each indicator of each latent construct significantly affected the indicators of dependent constructs in the right direction. Parent's self-report of marital conflict and observer's report of marital conflict were significantly related to parent's report and observer's report of hostility toward the adolescent ($r=.32$, $p<.01$ for parent's report of conflict to parent's report of hostility; $r=.38$, $p<.01$ for observer's report of marital conflict to observer's report of child hostility). Observer report for both these latent constructs were significantly related to parent's self-report. Both indicators of marital conflict were significantly related to both indicators of adolescent perceptions of marital conflict. The indicators of parent's hostility and adolescent perceptions of marital conflict were each significantly related to each indicator of the adolescent's report of parent's hostility ($r=.28$ to $.39$, $p<.01$). Adolescent report of mother and father hostility correlated significantly with the proposed indicators of psychological distress (r ranged from $.19$ to $.32$, $p<.01$, and $-.27$ to $-.32$, $p<.01$ for self-esteem and mastery). Prior to estimating the mediating effects of parent's hostility toward the adolescent and adolescent perceptions of marital conflict using structural equation modeling, it is important to note

that the zero-order correlation between marital conflict and adolescent report of parent hostility was significant at .27, $p < .01$. All correlations reported remained significant in the same direction when separate analyses were conducted for boys and girls.

Table 1 about here

Table 2 and Table 3 about here

Evaluation of Structural Equation Models

The hypothesized causal relationships outlined in Figure 1 were estimated for both the combined sample of adolescents and then separately for boys and girls. To control for response bias across constructs, error terms for measures based on the same reporter were allowed to covary (Thomson and Williams, 1984).

Adolescent Internalization

The first set of models to be estimated contained adolescent internalization (depression, anxiety, hostility) as the final endogenous variable. Figure 2 contains the results of the latent variable, structural equation analyses using Linear Structural Equation Modeling version 7.20 (Lisrel 7.20; Joreskog and Sorbom, 1989), for the combined sample of adolescents.

Figure 2 about here

The standardized path coefficients indicate that observer and parent reported marital conflict was significantly related to both parent's (observer and parent report) hostility toward the adolescent and the adolescent's perceptions of marital conflict ($b = .446$ $p < .01$, $b = .651$ $p < .01$ respectively). Each of these two mediating constructs is significantly related to the adolescent's report of parental hostility ($b = .528$ $p < .01$, parent's hostility, and $b = .293$ $p < .01$, adolescent perceptions of marital conflict). Support for the presence of a mediating effect between marital conflict and adolescent report of parent hostility is demonstrated by a decrease in the magnitude of the standardized path coefficients in the simple bivariate case ($b = .512$ $p < .01$) compared to a standardized beta coefficient of .411 in the presence of the proposed mediators. Marital conflict at time 1 was significantly correlated with adolescent psychological distress, measured at time 1. In addition, time 1 adolescent distress was significantly related to each of the three latent constructs involving adolescent self-report indicators (perceptions of conflict, $b = .113$ $p < .10$; hostility, $b = .183$ $p < .01$; and internalization at time 3, $b = .351$ $p < .01$). In the presence of all direct, indirect, and associational effects between marital conflict and adolescent report of parent's hostility, a significant path exists between this latter construct and the outcome variable adolescent internalization at time 3 ($b = .274$ $p < .01$). For the measurement portion of the model, loadings for each of the six multiple indicator constructs are respectably high for this model and all other combined sample models considered, (lambda values range from .54 to .92). The chi-

square for this model (74.92, $df=63$) and the goodness of fit indices (GFI=.972, AGFI=.953) suggest that this model provides a good fit to the data.

Figures 3 and 4 present the standardized path coefficients when analyses, using internalization as the outcome variable, were conducted separately for both boys and girls.

Figure 3 about here

For the boys model, presented in Figure 3, marital conflict is significantly causally related to parent's hostility towards boys and boy's perceptions of marital conflict ($b=.488$ $p<.01$, $b=.524$ $p<.01$). Both of these latent constructs have a significant effect on boys report of parent's hostility and boy's perceptions of marital conflict ($b=.515$ $p<.01$, $b=.368$ $p<.01$) in the presence of two significant stability path coefficients originating from the stability measure, time 1 internalization (boy's internalization at time 1 is not significantly related to boy's report of parent hostility at time 2). Boy's report of parent hostility significantly predicts his level of psychological distress at time 3 ($b=.343$ $p<.01$). The chi-square (76.35, $df=63$) is only marginally larger than the chi-square for the combined model. The goodness of fit indices (GFI=.943 AGFI=.904) suggest that this model provides a reasonable fit to the data.

For the girl's model, presented in Figure 4, marital conflict is significantly related to parent's hostility ($b=.404$ $p<.01$), which is significantly related to girls report of parents hostility ($b=.516$ $p<.01$). However, the magnitude of the relationship between marital

conflict and girl's perceptions of marital conflict ($b = .805$ $p < .01$) is larger than that for boys. Also, the path from girl's perceptions of marital conflict to girl's report of parent's hostility is both smaller in magnitude and less significant ($b = .263$ $p < .05$) compared to the same paths for boys. Whereas the coefficient linking psychological distress (depression, anxiety, hostility) at time 1 and adolescent report of parent's hostility at time 2 was not significant for boys ($b = .098$), it was significant for girls ($b = .228$ $p < .01$). Within this model, girl's psychological distress at time 1 is not significantly related to girl's perceptions of marital conflict ($b = .008$), however. These differences, when compared to boys, combine to produce a difference of $-.10$ in the magnitude of the beta coefficient relating girl's report of parent's hostility to girl's reported level of internalization at time 3 ($b = .243$, $p < .01$). The chi-square for this model (85.74 $df = 63$) is also larger than that reported in the boys model. This value, along with the goodness of fit indices ($GFI = .940$ $AGFI = .900$), suggest that this model provides a reasonable fit to the data. However, neither the boy's or girl's model provides as good a fit to the data as the earlier combined model. I will examine the possible implications of these gender differences in the discussion.

Figure 4 about here

Adolescent Externalization

The second set of models to be estimated contained adolescent externalization (delinquency, anti-social) as the final endogenous variable. Figure 5 contains the

completely standardized path coefficients and factor loadings for the combined sample of boys and girls. The path coefficients contained within this model should be interpreted with caution. Unexpectedly, the estimation of the model resulted in a negative residual (ψ_6), thus the explained variation (R^2) cannot be computed.

Figure 5 about here

The structural coefficients linking marital conflict to both parent's hostility toward the adolescent and adolescent perceptions of marital conflict, as well as the paths from these two mediating constructs to adolescent report of parents hostility are similar in terms of magnitude and significance to the previous combined model containing internalization as the final endogenous variable. However, it is interesting to note that no significant association exists between marital conflict and adolescent externalization at time 1 ($r=.029$), and while a significant stability affect exists between externalization at time 1 and externalization at time 3 ($b=.882$ $p < .01$), and a significant effect exists between externalization at time 1 and adolescent report of parent hostility ($b=.281$ $p < .01$), a non-significant negative direct effect exists between the earlier measure of psychological distress and adolescent perceptions of marital conflict ($b=-.022$). The magnitude of the standardized beta coefficient linking adolescent report of parent hostility to externalization at time 3 is larger than that observed in the previously presented combined model ($b=.325$ $p < .01$). This supports the hypothesis that adolescent perceptions of marital conflict and parent's hostility toward the adolescent significantly affect the level of

parental hostility as reported by the adolescent. A significant effect exists between adolescent report of parent's hostility and adolescent externalization at time 3 ($b = .325$, $p < .01$). The chi-square (99.16, $df = 41$) and goodness of fit indices (GFI = .958, AGFI = .920) suggest that this model fits the data reasonably well.

Figures six and seven present the standardized structural equation path coefficients when analyses using externalization (delinquency, anti-social) as the final endogenous variable were conducted separately for boys and girls.

Figure 6 about here

For the boys model, presented above, marital conflict is significantly related to parents hostility towards the adolescent and boys perceptions of the conflict ($b = .527$ and $b = .597$, $p < .01$). Both of these latent constructs have a significant effect on boys report of parent's hostility ($b = .509$ from parent's report of hostility to boys report of hostility; $b = .400$ from boy's perception of conflict to boys report of hostility). In the presence of these mediating effects, a significant path coefficient ($b = .471$, $p < .01$) exists between boy's report of parent's hostility and their self-reported level of externalization at time 3. Similar to the combined model, no association exists between marital conflict and adolescent externalization at time 1 ($r = .039$), and although significant effects exist between this earlier measure of adolescent distress and both time 3 distress and boy's report of parent's hostility, a non-significant direct effect exists between the stability measure and boy's perception of marital conflict. The chi-square for this model (77.39

df=41) is smaller than that observed in the previous model. The goodness of fit indices for this model (GFI=.936 AGFI=.878) suggest that the model provides an adequate fit to the data, however it does not fit quite as well as the combined model.

