TRADE-UNION MEMBERSHIP IN THE COPPERBELT OF ZAMBIA:

A TEST OF SOME HYPOTHESES

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I

Introduction

The study of voluntary associations is a principal concern of students of developing societies. Some analysts, following Wirth, view the emergence of associations as a major stage in the transition to the more complex and differentiated social structures that are characteristic of modern societies.[1] Others see urban associations as the principal locus of acculturation into modern norms and practices.[2] Still others stress the crucial role of associations in the development of modern party structures, capable of integrating and directing national political systems.[3]

Despite the emphasis on associations that characterizes so much of the development literature, there have been few systematic, empirical studies of the determinants of associational membership in the developing areas. This paper seeks to correct the oversight. First, taking advantage of the comparative method, we will relate our findings collected in the copperbelt of Zambia to the results of other studies conducted in the United States. The contrast between the two suggests new hypotheses about patterns of joining in associations. Second, we will test propositions developed in the literature on African associations; in particular, we will explore the effects of ethnicity and urban stabilization as determinants of associational membership. We will then attempt to test two major, competing interpretations of the factors influencing membership

in urban associations -- interpretations which underly many of the

studies conducted in both the United States and Africa.

II

The Mineworkers' Union of Zambia

Our study focuses on the pattern of membership in the Mineworkers'

Union of Zambia.[4] The Mineworkers' Union is the largest union in Zambia

and one of the biggest in all of Africa. The Union was formed as the

Northern Rhodesia African Mineworkers' Union in 1948. In 1955, the Union

temporarily split, with the mines' police and staff employees forming

separate industrial organizations. At the same time the data were

collected (January 1968), the staff and the mines' police had rejoined

the Mineworkers' Union in response to the Government's policy of "one union

in one industry." The current membership of the Union is over 20,000.[5]

III

The Sample

The data were gathered from a systematic, random, 20% sample of

the male mine employees of Rhokana Corporation, one of the largest mines

of the Zambian copper industry. Upon signing on with the mines, each

worker receives a six-digit mine number. The digits 8 and 5 were selected

from a table of random numbers and the records scanned for every miner whose number ended in either digit. Use of the last digit prevented sampling bias by time periods. Tables 1-3 indicate the degree of fit of the sample with census data published by the mines themselves. The breakdowns are by date engaged, staff and daily-rated workers, and the employees' province of origin. The sample fits the population sufficiently well to enable generalizations to the population with low levels of error (less than 2%), except in the case of small cell entries (less than 30).

Table 1. Staff Employees

Date Engaged	Sample	All Employees	For Sample i/Total	For All Employees i/Total
Pre 1940	--	17	---	.012
1941-45	13	49	.047	.035
1946-50	10	69	.037	.050
1951-55	37	154	.133	.111
1956-60	71	367	.256	.265
1961-65	88	427	.316	.307
1966-68	60	300	.216	.216
Total	279	1383	1.005	.996

Table 2. Daily Rated Employees

Date Engaged	Sample	All Employees	For Sample i/Total	For All Employees i/Total
Pre-1940	9	55	.005	.006
1941-45	44	227	.023	.024
1946-50	115	584	.061	.062
1951-55	251	1211	.133	.129
1956-60	422	2100	.221	.224
1961-65	802	3997	.425	.428
1966-68	251	1192	.133	.128
Total	1894	9366	1.001	1.001

Table 3. All Employees

Province of Origin	Sample	All Employees	For Sample i/Total	For All Employees i/Total
Barotse	316	1640	.145	.153
Northern	679	3339	.310	.316
Western	197	900	.091	.084
Central	199	934	.092	.087
Southern	84	390	.039	.037
Eastern	206	1037	.095	.097
Luapula	235	1129	.108	.105
Alien	205	1056	.094	.099
Other	34	169	.016	.016
Don't Know	24	115	.011	.011
Total	2179	10809	1.001	1.005

After collecting the data, a 10% random sample of the records was recoded and their results compared for coding errors. Only in the case of the occupation code did the level of error exceed 1%. Precise breakdowns by occupation are omitted from the following analysis.

IV

Comparisons with United States Findings

In analysing the correlates of membership in the Mineworkers'
Union, we concentrate on variables which have received attention in studies
of associational membership in the United States. Such a selection enables
cross-national tests of propositions about the determinants of participation
in voluntary associations.

A. Life-Cycle Variables

Some of the most powerful correlates of associational membership
in the United States are life-cycle variables: sex, age, and marital
status. Because nearly all the mineworkers are men (over 98%), the sample
was selected from males only, and we therefore cannot test for sex-related
differences in union membership.

