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STRUCTURAL investigations of the interrelationships among attitudes have been an important aspect of research about political belief systems.[1] Patterns of correlations among attitude items can reveal much about widespread belief system processes which underlie attitude organization in the general public. This study investigates citizen attitudes toward urban services to enhance our understanding both of mass belief systems concerning local government and the nature of mass political belief systems in general.

Political belief system research has focused primarily on national political issues which are remote from the day-to-day concerns and experiences of most citizens. This research, however, concerns attitudes toward the simplest and most basic activities of local government—the provision of urban services such as police, parks and recreation, and refuse collection. Since immediate matters like these may be more salient to average

[1] The other main types of political belief system research have concerned the temporal stability of attitudes, and levels of political conceptualization revealed by open-ended questions.

Abstract Attitudes toward urban services cluster in ways indicating the widespread presence of a variety of organizing abstractions in mass political belief systems. Nonetheless, since the perceptual basis of these attitudes is weak, they are not the result of sophisticated cognitive processes of attitude formation. The findings do not show that attitudes toward urban services differ dramatically, either in overall constraint or in degree of clustering, from attitudes about national political issues.

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citizens than prominent national issues, it is at this level that the greatest belief system differentiation may exist in the general public.[2]

Prior belief system research has also focused on the use of abstract ideological dimensions, like liberalism versus conservatism, capable of tightly constraining a wide range of political attitudes. Consequently, structural investigations have primarily examined overall levels of attitude consistency or constraint. It would be preferable for researchers interested in understanding whatever attitude organization exists in mass political belief systems, as opposed to making comparisons between political elites and the general public, to focus more on observed patterns of relationships rather than on overall levels of consistency. Ordering abstractions do not necessarily lead to across-the-board constraint: all but the most overarching ideologies would in fact selectively increase consistency among some attitudes but not others.[3] Since broad ideologies capable of constraining attitudes toward a disparate array of attitude objects have been shown to be rare among the general public,[4] the primary focus of past research on investigating such ideologies should be de-emphasized in mass belief system research. Structural investigations should focus on identifying domains or clusters of attitudes in order to infer what ordering abstractions citizens actually use. An undue concern with broad, ideological dimensions used by political sophisticates may obscure the widespread existence of less abstract organizing concepts in mass belief systems, especially about political matters relevant to citizens' daily concerns and perceptions.

The results of this study in fact support the argument that structural investigations which focus on the overall level of constraint, rather than on the dimensional patterns, are likely to underestimate the richness of mass political belief systems. Attitudes toward urban services possess only low levels of overall constraint, but at the same time reveal dimensional patterns indicating the widespread presence of a variety of organizing abstractions. A recent analysis of the Center for Political Studies 1972 election survey presents somewhat analogous findings. That analysis shows that attitude constraint on national political issues is still low in an absolute sense: the most highly correlated items have only about 20 percent of their variation in common (Miller *et al.*, 1976:768). This study of local attitudes likewise fails to find high levels of absolute constraint, even when corrections are made for measurement error. However, both the national

[2] Luttbeg (1968, 1971) has investigated possible local-national differences in his research. However, he examined attitudes toward a variety of local issues rather than toward basic local services. Also, his analytical methods were different, and his results inconclusive.

[3] Also, Converse (1975: 98-107) has reviewed recent replications of his earlier findings and concluded that attitude consistency and constraint may dramatically increase without a comparable increase in the actual use of ordering abstractions.

[4] Regarding the use of the liberal-conservative dimension see Converse (1964, 1975). For the prevalence of another broad ideological dimension see Wilson and Banfield (1971).

research and this research do reveal domains within which political attitudes cluster, indicative of some conceptual structuring of attitudes among substantial segments of the populace. The 1972 election study revealed four prominent domains concerning war issues, economic issues, social issues, and cultural issues (Miller *et al.*, 1976:766). This study identifies a number of dimensions for local political attitudes—dimensions corresponding to varying degrees of abstraction. At the lowest conceptual level, organization is based merely on obvious similarities among the item referents, but at higher conceptual levels ordering abstractions as sophisticated as a concern with local land-use play a role in organizing local political attitudes.

