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ABSTRACT

Studies of child and adolescent life experiences have attempted to determine how certain situational and psychological factors interact to moderate the effects that stressful life events have on adjustment. In this study a prospective design was used to examine the effects of negative life events and locus of control on emotional well-being. A total of 43 boys and 53 girls were surveyed from 8th grade to 12th grade and 40 boys and 47 girls were surveyed from 12th grade to the young adult follow-up. Prospective analyses, controlling for prior adjustment, revealed no significant effects for stress, locus of control, or the interaction terms at 12th grade. The results suggest that different moderators of life stress are important at different points in time. For example, between 8th and 12th grades, adolescents, for the most part, continue to live at home and can continue to utilize familiar resources to help them cope with stressful life events. Moderators for this age group could include quality of family relations and communication, as well as peer support. As young adult college students, late adolescents may no longer have ready access to prior sources of support during stressful times. Thus, they may have to rely on personal resources, such as attributional style, in order to attenuate the effects of stressful events. Five graphs are attached. (LLL)

# Moderating the Effects of Negative Life Events in Late Adolescence:

## A Prospective Study



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## ABSTRACT

Studies of child and adolescent life experiences have attempted to determine how certain situational and psychological factors interact to moderate the effects that stressful life events have on adjustment. In this study, a prospective design was used to examine the effects of negative life events and locus of control on emotional well-being. Adolescents were surveyed and interviewed in eighth grade, twelfth grade, and as young adults in their early 20s. Negative life events and locus of control were assessed at twelfth grade and during the young adult follow-up. Prospective analyses, controlling for prior adjustment, revealed no significant effects for stress, locus of control, or the interaction terms at twelfth grade. At young adulthood, several main effects and interactions emerged as significant predictors of emotional adjustment. The results are discussed with respect to gender differences and adjustment issues of late adolescents.

## OVERVIEW

Several trends and numerous programs of research have emerged from the study of life events and adjustment for adolescents. In general, the different trends can be connected through their focus on risk and resilience factors and their interest in increasing specificity regarding the influences and adaptive sequelae of stressful life experiences. Typically, the research question addressed in this literature is "why do some adolescents respond differently than others to the same events?" Or, more specifically, "what are the factors that moderate or buffer adolescents to the effects of stressful events in their lives?"

The literature on stressful life events has increasingly specified the nature of life events and a myriad of risk and resilience factors. For example, Compas (1987) argues that the effects of stressful events on emotional adjustment are influenced by the perceived controllability of those events and the match or fit between coping strategies and events. Causal attributions for events and the perceived effectiveness of coping strategies can be considered risk and resilience factors.

One limitation in much of the research on risk factors, such as stressful life events, and resilience or vulnerability factors, such as attributional style, has been the use of cross-sectional methodologies resulting in the causal inference that life events *affect* adjustment. Only recently have longitudinal studies offered additional insight into the direction of effects and reciprocal nature of life events and emotional well-being. The present study assesses the effects of important, uncontrollable life events on emotional adjustment by utilizing a longitudinal, prospective design that spans eight years.

## HYPOTHESES

1) The association between distressing life events (divorce or separation of parents, death in the family, and serious illness or injury in the family) and psychological adjustment is buffered by an internal locus of control. Concurrent reports of locus of control and life events are expected to interact significantly in the prediction of emotional adjustment, controlling for prior adjustment.

2) Prospectively, prior locus of control should buffer the effects of future negative life events, again controlling for prior adjustment.

## METHOD

### Design and Sample

The present study is part of a larger, longitudinal study of adolescent mental health (Petersen, 1984). The study utilizes a cohort-sequential design in which two successive birth cohorts completed questionnaires and interviews in sixth, seventh, eighth, and twelfth grade and, most recently, as young adults in their early 20s (approximately 80% were in college). Subjects were randomly selected from two middle to upper-middle class suburban school districts in the Midwest. The present paper draws on data collected from both cohorts during the eighth grade, twelfth grade, and young adult time points.

A total of 43 boys and 53 girls had complete data from eighth grade to twelfth grade. Forty boys and 47 girls had complete data from twelfth grade to the young adult follow-up. The average age of boys and girls at the three time points was 13, 17, and 21.