However, we do find that, in the Mineworkers' Union, as in unions
in the United States, membership is a function of age and older persons
join more frequently than do youths.[6] Thus, the mean age in months of
members if 443.67, while the mean age of nonmembers is 403.19. Uneven
group totals prevent the use of analysis of variance. As Table 4 shows,
however, dichotomizing age yields a significant relationship with union
membership.

The relationship persists under successive controls for marital
status, education, tribe, province of origin, and surface and underground
employment. It fails to persist, however, when we control for length of
service on the mines, as in Table 5.

Table 4. Union Membership by Age[*]

	Age Low	Age High
Union Members	394	468
Percent	45.4	58.3
Nonmembers	473	335
Percent	54.6	41.7
Total	867	803

$$X^2 = 27.0$$
Significance = .000
Phi = .126

[*]In this and later tables, the total is less than total sample size as only Zambian citizens are used in the analysis.

Table 5. Union Membership by Age, Length of Service Controlled

	Length of Service			
	Low		High	
	Age Low	Age High	Age Low	Age High
Union Members	258	160	136	308
Percent	38.7	41.5	68.0	73.9
Nonmembers	409	226	64	109
Percent	61.3	58.5	32.0	26.1
Total	667	386	200	417

$X^2 = .672$ Significance = .4122 $X^2 = 2.02$ Significance = .1553

The data therefore suggest that age relates to membership because older persons have worked in the mining industry for longer periods of time. The relationship between length of employment and membership in associations exists in the United States as well,[7] but has not been used to test the relationship between age and associational behavior.

In their analysis of United States data, Wright and Hyman determine that marrieds more frequently join associations than single persons;[8] Dotson confirms and specifies the relationship.[9] Our Zambian data corroborate this finding. Of all our variables, marital status has one of the strongest relationships with union membership (Table 6); only length of service rivals or exceeds marital status in its strength of association. The relationship persists under all controls.

Table 6. Union Membership by Marital Status

	Married	Not Married
Union Members	839	95
Percent	64.9	26.4
Nonmembers	454	265
Percent	35.1	73.6
Total	1293	360

$$X^2 = 168.0$$
$$\text{Significance} = .0000$$
$$\text{Phi} = .32$$

B. <u>Indicators of Class</u>

Of all the correlates of associational membership in the United States, class has perhaps received the most attention. Hausknecht, Lane, Wright and Hyman, Slater, and Scott -- all report that the higher the class of a person, the greater his level of associational activity.[10] The conventional indicators of class are occupation, education, and income.

As noted above, we are unable to use occupation as an independent variable. Not only are all the members of our sample of one occupation, strictly speaking, but also, our coding of jobs within the mine was too

inaccurate to substantiate valid statistical inferences. We do have two

indexes of occupational status, however: whether an employee works on

the surface or underground and whether or not an employee holds a staff-

grade job on the mines.

In the mining community, surface workers tend to have higher-status

jobs. Many have white collar jobs; with some exceptions, their jobs are

cleaner and less dangerous than those underground; and their jobs less

frequently involve arduous manual labor and more frequently involve "brain-

work," to use the local term.[11] As noted by Epstein, underground workers

tend to view the surface workers as greatly advantaged by the European-

dominated, corporate hierarchy.[12] Despite the higher status of surface

occupations, however, Table 7 reveals that there is no significant differ-

ence between the rate of union membership of surface and underground workers.

Table 7. Union Membership by Occupation

	Surface	Underground
Union Members	465	468
Percent	54.1	57.9
Nonmembers	395	340
Percent	45.9	42.1
Total	860	808

$$X^2 = 2.35$$
Significance = .1251

Not only is there no relationship between this index of occupational status

and union membership but also, when we introduce controls, the emergent

relations run counter to the direction predicted on the basis of United

States data. In the Mineworkers' Union of Zambia, occupational status associates with union membership among those with low lengths of service on the mines and among younger miners. In both cases, however, underground workers join the union more frequently than do surface employees (Table 8).

Table 8. Union Membership by Occupation,
under Low Length of Service and Low Age

	Low Length of Service		Low Age	
	Surface	Underground	Surface	Underground
Union Members	143	187	157	237
Percent	34.1	42.7	39.0	51.1
Nonmembers	276	251	246	227
Percent	65.9	57.3	61.0	48.9
Total	419	438	403	464

$x^2 = 6.28$
Significance = .0122
Phi = .0851

$x^2 = 12.3$
Significance = .0005
Phi = .119

The finding is corroborated by differences in the patterns of joining of staff and nonstaff employees. Some employees hold jobs which involve supervisory responsibility, technical skill, or responsibility for funds or privileged information. They form the white-collar cadres of the mine employees: the laboratory technicians, clerical and medical staff, personnel officers, and local supervisors. As shown in Table 9, despite the status distinction between the two categories of workers, the nonstaff employees have a higher rate of participation in the union than do the staff workers. The difference is not significant, however. Controlling