Data Used in This Study

The survey items in this analysis were part of the Fall 1973, Los Angeles Metropolitan Area Survey (LAMAS), a survey fielded twice yearly by the UCLA Institute for Social Science Research. The LAMAS sampling design is a three-stage, area probability sample of Los Angeles County, and the number of respondents for this study is 1,028. Citizen evaluations of the quality of eight urban services were obtained, and multiple items were asked for six of those services—police, parks and recreation, refuse collection, street repair, street cleaning, and construction control. The "construction control" service was referred to as "control of undesirable new construction" in the survey items, and was an attempt to ask about zoning in a way meaningful to most respondents.[5]

The first type of evaluation item used a card sort technique patterned after Cataldo *et al.* (1970), and involved placing cards for different services into four pockets.[6] The second evaluation measure was a traditional rating scale requiring respondents to rate specific services according to a fourfold verbal classification. A third type of item, a "ladder scale," was used for the police service only—the respondent was provided a card with a picture of a 0-10 "ladder" metric having poles labeled "best" and "worst," and was asked to assign a numerical rating. In addition to these service evaluation items, several other types of items are used in this analysis. Respondent opinions about the importance of nine specific services (including the six for which multiple evaluations were obtained) were solicited with a card sort item. A four-category item measured the respondent's political interest and attention to public affairs. Finally, a dichotomous measure of the respondent's feelings of personal political efficacy vis-à-vis his local government was obtained. Rank-order numbers were

[5] The results of a previous LAMAS survey item, which asked directly about zoning, indicated the need for an alternative.

[6] The Appendix at the end of this article gives the exact wording of the items.

assigned as category values to the evaluation, importance, and attention items, and the efficacy item was coded zero-one.[7]

Examination of inter-item correlations using a multitrait-multimethod matrix established the convergent and discriminant validity of the evaluation items.[8] An orthogonally rotated solution to a principal components factor analysis of the evaluation items (results not presented) yielded a factor specific to each service measured by more than one item (e.g., factors for which the highest loading items were items for the same service).[9] The fact that the evaluation items form service-specific dimensions is further evidence of validity. The degree to which these results are an artifact of respondent recall of prior answers is probably low, because of distribution of the evaluation items throughout a lengthy interview schedule. Also, these items were expected to have high validity and reliability, since they have simple referents (perhaps with the exception of construction control).

Analysis of the Structure of Attitudes toward Urban Services

Because most public opinion researchers are not familiar with the main analytic technique of this study, key cluster analysis, a few explanatory comments are in order. Key cluster analysis, a powerful tool for the study of belief system dimensions, provides capabilities and flexibility not available from correlation and factor analysis. The statistical techniques were developed by the psychologist Tryon,[10] and were first applied to the investigation of political attitudes by Hensler (1971).[11] In key cluster analysis, dimensions are defined by distinct subsets of unweighted variables. Cluster scores are estimated by summing the standardized scores of the cluster definers. In this research service-specific clusters were defined for each of the six main services. Service-specific factoring is justified because the evaluation items for each service are highly intercorrelated and have similar profiles of correlation with the other variables in the analysis (as revealed by the similarity statistic, discussed below). Structural questions are easily explored using key cluster analysis, since dimensions are not constrained to be orthogonal and have precisely defined content determined by the analyst.[12]

[7] Rank-order numbers were assigned only after analysis indicated equal-interval scoring was appropriate (see Stipak, 1976: 12-19).

[8] See Stipak (1976: 19-24), and Scott (1976: 118).

[9] See Stipak (1976: 27) for factor analysis results showing the same finding but based on a larger list of service evaluation items.

[10] See Tryon and Bailey (1970).

[11] Although Tryon and Bailey (1970) provide the complete, formal treatment of the subject, Hensler (1971: Ch. 3) provides the single best summary overview, as well as a succinct comparison with factor analysis.