For the girls model, presented in Figure 7, the magnitude of the mediating path coefficients linking marital conflict and girl's report of parent hostility differ in a similar fashion to those presented for boys and girls when internalization is included in the model. The relationship between marital conflict and girl's perceptions of marital conflict ($b=.810$ $p<.01$) is larger than that for boys. Also, the path from girl's perceptions of conflict to girl's report of parent's hostility ($b=.281$ $p<.01$) is smaller in magnitude than that observed for boys. Although the association between marital conflict and girl's earlier level of externalization remains non-significant ($r=.039$) and only those two paths originating from the stability measure which appear significant for boys and the combined sample remain significant here (externalization at time 1 to the same measure at time 3 and externalization at time 1 to girl's report of parent hostility), a significant path does not exist between girl's report of parent's hostility and their self-reported level of delinquent and anti-social behavior ($b=.05$). The chi-square value (58.10, df=41) and goodness of fit indices (GFI=.953, AGFI=.911) for the girls model suggest that the model fits the data reasonably well. As I mentioned earlier, I will examine the possible implications of gender differences within this set of models in the discussion.

Figure 7 about here

Adolescent self-confidence

The last set of models to be estimated contained adolescent self-confidence (self-esteem and mastery) as the final endogenous variable. Figure 8 contains the completely standardized path coefficients and factor loadings for the combined sample of adolescents.

Figure 8 about here

Consistent with the previous two combined sample models (internalization, externalization), the structural coefficients linking both observer and parent reported marital conflict to parents hostility toward the adolescent and adolescent perceptions of marital conflict, along with the paths from these two mediating constructs to adolescent report of parent's hostility, are similar in terms of both magnitude and significance. The factor loadings in this model appear to load better for the two indicators of adolescent self-confidence measured at time 1 and time 3 ($\lambda_{31}=.842$, $\lambda_{41}=.727$, $\lambda_{11.6}=.733$, $\lambda_{12.6}=.861$), when compared to the factor loadings for the two indicators of psychological distress used to measure externalization (delinquency, anti-social). In the presence of a significant negative association between marital conflict and adolescent self-confidence at time 1 ($r=-.285$), a significant negative effect exists between the stability measure and both adolescent perceptions of marital conflict and adolescent report of parent hostility ($b=-.162$ $p < .05$, and $b=-.274$ $p < .05$). A strong stability effect exists between time 1 self-confidence and time 3 self-confidence ($b=.634$ $p < .01$). In the presence of all

direct, indirect, and associational effects between marital conflict and adolescent report of parent's hostility, the adolescent's report of parent's hostility significantly decreases his or her reported level of self-confidence ($b = -.187$ $p < .01$). This coefficient supports the hypothesis that the adolescent's perceptions of marital conflict in the presence of parent's hostility, significantly affects the level of parental hostility as reported by the adolescent. The chi-square (60.01, $df = 41$) and the goodness of fit indices ($GFI = .974$, $AGFI = .951$) suggest that this model provides a good fit to the data.

Figures 9 and 10 present the standardized structural equation path coefficients and factor loadings when analyses using self-esteem and mastery as indicators of adolescent psychological distress were conducted separately for boys and girls.

Figure 9 about here

For the boys model, presented above, marital conflict is significantly related to observer and parent's report of hostility towards boys and boy's perceptions of marital conflict ($b = .552$ $p < .01$ and $b = .527$ $p < .01$). Both of these latent constructs have a significant mediating effect on boy's report of parent hostility ($b = .494$ $p < .01$, and $b = .292$ $p < .01$). In the presence of these mediating effects, a significant relationship exists between boy's report of parent's hostility and their self-reported level of self-confidence at time 3 ($b = -.185$ $p < .10$). Similar to the combined model, a significant association exists between marital conflict and adolescent self-confidence at time 1

($r = -.311$). A significant negative direct effect exists between the stability measure and boy's perceptions of marital conflict and boy's report of parent's hostility ($b = -.339$ and $b = -.267$ $p < .01$). Also consistent with the combined model, a strong stability effect exists between boy's reported level of self-confidence measured at time 1 and self-confidence at time 3 ($b = .610$ $p < .01$). The chi-square (65.51 $df = 41$) and goodness of fit indices (GFI = .944, AGFI = .893) suggest that this model does not fit the data as well as the model containing the combined sample of adolescents.

For the girls model, presented in figure 10, the magnitude of the mediating path coefficients linking marital conflict and girl's report of parent's hostility differ slightly to those reported for the boy's model. The relationship between marital conflict and girl's perceptions of marital conflict ($b = .817$ $p < .01$) is larger than that for boys. Also, the direct effect between parent's hostility toward the adolescent and girl's report of parent's hostility ($b = .514$ $p < .01$) is larger than that reported for boys. However, both direct effects linking marital conflict to parent's hostility toward the adolescent and girl's report of parent's hostility are smaller than that reported for boys ($b = .371$ $p < .01$ and $b = .241$ $p < .01$). A significant negative association exists between marital conflict and girls self-confidence at time 1. However, unlike the boy's model, there is no significant effect between time 1 psychological distress and girl's perceptions of marital conflict ($b = .051$). The coefficients linking time 1 distress to both girl's report of parent's hostility and time 3 distress remain significant in this model ($b = -.283$ $p < .01$ and $b = .647$ $p < .01$). The chi-square value (53.32, $df = 41$) and goodness of fit indices (GFI = .957, AGFI = .917)

suggest that this model provides a better to the model than that which was reported for the boy's. I will examine the possible implications of gender differences when adolescent self-confidence is used as a measure of psychological distress within the following discussion.

Figure 10 about here

DISCUSSION

Previous studies investigating the characteristics of conflict which adversely affect children and adolescents have tended to focus on the effects of its intensity (Cummings, 1981) and resolution (Cummings, 1989) on children's emotional and behavioral responses. A problem with previous research is that very few attempts have been made to address the causal relationships between marital conflict and adolescent psychological adjustment. As Grych and Fincham (1993) suggest, the stressfulness of interparental conflict experienced by adolescents is mediated by children's perceptual appraisals of the conflict. Their cognitive contextual framework emphasizes the importance of the meaning of the conflict, in terms of it being a stressor, in determining its impact (Compas, 1987). The purpose of this study was to attempt to provide a better understanding of the conditions under which marital conflict is most likely to be detrimental to adolescents and the process by which it may lead to increased levels of adolescent psychological distress.

Controlling for earlier levels of psychological distress, this study examined the effects of marital conflict on symptoms of adolescent psychological distress through the mediating effects of parent's report of hostility toward the adolescent and adolescent perceptions of marital conflict. It was hypothesized that an adolescent's report of parent's hostility would directly affect the level of psychological distress reported by the adolescent. Three separate measures of adolescent psychological adjustment as a response to marital conflict were considered, internalization (depression, anxiety,

hostility), externalization (delinquency, anti-social), and self-confidence (self-esteem, mastery).

Support for the proposed hypotheses was found for all models using the combined sample of adolescents and all models where separate analyses were conducted for boys and girls, except for the case of girls report of parent's hostility and their self-reported level of externalization. Psychological distress stemming from marital conflict appears to have a more serious effect on boys than on girls. With the exception of self-confidence, boys report of parent's hostility, in the presence of significant mediating and stability effects, significantly predicts their level of psychological distress to a greater extent than that observed for girls. This is clearly evident when adolescent externalization is used as the final endogenous variable. Girl's report of parent's hostility does not significantly affect their level of externalizing behavior ($b = .050$). However, boy's report of parents hostility is significantly causally related to an increase in externalizing behavior ($b = .471$, $p < .01$). Only in the case of self-confidence, do we notice a stronger direct effect for girls between the two final endogenous variables when compared to the boy's model. The differences in chi-square and goodness-of-fit indices between the boy's and girl's models also suggests that the girl's model provides a better fit to the data when self-confidence is included in the model.

With regard to possible gender differences in response to psychosocial stress, these results appear consistent with previous literature. Emery (1982) reported that disrupted family relationships have more negative consequences for boys than for girls.

More Recent investigations have reported that girls are equally vulnerable to increased levels of psychological distress as a result of disrupted family relationships (Johnson and O'Leary, 1987). As Grych and Fincham (1990) indicate, because of the considerable inconsistency with regard to gender differences among adolescents in terms of their vulnerability to psychological distress in the face of disrupted family relationships, considerable research is needed within this area to assess the instrumental role which adolescent's perceptions of the nature and context of the conflict may have in eliciting negative outcomes.

Implications

The cognitive-contextual framework proposed by Grych and Fincham (1990) suggests that the effect of marital conflict depends on an adolescent's understanding of the conflict. The analyses conducted within this paper attempt to address the causal relationships between marital conflict and adolescent psychological distress. The results which have been presented are consistent with two recent studies suggesting that an adolescent's appraisal of threat stemming from interparental conflict may mediate the relationship between exposure to such conflict and internalizing problems (Grych and Fincham, 1990; Cummings, 1989). In view of these results, it is imperative that further research is conducted to more precisely investigate the processes that may account for the role of adolescent perceptions of marital conflict and its effects on adolescent distress levels. It is important to investigate aspects of the family context which may shape children's appraisals of, and responses to, conflict (Grych and Fincham, 1990). By

paying closer attention to the role of children's understanding of marital conflict and placing it in a broader context that includes the emotional climate of the family, the adolescent's interpretation of the conflict, and their various coping resources, a more complete understanding of the detrimental relationship between marital conflict and adolescent adjustment may be provided. Further longitudinal research is necessary to better investigate the causal relationships between marital conflict and adolescent's adjustment over time.