Table 9. Union Membership by Occupation

	Staff	Nonstaff
Union Members	87	833
Percent	51.3	60.0
Nonmembers	71	658
Percent	48.7	40.0
Total	158	1491

$$X^2 = 1.20$$
$$\text{Significance} = .9128$$

for tribe, marital status, and education fails to produce significant differences in joining between the two categories of workers. When we control for income and length of service in Table 10, significant differences do emerge, but the relationship runs counter to that expected from United States findings: highly paid and long-service nonstaff join the Union more frequently than do staff employees with similar pay rates and tenure on the mines.

Table 10. Union Membership by Occupation, under
High Length of Service and Low Income

	High Length of Service		Low Income	
	Staff	Nonstaff	Staff	Nonstaff
Union Members	63	533	70	446
Percent	64.3	88.1	53.0	68.1
Nonmembers	35	171	55	201
Percent	35.7	11.9	47.0	31.9
Total	98	664	132	647

$$X^2 = 5.30$$
$$\text{Significance} = .0213$$
$$\text{Phi} = .0815$$

$$X^2 = 7.33$$
$$\text{Significance} = .0068$$
$$\text{Phi} = .0975$$

Further contradicting United States findings is the inverse
relationship between education and union membership, shown in Table 11.
Uneducated miners more frequently join the union than do those who have
received some schooling.

Table 11. Union Membership by Education

	No Education	Some Education
Union Membership	378	484
Percent	56.0	48.6
Nonmining	297	511
Percent	44.0	51.4
Total	675	995

$x^2 = 12.2$
Significance = .0005
Phi = .0835

The introduction of controls suggests that uneducated persons less fre-
quently join the union because they are unmarried, younger, and have
worked at the mines for shorter periods of time. Nonetheless, under none
of the controls does the relationship reverse its direction, and the
contrast with United States findings is striking.

The last indicator of class is income. In conformity with patterns
in the United States, income is positively related to union membership, as
indicated in Table 12. However, Table 13 reveals that the relationship
"partials out" when length of service is controlled. Thus, higher income
appears to result from increased length of service on the mines, thereby
generating the original relationship.

Table 12. Union Membership by Income

	High	Low
Union Membership	385	526
Percent	45.9	66.9
Nonmembers	453	260
Percent	54.1	33.1
Total	838	786

X^2 = 71.6
Significance = .0000
Phi = .21

Table 13. Union Membership by Length of Service, Income Controlled

	High Income		Low Income	
	High	Low	High	Low
Union Membership	396	191	130	194
Percent	75.1	74.0	50.2	33.4
Nonmembers	131	67	129	386
Percent	24.9	26.0	49.8	66.6
Total	527	258	259	580

X^2 = .0621
Significance = .8031

X^2 = 20.5
Significance = .0000
Phi = .156

C. Discussion

We must ask what accounts for differences in United States findings
and our own results regarding class-related differences in associational
behavior. In the case of two of the three indicators of class, our data
directly contradict the results of United States studies, and in the case
of the third, the original correlation appears to be spurious. The con-
tradiction suggests that critical additional factors must be introduced

in the study of associational membership. One possible such factor is the operations of the association itself -- a factor which has received surprisingly little attention in the literature on "joining."[13] On the basis of my field work in the mining communities in Zambia, I did not find it too surprising that "higher-class" persons had lower rates of participation in the Mineworkers' Union. The union seeks to advance the position of its lower-class members -- those who form the great majority of its rank and file. Indicative of this pattern is the union's formulation of wage demands in terms of absolute instead of percentage increases. Absolute increases benefit poorer workers, while percentage increases yield greater benefits to miners with higher incomes. Also indicative of the union's orientation is its tendency to defend its "worker" members against its "supervisor" members. The more educated, higher-status workers therefore feel isolated in the union and ignored by it. As a result, we can hypothesise, they tend less frequently to join. Our analysis therefore suggests that the nature of an organization -- its operations, as they impinge on its potential members -- is a crucial determinant of the pattern of joining, and that other studies of voluntary associations should give greater emphasis to this factor.

