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Towards an Ecological Understanding of Mutual-Help Groups: The Social Ecology of "Fit"[1]

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Adopted an ecological framework to view mutual-help groups, and illustrated its usefulness by examining aspects of the social ecology of "fit" among 163 members of Compassionate Friends (bereaved parents; CF), Multiple Sclerosis (MS), and Overeaters Anonymous (OA) groups. Concerning person–group fit, personal Spirituality was positively related to (a) Providing Support, and to (b) Group Satisfaction for members of a group whose helping ecology emphasized "reliance on a higher power" (OA). (Contrary to prediction, the relationship with Group Satisfaction was also manifest for members of MS.) Furthermore, OA members reported higher levels of Spirituality than CF members. Concerning helping mechanism–focal problem fit, Friendship Development was positively related to Group Satisfaction only for individuals with a focal problem characterized by high levels of social network disruption (MS). In addition, Time in Group was inversely related to Depression for members of life stress (CF) and medical disorder (MS) groups, but not for members of a "behavioral control" type group (OA). The implications of the ecological perspective for future research are discussed.

Mutual-help groups are composed of individuals who share a common problem or life situation, and exemplify a peer-based approach to helping people in need (Levy, 1976; Gartner & Riessman, 1977). With a growth rate of approximately 9% per year (Maton, Leventhal, Madara, & Julien, 1989), and increased recognition in both public and private sectors (Jacobs & Goodman, 1989; Koop, 1987), mutual-help groups constitute an increasingly

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important element in the health and human services. To date, most research on mutual-help groups has focused on individual-level variables (e.g., member involvement; well-being), with the sample comprising a single mutual-help population (cf. Maton, 1988). Examination of the moderating role of group-level variables and a comparative focus across types of groups have been notably lacking. In the current paper, an ecological framework for understanding mutual-help groups is presented, with a focus on interactive relationships between group-level variables (i.e., cross-level analyses; Shinn, in press) and on comparisons across types of groups. Based on this ecological framework, a set of cross-level hypotheses are generated and tested on data available from members of three, diverse mutual-help groups: Compassionate Friends (bereaved parents), Multiple Sclerosis, and Overeaters Anonymous.

AN ECOLOGICAL FRAMEWORK FOR UNDERSTANDING MUTUAL-HELP GROUPS

Levine (1987) viewed the development of mutual-help groups as an attempt to create ecological niches—alternative social environments—where members who share common focal problems can reduce their sense of isolation and develop competencies. Maton et al. (1989) applied a population-ecology-of-organizations model to mutual-help groups, and viewed the individual group as an organizational entity that occupies a niche in both the community and the health care/human services system. These conceptualizations are ecological in that they encompass multiple levels of analysis in examining social phenomena, and apply concepts and principles from ecological theory (cf. Kelly, 1966). Consistent with recent mutual-help theory and research (e.g., Gartner & Riessman, 1984; Powell, 1987), they point to three sets of variables as important for an ecological understanding of groups in general, and of differences across groups in particular: focal problem, group environment (helping ecology), and external environment interface.

Perhaps the most salient characteristic differentiating groups is the nature of the problem or life situation which group members share (Gartner & Riessman, 1977). These problems encompass the spectrum of human concerns, ranging from death of a child to gay sexual orientation, alcoholism to birth of a retarded child, and manic-depressive illness to AIDS. Focal problems can be categorized along various dimensions, including problem domain (e.g., stressful life event, behavioral control problem, medical problem), level of social network disruption accompanying the focal problem, core underlying attitude (Antze, 1976), severity, and temporal duration. The groups constituting the sample in the current research, for instance, can be

differentiated in terms of the life stress (Compassionate Friends; CF) versus behavioral control (Overeaters Anonymous; OA) nature of the focal problem, and the high (Multiple Sclerosis; MS) versus low (CF; OA) level of social network disruption likely accompanying the focal problem (see below).

A second important characteristic differentiating groups is the nature of the group helping ecology. The term "helping ecology" is used here to encompass both the group ideology (i.e., teachings; philosophy) which instructs members how to define and cope with their problem (Antze, 1976), and the organizational climate, group structure, and helping mechanisms which have evolved to implement the ideology (Levine & Perkins, 1987). Helping ecologies vary widely, from the highly structured "reliance on a higher power" 12-step model of Alcoholics Anonymous and related groups, to the informal "rap session" model of women and men's consciousness-raising groups. The groups constituting the sample in the current research, for instance, can be differentiated in terms of whether reliance on a higher power is (OA) or is not (CF; MS) a central component of group ideology (see below).

A third important characteristic differentiating groups is the nature of the external environment interface. Important interface components include the extent and nature of linkage to a regional or national "parent" organization, local health and human service agencies, and local professionals. Some groups are linked primarily to a mutual-help parent organization, others to a local service setting or professional, and still others function in relative isolation from external supports (Maton et al., 1989; Powell, 1987).

Focal problem, helping ecology, and environment interface together define the ecological niche of the individual group, and constitute important variables across which groups differ. Furthermore, within a given group, individual members can be expected to vary in important ways, both in terms of personal characteristics (e.g., spirituality, coping style, demographics, group skills) and in the nature of group involvement (e.g., friendship development, length of time, levels of support providing and receiving). In addition, important differences on outcome criteria can be expected, both at the level of individual member outcome (e.g., group satisfaction; change in affect, behavior, cognition, and life-style) and of overall group viability (effectiveness, community impact, satellite group development, size, and stability). Figure 1 portrays an ecological framework to guide mutual-help group research, with group-level, individual-level, and outcome variables listed in columns 1, 2, and 3, respectively. From this larger set of variables, those which constitute the focus of the current research are marked with an asterisk in the figure.