[12] In contrast, factor analysis results in dimensions to which all variables in the analysis make some contribution. Thus, variables the researcher might prefer to omit on the basis of face validity nonetheless contribute to factor variance.

Examination of the item loadings and similarities is one way to determine the relationships among service evaluation dimensions. These statistics are presented in Tables 1 and 2.[13] Both the nonevaluation items and the evaluation items are included in the analysis to increase the sensitivity of the similarity statistic. For convenience in reading the tables, the loadings and similarities of each cluster definer are underlined. The loadings (Table 1) can be considered the product-moment correlations between the items and the underlying dimensions—that is, between the items and the clusters, if the clusters were measured perfectly.[14] The sim-

Table 1. Item Loadings on Service Evaluation Clusters

Clusters						
1. Police	*2. Parks and Recreation*	*3. Refuse Collection*	*4. Construction Control*	*5. Street Repair*	*6. Street Cleaning*	*Variables*
.77	.29	.18	.18	.16	.16	Police evaluation, card sort
.82	.28	.22	.23	.27	.27	Police evaluation, rating scale
.81	.29	.19	.16	.18	.20	Police evaluation, ladder scale
.27	.82	.14	.34	.19	.17	Parks and Recreation evaluation, card sort
.31	.82	.20	.38	.27	.22	Parks and Recreation evaluation, rating scale
.17	.14	.79	.13	.23	.37	Refuse Collection evaluation, card sort
.22	.18	.79	.17	.28	.44	Refuse Collection evaluation, rating scale
.19	.37	.14	.83	.22	.14	Construction Control evaluation, card sort
.21	.35	.17	.83	.23	.11	Construction Control evaluation, rating scale
.21	.22	.25	.18	.79	.33	Street Repair evaluation, card sort
.20	.22	.26	.25	.79	.40	Street Repair evaluation, rating scale
.19	.15	.37	.11	.33	.79	Street Cleaning evaluation, card sort
.23	.22	.45	.13	.41	.79	Street Cleaning evaluation, rating scale
.18	.18	.23	.19	.38	.27	Street Lighting evaluation, rating scale
.19	.13	.21	.13	.22	.17	Traffic Signals and Signs evaluation, card sort
.09	.08	.02	.01	.09	.12	Police importance
.03	−.04	.10	−.05	.12	.13	Parks and Recreation importance
.10	.17	.25	.08	.11	.09	Refuse Collection importance
.13	.07	.04	−.08	.09	.06	Construction Control importance
.13	.12	.09	.07	.04	.07	Street Repair importance
.13	.18	.16	.06	.18	.15	Street Cleaning importance
−.06	−.10	.07	−.11	−.02	−.03	Environmental Protection importance
.10	.06	.09	−.05	.08	.06	Building Code importance
.09	.05	.05	.11	.12	.08	Business License importance
.02	−.02	.01	−.15	−.03	−.02	Attention to Public Affairs
.09	.03	−.01	.10	.00	.05	Personal Political Efficacy

NOTE: Variables defining a cluster have their loadings on that cluster underlined.

[13] No opinion responses were treated as missing values and deleted pairwise from the calculation of the correlation matrix. This is justified in Stipak (1976: 133-38). The cluster analysis statistics used in this study are based on a noncommunality model, which avoids the problem of estimating communalities (see Tryon and Bailey, 1970: 281-82).

[14] The loading of a variable on a cluster is its average correlation with the variables defining the cluster, divided by the square root of the average correlation among the cluster definers (Hensler, 1971: 73).