There is a second possible explanation for the differences between our findings and those from the United States -- one which takes into account the different levels of social development in the two areas: that urban stabilization and class formation are separate phenomena, and that while in the United States, the two exist together, in the copperbelt, urbanization is more significant than class formation at this stage in its

social development. One of our life-cycle variables, marriage, is a common indicator of urban stability[14]; so too is length of service on the mines, when interpreted as an index of the length of time spent in urban areas.[15] Persons who have wives in town and a long residence in the mining community can be presumed to be more highly urbanized than others. The tendency for class factors to partial out when the indicators of urbanization are controlled -- marital status and length of service -- suggests the overriding significance at this time of the process of urban stabilization. The failure of United States studies to report similar relationships suggests that both class and urbanization factors are significant and operative in American urban society. A test of this "stages" hypothesis would require us to establish that the two sets of factors do not in fact "partial out" in United States data. It would also require longitudinal studies from the copperbelt and a demonstration from future data that class variables remain significant when measures of urbanization are controlled.[16]

V

Text of Hypotheses About Associational

Membership in Africa

In addition to choosing variables which corresponded to cateogries employed in United States studies, we also selected variables of interest to studies of social behavior in Africa. The copperbelt of Zambia has a

rich research tradition and has generated a variety of hypotheses about patterns of social participation.[17] Our data allow us to test some of these hypotheses, as well as propositions developed from studies elsewhere in Africa.

A. Ethnicity

Africa, par excellence, is the continent of ethnic behavior. As discussed by Wallerstein, the concept of ethnicity has two basic dimensions: tribal membership and region of origin.[18] I recorded over one-hundred tribes in my sample and immigrants from all the provinces of Zambia.

In the light of contemporary politics and social conflict in Zambia, I aggregated my sample into four groups: Bemba and other tribesmen and persons from the Northern Province and the other provinces of Zambia.[19] Political controversy in Zambia focuses, to a high degree, on the supposed dominance of Bemba speakers and persons from the Northern Province.[20] In the mine townships of Rhokana, there are occasional accusations that the union is "Bemba serving" and dominated by a "Northern Province clique." Tests of the validity of such accusations are in themselves important. From the standpoint of social theory, they are crucial, for the accusations clash directly with one of the most pervasive hypotheses about ethnic behavior in Africa: that in the field of white-black relations -- such as labor relations -- tribal differences are irrelevant as determinants of social behavior.[21]

Our data in Table 14 reveal that tribal background, in terms of being a Bemba or not, makes no significant difference for patterns of Union membership. Differences in the propensity to join the union are, again,

Table 14. Union Membership by Tribe

	Bemba	Non-Bemba
Union Members	598	336
Percent	57.2	55.3
Nonmembers	447	272
Percent	42.8	44.7
Total	1045	608

$$X^2 = .525$$
Significance = .4698

accounted for in terms of income, marital status, age, and length of service. The sole point at which tribe does make a difference is when income is low; as Table 15 shows, poor Bemba more frequently join the union than do low paid workers from other tribes.

Table 15. Union Membership by Tribe, under Low Income

	Bemba	Non-Bemba
Union Members	287	99
Percent	49.5	38.2
Nonmembers	293	160
Percent	50.5	61.8
Total	580	259

$$X^2 = 8.69$$
Significance = .0032
Phi = .102

Similarly, for province of origin: the factor bears no relationship with union membership that could not be accounted for by chance alone (Table 16). Controlling for other factors largely fails to evidence a significant

Table 16. Union Membership by Province

	Northern Province	Other Provinces
Union Members	392	542
Percent	54.0	57.5
Nonmembers	334	401
Percent	46.0	42.5
Total	726	943

$$X^2 = 1.88$$
Significance = .1705

relationship between provincial background and union membership. Only in one case -- among those with some education -- does provincial background make a difference, and then in a way that counters contemporary accusations. Table 17 indicates that the Northern Province workers who have some education less frequently join the union than do educated employees from other areas.

Table 17. Union Membership by Province,
under Some Education

	Northern Province	Other Provinces
Union Members	154	260
Percent	42.9	52.4
Nonmembers	205	236
Percent	57.1	47.6
Total	359	496

$$X^2 = 7.18$$
Significance = .0074
Phi = .0915

In the Rhokana mining community, therefore, ethnicity has little
effect upon patterns of membership in the Mineworkers' Union. Once again,
we would hypothesize that it is the operations of the association that
largely determine the influence of this factor upon patterns of joining.
As discussed by Mitchell and Epstein, and as I myself observed, in white-
black relations, black leaders generate social pressures to insure that
ethnic cleavages are not allowed to emerge. Union leaders utilize social
and economic sanctions to contain ethnic tensions and strive to preserve
a solid labor, and solid black, front against the European management. This
is not to say that ethnicity is not operative on the copperbelt. As
Mitchell and Epstein state, in inter-African relations, ethnic considera-
tions govern many social patterns: hospitality, joking relationships,
and domestic and kinship affairs, for example. But the structuring power
of ethnicity is not allowed to carry over into the field of labor relations
or to other activities involved in relationships between the white and
black communities.