Various relationships among the sets of listed variables, both direct and interactive, are of potential theoretical and applied importance. To date, especially striking has been the dearth of research that jointly considers group-

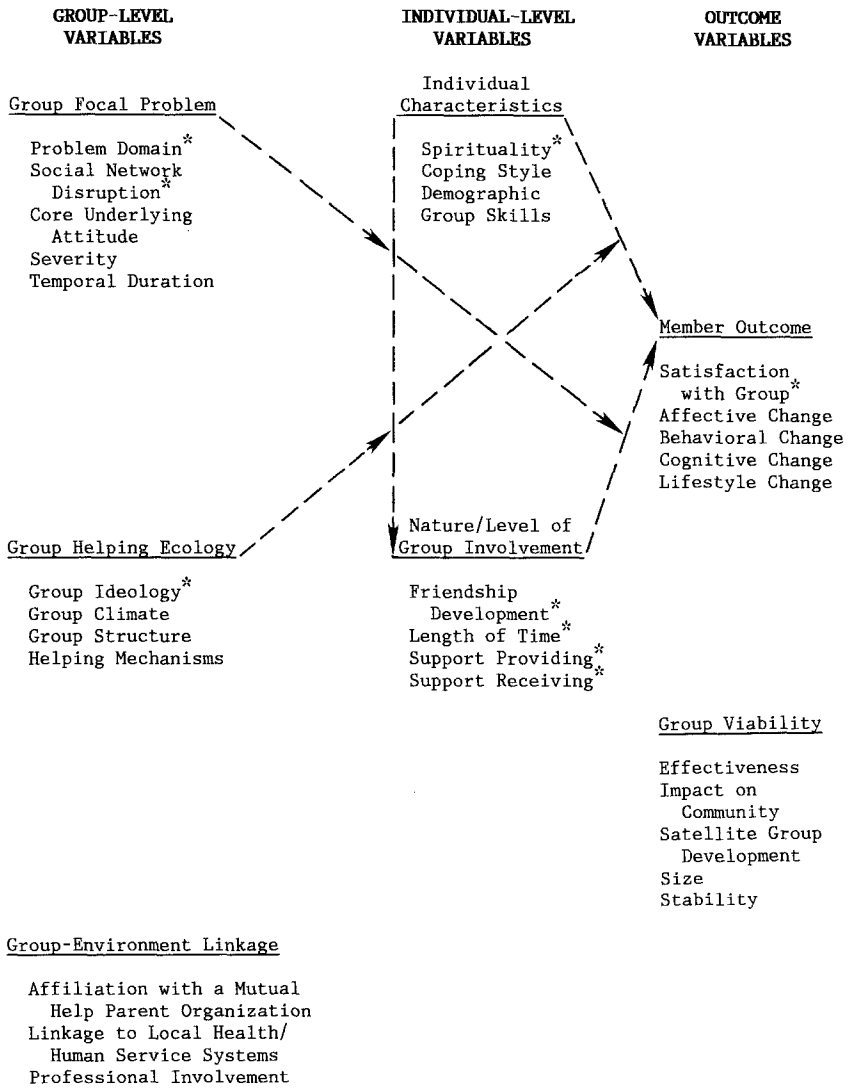

Fig. 1. An ecological framework to guide Mutual-Help Group research, with a focus on Group-Level-Individual-Level interactions (intersecting lines portray interactions; an asterisk indicates variable is focus of current research).

level and individual-level variables as they interact to influence criteria of interest. The social ecological concept of fit explicitly directs attention to such cross-levels relationships. The intersecting lines in Figure 1 indicate group-level–individual-level interactions and represent the primary focus in the current research.

THE CURRENT STUDY: THE SOCIAL ECOLOGY OF "FIT"

In a previous report, the relationships between individual-level involvement (providing support, receiving support, friendship development) and criterion variables (group satisfaction, group benefits, depression, self-esteem) were examined. (In the previous study, providing support, receiving support, and friendship development were treated as predictor variables only; in the current study they are treated as both predictor and criterion variables. In the previous study, length of group involvement was treated as a covariate, and the variable spirituality was not included.) The sample included members of life stress (Compassionate Friends, bereaved parents), 12-step behavioral control (Overeaters Anonymous, compulsive eaters), and medical disorder (Multiple Sclerosis) mutual-help groups.[3] The primary focus in the previous analysis was on commonalities across groups; type of group was included as a control variable (Maton, 1988). In the current research, comparative hypotheses concerning person-group fit and helping mechanism-focal problem fit that could be examined on the existing data set were derived and tested.

Person-Group Fit

Ecological theory in biology assumes that individual members of a species will not all fit equally well in an existing ecological niche, given important individual differences across members of the species. In the social (i.e., human) ecological context, person-environment fit theory asserts that individuals will participate and benefit maximally in local environments (i.e., niches) with characteristics well-matched to their own personal characteristics. Levine (1987), in a conceptual article, applied the social ecological theory of person-environment fit to mutual-help groups. For instance, he suggested that a process of "homogenization" occurs in groups: people with characteristics that fit the group become members, and people lacking these characteristics do not. This consequence of fit was illustrated in part with demographic examples (e.g., race, social class). More generally, people with demographic or personological characteristics consistent with a group's helping ecology should be especially likely to fit, become involved, and derive benefits.

The 12-step recovery model of Alcoholics Anonymous and related groups represents a highly prevalent and distinctive example of helping ecol-

[3]Life stress, behavioral control, and medical group categories figure prominently in many typologies, and a statewide sample of groups has been reliably coded into these categories (Maton et al., 1989). Although medical disorders are sometimes viewed as a subcategory of life stress, the disruption of physical capability and life-style that accompanies many medical disorders warrants inclusion as a separate category.

ogy and is the operative model in the OA groups included in the current study. Seven of the steps focus explicitly on spiritual endeavors, with the final goal being that of recovery rooted in a "spiritual awakening" (Whitefield, 1985). One important question concerning person–group fit in 12-step groups is the extent to which members who lack a spiritual orientation or proclivity will participate and derive benefit, given the emphasis on "reliance on a higher power" (as the individual defines it). In contrast, spirituality does not appear to be a key characteristic concerning fit in non-12-step groups.

Consistent with person–environment fit theory, among OA members it is expected that personal spirituality will be positively related to (a) member involvement (providing support, receiving support, friendship development) and (b) group appraisal (group satisfaction and group benefits). On the other hand, among members of groups (CF, MS) that do not emphasize reliance on a higher power, such relationships are not expected. No predictions are made concerning the relationship between spirituality and well-being (depression and self-esteem), since OA's focus on control of overeating is not theoretically linked to these criteria.