REFERENCES

- Compas, B. (1987). Coping with stress during childhood and adolescence. Psychological Bulletin, 101(3), 393-403.
- Conger, R.D., Conger, K.J., Elder, G.H., Jr., Lorenz, F.O., Simons, R.L., Whitbeck, L.B., (1992). Linking economic hardship to marital quality and instability. Journal of Marriage and The Family, 52, 643-656.
- Covell, K., Abramovitch, R. (1987). Understanding emotion in the family: children's and parent's attributions of happiness, sadness, and anger. Child Development, 58, 985-991.
- Cummings, E.M., Cummings, J.S., El-Sheikh, M. (1989). Children's responses to different forms of aggression of anger between adults. Child Development, 60, 1392-1404.
- Cummings, E.M., Iannotti, R.J., Zahn-Waxler, C. (1985). Influence of conflict between adults on the emotions and aggression of young children. Developmental Psychology, 21(3), 495-507.
- Cummings, E.M., Zahn-Waxler, C., Radke-Yarrow. (1984). Developmental changes in children's reactions to anger in the home. Journal of Child Psychology and Psychiatry, 25(1), 63-74.

- Cummings, E.M., Cummings, J.L. (1988). A process-oriented approach to children's coping with adult's angry behavior. Developmental Review, 8, 296-321.
- Cummings, J.S., Pelligrini, D.S., Notarius, C.I., Cummings, E.M. (1989). Children's responses to angry adult behavior as a function of marital distress and a history of inter-parent hostility. Child Development, 60, 1035-1043.
- Derogatis, L.R. (1983). SCL-90-R administration, scoring, and procedures manual II.
Townsen, MD: Clinical Psycho-metric Research.
- Derogatis, L.R., Cleary, P.A. (1977). Confirmation of the dimensional structure of the SCL-90: A study in construct validity. Journal of Clinical Psychology, 33, 981-989.
- Emery, R.E. (1982). Interparental conflict and the children of discord and divorce. Psychological Bulletin, 92, 310-330.
- Emery, R.E., O'Leary, K.D. (1982). Children's perceptions of marital discord and behavior problems of boys and girls. Journal of Abnormal Child Psychology, 10(1), 11-24.
- Emery, R.E., O'Leary, K.D. (1984). Marital discord and child behavior problems in a nonclinical sample. Journal of Abnormal Child Psychology, 12, 411-420.
- Enos, D.M., Handal, P.J. (1986). The relation of parental marital status and perceived family conflict to adjustment in white adolescents. Journal of Consulting and Clinical Psychology, 54(6), 820-824.

- Finney, J.W., Mitchell, R.E., Cronkite, R.C., Moos, R.H. (1984). Methodological issues in estimating main and inter- active effects: Examples from coping/social support and stress field. Journal of Health and Social Behavior, 25, 85-98.
- Ge, X., Conger, R.D., Lorenz, F.O., Elder, G.H., Jr., Montague, R.B., Simons, R.L. (1992). Linking family economic hardship to adolescent distress. Journal of Research on Adolescence, 2(4), 351-378.
- Grych, J.H., Fincham, F.D. (1993). Children's appraisals of marital conflict: Initial investigations of the cognitive-contextual framework. Child Development, 64, 215-230.
- Grych, J.H., Fincham, F.D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. Psychological Bulletin, 108(2), 267-290.
- Hetherington, E.M., Cox, M., Cox,R. (1982). Effects of divorce on parents and children. In M.E. Lamb(Ed), Non-traditional families: Parenting and child development (pp. 238-288). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Howes, P., Markman, H.J. (1989). Marital quality and child functioning: A longitudinal investigation. Child Development, 60, 1044-1051.
- Jorsekog, K.G., Sorbom, D. (1989). LISREL 7: A guide to the program and applications. Chicago: SPSS Inc.
- Jouriles, E.N., Murphy, C.M., O'Leary, K.D. (1989). Interspousal aggression, marital discord, and child problems. Journal of Consulting and Clinical Psychology, 57(3), 453-455.

- Long, N., Forehand, R., Fauber, R., Brody, G.H. (1987). Self perceived and independently observed competence of young adolescents as a function of parental marital conflict and recent divorce. Journal of Abnormal Child Psychology, 15(1), 15-27.
- Lorenz, F.O., Conger, R.D., Simons, R.I., Whitbeck, L.B., Elder, G.H., Jr. (1991). Economic pressure and marital quality: An illustration of the method variance problem in the causal modeling of family processes. Journal of marriage and the family, 53, 375-388.
- Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. Psychological Review, 80, 252-283.
- Patterson, G.R. (1982). Coercive Family Process. Eugene, OR: Castalia.
- Thomson, E., Williams, R. (1984). A note on correlated measurement error in wife-husband data. Journal of Marriage and the Family, 46, 643-649.
- Wheaton, B. (1985). Models for the stress-buffering functions of coping resources. Journal of Health and Social Behavior, 26, 352-364.

Table 1.
Means and standard deviations for all indicators of latent constructs.

	Combined		Boys		Girls	
	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev
1. Parent's Marital Conflict, Self Report	46.27	14.39	45.33	13.31	47.13	15.29
2. Parent's Marital Conflict, Obs. Report	28.10	14.39	27.94	7.34	28.24	7.27
3. Parent's Hostility Toward Adolescent, Self Report	23.73	5.20	23.62	4.71	23.82	5.61
4. Parent's Hostility Toward Adolescent, Obs. Report	34.98	9.24	35.32	8.79	34.67	9.65
5. Adolescent Perceptions of Financial Conflict	2.07	0.87	1.99	0.85	2.14	0.89
6. Adolescent Perceptions of Parent's Arguing	2.35	0.72	2.25	0.72	2.45	0.71
7. Adolescent Report of Father's Hostility	28.22	7.95	28.77	8.29	27.72	7.62
8. Adolescent Report of Mother's Hostility	28.93	7.72	29.35	8.02	28.55	7.45
9. Adolescent Depression, Time 1	19.50	6.98	18.98	6.62	19.98	7.28
10. Adolescent Depression, Time 1	15.07	5.17	15.07	5.17	15.06	5.19
11. Adolescent Anxiety, Time 1	9.63	3.97	9.91	4.30	9.37	3.64
12. Adolescent Delinquency, Time 1	1.21	2.42	1.83	2.92	0.64	1.66
13. Adolescent Anti-Soc, Time 1	18.60	5.22	19.90	5.31	17.42	4.86
14. Adolescent Self-Est, Time 1	39.50	6.19	39.85	6.04	39.19	6.32
15. Adolescent Mastery, Time 1	26.03	4.13	25.93	4.31	26.11	3.96
16. Adolescent Depression, Time 3	18.05	6.24	16.57	4.71	19.34	7.09
17. Adolescent Anxiety, Time 3	14.13	4.69	13.49	4.00	14.68	5.15
18. Adolescent Hostility, Time 3	8.85	3.35	8.89	3.24	8.81	3.45
19. Adolescent Delinquency, Time 3	24.02	3.91	24.76	4.47	23.39	3.23
20. Adolescent Anti-Soc, Time 3	22.22	6.63	24.47	6.19	20.28	6.40
21. Adolescent Self-Est, Time 3	40.22	6.42	41.18	6.02	39.39	6.64
22. Adolescent Mastery, Time 3	27.36	4.23	27.28	4.22	27.42	4.24

Table 2.
Intercorrelations for all indicators of structural equation latent constructs for the combined sample of adolescents (N=370).

	1	2	3	4	5	6	7	8	9	10	11
1. Parent's Marital Conflict, Self Report	1.00										
2. Parent's Marital Conflict, Obs. Report	0.41**	1.00									
3. Parent's Hostility Toward Adolescent, Self Report	0.32**	0.18**	1.00								
4. Parent's Hostility Toward Adolescent, Obs. Report	0.21**	0.38**	0.47**	1.00							
5. Adolescent Perceptions of Conflict (Indicator 1)	0.32**	0.19**	0.15**	0.18**	1.00						
6. Adolescent Perceptions of Conflict (Indicator 2)	0.44**	0.24**	0.10*	0.11*	0.46**	1.00					
7. Adolescent Report of Father's Hostility	0.27**	0.20**	0.40**	0.32**	0.30**	0.34**	1.00				
8. Adolescent Report of Mother's Hostility	0.20**	0.20**	0.34**	0.34**	0.25**	0.31**	0.66**	1.00			
9. Adolescent Depression, Time 1	0.15**	0.11*	0.11*	0.06	0.17**	0.24**	0.23**	0.23**	1.00		
10. Adolescent Anxiety, Time 1	0.15**	0.11*	0.12*	0.05	0.17**	0.21**	0.22**	0.25**	0.76**	1.00	
11. Adolescent Hostility, Time 1	0.13**	0.10*	0.12*	0.11*	0.12*	0.18**	0.24**	0.29**	0.69**	0.67**	1.00
12. Adolescent Delinquency, Time 1	0.00	0.03	-0.00	0.09	0.09	0.07	0.13**	0.14**	0.25**	0.27**	0.39**
13. Adolescent Anti-Soc, Time 1	0.00	0.16**	0.14**	0.17**	0.08	0.04	0.19**	0.22**	0.28**	0.24**	0.43**
14. Adolescent Self-Estm, Time 1	-0.21**	-0.10**	-0.19**	-0.12*	-0.21**	-0.22**	-0.31**	-0.24**	-0.41**	-0.30**	-0.35**
15. Adolescent Mastery, Time 1	-0.25**	-0.04	-0.19**	-0.13**	-0.23**	-0.20**	-0.30**	-0.27**	-0.47**	-0.39**	-0.37**
16. Adolescent Depression, Time 3	0.02	0.08	0.11*	0.08	0.09	0.18**	0.25**	0.28**	0.44**	0.30**	0.37**
17. Adolescent Anxiety, Time 3	0.00	0.08	0.10*	0.13**	0.11*	0.21**	0.25**	0.28**	0.36**	0.30**	0.31**
18. Adolescent Hostility, Time 3	0.02	0.11*	0.10*	0.18**	0.11*	0.17**	0.26**	0.32**	0.32**	0.30**	0.42**
19. Adolescent Delinquency, Time 3	0.08	0.07	0.04	0.13**	0.12*	0.16**	0.20**	0.25**	0.16**	0.13**	0.24**
20. Adolescent Anti-Soc, Time 3	0.04	0.14**	0.14**	0.17**	0.09	0.13*	0.31**	0.31**	0.14**	0.12*	0.29**
21. Adolescent Self-Estm, Time 3	-0.12*	-0.02	-0.24**	-0.11*	-0.19**	-0.18**	-0.32**	-0.31**	-0.32**	-0.22**	-0.23**
22. Adolescent Mastery, Time 3	-0.10*	-0.00	-0.18**	-0.05	-0.17**	-0.17**	-0.31**	-0.27**	-0.24**	-0.16**	-0.18**

Table 2 (continued).