Table 2. Item Similarities on Service Evaluation Clusters

Clusters						
1. Police	*2. Parks and Recreation*	*3. Refuse Collection*	*4. Construction Control*	*5. Street Repair*	*6. Street Cleaning*	*Variables*
.95	.51	.35	.35	.39	.37	Police evaluation, card sort
.94	.55	.41	.38	.46	.44	Police evaluation, rating scale
.95	.51	.37	.34	.41	.39	Police evaluation, ladder scale
.51	.92	.36	.59	.45	.36	Parks and Recreation evaluation, card sort
.54	.92	.41	.62	.50	.43	Parks and Recreation evaluation, rating scale
.36	.35	.84	.25	.56	.69	Refuse Collection evaluation, card sort
.40	.41	.84	.32	.62	.74	Refuse Collection evaluation, rating scale
.36	.60	.30	.89	.40	.29	Construction Control evaluation, card sort
.36	.60	.27	.89	.40	.32	Construction Control evaluation, rating scale
.43	.47	.58	.39	.88	.70	Street Repair evaluation, card sort
.41	.48	.59	.40	.88	.69	Street Repair evaluation, rating scale
.39	.39	.70	.28	.68	.88	Street Cleaning evaluation, card sort
.41	.41	.73	.33	.71	.88	Street Cleaning evaluation, rating scale
.51	.54	.66	.45	.87	.75	Street Lighting evaluation, rating scale
.59	.53	.62	.41	.72	.67	Traffic Signals and Signs evaluation, card sort
.21	.18	.25	.07	.24	.21	Police importance
.10	.07	.20	.01	.17	.18	Parks and Recreation importance
.25	.29	.37	.15	.32	.34	Refuse Collection importance
.16	.09	.16	.02	.15	.15	Construction Control importance
.22	.22	.23	.08	.22	.20	Street Repair importance
.25	.28	.35	.14	.30	.30	Street Cleaning importance
.01	.02	.01	.08	.00	.00	Environmental Protection importance
.14	.08	.14	.02	.15	.15	Building Code importance
.23	.22	.24	.09	.28	.24	Business License importance
.00	.02	.00	.05	.00	.00	Attention to Public Affairs
.17	.12	.05	.06	.08	.06	Personal Political Efficacy

NOTE: Variables defining a cluster have their similarities on that cluster underlined.

ilarities (Table 2) quantify the extent the variables' patterns of correlation with all other variables are similar to the patterns for the cluster definers.[15] Similarities vary between zero and 1, with 1 corresponding to patterns which are exactly proportional. The theoretical importance of this statistic lies in the assumption that items measuring the same underlying variable should not only be highly intercorrelated, but should also have similar patterns of relationship with other items measuring different underlying variables. In short, the loading matrix reveals the degree to which each variable is correlated with the common components of the

[15] The similarity (also called the index of proportionality) between two variables is essentially the product-moment correlation of their correlations, except that the moments are taken about zero rather than the mean (see Hensler, 1971: 74; Tryon and Bailey, 1970: 291). The similarity of a variable on a cluster is simply its average similarity with the variables that define the cluster.

cluster definers, whereas the similarity matrix reveals the extent to which each variable's profile of correlations with all other variables in the analysis is similar to the profiles of the definers.

To help highlight the dimensional interrelationships, the variables with the highest loadings and similarities will be identified. First, the highest loading items will be listed, defined as all variables sharing 10 percent or more of their variance with the underlying cluster (loadings $\geq .32$):

Parks and recreation cluster: construction control (card sort), .37; construction control (rating scale), .35

Refuse collection cluster: street cleaning (rating scale), .45; street cleaning (card sort), .37

Construction control cluster: parks and recreation (rating scale), .38; parks and recreation (card sort), .34

Street repair cluster: street cleaning (rating scale), .41; street lighting, .38; street cleaning (card sort), .33

Street cleaning cluster: refuse collection (rating scale), .44; street repair (rating scale), .40; refuse collection (card sort), .37; street repair (card sort), .33

No simple statistical interpretation, such as shared variance, can be used to establish a convenient cutoff value for the high similarity items. Therefore, a value of .60 will be used because the resulting number of similarities identified roughly equals the number of loadings listed above:

Parks and recreation cluster: construction control (card sort), .60; construction control (rating scale), .60

Refuse collection cluster: street cleaning (rating scale), .73; street cleaning (card sort), .70; street lighting, .66; traffic signals and signs, .62

Construction control cluster: parks and recreation (rating scale), .62

Street repair cluster: street lighting, .87; traffic signals and signs, .72; street cleaning (rating scale), .71; street cleaning (card sort), .68; refuse collection (rating scale), .62