B. Urbanization as Detribalization

If ethnicity is one of the key concepts in the sociology of modern
Africa, urbanization is another. We have already tested one of the principal
hypotheses about ethnicity. Our data enable a test of one of the central
hypotheses about urbanization as well.

It is the contention of many that urbanization can best be conceived
as the process of "detribalization."[22] While we cannot test this hypothesis
directly, we can test logical extensions of it. Marriage, length of residence
in town, and the proportion of life spent in town can serve as indicators of

urbanization. As we have already noted, being married in town and length
of residence in urban areas (here analoged by length of employment on the
mines) are common indicators of the extent of a person's commitment to
urbanization. The proportion of life spent in town (here analoged by the
proportion of life worked on the mines) has been suggested as a third such
indicator.[23]

One of the logical extensions of the detribalization interpreta-
tion of urbanization is that the effects of tribal membership on social
behavior weaken as the effects of urban, social factors increase. The data
we have presented in part confirm this hypothesis. Ethnic factors, we have
found, have little or no significance in determining associational member-
ship. Much more significant are marital status and length of service with
the mines; also significant (Table 18) is the proportion of his life that
a person has worked on the mines. The relationships persist under all controls.

Table 18. Union Membership by Proportion of Life on the Mines

	Low	High
Union Members	328	603
Percent	38.8	74.5
Nonmembers	517	206
Percent	61.2	25.5
Total	845	809

$$X^2 = 213$$
Significance = .0000
Phi = .36

However, our data enable a more refined test of the hypothesis. If detribalization and urbanization are positively related, then the significance of tribal membership as a determinant of social behavior should be less among persons who, by our indexes, are more highly stabilized as urban residents. As Tables 19-21 reveal, however, the obtained relationships directly counter the predicted relations: The strength of the association between tribe and union membership increases among persons who are "high" on the indicators of commitment to urban life. In none of the cases are the differences statistically significant, however, and we cannot reject the possibility that the relationships are produced by chance.[24]

Table 19. Union Membership by Tribe, Marital Status Controlled

| | Married | | Not Married | |
| | Tribal Group | | Tribal Group | |
	Bemba	Non-Bemba	Bemba	Non-Bemba
Union Members	539	300	59	36
Percent	66.1	62.8	25.7	27.7
Nonmembers	276	178	171	94
Percent	33.9	37.2	74.3	72.3
Total	815	478	230	130

$x^2 = 1.36$
Significance = .2434
Phi = .0315

$x^2 = .0884$
Significance = .7662
Phi = .0141

Table 20. Union Membership by Tribe, Length of Service Controlled

	High Tribal Group		Low Tribal Group	
	Bemba	Non-Bemba	Bemba	Non-Bemba
Union Members	397	206	200	130
Percent	76.4	70.8	37.8	39.6
Nonmembers	123	85	329	198
Percent	23.6	29.2	62.2	60.4
Total	520	291	529	328

$x^2 = 2.74$
Significance = .0981
Phi = .058

$x^2 = .213$
Significance = .6441
Phi = .0157

Table 21. Union Membership by Tribe, Proportion of
Life on the Mines Controlled

	High Tribal Group		Low Tribal Group	
	Bemba	Non-Bemba	Bemba	Non-Bemba
Union Members	405	198	192	136
Percent	76.4	71.0	37.5	40.8
Nonmembers	125	81	320	197
Percent	23.6	29.0	62.5	59.2
Total	530	279	512	333

$x^2 = 2.58$
Significance = .1084
Phi = .0565

$x^2 = .813$
Significance = .3673
Phi = .031

VI

Urban Integration versus Urban Isolation as

Determinants of Associational Membership

There are two, basically contradictory, hypotheses about the deter-

minants of associational membership in urban areas. The first derives

principally from the African literature and emphasizes that joining asso-

ciations results from social isolation; the second stems mainly from the

United States literature and finds that associational membership reaffirms

social ties and is an expression of social integration.