	12	13	14	15	16	17	18	19	20	21	22
12. Adolescent Delinquency, Time 1	1.00										
13. Adolescent Anti-Soc, Time 1	0.34**	1.00									
14. Adolescent Self-Estrm, Time 1	-0.12**	-0.24**	1.00								
15. Adolescent Mastery, Time 1	-0.11**	-0.20**	0.62**	1.00							
16. Adolescent Depression, Time 3	0.21	0.17**	-0.21**	-0.26**	1.00						
17. Adolescent Anxiety, Time 3	0.25	0.20**	-0.13**	-0.18**	0.74**	1.00					
18. Adolescent Hostility, Time 3	0.27	0.36**	-0.14**	-0.14**	0.61**	0.71**	1.00				
19. Adolescent Delinquency, Time 3	0.43**	0.29**	-0.05	-0.14**	0.23**	0.37**	0.37**	1.00			
20. Adolescent Anti-Soc, Time 3	0.29**	0.56**	-0.14**	-0.06	0.26**	0.30*	0.53**	0.39**	1.00		
21. Adolescent Self-Estrm, Time 3	-0.15**	-0.14**	0.34**	0.51**	-0.49**	-0.35**	-0.32**	-0.06	-0.20**	1.00	
22. Adolescent Mastery, Time 3	-0.06	-0.16**	0.38**	0.32**	-0.37**	-0.28**	-0.28**	-0.04	-0.20**	0.63**	1.00

*p < .05 **p < .01

Table 3.
Intercorrelations for all indicators of structural equation latent constructs for the sample of adolescents separated by gender
(Boys N=173, Girls N=197).

	1	2	3	4	5	6	7	8	9	10	11
1. Parent's Marital Conflict, Self Report											
2. Parent's Marital Conflict, Obs. Report	0.34**										
3. Parent's Hostility Toward Adolescent, Self Report	0.34**	0.14*									
4. Parent's Hostility Toward Adolescent, Obs. Report	0.24**	0.40**									
5. Adolescent Perceptions of Financial Conflict	0.31**	0.03	0.27**								
6. Adolescent Perceptions of Parent's Arguing	0.41**	0.14*	0.20**	0.19**							
7. Adolescent Report of Father's Hostility	0.31**	0.19**	0.33**	0.34**	0.41**						
8. Adolescent Report of Mother's Hostility	0.21**	0.19**	0.33**	0.33**	0.39**	0.46**					
9. Adolescent Depression, Time 1	0.22**	0.05	0.08	0.14	0.22**	0.28**	0.16**				
10. Adolescent Anxiety, Time 1	0.19**	0.04	0.06	0.03	0.19**	0.28**	0.16**	0.25**			
11. Adolescent Hostility, Time 1	0.27**	0.09	0.14	0.18*	0.22**	0.29**	0.23**	0.29**	0.73**		
12. Adolescent Delinquency, Time 1	0.06	0.01	0.00	0.06	0.14	0.12	0.13**	0.18**	0.23**	0.72**	
13. Adolescent Anti-Soc, Time 1	-0.02	0.18*	0.10	0.13	0.15	0.03	0.15**	0.17*	0.29**	0.27**	0.35**
14. Adolescent Self-Est, Time 1	-0.18**	-0.06	-0.13	-0.12	-0.32**	-0.27**	-0.29**	-0.26**	-0.43**	-0.26**	-0.35**
15. Adolescent Mastery, Time 1	-0.25**	-0.00	-0.14	-0.16*	-0.30**	-0.31**	-0.34**	-0.35**	-0.45**	-0.32**	-0.41**
16. Adolescent Depression, Time 3	0.01	-0.05	0.11	0.09	0.09	0.16**	0.20**	0.27**	0.32**	0.32**	0.33**
17. Adolescent Anxiety, Time 3	0.05	0.04	0.11	0.11	0.16*	0.23**	0.25**	0.33**	0.16*	0.19**	0.19**
18. Adolescent Hostility, Time 3	0.12	0.10	0.14	0.15*	0.18*	0.21**	0.33**	0.45**	0.23**	0.26**	0.38**
19. Adolescent Delinquency, Time 3	0.16*	-0.00	0.08	0.09	0.17*	0.26**	0.25**	0.36**	0.12	0.11	0.16*
20. Adolescent Anti-Soc, Time 3	0.09	0.13	0.24**	0.14	0.17*	0.22*	0.34**	0.35**	0.16*	0.16*	0.30**
21. Adolescent Self-Est, Time 3	-0.13	0.00	-0.31**	-0.18*	-0.23**	-0.24**	-0.33**	-0.28**	-0.17*	-0.08	-0.18**
22. Adolescent Mastery, Time 3	-0.08	0.00	-0.18*	-0.07	-0.22**	-0.22**	-0.33**	-0.33**	-0.18*	-0.10	-0.17**

Table 3 (continued).

	12	13	14	15	16	17	18	19	20	21	22
1. Parent's Marital Conflict, Self Report	-0.05	0.04	-0.24**	-0.24**	0.00	-0.04	-0.05	0.01	0.05	-0.10	-0.13
2. Parent's Marital Conflict, Obs. Report	0.06	0.16*	-0.14*	-0.07	0.15*	0.12	0.11	0.19**	0.17*	-0.04	-0.02
3. Parent's Hostility Toward Adolescent, Self Report	-0.04	0.18**	-0.23**	-0.23**	0.10	0.09	0.08	0.00	0.09	-0.18**	-0.18**
4. Parent's Hostility Toward Adolescent, Obs. Report	0.13	0.20**	-0.11	-0.12	0.09	0.16*	0.20**	0.20**	0.19**	-0.06	-0.02
5. Adolescent Perceptions of Financial Conflict	0.08	0.05	-0.11	-0.16*	0.06	0.07	0.06	0.11	0.09	-0.14*	-0.13
6. Adolescent Perceptions of Parent's Arguing	0.09	0.10	-0.17*	-0.08	0.15	0.18**	0.13*	0.07	0.16*	-0.14*	-0.14*
7. Adolescent Report of Father's Hostility	0.11	0.22**	-0.33**	-0.27**	0.31**	0.28**	0.20**	0.12	0.29**	-0.32**	-0.29**
8. Adolescent Report of Mother's Hostility	0.06	0.26**	-0.21**	-0.21**	0.32**	0.25**	0.21**	0.08	0.28**	-0.35**	-0.22**
9. Adolescent Depression, Time 1	0.34	0.31**	-0.40**	-0.48**	0.49**	0.47**	0.39**	0.25**	0.19**	-0.40**	-0.30**
10. Adolescent Anxiety, Time 1	0.30**	0.28**	-0.35**	-0.45**	0.30**	0.37**	0.34**	0.18**	0.12	-0.32**	-0.21**
11. Adolescent Hostility, Time 1	0.44**	0.46**	-0.35**	-0.33**	0.46**	0.43**	0.47**	0.36**	0.28**	-0.30**	-0.20**
12. Adolescent Delinquency, Time 1		0.25**	-0.17**	-0.25**	0.39**	0.45**	0.43**	0.71**	0.21**	-0.24**	-0.03
13. Adolescent Anti-Soc, Time 1			-0.27**	-0.20**	0.28**	0.31**	0.44**	0.33**	0.56**	-0.21**	-0.17*
14. Adolescent Self-Estim, Time 1	0.36**			0.59**	-0.26**	-0.20**	-0.19**	-0.13	-0.15*	0.35**	0.39**
15. Adolescent Mastry, Time 1	-0.09	-0.22**			-0.28**	-0.16*	-0.12	-0.13*	-0.03	0.50**	0.29**
16. Adolescent Depression, Time 3	0.13	0.12	-0.16*	-0.22**		0.74**	0.65**	0.33**	0.40**	-0.58**	-0.42**
17. Adolescent Anxiety, Time 3	0.08	0.12	0.04	-0.20**	0.72**		0.76**	0.50**	0.43**	-0.40**	-0.31**
18. Adolescent Hostility, Time 3	0.14	0.28**	0.08	-0.18*	0.62**	0.68**		0.48**	0.60**	-0.39**	-0.23**
19. Adolescent Delinquency, Time 3	0.24**	0.24**	0.00	-0.18*	0.20**	0.34**	0.32**		0.39**	-0.16*	-0.02
20. Adolescent Anti-Soc, Time 3	0.29**	0.58**	-0.14	-0.17*	0.26**	0.26**	0.48**	0.36**		-0.23**	-0.16*
21. Adolescent Self-Estim, Time 3	-0.12	-0.11	0.34**	0.53**	-0.31**	-0.25**	-0.23**	0.00	-0.28**		0.65**
22. Adolescent Mastry, Time 3	-0.09	-0.14	0.36**	0.35**	-0.35**	-0.26**	-0.32**	-0.06	-0.26**	0.62**	