Street cleaning cluster: street lighting, .75; refuse collection (rating scale), .74; street repair (card sort), .70; refuse collection (card sort), .69; street repair (rating scale), .69; traffic signals and signs, .67

The highest loading and similarity items on each cluster closely correspond and reveal patterns which suggest the existence of supra-service evaluation dimensions representing attitude linkages of varying degrees of abstraction. The least abstract linkage is based on a shared item referent or prominent word, as illustrated by the services concerning street functions. The highest loading or similarity items for the street repair cluster include street cleaning, street lighting, and traffic signals and signs, and those for the street cleaning cluster include street lighting,

street repair, and traffic signals and signs. Thus, although clusters do exist for the specific street functions, street-related services also define a more general street service dimension. Because linkage based on a shared item referent represents the least abstract type of belief system organization, it is not surprising that in 1956, a time of low attitude consistency, the only moderately intercorrelated issues in the Michigan SRC battery were those having the same key referents (Nie and Andersen, 1974: 548-49).

Although the street service dimension may be due to simple generalization based on common item referents (e.g. the keyword "street"), other results indicate that more abstract linkages exist as well. A second general dimension concerns local cleanliness: the street cleaning items are the two highest loading and similarity items on the refuse collection cluster, and the refuse collection items are the only high loading and similarity items on the street cleaning cluster other than the street-related items. Finally, the relationship of parks and recreation with construction control suggests a third supra-service dimension: the construction control items are the only high loading or similarity items on the parks and recreation cluster, and the parks and recreation items are the only high loading or similarity items on the construction control cluster. Thus, the two services related to local land-use cluster together. Such a "land-use" dimension clearly represents fairly abstract attitude organization.

These structural observations can be explored further by directly examining the relationships among the clusters, as described by the scale correlations and the domain correlations presented in Table 3. The scale correlations are simply the product-moment correlations among the summated scales defining the clusters. Because scale correlations are attenuated by random measurement error, scale correlations underestimate the true constraint between dimensions.[16] The domain correlations are a more useful statistic for analysis, since the domain correlations are the estimated correlations among the true underlying variables (e.g., if measured perfectly).[17] Table 3 also presents the scale reliabilities, calculated

Table 3. Correlations among Scales and Cluster Domains

	1.	*2.*	*3.*	*4.*	*5.*	*6.*	*Rel.*
1. Police		.29	.20	.20	.20	.21	.84
2. Parks and Recreation	.36		.16	.35	.22	.18	.81
3. Refuse Collection	.25	.20		.15	.25	.40	.77
4. Construction Control	.24	.43	.19		.21	.12	.82
5. Street Repair	.25	.28	.32	.27		.36	.77
6. Street Cleaning	.26	.23	.52	.15	.46		.77

NOTE: Scale correlations appear above the diagonal and domain correlations appear below the diagonal.

[16] Also, scale correlations, like simple correlations, may lead to incorrect inferences about relative levels of constraint due to differences in reliabilities.

[17] Domain correlations are essentially the scale correlations augmented by the scale reliabilities. See Hensler (1971: 76).

using Cronbach's alpha coefficient (see Cronbach, 1951:321). These reliabilities are quite high for two-item scales, which was expected due to the simple item referents.

The relationships among the clusters (Table 3) support the inferences made from the high loading and similarity items. The two most oblique dimensions are the refuse collection and street cleaning clusters. The dimensions having the second highest intercorrelation are the street repair and street cleaning dimensions. Finally, the third highest domain correlation is between the parks and recreation and construction control clusters. In short, this is further evidence that the public's attitudes toward urban services are conceptually integrated in a variety of ways. Of most interest is the apparent existence of attitude organization sufficiently abstract to link services sharing a relation to land-use.