Helping Mechanism–Focal Problem Fit

Antze (1976) proposed that each type of focal problem has a "typical attitude or style of action," and that each mutual-help group develops a specific ideology (i.e., teachings) to serve as a "cognitive antidote" to maladaptive attitudes underlying the problem. Lieberman (1979) suggested that individuals with different focal problems perceive different group helping mechanisms as important, since different focal problems create different social and psychological needs and challenges. Finally, Levine (1987) proposed that the greater the individual's cognitive incorporation of focal problem-specific ideology, the greater the impact and benefit. Consistent with Antze, Lieberman, and Levine's insights, it can be expected that the greater the participation of a member in group-helping mechanisms that fit core focal problem needs, the greater the member gain.

This notion of helping mechanism–focal problem fit is supported by Lieberman's (1979) survey findings that members of different types of groups viewed different aspects of group involvement as especially important. For instance, friendship development was rated by widows, but not by bereaved parents, as among their most important reasons for joining their group, a finding consistent with the greater social network disruption likely experienced by widows. More generally, this finding suggests that friendship development is more strongly related to benefits for focal problems associated with greater social network disruption.

In the current research, friendship development is expected to be more strongly linked to group satisfaction and benefits for MS members than for

CF and OA members. Multiple sclerosis, a chronic medical disorder, is more likely than death of a child or overeating to be accompanied by high levels of social network disruption, i.e., occupational and recreational activities may need to be discontinued. Indeed, a secondary finding from the previous study revealed that friendship development was more strongly related to group satisfaction for MS members. This finding was interpreted as due to the inadequacy of support providing and receiving in MS groups (Maton, 1988). In the current study, with a somewhat expanded sample and an additional predictor variable entered, the comparable finding is expected for both group satisfaction and benefits, and is reconceptualized as a test of helping mechanism–focal problem fit. No hypotheses are generated for support providing or receiving, as they are not theoretically linked to social network disruption.

When helping mechanisms that fit the focal problem-specific needs of members are operative in a group, over time members should benefit in ways directly related to their focal problem. To date, research comparing outcomes across focal problem types is lacking, although those who study life stress groups generally employ affective distress criteria, whereas those who study behavioral control groups tend to employ specific behavioral change indices (e.g., Stunkard, 1972; Videka-Sherman, 1982). In the current study it is expected that length of group involvement will be inversely related to depression for the bereaved parents of CF, who experience a traumatic life event loss (Osterweis, Solomon, & Green, 1984), but not for the overeaters of OA, who experience a behavioral control problem. Length of involvement is here viewed as an indicator of the amount of focal problem-related help experienced. No hypotheses are generated for MS members, since the severity of the disorder varies greatly across people, and over time. Nor are hypotheses generated for self-esteem, since it has been viewed as a nonspecific benefit of group involvement (Levine, 1987).

Summary

Based on a social ecology of fit conceptualization, a set of cross-level hypotheses (i.e., group-level–individual-level interactions) were derived. These hypotheses focus both on person–group fit and on helping-mechanism–focal problem fit, and are summarized in Table I.

METHOD

The Sample of Groups

The research plan called for selecting one life stress, one medical disorder, and one behavioral control mutual-help population, and involving five

Table I. Hypothesized Group Type × Individual Difference "Fit" Interactions[a]

Group-level predictor variable[b]	Individual-level	
	Predictor variable	Criterion variable
Hypothesized Helping Ecology × Personal Characteristics Interactions[c]		
Helping ecology	Personal characteristics	Involvement
High (OA) vs. Low (CF; MS) Emphasis on reliance on a higher power	× Spirituality	+ Providing + Receiving + Friendship development
		Group appraisal
High (OA) vs. Low (CF; MS) Emphasis on reliance on a higher power	× Spirituality	+ Satisfaction + Benefits
Hypothesized Focal Problem × Involvement Interactions[d]		
Focal problem	Involvement	Group appraisal
High (MS) vs. Low (CF; OA) Social network disruption	× Friendship Development	+ Satisfaction + Benefits
		Well-being
Life stress (CF) vs. Behavioral control (OA)	× Time in group	− Depression

[a] + Indicates positive relationship expected between individual-level predictor and criterion variable; − indicates inverse relationship expected between individual-level predictor and criterion variable. The magnitude of the positive or inverse relationship is predicted to be significantly greater for the group indicated in the first row under Helping Ecology or Focal Problem than for the group(s) listed in the second row.
[b] CF = Compassionate Friends; MS = Multiple Sclerosis; OA = Overeaters Anonymous.
[c] These interactions focus on hypotheses related to person–group fit.
[d] These interactions focus on hypotheses related to helping mechanism–focal problem fit.

local groups from each population (Maton, 1988). The mutual-help groups listed in a regional mutual-help directory were separated into the three categories. Based on the results of random sampling, and logistical factors, Compassionate Friends (CF), Overeaters Anonymous (OA), and Multiple Sclerosis populations were chosen for study (Maton, 1988).

The five CF and MS groups in closest geographic proximity to the investigator were included in the sample. As there were more than five OA groups within comparable driving distance, those chosen for study were (a) in adjacent or demographically similar locations to the CF and MS groups and (b) judged by an OA representative as likely to agree to take part in the research. Of the 15 groups, 9 were located within a large East Coast metropoli-

tan area; the other 6 were located in moderate-size communities ranging in population from 21,000 to 53,000.

Procedure

All group leaders were told that the purpose of the study was to obtain information about members' experiences in the mutual-help group and about members' current sense of well-being. The anonymous nature of the research instrument was described, as was the fact that it would take members 15 to 25 minutes to complete. A preferred research procedure was suggested in which the investigator would attend a group meeting and take 15 to 25 minutes at the outset to have all members at the meeting complete the research forms.

Four of the five CF groups agreed to the preferred procedure. In the fifth group the investigator was not invited to the meeting, but the leader agreed to give out the forms to members, who were asked to complete them at home and to mail them back to the investigator in a stamped, preaddressed envelope. All five of the MS groups agreed to the preferred procedure. While all five of the OA leaders agreed to allow the investigator to attend a meeting, describe the study, and hand out forms, none were willing to have meeting time used for completion of the forms. Thus, in all five OA meetings, members were given the option of completing them on-site after the meeting or of taking them home and mailing them back to the investigator.