*p < .05 **p < .01

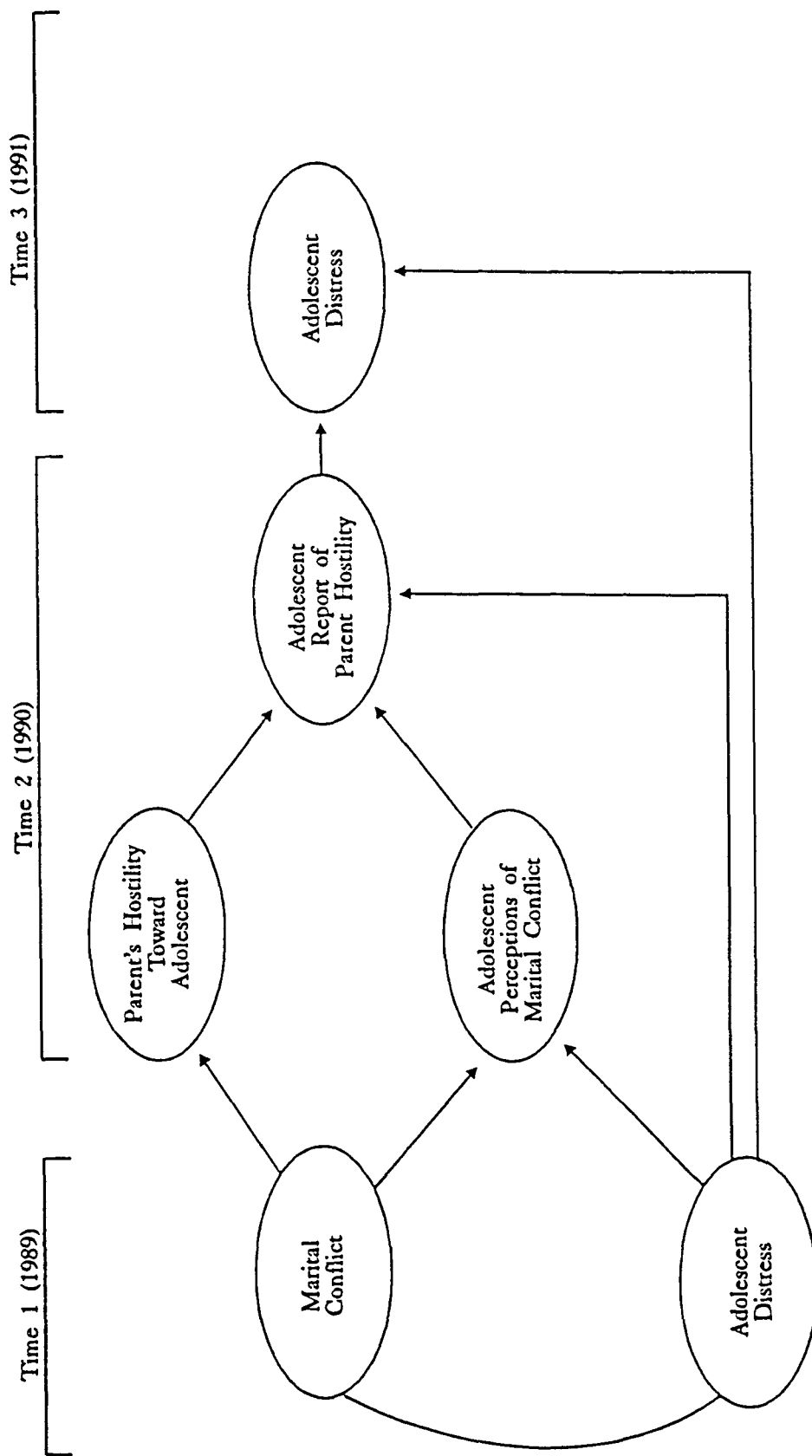


Figure 1: The Conceptual Model

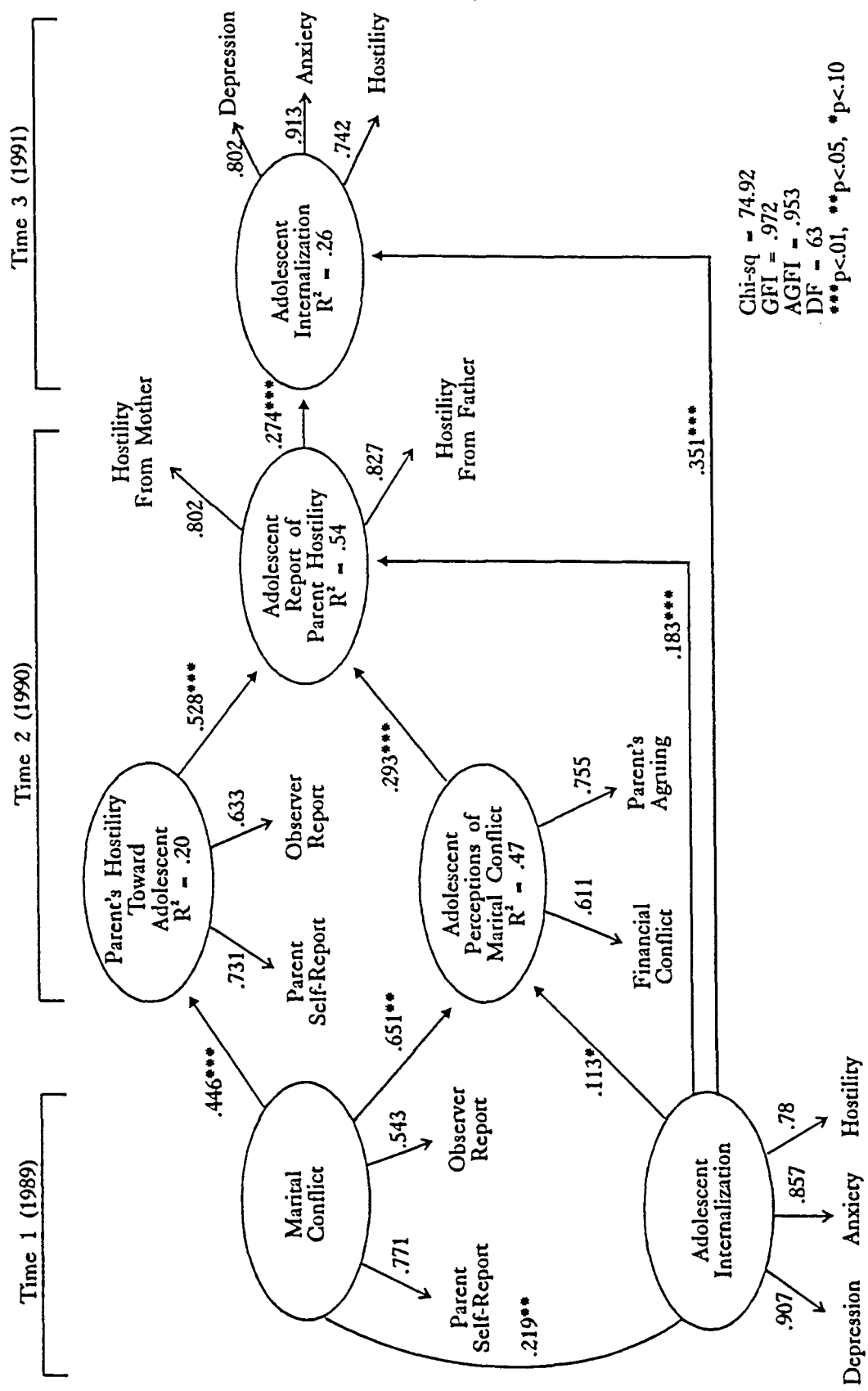


Figure 2: Completely Standardized Path Coefficients and Factor Loadings for Adolescent Internalization. (Combined Sample N=370)