Exemplifying the first position is the work of Banton, Little, and

Fallers.[25] All three cite the desire to reduce feelings of isolation and

the need for intimacy, fellowship, and fraternity as primary motivations

for joining associations; all three contend that participation in associa-

tions is characteristic of new immigrants into the urban areas. Proponents

of the second position note that home owners more frequently join associa-

tions than do renters[26]; that persons with greater numbers of informal

relationships in town have higher rates of associational memberships[27];

and that those who have "positive attitudes" toward their communities have

higher rates of participation in associations.[28] According to this posi-

tion, associational membership, rather than reflecting social isolation,

instead gives expression to existing ties with and commitments to urban

society. The joining of associations is therefore said to be more charac-

teristic of established residents in town than of new immigrants to urban

areas.[29]

We can employ several of our variables to serve as measures of

integration and isolation. Thus, we can identify those who are married, who are long-term employees of the mines, who have spent a high proportion of their lives on the mines, and who belong to the majority tribal grouping, as well as those who do not. Those who are married, we presume, are socially more integrated into the mine community, while single persons, we assume, are more isolated. Similarly, we assume that long-term employees and those who have spent a greater proportion of their lives working on the mines are more integrated into the mining community; employees who have just signed on, we can argue, occupy a social position analogous to immigrants and are socially more isolated. Finally, we assume that those who belong to the majority tribal group are socially more integrated into the mining community than those who do not.

Employing these indicators, we can test the competing interpretations of the determinants of associational membership. First, we can determine in which direction the relationships run: in the direction predicted by the integration theorists or in the direction predicted by those who stress social isolation as a determinant of associational membership. Secondly, we can construct two multivariate models and see which one best predicts the obtained relationships between the variables.

As Tables 22-24 reveal, the direction of the relationships between our indicators and union membership favors the integration hypothesis, and in every case save one, the relationships are significant. All, save tribe, persist under all controls. The direction of the relationships therefore substantiates the integration theorists and calls into question the contention of those who view immigration and isolation as a source of

Table 22.　Union Membership by Tribe

	Majority Group (Bemba)	Minority Group (Non-Bemba)
Union Members	598	336
Percent	57.2	55.3
Nonmembers	447	272
Percent	42.8	44.7
Total	1045	608

$$x^2 = .525$$
Significance = .4689

Table 23.　Union Membership by Marital Status

	Married (Bemba)	Unmarried (Non-Bemba)
Union Members	839	95
Percent	64.9	26.4
Nonmembers	454	265
Percent	35.1	73.6
Total	1293	360

$$x^2 = 168$$
Significance = .0000
Phi = .32

Table 24.　Union Membership by Proportion of Life
on the Mines

	High	Low
Union Members	603	328
Percent	74.5	38.8
Nonmembers	206	517
Percent	25.5	61.2
Total	809	845

$$x^2 = 213$$
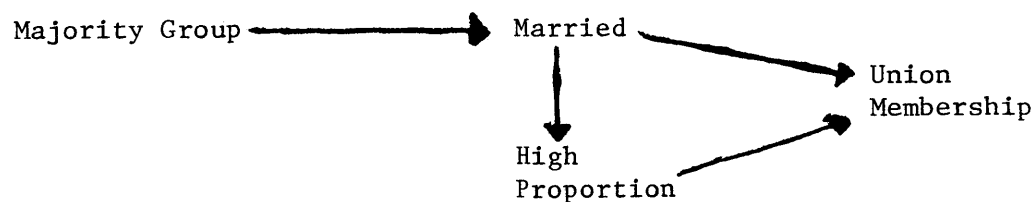Significance = .0000
Phi = .36

associational membership. So too do the magnitude and significance of the
relationships, save in the case of tribal membership.

We can model the two theories in the following manner:

Tribe ⟶ Marital Status ⟶ Union Membership

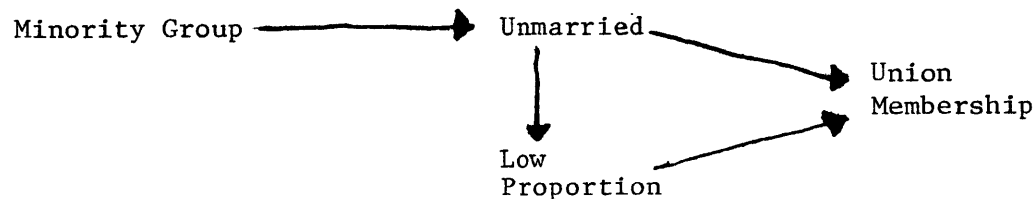Marital Status ⟶ Proportion of Life on the Mines ⟶ Union Membership
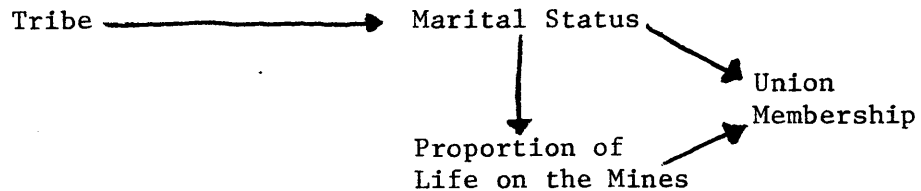
Thus, according to the integration theorists, married more frequently
join associations than unmarried people, as it is highly probable that
membership in the majority tribe increases the opportunities for marriage.
Similarly, the higher the proportion of his life a worker spends in the
mining community, the greater the likelihood that he will join the union.[30]
Conversely, the isolation theorists view the members of minority groups
and new immigrants as more likely to join associations. The competing
models can be presented as follows:

