

A PATH ANALYSIS MODEL OF LIFE STRESS AND SOCIAL SUPPORT

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Research on the effects of social support has grown tremendously over the last decade (Cohen & Syme, 1985; Sarason & Sarason, 1985). Traditionally, social support is discussed in terms of a coping resource that is complementary to an individual's personal coping skills. Thus, it is either conceptualized as being beneficial per se (main-effect hypothesis) or it is conceptualized as being beneficial because it buffers an individual against the deleterious effects of severe stress (buffering hypothesis) (Cohen & Wills, 1985). The purpose of the present study was to develop and test a path analysis model that incorporates both person variables and event variables in predicting the effect of perceived social support on three separate outcome measures, namely life satisfaction, morale, and depression.

Method

Subjects

Participants in this study were 99 community-dwelling older adults (M=16, F=83), ranging in age from 69-93 years ( $\bar{M}$ =76.9,  $SD$ =5.8), from rural central Pennsylvania. The average educational level was 12 years of schooling ( $SD$ =3.3). Sixty-three percent of the sample were unmarried (single, widowed, divorced/separated), while 37% were married.

### Procedure

Subjects were tested in 1986 for the second time as part of the Adult Development and Enrichment Project (ADEPT) (Baltes & Willis, 1981) and responded to an extensive battery of cognitive tests, personality tests, questionnaires regarding life satisfaction, morale, depression, social support, and other personal data. All measures will be described in detail in the poster.

### Results

Path analysis using ordinary least squares estimation (OLS) (Duncan, 1975) was used to test models predicting the effects of the person variables and event variables on perceived social support and the three separate outcome measures (life satisfaction, morale, depression). The resulting path analysis models are shown in Figure 1 - Figure 3.

Life Satisfaction. In the model predicting life satisfaction the person variables reasoning and subjective health evaluation at Time 1 exerted indirect effects on life satisfaction via life stress and perceived social support at Time 2. In turn, life stress at Time 2 had both a direct and an indirect effect via social support on life satisfaction, as would be expected by social support theory. Involvement in social activities at time 2 had an indirect effect on life satisfaction via social support but no direct effect. Perceived social support exerted a direct effect on life satisfaction in the expected direction. The amount of variance explained by this model was 10% ( $R^2=.10$ ).

Morale. The model for morale, in general, replicated the indirect effects of reasoning and subjective health evaluation at Time 1 on morale. Additionally a person's concern about intellectual aging at Time 1 had a direct effect on morale at Time 2. The effects of life stress and involvement in social activities again were mediated by perceived social support. The amount of variance explained by the model was 24% ( $R^2=.24$ ).

Depression. Model 3 replicated the pattern of direct and indirect effects shown in the previous models. In addition, a person's subjective health evaluation at Time 1 exerted a direct effect on the depression score at Time 2. Unexpectedly, perceived social support had no significant effect on a person's depression score. The amount of variance explained by model 3 was 21% ( $R^2=.21$ ).

#### Discussion

These analyses reveal that person and event variables exert differential effects on life stress and perceived social support as measured in our study. Additionally, perceived social support seems to have a differential impact on mental health outcomes depending on which measure of mental health is being used as the outcome variable.