The service importance items were used to further explore the nature of public belief systems concerning local services. If attitude organization of the type described above does exist, it should be manifested in the relationships among respondents' judgments about the importance of specific services. Table 4 provides the product-moment correlations and the similarities among all nine of the service importance items. The same three service pairs have both the three highest loadings and the three highest similarities—construction control and building codes, street repair and street cleaning, and refuse collection and street cleaning. The first pair, construction control and building codes, involves services bearing an obvious resemblance in their content, and the others correspond to two of the three supra-service dimensions identified by cluster analysis of the evaluation items. The findings are not completely clearcut, since examining progressively lower correlations and similarities reveals some service pairs with above-average correlations or similarities but with no obvious substantive or logical connection. Also, the parks and recreation and construction control pair, corresponding to one of the supra-service evaluation dimensions, does not manifest especially high coefficients.

Table 4. Correlations and Similarities among Service Importance Items

	1.	*2.*	*3.*	*4.*	*5.*	*6.*	*7.*	*8.*	*9.*
1. Police		.19	.16	.16	.22	.19	.15	.24	.13
2. Parks and Recreation	.80		.17	.25	.22	.25	.15	.23	.16
3. Refuse Collection	.68	.62		.14	.25	.41	.16	.18	.09
4. Construction Control	.82	.77	.49		.25	.17	.15	.42	.25
5. Street Repair	.78	.70	.84	.58		.42	.08	.21	.13
6. Street Cleaning	.75	.63	.88	.54	.85		.12	.16	.12
7. Environmental Protection	.31	.51	.24	.33	.36	.25		.16	.07
8. Building Codes	.73	.80	.45	.93	.61	.54	.35		.34
9. Business Licenses	.78	.71	.55	.80	.63	.53	.24	.80	

NOTE: Correlations appear above the diagonal and similarities appear below the diagonal. Similarities were calculated based on the entire list of variables shown in Table 1 and Table 2.

Nonetheless, the findings about the service pairs with the three highest correlations and similarities nicely complement the findings from the analysis of the evaluation items. The evidence seems persuasive that some conceptual organization, which can be quite abstract and sophisticated, of attitudes toward urban services exists for substantial segments of the populace.

The interesting dimensional patterns discussed above exist side by side with fairly low levels of constraint among attitude dimensions—even the most highly correlated dimensions have little more than one quarter of their variation in common (Table 3). Substantially greater belief system constraint does not appear to exist for opinions about the basic activities of local government, compared to opinions about national political issues. This research therefore provides no evidence that the geographic proximity of attitude objects dramatically affects political belief system characteristics.

Formation of Political Attitudes in the General Public

The existence of fairly sophisticated attitude organization does not necessarily imply that these attitudes are the product of sophisticated, cognitive processes of attitude formation. The informational basis of these attitudes is very weak, as would be expected in light of the general finding of public opinion research that the public possesses meager knowledge about government and public affairs. Respondents in this study were largely ignorant of the basic facts about how their local services were provided. For example, when asked if they knew whether any of their local services were furnished by contract with another government or private firm, over half of the respondents said they did not know.[18] Of the minority who claimed to know, many obviously did not, as revealed by their responses when asked to provide examples of such services. Incorrect examples included "mail delivery," "FBI," "telephones," and "weather reports." Not only are respondents ignorant of the basic facts of service provision in their cities, but also the service evaluations they provide have little to do with the quality of those services. Recent research by Stipak with the same LAMAS data found no evidence that objective service characteristics affect citizen evaluations of urban services.[19] In short, fairly sophisticated attitude structuring is not necessarily grounded in perceptions or knowledge of the actual characteristics of the attitude referents.

[18] A rich variety of contract arrangements exist in Los Angeles County for the provision of municipal services. Under the so-called "Lakewood Plan" many cities contract with Los Angeles County for specific services.

[19] Stipak (1976) estimated models of citizen evaluations as a function of (1) service characteristics, (2) governmental characteristics, (3) neighborhood characteristics, and (4) individual characteristics.

Evaluative orientations such as these must therefore result from processes of attitude formation requiring a minimum of supporting perceptions and knowledge. Cognitive or rational processes of attitude formation (e.g. Fishbein, 1967a, 1967b) require a stronger perceptual basis. One alternative process of attitude formation is the adoption of attitudes primarily from important reference groups or individuals. The political socialization research, which investigates attitude adoption occurring in childhood, is the most extensive existing research on political attitude adoption.