<u>Integration Theory</u>

Majority Group ⟶ Married ⟶ Union Membership

Married ⟶ High Proportion ⟶ Union Membership

<u>Isolation Theory</u>

Minority Group ⟶ Unmarried ⟶ Union Membership

Unmarried ⟶ Low Proportion ⟶ Union Membership

The major predictions of the two models can easily be specified.[31] Thus, both predict that when marital status is controlled, there is no relationship between tribal group and union membership. They also predict that the relationship between the proportion of life which an employee has spent on the mine and union membership is not spurious, that is, does not result from their joint dependence on marital status. A test of the two predictions, given in Table 25, serves also to test the two models of associational membership.

Table 25. Union Membership by Tribe, Marital Status Controlled

	Married		Unmarried	
	Majority Group (Bemba)	Minority Group (Non-Bemba)	Majority Group (Bemba)	Minority Group (Non-Bemba)
Union Members	539	300	59	36
Percent	66.1	62.8	25.7	27.7
Nonmembers	276	178	171	94
Percent	33.9	37.2	74.3	72.3
Total	815	478	230	130

$X^2 = 1.36$
Significance = .2434

$X^2 = .0884$
Significance = .7662

Integration Theory	Isolation Theory
Prediction:	Prediction:
p(Member,Mar.&Maj.) = p(Member,Mar.)	p(Member,Unmar.&Min.) = p(Member,Unmar.)
Obtained:	Obtained:
p(Member,Mar.&Maj.) = 66.1	p(Member,Unmar.&Min.) = 27.7
p(Member,Mar.) = 64.9	p(Member,Unmar.) = 26.4
Difference: 1.2	Difference: .7

In terms of the first prediction, there is thus little to choose between the two theories; both successfully predict the relationships between tribal

membership, marital status, and associational membership.

As revealed in Table 26, however, the isolation theory fails to avoid a spurious relationship between failure to marry, a low proportion of life in mine employment, and membership in the union. The relationship between the proportion of life spent in mine employment and union membership is nearly entirely accounted for by marital status alone.

Table 26. Union Membership by Marital Status, Proportion
Life on the Mines Controlled

	High		Low	
	Married	Unmarried	Married	Unmarried
Union Member	600	236	3	92
Percent	74.8	49.0	42.9	26.5
Nonmember	202	246	4	255
Percent	25.2	51.0	57.1	73.5
Total	802	482	7	347

X^2 = 87.4   Statistics not meaningful
Significance = .0000
Phi = .247

Integration Theory	Isolation Theory
Prediction:	Prediction:
p(Member,Mar.) = p(Member,Mar.&High pro.)	p(Member,Unmar.) ≠ p(Member,Unmar. & Low pro.)
Obtained:	Obtained:
p(Member,Mar.) = 64.9	p(Member,Unmar.) = 26.4
p(Member, Mar.&High pro.) = 74.8	p(Member,Unmar.&Low pro.) = 26.5
Difference: 9.9	Difference: .1

Thus, both in terms of the direction and magnitude of the relationships and in terms of their validity, the integration theory is substantiated and the isolation theory fails to find support from our data. Membership in this

particular association reflects increased integration in the mining community
rather than social isolation.

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2. Thus, Banton states: "Some understanding of the emergence and spread of new norms may be gained from the study of new institutions. Voluntary associations are of particular interest in this respect, for the new norms are frequently rendered explicit in the association's constitution or activities, and are taught to novices as the distinguishing characteristic of the organization." This quotation appears in Michael F. Banton, A West African City: A Study of Tribal Life in Freetown (London: Oxford University Press, 1957), p. 5. See also Michael Banton, "Adaptation and Immigration in the Social System of Temne Immigrants in Freetown," in Immanuel Wallerstein, ed., Social Change: The Colonial Situation (New York: John Wiley and Sons, Inc., 1966), pp. 402-419; Kenneth Little, "The Organization of Voluntary Associations in West Africa," Civilisations, Vol. 9, No. 3 (1959), pp. 283-297; Kenneth Little, West African Urbanization: A Study of Voluntary Associations in Social Change (Cambridge: Cambridge University Press, 1965); Philip Mayer, Townsmen or Tribesmen (Capetown: Oxford University Press, 1961; and Philip Mayer, "Some Forms of Religious Organization among Africans in a South African City," in Kenneth Little, ed., Urbanization in African Social Change: Proceedings of the Inaugural Seminar Held in the Centre of African Studies, University of Edinburgh (Edinburgh: Centre of African Studies, 1963), pp. 113-126.