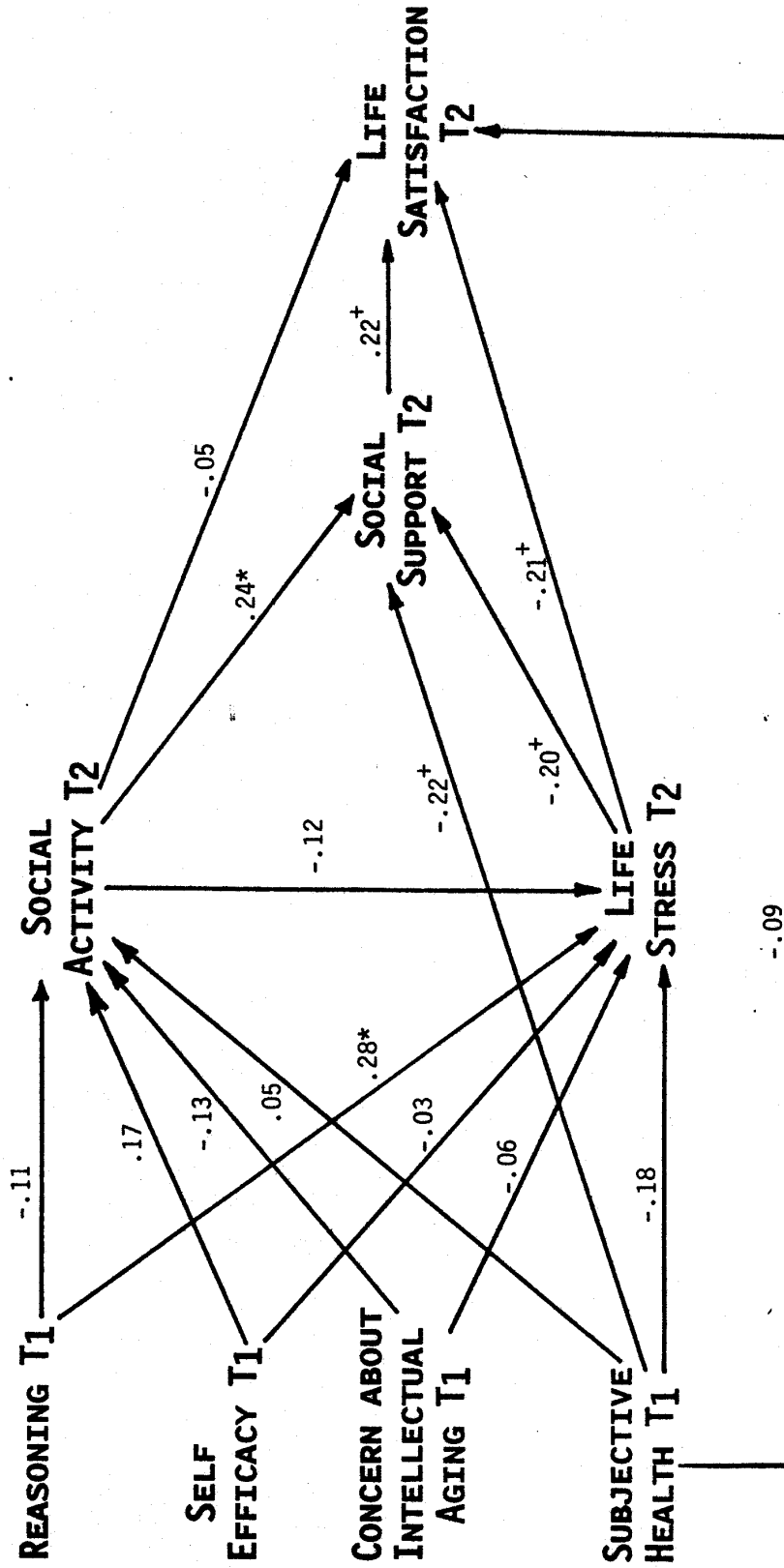
Including person variables (in terms of a person's competence, personality, and coping strategies) and context variables seems to be a promising approach in modeling the effects of social support on mental health outcomes.

**Keywords:** Social support, person and event variables, path model.

### References

- Baltes, P.B., & Willis, S.L. (1981). Plasticity and enhancement of intellectual functioning in old age: Penn State's Adult Development and Enrichment Project (ADEPT). In F.I.M. Craik & S.E. Trehub (Eds.), Aging and cognitive processes. New York: Plenum Press.
- Cohen, S., & Syme, S.L. (Eds.). (1985). Social support and health. Orlando, FL: Academic Press.
- Cohen, S., & Wills, T.A. (1985). Stress, social support, and the buffering hypotheses. Psychological Bulletin, 98, 310-357.
- Duncan, O.D. (1975). Introduction to structural equation models. New York: Academic Press.
- Sarason, I.G., & Sarason, B.R. (Eds.). (1985). Social support: Theory, research, and applications. Dordrecht, Netherlands: Martinus Nijhoff.