The Sample of Individuals

The final sample comprised 163 individuals. For the CF groups, 68 of 76 members present at the meetings agreed to participate in the research, and 62 returned usable forms (82% of the initial sample). For the MS groups, 53 of 59 individuals present at the meetings agreed to participate in the research, and 48 returned usable forms (81% of the initial sample). For the OA groups, 80 of 119 individuals present at the meetings agreed to take part in the research, and 53 returned usable forms (44% of the initial sample). Although the CF and MS samples were reasonably representative, it is likely that the OA sample was not representative of the general membership.

Measures

A 90-item questionnaire was the primary research instrument (Maton, 1988). For the current study, all items used except those assessing depression and self-esteem were designed by the investigator, since adequate measures to assess most of the variables of interest did not exist. With the exception

of time-in-group and demographic information, all items were answered on the same 5-point, Likert-type rating scale, which ranged from *not at all accurate* (1) to *completely accurate* (5).

Member Spirituality was assessed with a three-item scale developed by the investigator. The three items are: "I experience God's love and caring on a regular basis"; "I experience a close personal relationship with God"; and "Religious faith has not been central to my coping." A slightly modified version of this three-item scale, used in a separate study, demonstrated an alpha reliability of .92, a test–retest reliability (over a 5-month period) of .81, and expected relationships to criterion variables (Maton, 1989). The alpha reliability of the scale was .93 in the current study.

Fifteen items were designed to assess support received by the individual at group meetings, support provided by the individual at group meetings, and friendships developed with group members. The support receiving and providing items directly paralleled each other in content, with only the directionality of support changed. Final scale composition was based on the results of a principal components analysis of the 15 items (Maton, 1988). A representative item from the final four-item Support Receiving scale is "Members regularly provide emotional support to me." A representative item from the five-item Support Providing scale is "I regularly provide emotional support to group members." A representative item from the five-item Friendship scale is "I have developed a close friendship with another group member." Cronbach alphas for the three scales ranged from .70 to .75.

Length of time in group was assessed by asking individuals the date they first began attending the mutual-help group. This date was subtracted from the date they completed the questionnaire, to yield a Time-in-Group measure.

Ten items were designed to assess satisfaction with the group and perceived benefits from group involvement. Principal components analysis of the items revealed that items loaded as expected on separate factors. The Group Satisfaction scale had an alpha reliability of .82. A representative item from this scale is "I am not very pleased with the group as it now operates." The Group Benefits scale had an alpha reliability of .80. One item from this scale assessed overall perceptions of benefit, while the other four items assessed perceived gains in self-esteem, coping, and understanding. One of the items is "Since I started coming to the group, I feel much better about myself."

Depression was assessed by the depression scale of the Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). Individuals indicated how distressed they were by each of 10 symptoms during the past week. Self-esteem was assessed by Rosenberg's (1979) self-esteem scale, which contains 10 items. Both of these widely used instruments have established reliability and validity.

Demographic information included sex, age, and socioeconomic status (SES). Race was not coded since only one minority individual was in the sample. Since the majority of individuals were either single parents or in households with only one parent working, Hollingshead's (1957) Two-Factor SES scoring index was used (in cases with two working parents, SES was calculated based upon the member of the household with the highest occupational and educational level).

RESULTS

Preliminary Analyses

Table II displays the means and standard deviations for demographic, predictor, and criterion variables by type of mutual-help group. One-way analyses of variance indicated that CF, OA, and MS members did not differ on Gender, Time in Group, Depression, or Self-Esteem. However, members of the three groups did differ on SES, $F(2, 160) = 6.5, p < .01$, Age, $F(2, 160) = 7.7, p < .001$, Spirituality, $F(2, 160) = 4.3, p < .05$, Receiving Support, $F(2, 160) = 24.1, p < .001$, Group Satisfaction, $F(2, 160) = 24.4, p < .001$, and Group Benefits, $F(2, 160) = 20.7, p < .001$. In addition,

Table II. Mean Scores and Standard Deviations for Demographic, Predictor, and Criterion Variables by Type of Group

	Mutual-help group[a]					
	Compassionate friends ($n = 62$)		Multiple sclerosis ($n = 48$)		Overeaters anonymous ($n = 53$)	
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*
Gender[b]	0.7	0.4	0.7	0.5	0.8	0.4
SES[c]	3.9[a]	1.4	3.0[b]	1.3	3.5	1.1
Age	45.3[a]	11.0	49.1[a]	12.2	39.7[b]	13.3
Spirituality	10.6[a]	4.3	12.0	3.4	12.5[b]	2.9
Providing	19.1	4.3	17.5	3.8	17.9	3.9
Receiving	21.6[a]	2.8	17.4[b]	3.9	20.7[a]	3.1
Friendship	17.0	5.1	15.8	4.8	18.1	4.7
Time in group (in months)	36.6	27.6	39.0	29.4	36.1	33.8
Satisfaction	21.2[a]	3.1	16.0[b]	5.2	20.6[a]	3.9
Benefits	22.3[a]	3.5	17.9[b]	4.3	21.8[a]	3.4
Depression	23.1	9.5	23.6	7.8	21.3	7.3
Self-esteem	41.5	8.3	39.4	7.8	40.6	7.0

[a]Means with different subscripts were significantly different (Scheffé test, $p < .05$).
[b]0 = male, 1 = female; 70% of the members in CF and MS were female, and 80% of the members in OA were female.
[c]Higher scores indicate higher SES.

marginally significant differences occurred for Providing Support, $F(2, 160) = 2.6, p < .08$, and Friendship, $F(2, 160) = 2.8, p < .07$. Post-hoc comparisons (Scheffé, $p < .05$) indicated that OA members had significantly higher levels of Spirituality than CF members, whereas CF and OA members had significantly higher levels of Receiving Support, Group Satisfaction, and Group Benefits than MS members. Concerning demographic differences, CF and MS members were older than OA members, whereas CF members reported higher SES than MS members.

Table III displays the zero-order correlations among the predictor variables and between the predictor and criterion variables for each mutual-help group population separately. Some of the patterns of correlation conform to the predicted group type by individual difference interactions. Concerning person-group fit, among OA members Spirituality was positively related to Providing, $r = .37, p < .01$; among CF members and among MS members the correlations between Spirituality and Providing were near zero. Among OA members, the correlation between Spirituality and Group Satisfaction was positive but not significant, $r = .23, p < .05$; among MS members it was positive but not significant, $r = .17$, ns; and among CF members the correlation was near zero.