Another alternative process of attitude formation is through generalization from other attitudes. In particular, evaluations of specific political objects might stem from more general evaluative orientations. This study offers some evidence that such generalization occurs, since an underlying general predisposition in evaluating specific local services appears to exist. The service evaluation domains all share a major common component, as revealed by their positive intercorrelations. A principal components factor analysis of the evaluation items yields a first factor (unrotated) which accounts for over 25 percent of the total variance and upon which all items load in the same direction.[20] Thus, citizens may tend to evaluate specific urban services based on more general evaluative orientations toward local government. However, the underlying causal relationships remain somewhat ambiguous, since the relative strength of the impact of general evaluations on specific ones, compared to the impact of specific evaluations on general ones, is unknown. An important gap in political attitude research which remains to be filled is a sophisticated study of this causal question.[21]

Both an adoption and a generalization model are consistent with (1) the existence of fairly sophisticated attitude structuring, and (2) the poor grounding of political attitudes in perceptions or knowledge of the attitude referents. A plausible interpretation of the results of this research is that local political attitudes of this type are formed primarily through generalization or adoption, rest on no strong perceptual basis, but nonetheless manifest fairly sophisticated organization. The absence of cognitively formed attitudes does not therefore imply that citizens are incapable of sophisticated belief system processes, merely that information levels are low and political objects are not salient.

[20] This common component is partially an artifact of correlated measurement error, in particular response set. Some response set can be expected for these types of survey items. For example, a considerable degree of acquiescence response set is present in the 56-60 panel data (Converse, 1974: 655-56).

[21] Such a study would require estimating a simultaneous system using two-stage least squares or instrumental variables. Although rigorous empirical investigation of these causal relationships has not been undertaken, there has been speculation about them (e.g., Gamson, 1968).

Nature of Attitude Organization in Various Publics

The same key cluster analysis was carried out using different subsamples of the LAMAS respondents. The findings are not presented in detail here, but are summarized below, and are available in more complete form from the author.[22]

The findings show that belief system differentiation increases with education and political interest. More educated and politically interested respondents show greater *variation* in constraint among dimensions, as well as a tendency for greater constraint for the abstract linkages identified earlier. The constraint for the most abstractly linked service pair (parks and recreation and construction control) appears most dramatically affected by increased education, whereas the pair based on the simplest linkage (street repair and street cleaning) appears unaffected. In short, abstract organizing concepts play a greater role among the more educated and politically interested, heightening some interdimensional correlations but not others.

The overall level of constraint among the more educated and politically interested still remains low, reflecting the rarity in the general public of belief systems tightly constrained by overarching ideologies. In fact, overall attitude constraint appears to increase with lower education. Since evidence of abstract attitude organization diminishes at the same time, higher overall constraint for the less educated is probably due to response set, or to attitude consistency resulting from unsophisticated processes of undifferentiated adoption or generalization.

Subsamples were also defined using variables related to governmental activity and visibility (total municipal expenditures and total property tax rate), and to the stake of the respondent in the community (homeowner versus renter). Since a cognitive model of attitude formation views attitudes as a function of a perceptual and an affective component, factors affecting governmental visibility may influence attitude structures. That is, governmental activity and the respondent's stake in the community may affect the informational and perceptual basis for evaluating local services, potentially affecting evaluations of those services and their structure.[23] In contrast, adoption or generalization models would predict that attitude structures are insensitive to perceptual factors. The findings do not support the prediction of the cognitive model: differences in governmental visibility or individuals' stake in the community do not appear to promote differences in attitude organization. These results are compat-

[22] Copies of an addendum which presents these results in more detail can be obtained by writing the author, System Development Corporation, Studies and Evaluation Dept., 2500 Colorado Blvd., Santa Monica, Calif. 90406.