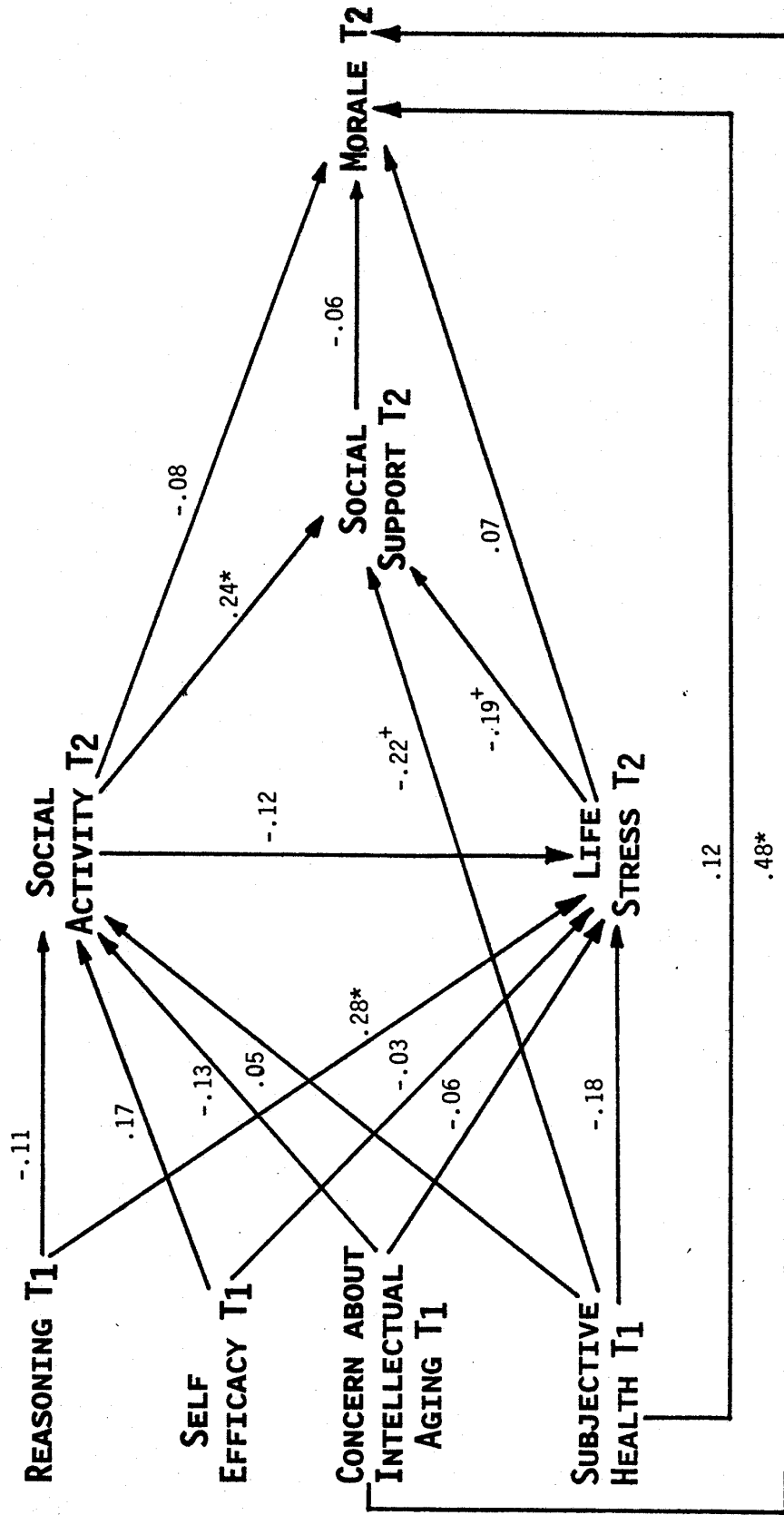
**FIGURE 1: PATH ANALYSIS MODEL PREDICTING LIFE SATISFACTION AT TIME 2**



$R^2 = .10$

Note. \* =  $p < .05$  for the two-tailed t-test  
 + =  $p < .05$  for the one-tailed t-test