Concerning helping mechanism–focal problem fit, among MS members the correlation between Friendship and Group Satisfaction was positive and significant, $r = .45, p < .001$, whereas it was half as large among OA members, $r = .23, p < .05$, and near zero among CF members. Furthermore, among CF members, $r = -.34, p < .01$, and among MS members, $r = -.31, p < .05$, Time in Group was significantly and negatively correlated with Depression, whereas among OA members the correlation was zero.

Primary Analyses

Hierarchical multiple regression analyses were employed to test the group type by individual difference interaction hypotheses. For each analysis, demographic variables were entered first, followed by Type of Group, which was dummy coded. Next, all relevant predictor variables were simultaneously entered into the equation. Then the interaction hypotheses were tested by making available for entrance, in stepwise fashion, the group type by individual difference interaction terms.[4] Finally, in an exploratory fashion,

[4]To reduce the multicollinearity between interaction (product) terms and the main effect constituents, all main effect predictor terms were "centered" before entrance into the regression analyses (i.e., the sample mean for each variable was subtracted from each individual's score: Cronbach, 1987; Finney, Mitchell, Cronkite, & Moos, 1984). Although the significance levels of interaction terms are not affected by centering, this procedure results in main effect and interaction beta weights undistorted by multicollinearity between the interactions and their main effect constituents.

Table III. Correlations Among Individual-Level Predictor Variables and Between Predictor and Criterion Variables by Mutual-Help Group Population

	Spirituality	Providing	Receiving	Friendship	Time in group	Satisfaction	Benefits	Depression	Self-esteem
Compassionate friends (n = 62)									
Spirituality	—	−.02	.18	.24[a]	−.02	−.05	.16	−.33[b]	.17
Providing		—	.21[a]	.22[a]	.29[a]	.00	.29[a]	−.26[a]	.34[b]
Receiving			—	.27[a]	−.01	.52[c]	.28[a]	.06	.09
Friendship				—	.28[a]	.06	.50[c]	.09	.19
Time in group					—	.06	.45[c]	−.34[b]	.31[a]
Multiple sclerosis (n = 48)									
Spirituality	—	.08	.03	.16	.06	.17	.08	−.23	.40[b]
Providing		—	.35[b]	.48[c]	.30[a]	.08	.36[b]	−.19	.18
Receiving			—	.45[c]	.21	.54[c]	.53[c]	−.20	.13
Friendship				—	.40[b]	.45[c]	.34[b]	−.12	.30[a]
Time in group					—	.40[b]	.33[b]	−.31[a]	.23
Overeaters anonymous (n = 53)									
Spirituality	—	.37[b]	.08	.33[b]	.22	.23[a]	−.02	−.14	.29[a]
Providing		—	.39[b]	.32[b]	.00	.08	.27[a]	−.17	.47[c]
Receiving			—	.38[b]	.00	.51[c]	.33[b]	−.05	.28[a]
Friendship				—	.26[a]	.23[a]	.47[c]	.00	.17
Time in group					—	.17	.26[a]	.00	.11

[a] $p < .05$.
[b] $p < .01$.
[c] $p < .001$.

nonpredicted group type by individual difference variable interactions were tested, in stepwise fashion. For each analysis, the amount of variance explained by the set of variables entered in each step (step R^2 change), the standardized regression weights (βs) from the final equation (i.e., after all predictor variables and significant interactions were entered), and the zero-order correlations of each variable with the criterion variable are reported.

Person–Group Fit

Group Involvement Criteria. Table IV presents the results of the analyses with providing support, receiving support, and friendship development as criteria. Consistent with the person–group fit hypothesis, there was a significant OA by Spirituality interaction for Providing Support, $\beta = .20$, $p < .05$. Inspection of the plotted interaction (cf. Cohen & Cohen, 1975) revealed that for OA members there was a positive relationship between Spirituality and Providing Support (Figure 2). On the other hand, for CF and MS members there was no relationship between the two variables. Thus, spirituality was positively related to participation only for members of a group with a 12-step, reliance on a higher power, helping ecology. In addition, exploratory analysis revealed a significant OA by Time-in-Group interaction for Support Providing. On the other hand, for OA members there was a slight, inverse relationship between the two variables. The Type of Group by Spirituality interaction terms were not significant for Receiving Support or for Friendship.

In terms of main effect findings, MS members reported lower levels of Providing Support, Receiving Support, and Friendship than CF members, and lower levels of Receiving Support and Friendship than OA members. Also, Spirituality and Time-in-Group were positively related to Friendship and Providing Support (Spirituality was not significantly related to Providing Support at the step it entered the equation but became significant after the interaction terms were entered). Concerning demographic variables, women reported higher levels of Receiving Support than men, and there was an inverse relationship between SES and Friendship.

Group Satisfaction and Group Benefits Criteria. Table V presents the results of the regression analyses with group satisfaction and group benefits as criteria. Partially consistent with the person–group fit hypothesis, there was a significant CF by Spirituality interaction for Group Satisfaction, $\beta = -.18$, $p < .01$ (Table V). Inspection of the plotted interaction revealed that for OA and MS members (combined), Spirituality was strongly and positively related to Group Satisfaction. In contrast, for CF members, there was a slight, inverse relationship between the two variables (Figure 3). The findings regarding OA and CF, but not regarding MS, are consistent with the

Table IV. Step R^2 and Final Equation Beta Weights From Hierarchical Multiple Regression Analyses: Group Involvement Criteria ($N = 163$)[a]

	Providing support			Receiving support			Friendship		
	Step R^2 change	β	r	Step R^2 change	β	r	Step R^2 change	β	r
Step 1: Demographics	.016			.046			.071[g]		
Age		.03	.07		.12	.00		−.07	−.06
Gender[b]		.09	.09		.17[f]	.21[g]		.10	.17[f]
SES[c]		−.03	−.02		−.12	−.02		−.21[g]	−.19[g]
Step 2: Type of group[d]	.033			.244[h]			.035[f]		
CF		.21[f]	.17[f]		.61[h]	.32[h]		.20[f]	.00
OA		.00	−.06		.45[h]	.12		.20[f]	.16[f]
Step 3: Predictors	.034			.006			.124[h]		
Spirituality		.16[f]	.07		.07	.04		.21[g]	.24[h]
Time in group		.17[f]	.18[g]		.02	.05		.28[h]	.29[h]
Step 4: Interactions[e]	.057[g]								
OA × Spirituality		.20[f]							
OA × Time in Group		−.18[f]							

[a]The beta weights are from the final equations, with all variables entered.
[b]0 = male, 1 = female.
[c]Higher scores indicate higher SES.
[d]For dummy-coded terms, the βs test the difference between CF and MS, and between OA and MS, respectively. In contrast, the corresponding rs test the difference between CF and OA/MS (combined) and between OA and CF/MS (combined).
[e]Type of Group × Predictor Variable interactions were made available for entrance in stepwise fashion. Each β tests the difference between OA and CF/MS (combined).
[f]$p < .05$.
[g]$p < .01$.
[h]$p < .001$.