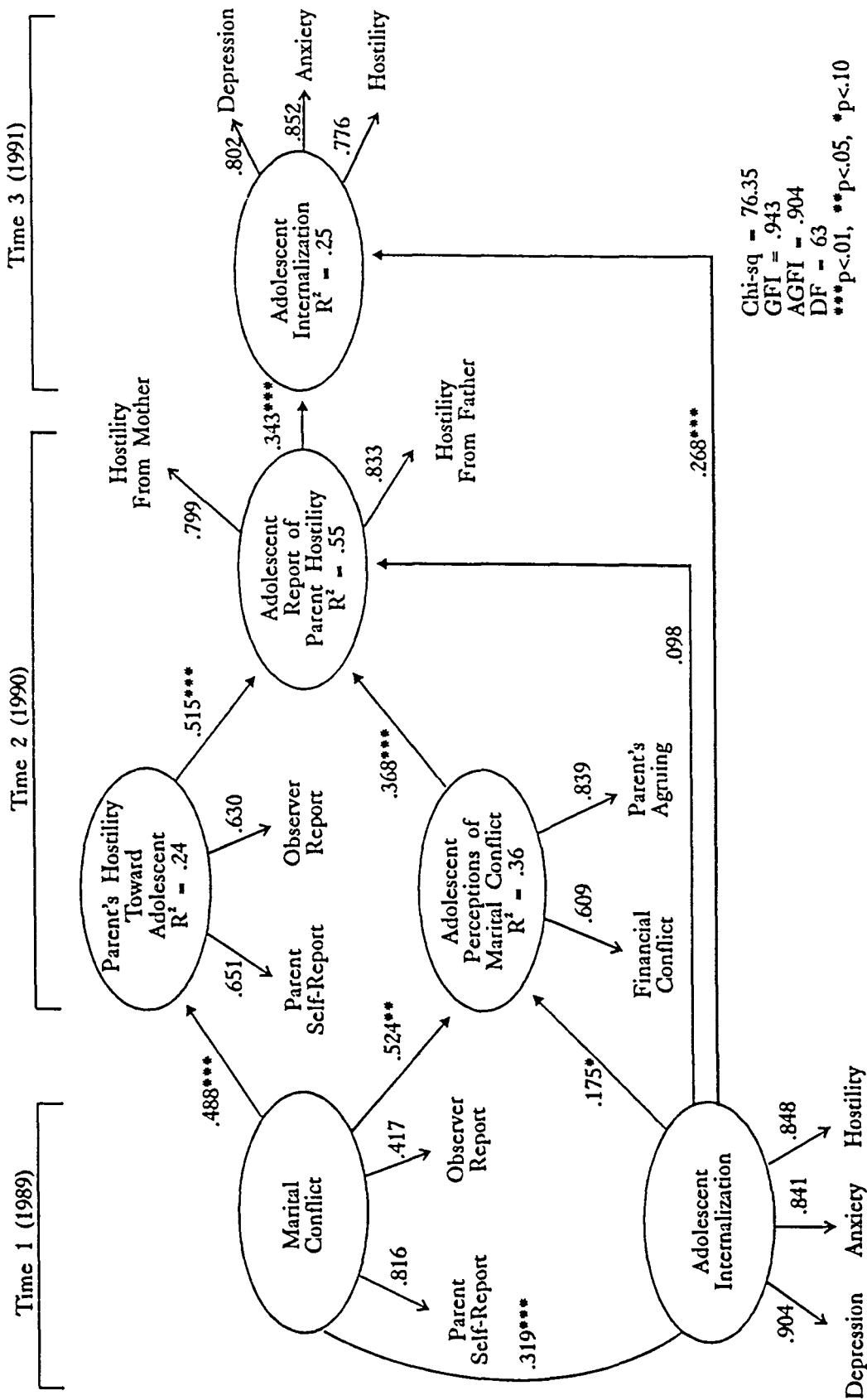


Figure 3: Completely Standardized Path Coefficients and Factor Loadings for Adolescent Internalization (Boys Only N=173)

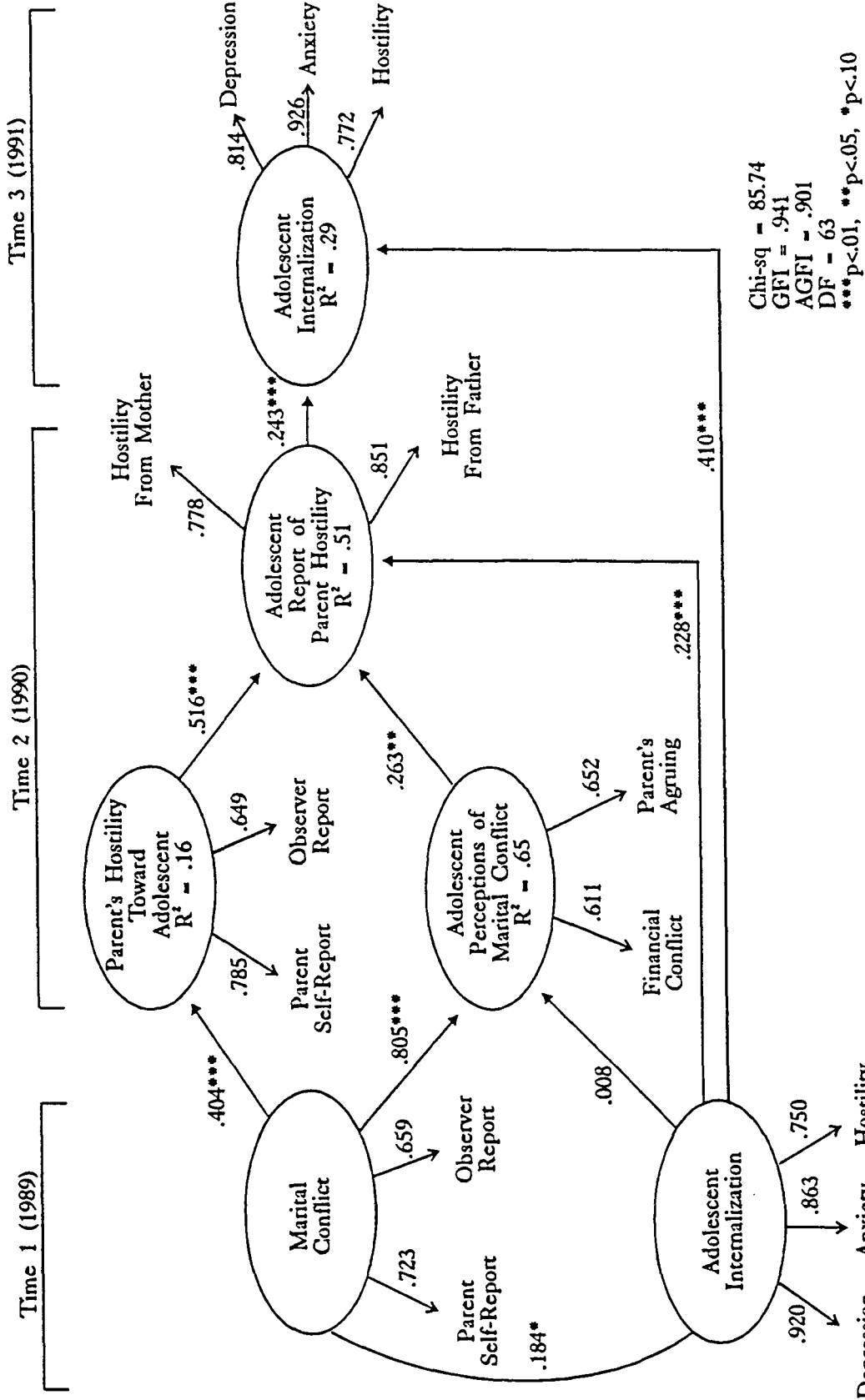


Figure 4: Completely Standardized Path Coefficients and Factor Loadings for Adolescent Internalization (Girls Only N=195)

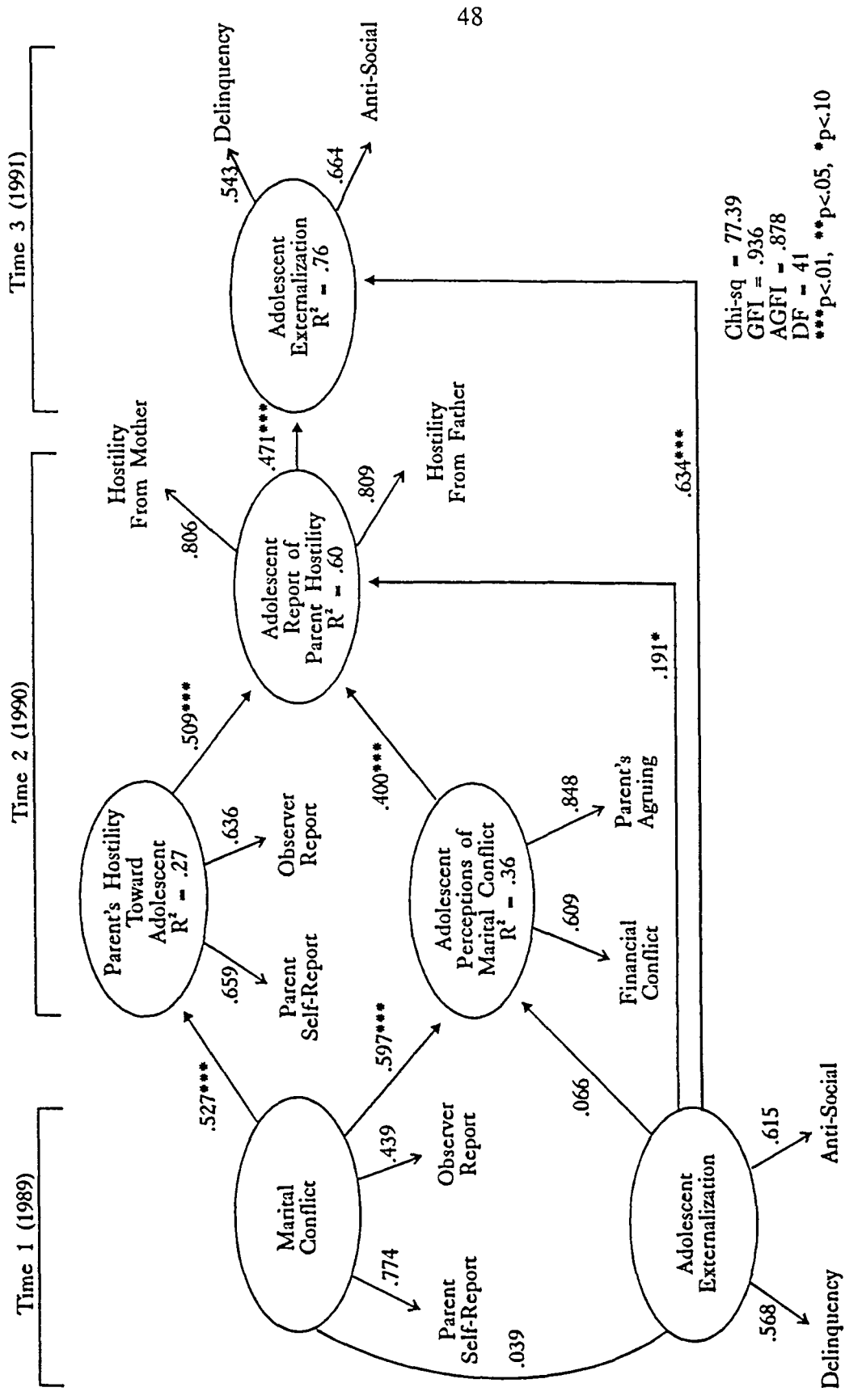


Figure 6: Completely Standardized Path Coefficients and Factor Loadings for Adolescent Externalization (Boys Only N=173)