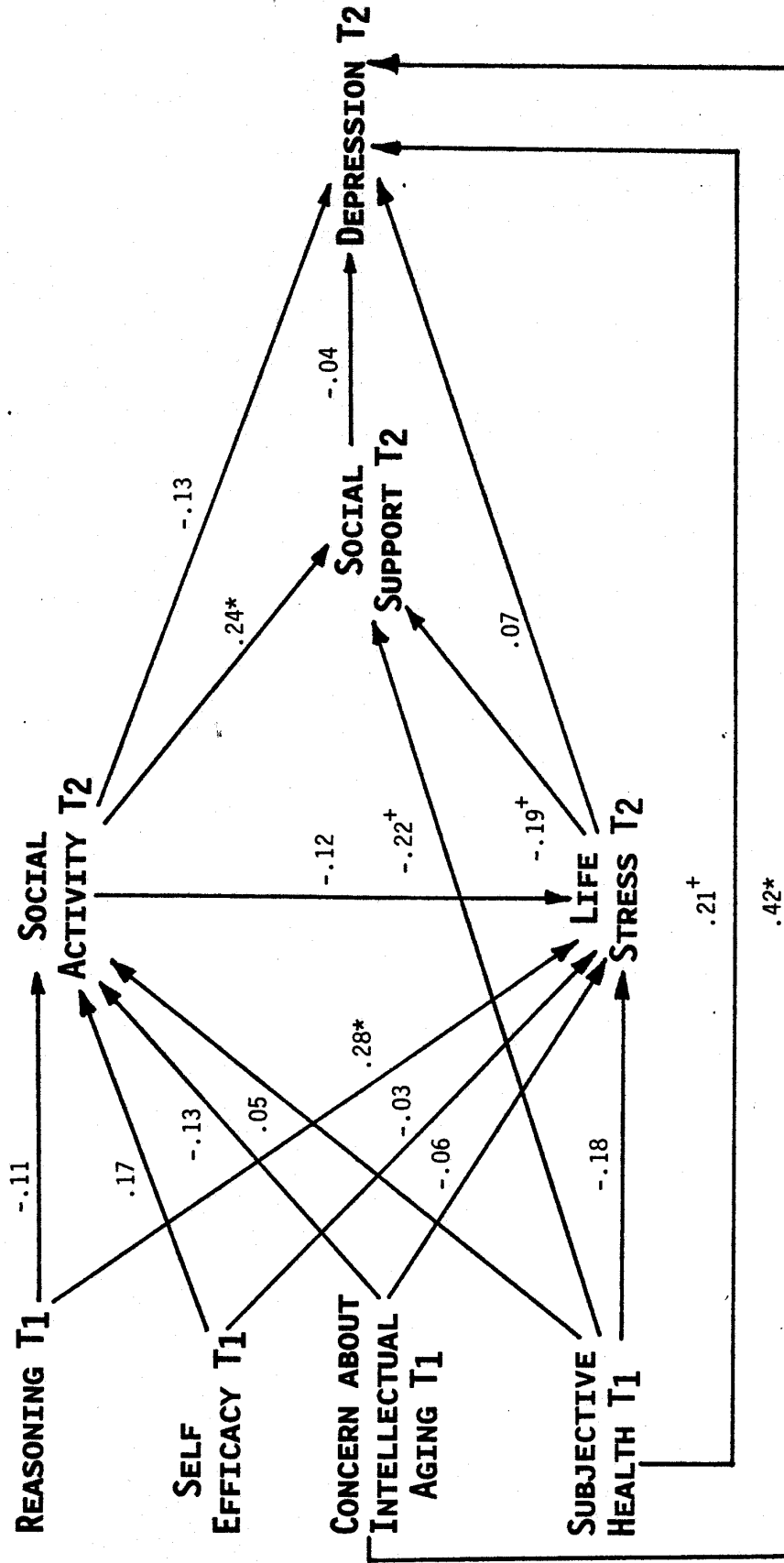
FIGURE 2: PATH ANALYSIS MODEL PREDICTING MORALE AT TIME 2



$R^2 = .24$

Note.  $*$  =  $p < .05$  for the two-tailed t-test  
 $+$  =  $p < .05$  for the one-tailed t-test

**FIGURE 3: PATH ANALYSIS MODEL PREDICTING DEPRESSION AT TIME 2**



Note. \*= $p < .05$  for the two-tailed t-test  
<sup>+</sup>= $p < .05$  for the one-tailed t-test

$R^2 = .21$