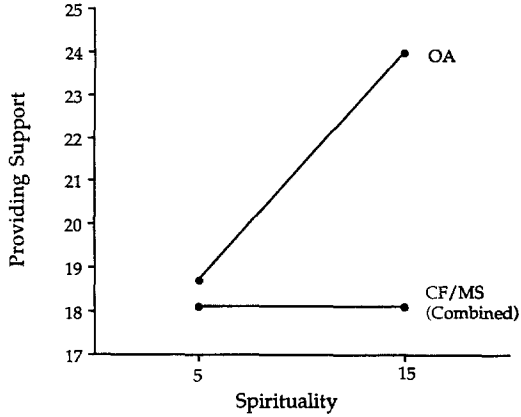

Fig. 2. Regression of Providing Support on Spirituality for members of OA and CF/MS (combined).

prediction that spirituality would be positively related to fit, and subsequent group satisfaction, only for members of a group with a helping ecology that emphasized reliance on a higher power. The Type of Group by Spirituality interaction was not significant for Group Benefits.

Helping Mechanism–Focal Problem Fit

Group Satisfaction and Group Benefits Criteria. Consistent with the helping mechanism–focal problem hypothesis, Table V also indicates a sig-

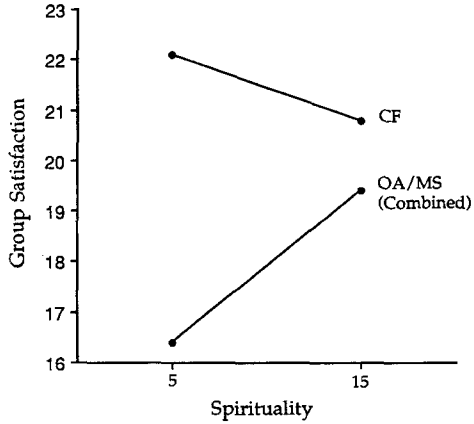

Fig. 3. Regression of Group Satisfaction on Spirituality for members of CF and OA/MS (combined).

Table V. Step R^2 and Final Equation Beta Weights From Hierarchical Multiple Regression Analyses: Group Satisfaction and Group Benefits Criteria (N = 163)[a]

	Satisfaction			Benefits		
	Step R^2 change	β	r	Step R^2 change	β	r
Step 1: Demographics	.063[f]			.027		
Age		−.02	−.03		−.08	−.09
Gender[b]		.09	.22[g]		−.01	.15[f]
SES[c]		−.18[g]	−.17[f]		−.05	−.05
Step 2: Type of group[d]	.263[h]			.209[h]		
CF		.31[h]	.29[h]		.31[h]	.27[h]
OA		.24[g]	.17[f]		.26[g]	.16[f]
Step 3: Predictors	.198[h]			.230[h]		
Spirituality		.12	.05		−.02	.04
Providing		−.18[g]	.11		.10	.33[h]
Receiving		.51[h]	.63[h]		.27[h]	.52[h]
Friendship		.00	.29[h]		.19[g]	.45[h]
Time in group		.16[g]	.18[g]		.22[h]	.30[h]
Step 4: Interactions[e]	.041[h]					
CF × Spirituality		−.18[g]				
MS × Friendship		.11[f]				

[a]The beta weights are from the final equations, with all variables entered.
[b]0 = male, 1 = female.
[c]Higher scores indicate higher SES.
[d]For dummy-coded terms, the βs test the difference between CF and MS, and between OA and MS, respectively. In contrast, the corresponding rs test the difference between CF and OA/MS (combined) and between OA and CF/MS (combined).
[e]Type of Group × Predictor Variable interactions were made available for entrance in stepwise fashion. The βs test the difference between MS and CF/OA (combined) and between CF and OA/MS (combined), respectively.
[f]$p < .05$.
[g]$p < .01$.
[h]$p < .001$.

nificant MS by Friendship interaction for Group Satisfaction, $\beta = .11$, $p < .05$. Inspection of the plotted interaction revealed that among MS members Friendship Development was strongly and positively related to Satisfaction (Figure 4). In contrast, among OA and CF members (combined) there was a slight, inverse relationship between the two variables. The Type of Group by Friendship interaction was not significant for Group Benefits.

In terms of main effect findings, members of MS reported lower levels of Group Satisfaction and Group Benefits than members of CF and OA. Time in Group and Receiving Support were positively related to both Group Satisfaction and Group Benefits. Friendship was positively related to Group Benefits, whereas Providing Support was negatively related to Group Satisfaction (the latter finding was due to a suppressor effect involving Receiving

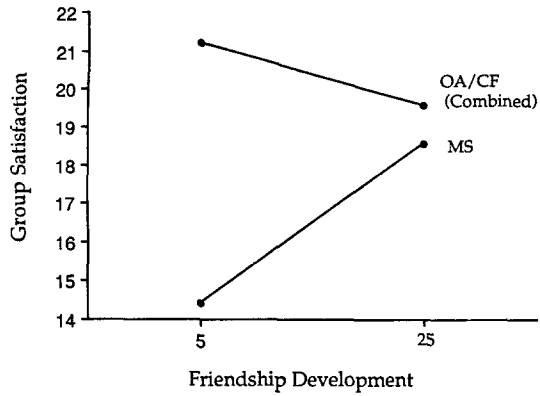

Fig. 4. Regression of Group Satisfaction on Friendship Development for members of MS and OA/CF (combined).