Measures

Emotional Adjustment. The Emotional Tone subscale of the Self-Image Questionnaire for Young Adolescents (SIQYA; Petersen et al., 1984) was used as the dependent measure of emotional well-being. The SIQYA is a self-report, Likert scaled questionnaire on which subjects respond to certain self-referent items. Sample items for the Emotional Tone subscale include, "I frequently feel sad," and "I enjoy life." Higher scores on the Emotional Tone subscale indicate more positive emotional well-being.

Life Events. Reports of important, uncontrollable life stressors were gathered at twelfth grade and at the young adult follow-up. The events included divorce or separation of parents, death in the family, and serious illness or injury of a family member. A total life events score was obtained by summing the occurrence of these events during the time period between eighth grade and twelfth grade and also during the time between twelfth grade and the young adult follow-up assessment. That is, at twelfth grade and again as young adults, subjects indicated whether these events had occurred during the previous four years.

Locus of Control. The Affiliation Locus of Control scale (Lefcourt et al., 1979) was used to measure attributional style regarding interpersonal or social experiences. The Locus of Control scale is a 25-item, self-report questionnaire. Sample items include, "In my experience, making friends is largely a matter of having the right breaks," and "When I hear of divorce I suspect that the couple probably did not try enough to make their marriage work." The scale is scored for externality. That is, higher scores represent a tendency for subjects to attribute what happens to them as the result of forces beyond their control.

## RESULTS

Zero order correlations between the measures are broken down by sex and time in Table 1. Significant correlations emerged between prior and current Emotional Tone scores for both boys and girls. The correlations between life events, Locus of Control, and Emotional Tone were, for the most part, nonsignificant.

Subjects were classified into high and low stress and locus of control groups based on median splits of the negative life events scores and Locus of Control scores, respectively, at twelfth grade and at the young adult follow-up. At twelfth grade, subjects who reported that four or more events had occurred since eighth grade were categorized as high stress. Those reporting less than four events were grouped into the low stress category. At the young adult follow-up, high stress subjects reported one or more events since twelfth grade while low stress subjects reported no events. Subjects were also categorized into high and low external locus of control groups.

Several 2 (stress) x 2 (locus of control) x 2 (sex) analyses of covariance (ANCOVAs), controlling for prior Emotional Tone scores, were conducted on the twelfth grade and the young adulthood results. Adjusted means for these analyses appear in Tables 2 and 3. At twelfth grade, after controlling for all other effects, only marginally significant main effects emerged for sex, $F$ (1,87) = 2.7, $p < .11$, and locus of control, $F$ (1,87) = 2.2, $p < .15$. Boys tended to score higher on Emotional Tone and lower on external Locus of Control (i.e., boys reported greater internal locus of control than girls). Figure 1 presents the adjusted means for these analyses.

Two ANCOVAs were calculated at young adulthood. First, concurrent reports of Locus of Control, negative life events, and sex were used as factors to predict Emotional Tone scores at young adulthood, controlling for prior, twelfth grade Emotional Tone scores (see Figure 2). A significant main effect for sex indicated that boys scored higher than girls on Emotional Tone, $F$ (1,78) = 6.3, $p < .02$. A significant stress x locus of control interaction emerged, $F$ (1,78) = 5.6, $p < .02$. Adolescents with a high external locus of control reported poorer adjustment under high stress conditions than did adolescents with low external locus of control (see Figure 3). A marginally significant locus of control x sex interaction indicated that boys with high external locus of control reported better adjustment than girls with high external control, $F$ (1,78) = 3.3, $p < .08$ (see Figure 4).

In the second ANCOVA, twelfth grade locus of control was used as a factor, rather than concurrent locus of control. None of the analyses of main effects or interactions reached significance (see Figure 5).

## CONCLUSIONS

The purpose of this study was to examine the moderating effects of locus of control on stressful life events. Locus of control was expected to interact with concurrent and future reports of uncontrollable, negative events such that the effect of stress would be buffered by an internal locus of control.

Different results emerged at the different points of analyses. At twelfth grade, only marginal main effects for sex and locus of control were found; none of the interaction terms proved to be important predictors of emotional adjustment. However, at the young adult follow-up, a different picture emerged. An internal locus of control did moderate the effects of negative life events. Moreover, locus of control interacted with sex. An external locus of control revealed positive emotional adjustment for boys and poorer adjustment for girls. Both boys and girls reported comparable levels of adjustment if they were more internal than external in their causal attributions.