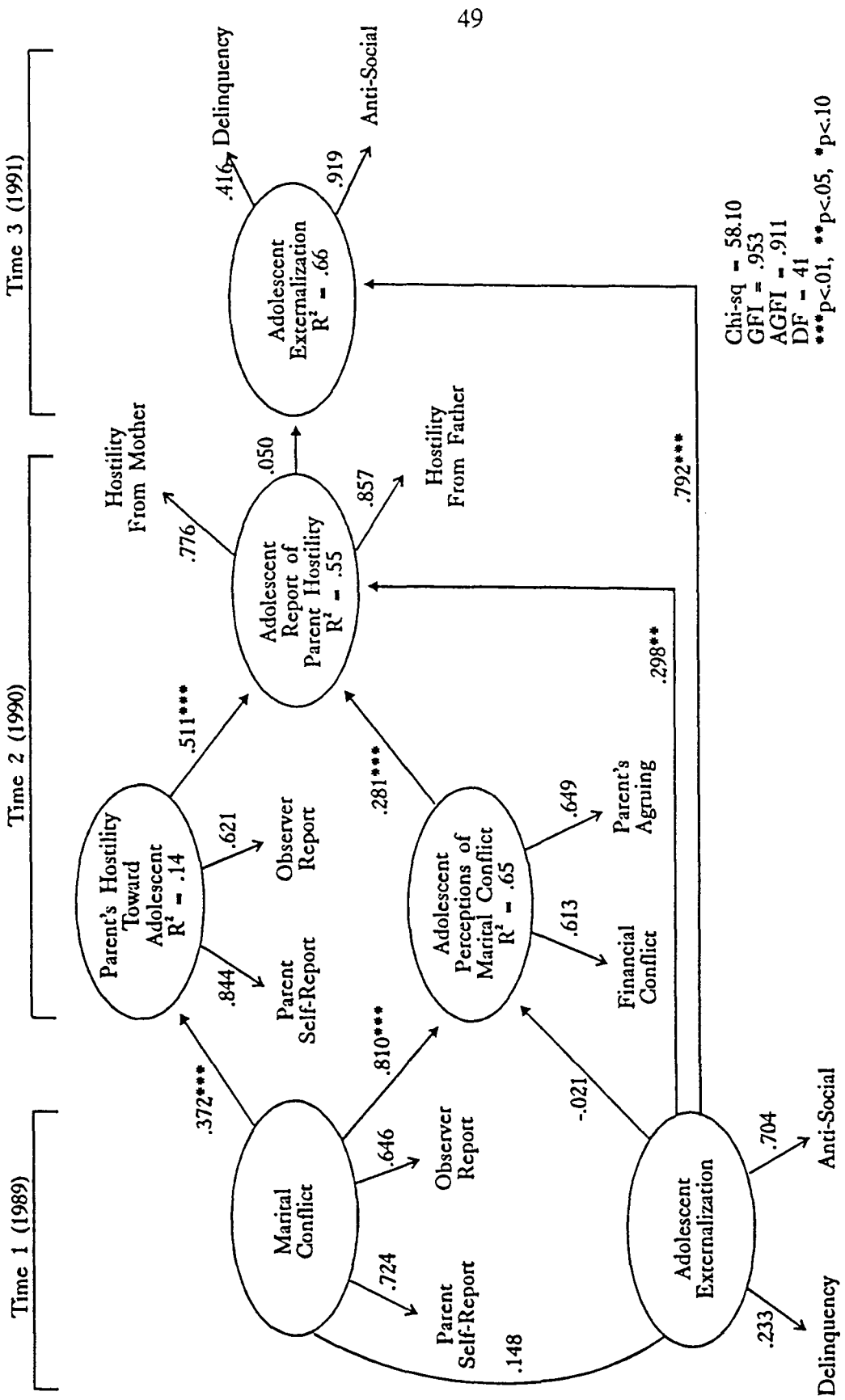


Figure 7: Completely Standardized Path Coefficients and Factor Loadings for Adolescent Externalization (Girls Only N=197)

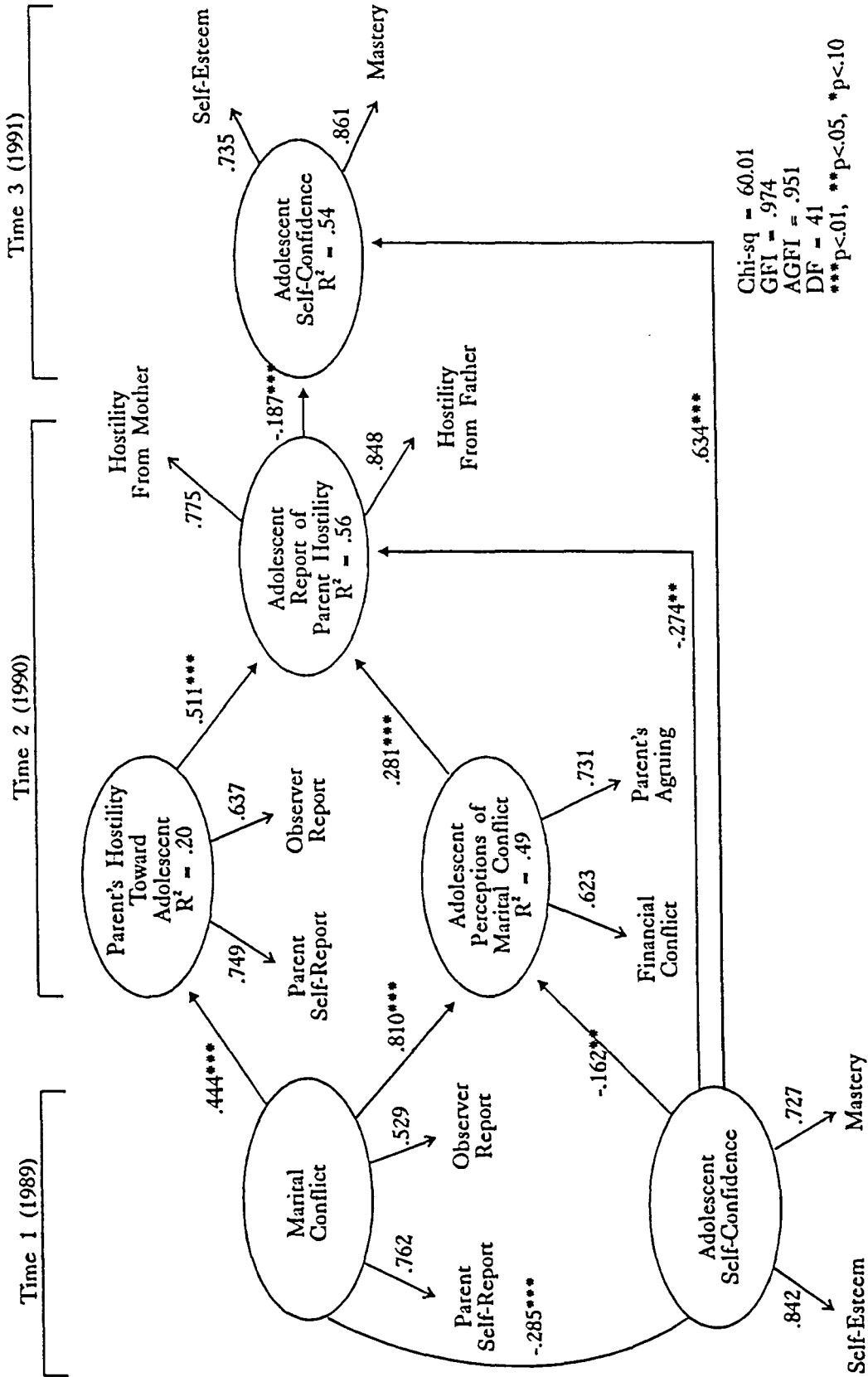


Figure 8: Completely Standardized Path Coefficients and Factor Loadings for Adolescent Self-Confidence (Combined Sample N=368)