Table VI. Step R^2 and Final Equation Beta Weights From Hierarchical Multiple Regression Analyses: Depression and Self-Esteem Criteria (N = 163)[a]

	Depression			Self-esteem		
	Step R^2 change	β	r	Step R^2 change	β	r
Step 1: Demographics	.052[f]			.085[g]		
Age		−.15	−.21[g]		.27[h]	.29[h]
Gender[b]		.10	.12		−.09	−.10
SES[c]		−.08	.00		.03	−.03
Step 2: Type of group[d]	.035			.031		
CF		−.06	.04		.14	.09
OA		−.18	−.11		.13	.01
Step 3: Predictors	.120[h]			.161[h]		
Spirituality		−.26[h]	−.27[h]		.21[g]	.24[h]
Providing		−.16[f]	−.21[g]		.25[h]	.34[h]
Receiving		−.01	−.08		.02	.19[g]
Friendship		.06	−.09		.08	.22[g]
Time in group		−.19[f]	−.21[g]		.08	.22[g]
Step 4: Interactions[e]	.020[f]					
OA × Time in group		.15[f]				

[a]The beta weights are from the final equations, with all variables entered.
[b]0 = male, 1 = female.
[c]Higher scores indicate higher SES.
[d]For dummy-coded terms, the βs test the difference between CF and MS, and between OA and MS, respectively. In contrast, the corresponding rs test the difference between CF and OA/MS (combined) and between CF and OA/MS (combined) and between OA and CF/MS (combined).
[e]Type of Group × Predictor Variable interactions were made available for entrance in stepwise fashion. The βs test the difference between OA and CF/MS (combined).
[f]$p < .05$.
[g]$p < .01$.
[h]$p < .001$.

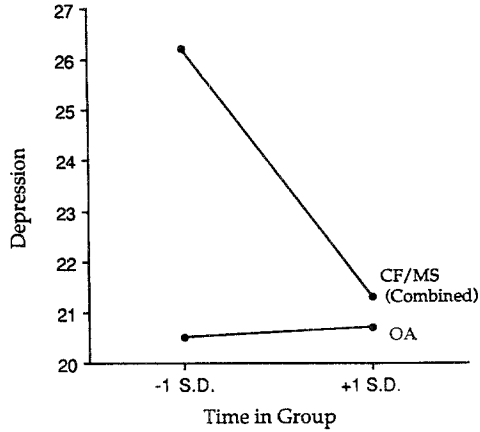

Fig. 5. Regression of Depression on Time in Group (1 *SD* above and below Mean) for members of OA and CF/MS (combined).

Support). Concerning demographic variables, SES was inversely related to Group Satisfaction.

Depression and Self-Esteem Criteria. Table VI presents the results of the regression analyses for Depression and Self-esteem. Partially consistent with prediction, there was a significant OA by Time-in-Group interaction for depression, $\beta = .15$, $p < .05$. Inspection of the plotted interaction revealed that longer term CF and MS members (combined) had lower depression levels than newer CF and MS members, but there was little difference between the depression levels of longer term and newer OA members (Figure 5). The findings for CF and OA are consistent with the expectation that affective distress criteria would be (inversely) related to group involvement for members of life stress but not for members of behavioral control populations. No prediction had been made concerning MS members, who apparently are more like CF than OA members. The OA by Time-in-Group interaction was not significant for the Self-esteem criterion variable.

In terms of main effect predictors, Spirituality, Providing Support, and Time in Group were each significantly and inversely related to Depression. Age, Spirituality, and Providing Support were each significantly and positively related to Self-esteem.

DISCUSSION

The findings indicate the potential usefulness of an ecological, comparative approach to the study of mutual-help groups, an approach which has been generally lacking in mutual-help research to date. Specifically, par-

tial support was found for hypotheses consistent with the ecological notion of fit. In a recently completed study, group-level interactions among focal problem (problem domain) and environment interface (affiliation with a national mutual-help organization; professional involvement) variables were found useful in explaining birth and mortality rates for a statewide population of groups (Maton et al., 1989). The current research extends the previous work by revealing that cross-level interactions (i.e., of group-level and individual-level variables) are also important components of an ecological perspective. The findings related to person–group fit and helping mechanism–focal problem fit obtained in the current research are discussed below.

Person–Group Fit

Consistent with person–environment fit theory, personal spirituality was related to providing support to a greater extent among OA members than among CF and MS members. OA members with high levels of personal spirituality apparently are especially capable of and/or comfortable with providing support to others in the OA group context, consistent with the centrality of reliance on a higher power (as defined by the individual) in OA. In CF and MS groups, where reliance on a higher power is not a central feature of group helping ecology, spirituality is apparently not an important attribute linked to helping capability or motivation.

An additional, exploratory finding was that length of group involvement was positively related to support providing for members of non-12-step groups (MS and CF), but not for members of a 12-step group (OA). This finding is contrary to the general expectation that longer term members of mutual-help groups would naturally accumulate "experiential knowledge" and thus serve in a support providing role (Gartner & Riessman, 1977). One possible interpretation is that personal spirituality overrides group experience as an influence on support providing in the context of a 12-step program. An alternate explanation is that the more structured nature of participation in OA groups (e.g., reading and focused discussion of explicit principles of recovery) may more effectively facilitate support providing from newer members than the less structured nature of participation in CF and MS groups.

Contrary to prediction, personal spirituality was not related to receiving support among OA members. Perhaps levels of receiving are more affected by the extent of personal need than by person fit with the group helping ecology. Also, the zero-order correlations between spirituality and friendship development were positive for all three populations studied (although significant only for OA and CF members). One possible explanation is that a third variable (e.g., emotional openness) may underlie both spirituality and friendship development in the three mutual-help populations studied.

Group Satisfaction and Benefits

There was a stronger positive relationship between spirituality and group satisfaction among OA and MS members than among CF members. The findings for both OA and CF were expected, given that only in OA is the helping ecology centered on reliance on a higher power. The unexpected finding for MS members may reflect the joint influence of (a) the mean trend towards higher levels of spirituality in MS than CF group members ($p < .15$), and (b) the relatively unstructured nature of MS helping ecology compared to CF helping ecology. Together, these factors may have resulted in the emergence of informal group norms in MS groups more valuing of spirituality than those in CF groups. Thus, members with higher levels of spirituality would feel greater group fit and satisfaction in MS than in CF groups.