[23] A plausible hypothesis is that greater salience of urban services increases the belief system centrality of attitudes about them, yielding greater attitude constraint.

ible with Stipak's (1976) findings that service evaluations of this type are unaffected by objective service characteristics.

Conclusion

Structural investigations of political attitudes in the general public need to carefully examine attitude clustering as well as overall constraint. Since overarching political ideologies capable of closely constraining attitudes toward a disparate array of attitude objects are rare in the mass public, overall attitude constraint will usually be quite low. Widespread use of some organizing abstractions may nonetheless be present. This study of attitudes toward urban services reveals attitude clusters of varying degrees of abstraction. At the lowest conceptual level, organization is based merely on obvious similarities of the item referents, but at higher conceptual levels ordering abstractions as sophisticated as a concern with local land-use play a role in mass belief systems.

Interestingly enough, abstract attitude structuring exists side by side with a minimum of supporting perceptions and knowledge about the attitude referents. Political attitudes of this type do not appear to result from cognitive processes of attitude formation, but are more likely formed by adoption from reference groups or generalization from other attitudes. Either response set or unsophisticated processes of attitude adoption and generalization lead to some degree of overall attitude constraint among the less educated, but with very little differentiation among attitude objects. The more educated and politically attentive, on the other hand, evidence greater belief system differentiation in the form of attitude clustering. Variables corresponding to psychological states or informational levels appear more closely related to attitude structure than objective characteristics concerning local government or the individuals' stake in the community. Since the findings of this research are similar to recent national-level findings (Miller *et al.*, 1976) in terms of overall constraint and degree of clustering, there is no reason to think that attitude structure is dramatically different for local and national political attitudes.

Appendix

The following is a list of the survey items used in this study. As noted in parentheses, the wording of several items changes slightly according to whether the respondent resides in a municipality or an unincorporated area. For the card sort evaluation, the rating scale evaluation, and the service importance item the order of the response categories and the services was independently reversed for random subsamples.

CARD SORT EVALUATION

"On this sheet of paper we have five pockets with the following labels describing how good a job (respondent's city name/Los Angeles County) does in providing services: things (your city/Los Angeles County) does a very good job of pro-

viding, things (your city/Los Angeles County) does a moderately good job of providing, things (your city/Los Angeles County) is not providing very well, things (your city/Los Angeles County) does not do well at all, things you don't happen to have an opinion about."

RATING SCALE EVALUATION

The interviewer first handed the respondent a card listing different evaluation categories, and then said: "I'm going to read you a list of things that local government is involved in. For each one would you tell me whether you feel that (respondent's city name/Los Angeles County) is doing: a very good job, a good job, a fair job, a poor job, or don't you have an opinion. How about (specific service)?"

LADDER SCALE EVALUATION

"Here is a picture of a ladder [respondent is handed a card with a 0-10 metric with poles labeled 'worst' and 'best']. Suppose we say that the top of the ladder represents the best possible police services for (respondent's city name/this area of Los Angeles County) and the bottom represents the worst possible police services for (respondent's city name/this area of Los Angeles County). Where on the ladder would you put your city's police services today, or don't you have an opinion on that?"

SERVICE IMPORTANCE

"Some people feel that their (city/county) government should provide many services for its citizens; others feel that their (city/county) government should limit its activities; others really don't have an opinion one way or another. On this sheet of paper we have five pockets with the following labels: things you feel are very important for your (city/county) government to do, things you feel are somewhat important for your (city/county) government to do, things you feel are not important for your (city/county) government to do, things you feel your (city/county) government should not do at all, things you don't happen to have an opinion about [respondent is handed cards with different services on them]. Would you place each of the following items in one of those pockets."

ATTENTION TO PUBLIC AFFAIRS

"Some people seem to follow what's going on in government and public affairs most of the time. Others aren't that interested. Would you say you follow what's going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all?"

PERSONAL POLITICAL EFFICACY

"Some people tell us that there is nothing they can do to affect what the (city/county) government does. Other people say they can influence what gets decided here in (respondent's city name/Los Angeles County) if they want to. How about you? Do you feel that you can affect what (your city/the county) government does or not?"

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