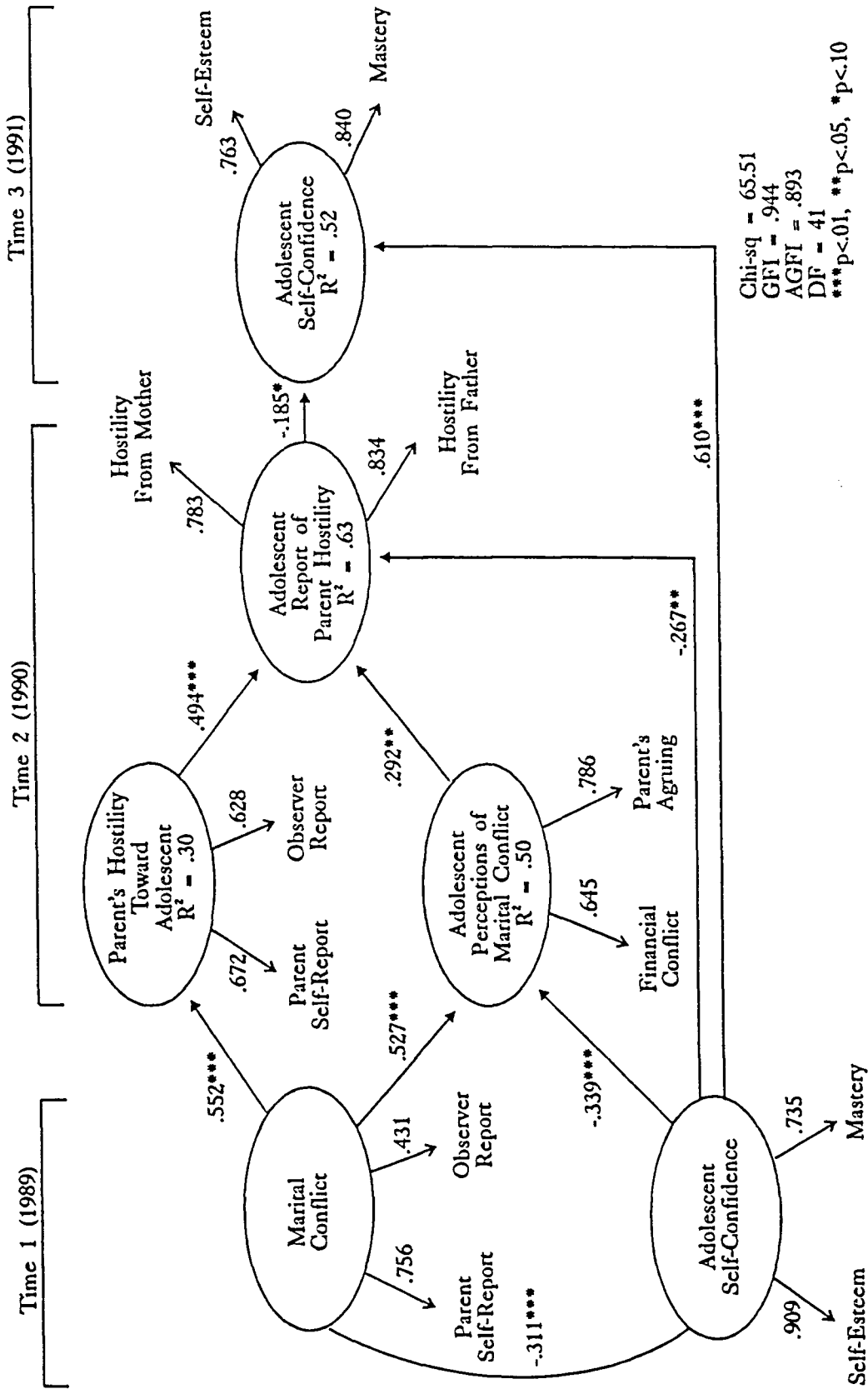


Figure 2: Completely Standardized Path Coefficients and Factor Loadings for Adolescent Self-Confidence (Boys Only N=172)

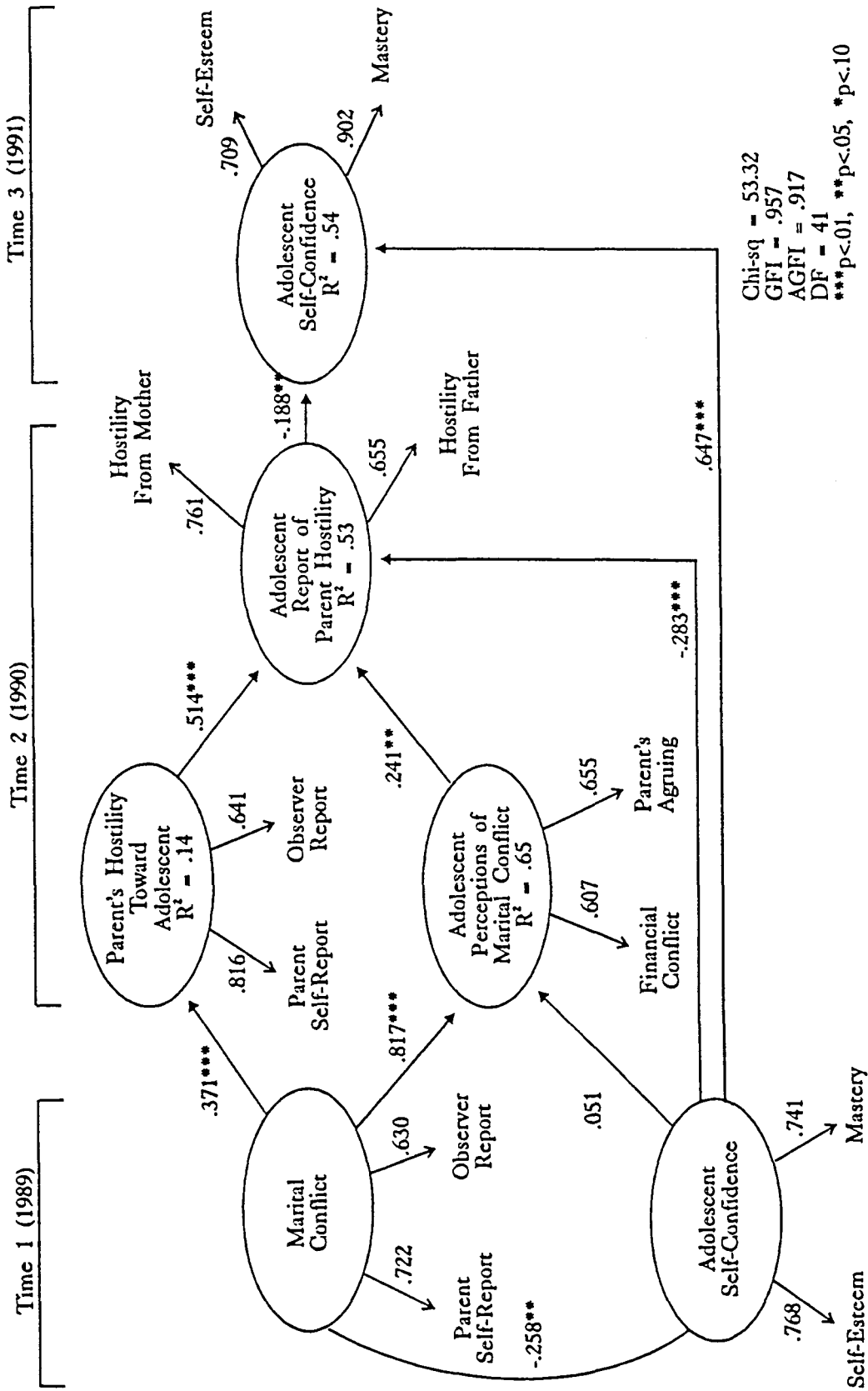


Figure 10: Completely Standardized Path Coefficients and Factor Loadings for Adolescent Self-Confidence (Girls Only N=196)

GENERAL SUMMARY

Marital conflict plays a significant role in the development of psychological and behavioral problems among children and adolescents (Patterson, 1982). Exposure to interparental conflict most often results in negative reactivity by the adolescent which may be directly related to increased levels of adolescent psychopathology.

The present study indirectly linked marital conflict and adolescent report of parent hostility through the mediating effects of parent and observer reported hostility toward the adolescent and adolescent perceptions of marital conflict. Controlling for earlier levels of psychological distress, a direct path was hypothesized between adolescent report of parent hostility and adolescent distress.

Following analyses which employed structural equation modeling procedures, results suggest that an adolescent's perceptions of marital conflict, along with parent's and observer report of parent's hostility, may mediate the relationship between marital conflict and the adolescent's report of parent's hostility. The adolescent's report of parent's hostility significantly affects his or her level of psychological distress.

Understanding the role of adolescent perceptions of marital conflict in an attempt to better explain the association between such conflict and adolescent maladjustment is an important area of scientific research. Further longitudinal research is needed in order to provide a more complete explanation of the role of an adolescent's perceptions and understanding of the nature of conflict as potential explanatory variables in the link between marital conflict and adolescent psychopathology.

REFERENCES

- Emery, R.E. (1982). Interparental conflict and the children of discord and divorce. Psychological Bulletin, 92, 310-330.
- Howes, P., Markman, H.J. (1989). Marital quality and child functioning: A longitudinal investigation. Child Development, 60, 1044-1051.
- Patterson, G.R. (1982). Coercive Family Process. Eugene, OR: Castalia.

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