The results suggest that different moderators of life stress are important at different points in time. For example, between eighth and twelfth grades, adolescents, for the most part, continue to live at home and can continue to utilize familiar resources to help them cope with stressful life events. Moderators for this age group could include quality of family relations and communication, as well as peer support. As young adult college students, late adolescents may no longer have ready access to prior sources of support during stressful times. Thus, they may have to rely on personal resources, such as attributional style, in order to attenuate the effects of stressful events.

Further research could extend this study in several directions. A limitation of the present study was the absence of an assessment of how subjects actually perceived the events when they occurred. It is plausible that the divorce of parents could be viewed as a positive event if the divorce was the result of lengthy conflict or abuse between parents. Another limitation of this study was the assessment of stress as a retrospective account of life events during the previous four years. Future research could more closely link assessments of stress and adjustment in time. Finally, in this study, there were no significant main effects for stress in the prediction of adjustment. Several explanations for this result are possible an have been alluded to in the discussion of interaction effects and the proximal versus distal assessment of stress and adjustment. Another explanation is that the index of adjustment, emotional well-being, is not sensitive to stressful life events as measured in this study. Additional research could focus on other indices of adjustment for these age groups (e.g., academic performance, social withdrawal, substance abuse).

Table 1

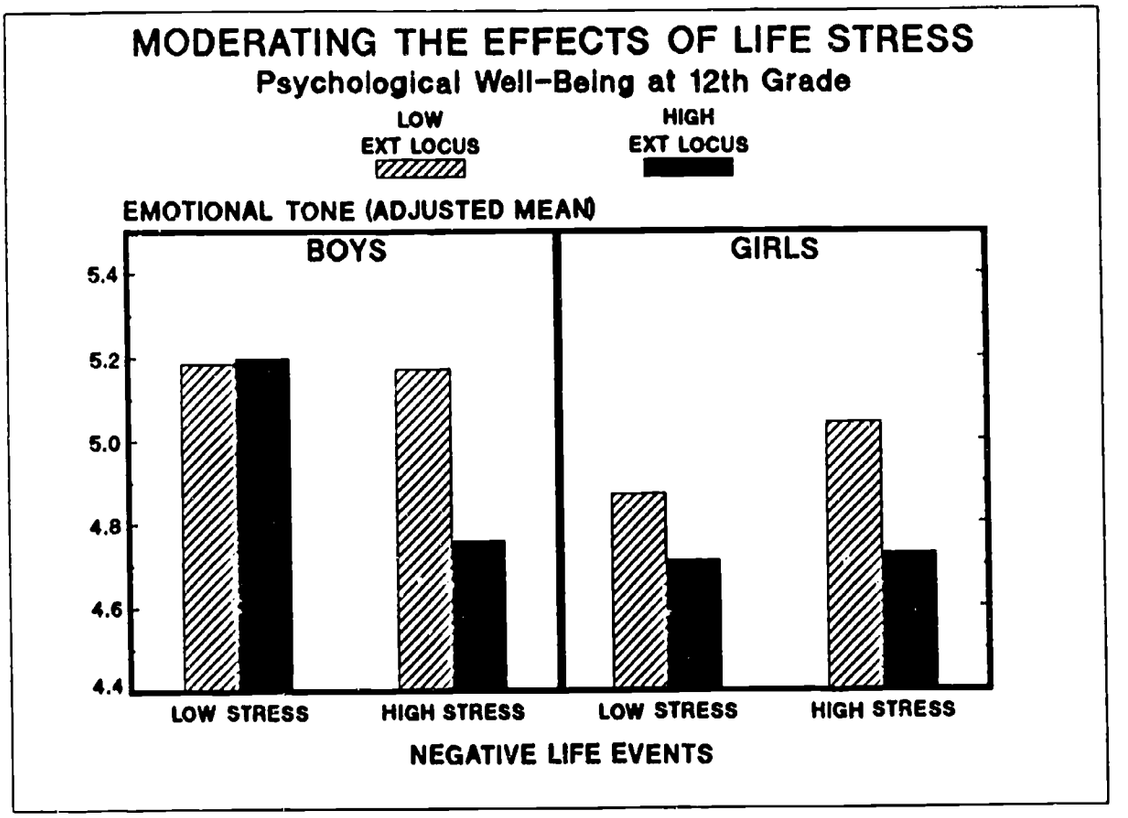
Correlations within year by sex[a]

| 12th Grade | 1. | 2. | 3. | 4. |
|---|---|---|---|---|
| 1. Emotional Tone (8th Grade) | -- | .25* | .12 | .05 |
| 2. Emotional Tone (12th Grade) | .46* | -- | .10 | -.18 |
| 3. Life Events | .04 | -.01 | -- | .18 |
| 4. Locus of Control | -.37* | -.24 | .00 | -- |
| **Young Adult** | **5.** | **6.** | **7.** | **8.** |
| 5. Emotional Tone (12th Grade) | -- | .64* | -.08 | .12 |
| 6. Emotional Tone (Young Adult) | .66* | -- | .14 | -.21 |
| 7. Life Events | .03 | -.04 | -- | -.24 |
| 8. Locus of Control | -.13 | -.06 | .14 | -- |