Among OA members, spirituality was not related to group benefits. This lack of relationship may reflect the benefit scale's focus on generic aspects of benefit (e.g., self-concept, self-understanding) not directly linked to specific focal problem benefits (e.g., overeating and weight loss). Alternatively, the lack of relationship may reflect the spirituality scale's focus on God-based spirituality, and its resultant insensitivity to OA members who define reliance on a higher power and spirituality in nontraditional, nontheistic terms. In future OA group research, the use of focal problem-based measures of outcome (e.g., overeating and weight loss), and the use of a measure of spirituality not solely defined by a relationship with God, will allow examination of these possible explanations.

Helping Mechanism–Focal Problem Fit

Group Satisfaction and Benefits

Among MS members only, there was a positive relationship between friendship development and group satisfaction. Consistent with the notion of helping mechanism–focal problem fit, this finding may reflect a particularly strong need for social network reconstruction for individuals with multiple sclerosis. As a result of this chronic medical disorder, activities and friendship relationships in work and recreational settings may be disrupted or curtailed. Furthermore, greater stigma may accompany this disorder than the other two focal problems studied, contributing to the disruption in social network relationships. Borkman (1984) has argued that social network reconstruction represents a primary means through which mutual-help groups benefit members. The current research suggests that the importance of social network reconstruction varies across focal problems, related to the level of social network disruption associated with the focal problem.

There was not a focal problem by friendship interaction on benefits. Indeed, there was a significant zero-order relationship between friendship and perceived benefits for members of all three mutual-help populations. As noted above, this may reflect the generic nature of the benefits measure, as it did not assess specific focal problem related benefits. Thus, friendship development may result both in generic benefits (e.g., enhanced self-esteem) applicable across focal problem types, and in benefits specifically related to social network disruption (e.g., reduced social isolation).

Depression and Self-Esteem

Longer term members in CF and MS groups, but not in OA groups, reported lower levels of depression than newer members. This finding suggests that the helping mechanisms operative in CF and MS effectively fit the focal problem-specific needs of members. That is, depressive symptoms linked to the focal problems of death of a child (CF) and onset of a serious medical disorder (MS) may be reduced through group involvement. The helping mechanisms operative in OA , in contrast, do not appear to influence levels of depression, just as those in CF and MS presumably do not impact upon the average member's level of overeating.

Since pre–post measurement and data from control populations were lacking, alternate explanations of the interaction finding cannot be ruled out. For instance, the passage of time, rather than the influence of group helping mechanisms per se, may have been responsible for the lower levels of depression in longer term CF and MS members. In this regard, however, it should be noted that length of group involvement was positively related to perceived group benefits for members of all three mutual-help populations. This suggests that perceived benefits did accrue, over time, from group involvement. Longitudinal research is necessary to ascertain if group benefits are specifically manifest in reduced depression in the case of CF and MS members, and in other focal problem-specific ways (e.g., weight loss) in the case of OA members.

In contrast to depression, there was not a group type by time-in-group interaction for self-esteem. Self-esteem may represent a general benefit of group involvement for individuals with diverse types of focal problems (Levine, 1987). Again, longitudinal research is necessary to examine this possibility.

Commonalities Across Groups

Although a number of group-level–individual-level interactions were significant, a number of others, as noted above, were not. Furthermore,

findings from a previous analysis revealed a number of main effect findings that were not modified by group type (Maton, 1988). Clearly, there are important mutual-help group commonalities, even across groups which are very different in focal problem and/or helping ecology (Levy, 1976; Lieberman, 1979; Wollert, Levy, & Knight, 1982). Future theoretical and empirical work is necessary to help delineate group-specific, and group-nonspecific, factors, processes and outcomes, and the conditions under which each will be manifest.

Limitations and Future Research

One limitation of the current study was that only three mutual-help populations were studied, only five local groups of each type were sampled, and the sample for each population was relatively small. Increased robustness and generalizability of findings in future research will result from a larger selection of types of mutual-help populations and the inclusion of a larger sample of local groups and members from each population. The inclusion of a larger sample of groups will also allow group-level analyses focused on group-level criterion variables.

A second limitation was the necessity to use a different recruitment procedure in the OA groups than in the CF and MS groups, resulting in a much lower rate of participation. It is possible that the significant interactions were in part a function of the nonrepresentativeness of OA members, rather than differences across groups. However, it is important to note that the OA members did not differ from CF and MS members in length of time in group, and also that their relatively younger age is consistent with previous research (Levy, 1979). Nonetheless, replication studies, and the use of comparable data collection procedures across behavioral control and other groups studied, constitute priorities for future research.

A third limitation was the self-report, cross-sectional nature of the research design. Observational measures of helping ecology and behavioral measures of outcome will enhance confidence in future studies. Furthermore, longitudinal studies are necessary to help untangle the causal relationships among focal problem, helping ecology, personal characteristics, group involvement, and criterion variables. Many researchers have emphasized the inherent difficulties in studying mutual-help groups (e.g., Levy, 1984). However, the research currently being carried out by Rappaport et al. (1985), while limited to a single mutual-help population, demonstrates the possibility of using observational, self-report, and systemic measures, over time, to examine mutual-help group processes and outcomes.

A fourth limitation of the current research was the set of predictor and criterion variables examined. Future research should include personological,

group involvement, and outcome variables specifically related to each type of focal problem and helping ecology under investigation, so that tests of predictor variables' contribution to fit and noncontribution to fit can both be carried out for each population. Furthermore, the development of a multidimensional conceptualization of focal problem and of helping ecology will greatly contribute to future research; additionally, if dimensions of focal problem and helping ecology are independently sampled across a diverse set of mutual-help groups, their separate and combined contributions to criteria can be examined.

The limitations notwithstanding, the current research demonstrates the feasibility and potential benefit of adopting an ecological framework and ecological principles and concepts (in the current study, "fit") to guide mutual-help group research. An increased understanding resulted from the cross-level and comparative nature of the research, an understanding that would have been lacking if the research was limited to individual-level variables and a single mutual-help population. The development of an encompassing theory and an empirical knowledge base consistent with the ecological framework proposed (Figure 1) requires considerable perseverance in theory building and field research effort. However, the knowledge generated should help to ensure the effectiveness of efforts to enhance the viability of the diverse, and important, mutual-help group sector.

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