3. See, for example, Thomas Hodgkin, Nationalism in Colonial Africa (New York: New York University Press, 1957); Immanuel Wallerstein, Africa, the Politics of Independence (New York: Vintage Books, 1961); and James S. Coleman, Nigeria, Background to Nationalism (Berkeley and Los Angeles:

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4. Throughout this paper, subscription to the check-off is used as the index of membership in the Mineworkers' Union.

5. For further information on the Mineworkers' Union, see A. L. Epstein, Politics in an Urban African Community (Manchester: Manchester University Press, on behalf of the Rhodes-Livingstone Institute, Northern Rhodesia, 1958); also, Robert H. Bates, "Unions, Parties, and Development: A Study of Government Policy Toward the Mineworkers of Zambia," Ph.D. Dissertation for the Department of Political Science, M.I.T., 1969. See also the relevant sections of David C. Mulford, Zambia, the Politics of Independence 1957-1964 (London: Oxford University Press, 1968); and Robert I. Rotbert, The Rise of Nationalism in Central Africa: The Making of Malawi and Zambia 1873-1964 (Cambridge, Mass.: Harvard University Press, 1965). From a more economic perspective, see Robert E. Baldwin, Economic Development and Export Growth: A Study of Northern Rhodesia, 1920-1960 (Berkeley and Los Angeles: University of California Press, 1966).

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13. An exception is Floyd Dotson, "Patterns of Association among Working Class Families," _American Sociological Review_, Vol. 16, No. 5 (October 1951), pp. 687-693, who distinguishes between informal and formal associations.

14. Married here means married and wife in town; the records note marital status for the purpose of providing company housing for married miners. See Bruce Kapferer, "The Population of a Zambian Municipal Township: A Preliminary Report of a 1964 Social Survey of the Broken Hill Municipal Township," _University of Zambia, Institute for Social Research_, Communication No. 1, 1966. As he states, "It is noticeable that

the percentage of males to females from the Northern, Eastern, and North-Western Provinces is almost equal. This indicates that a high proportion of men from these provinces have their womenfolk in town, which suggests that there is a greater likelihood for people from these areas to live in town for an extended period of time or to make town their home," p. 21.

15. See Bruce Kapferer, ibid. See also, Godfrey Wilson, An Essay on the Economics of Detribalization in Northern Rhodesia, Parts I and II (Lusaka: The Rhodes-Livingstone Institute, 1941 and 1942); Merran McCulloch, A Social Survey of the African Population of Livingstone (Lusaka: The Rhodes-Livingstone Institute, 1956); and J. Clyde Mitchell, African Urbanization in Ndola and Luanshya (Lusaka: The Rhodes-Livingstone Institute, 1954).

16. For a commentary on the lag of class formation, see Michael Banton, "Social Alignment and Identity in a West African City," in Hilda Kuper, ed., Urbanization and Migration in West Africa (Berkeley and Los Angeles: University of California Press, 1965), pp. 85-109.

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18. Immanuel Wallerstein, "Ethnicity and National Integration," Cahiers d'etudes africaines, Vol. 1, No. 3 (1960), pp. 129-139.

19. In conformity with Wallerstein's notion of "super-tribalism," I counted as Bemba the Ushi, Mambwe, Bisa, Bwila, Tabwe, Luapula Lunda, Kabende, and others who are regarded, and who have come to regard themselves, as Bemba on the copperbelt.

20. See Robert I. Rotberg, "Tribalism and Politics in Zambia," Africa Report, Vol. 12, No. 9 (December 1967), pp. 29-35.

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pp. 55-70. Thus, Gluckman states, "The African is always tribalised, both
in towns and rural areas; but he is tribalised in two quite different
ways. . . . Hence, the African in rural areas and in town is two different
men; for the social situation of tribal home and of urban employment deter-
mines his actions and associations. . .," p. 69.

23. See J. Clyde Mitchell, African Urbanization in Ndola and
Luanshya (Lusaka: The Rhodes-Livingstone Institute, 1954). Our index
differs from that of Mitchell in that ours is based upon the proportion of
the worker's total life spent working on the mines while his is based
upon the proportion of life spent in town since the age of fifteen.

24. To be noted is that the direction of these relationships sug-
gests that urbanization, as a force of modernization, increases the strength
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30.   Length of service is omitted in these representations as it is built into the index of proportion of life on the mines. Thus, the proportion index = length of service x 100/age.

31.   For an exposition of this technique, see George Wilbur, "Causal Models and Probability," Social Forces (September 1967), pp. 81-89.