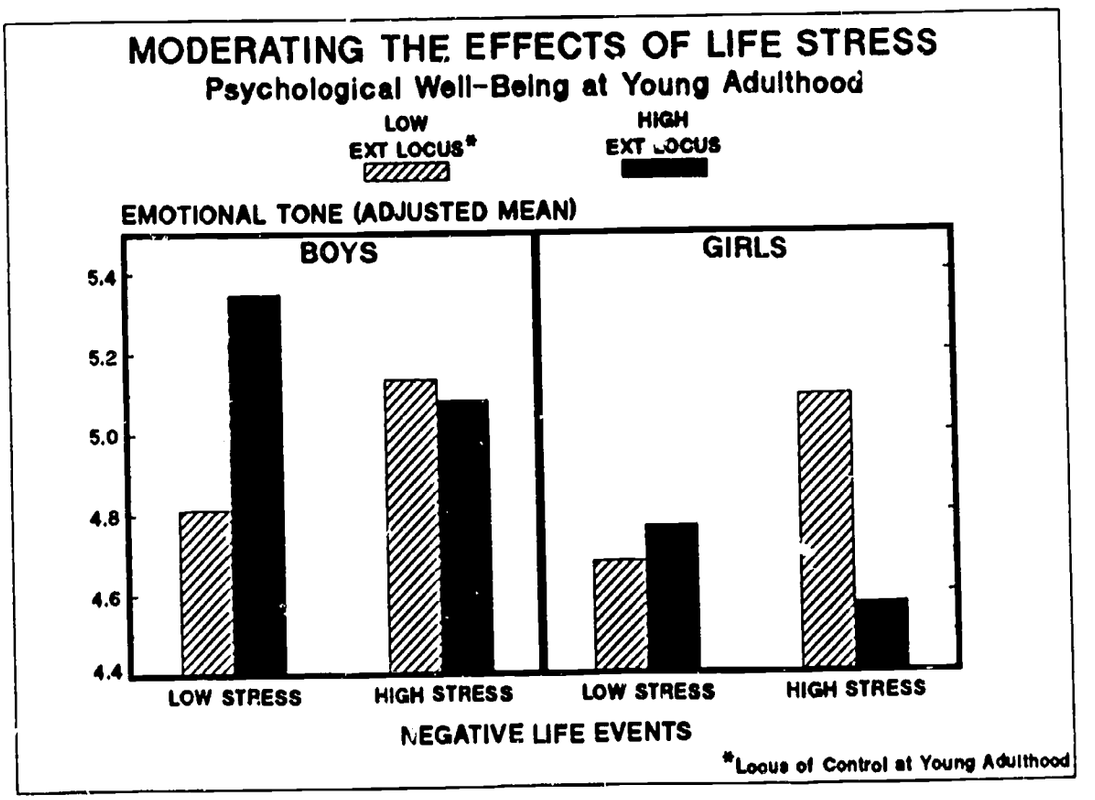
[a] Correlations for girls are above the diagonals; boys are below the diagonal.

* $p < .05$, one-tailed test.

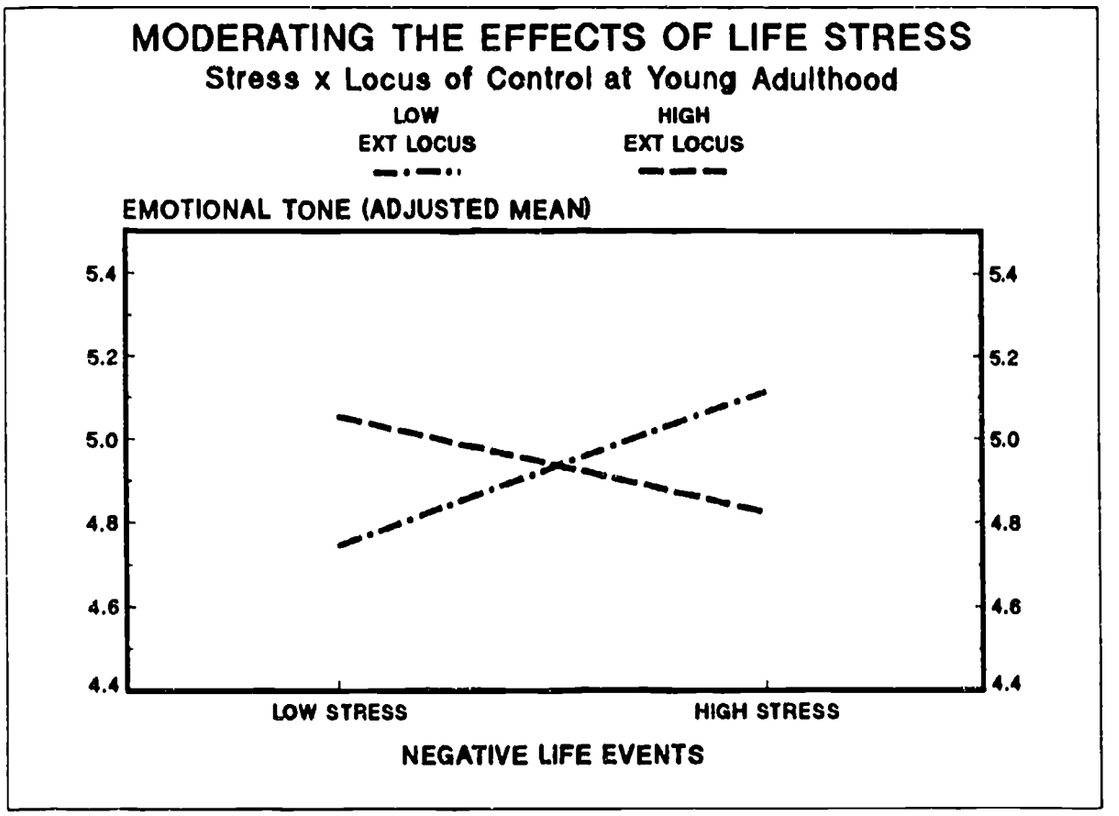
# FIGURE 1



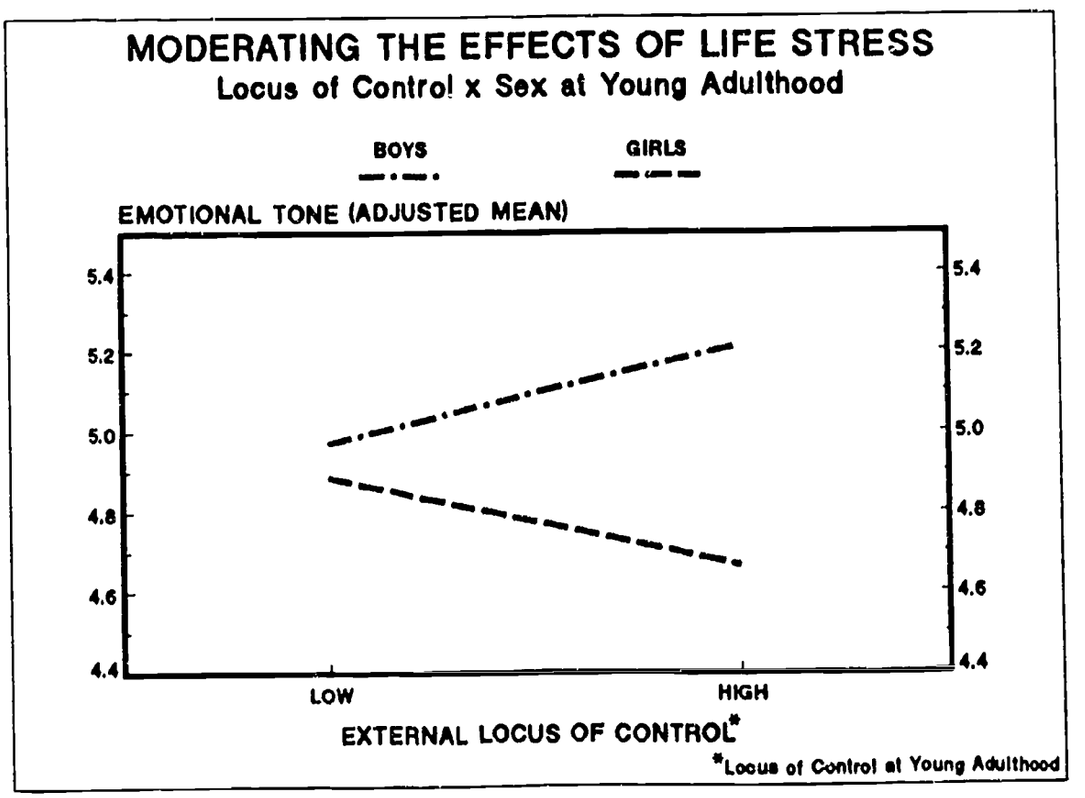

# FIGURE 2



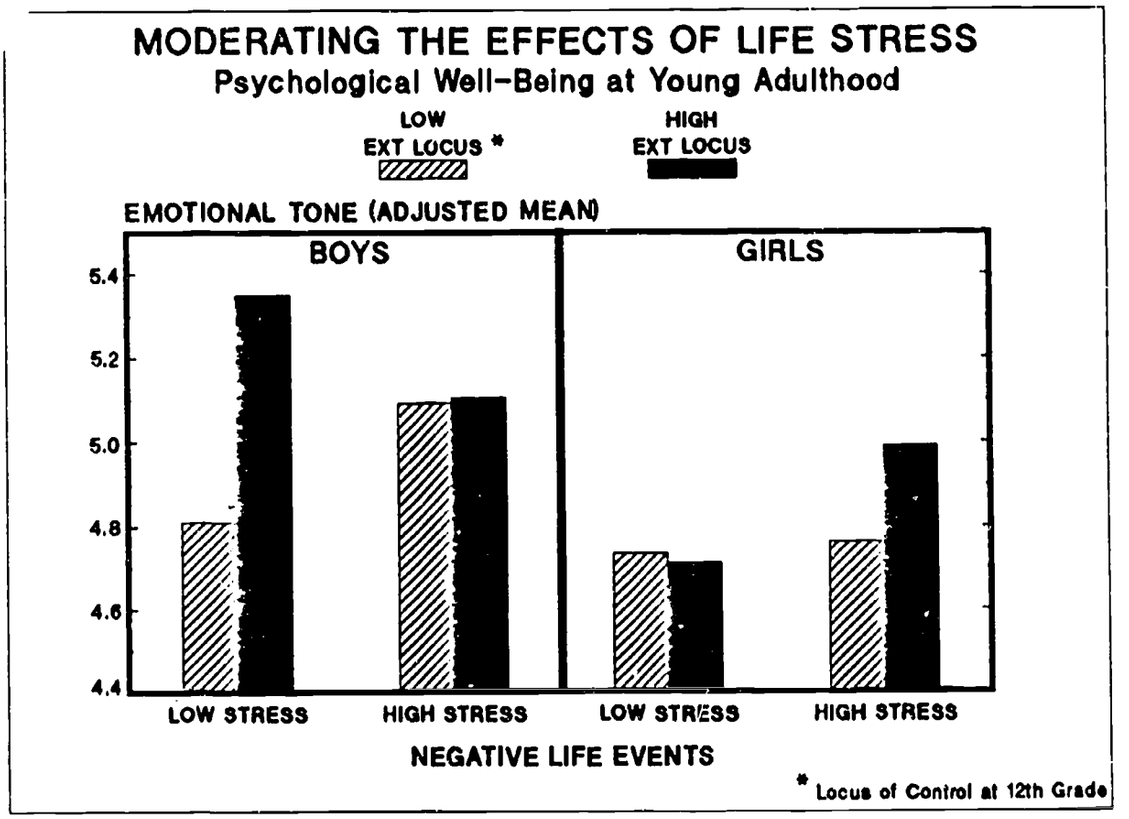
# FIGURE 3




# FIGURE 4



# FIGURE 5


MODERATING THE EFFECTS OF LIFE STRESS
Psychological Well-Being at Young Adulthood
LOW EXT LOCUS *
HIGH EXT LOCUS
EMOTIONAL TONE (ADJUSTED MEAN)
BOYS
GIRLS
5.4
5.2
5.0
4.8
4.6
4.4
LOW STRESS
HIGH STRESS
LOW STRESS
HIGH STRESS
NEGATIVE LIFE EVENTS
* Locus of Control at 12th Grade