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A TECHNIQUE TO DETERMINE OBJECTIVE AND EMOTIONAL  
REACTIONS TO ESTABLISHING VOYAGEURS NATIONAL PARK

Michael A. Loesch, L. C. Merriam, Jr., and Allen R. Solem\*

## ABSTRACT

Eighty International Falls residents were interviewed with a free answer format to determine the content of citizen concerns about Voyageurs National Park; to distinguish factual and emotional elements of these concerns; and to test the hypothesis that emotional concerns are identifiable as interpersonal or ego-centered relations while factual concerns are identifiable as field structure items. The hypothesis was confirmed. Lists are presented of the 464 responses grouped into categories. There were nearly twice as many unfavorable (304) as favorable (160) responses.

Voyageurs National Park was authorized in January of 1971 and formally established on April 8, 1975. Considerable controversy surrounded the establishment of the Park particularly in the northern portion of Minnesota where the Park is located.

In the summer of 1975, the Minnesota communities of International Falls, Virginia, Duluth, and Roseville were studied to (1) determine the content of citizen concerns about the Park; (2) to distinguish factual and emotional elements of these concerns; and (3) to test the hypothesis that emotional concerns are identifiable as ego-centered or interpersonal relations. Only the results from International Falls are reported at this time.

## METHOD

Ninety-eight residents of International Falls were randomly selected from the telephone directory for personal interviews. Of these, 80 respondents completed the part of the interview schedule presented in Figure 1. The respondents were asked to identify what they considered to be factually or objectively good (favorable) about the creation of the Park and what they considered to be factually or objectively wrong (unfavorable) with it. Respondents were then asked to follow a similar procedure with things that gave them unpleasant 'gut' reactions (unfavorable) and things that gave them strong feelings of elation or pleasure (favorable). Space was also provided for responses not separable between facts or feelings. Respondents separated items into the six categories by themselves. The interviewers recorded the exact words used by the respondents and probed only where clarification was needed. All original responses were then grouped by the investigators according to subject matter without altering the respondent classifications. Fifteen categories were needed for the 160 favorable responses (Table 1) and 23 categories for the 304 unfavorable responses (Table 2).

\*Respectively, Research Assistant and Professor, College of Forestry and Professor of Management Psychology, School of Business, University of Minnesota.

The original responses were then printed on cards without indication of how they had been classified by respondents. Each card was placed by the investigators into one of three classes: (1) field structure (object relations); (2) interpersonal and ego-centered relations; and (3) a mixture of both (1) and (2). Field structure was defined as those impersonal or non-human events or phenomena which are external to reflections or feelings. Interpersonal relations are defined as transactions where interdependence with others is experienced and ego-centered evaluations were defined as perceptions affecting the self. The techniques and definitions are described in detail by Solem (1974) who developed the method in a study of work motivation. A chi-square analysis was conducted to compare between investigator and respondent classifications.

### RESULTS

The survey technique produced the following types of information: (a) concerns were identified by subject matter and by favorable and unfavorable response; (b) the frequency of concerns was determined; and (c) concerns were separated into those viewed factually, those viewed emotionally, and those viewed as not separable into facts and feelings. The listing of positive and negative reactions to Voyageurs National Park by respondents from International Falls are categorized by subject matter in Tables 1 and 2. The survey produced 464 items or approximately 6 per respondent. The subject matter was varied, with only one category (Item 4, Table 2) mentioned by more than half of the respondents and only 10 of 33 categories mentioned by more than 25 percent of the respondents.

Negative responses predominated. Of the 80 respondents, only 59 listed any favorable responses, whereas 75 listed at least one unfavorable item. Further, there were nearly twice as many unfavorable (304) as favorable (160) responses. The subject groupings contributing the greatest number of favorable responses (Table 1) were: (a) Park designation would protect the area (categories 6 and 8); (b) the Park would help the economy and the community (5 and 9); and (c) the Park will provide recreational opportunities (7 and 12). The groupings contributing the greatest number of unfavorable responses (Table 2) were: (a) the Park places restrictions on activities, travel and access (1 and 4); (b) outside interests such as government are taking control of the area away from local citizens (5, 10, 12, 14, 15, 19 and 23); (c) the Park will bring crowding, destruction of the area, and accidents (2, 3, 8, 9); and (d) the Park will not benefit the community (6, 7, and 16).

Respondent views (Tables 1 and 2) ranged from primarily factual to primarily emotional with at least 60 percent of the respondents using the same classification for most categories. Categories 1-7 in both Tables 1 and 2 are viewed as factual in at least 70 percent of the cases. The sizeable percentage of "fact and feeling" responses in categories 13, 14, and 21-23 of Table 2 indicates that respondents had difficulty separating fact from feeling in such subjects as trust of government and criticism of Park Service policies. The subjects that gave rise to feelings at least 60 percent of the time (14 and 15 in Table 2; 12, 16 to 20 in Table 2) included: the Park is a good idea, the Park will be too commercialized, the government has too much control, the Park will attract undesirables, and the Park does not provide any benefits.

The third purpose of the paper was to test the hypothesis that field structure aspects of the Voyageurs National Park issue would be classified as fact by respondents and that ego-centered and interpersonal aspects of the issue would be perceived as feelings. The relation between the respondent classification and the investigator classification was significant (0.95) (Table 3) and the hypothesis was confirmed. Chi-square values for favorable and unfavorable responses were 45.1 and 111.8 respectively. Each value was significant at  $p = .0001$  with 4 degrees of freedom. The Cramer's V/value was .3754 for the favorable and .4288 for the unfavorable responses. Where respondents stated that fact and feeling were too intermingled to separate, the investigators found an intermingling of field structure and interpersonal or ego-centered relations.

Table 1. Favorable experiences from contact with the Voyageurs National Park issue presented by residents of International Falls, Minnesota; (N=59).

Subject Category	Number of responses*	Fact (%)	Feeling (%)	Fact and Feeling (%)
1. Highways will be fixed and upgraded	6	100.0	0.0	0.0
2. Government will improve fishing	5	100.0	0.0	0.0
3. Area will be cleaned up and beautified	7	85.7	14.3	0.0
4. Situation will be better when the Park is operating	5	80.0	20.0	0.0
5. Park will help economy, business, and tourism	24	79.2	16.7	4.1
6. Area will be preserved	31	74.2	25.8	0.0
7. Park will provide desired facilities	11	72.7	18.2	9.1
8. Regulations will control development	16	62.5	37.5	0.0
9. Park will help the community	10	60.0	30.0	10.0
10. Miscellaneous	10	60.0	30.0	10.0
11. Park will be an asset if run correctly	5	60.0	20.0	20.0
12. Park provides people with a place to enjoy	11	54.5	45.5	0.0
13. Like to see Park developed	4	50.0	50.0	0.0
14. Park is a good idea--nice to have one	13	15.4	69.2	15.4
15. Park is here - might as well make the best of it	2	0.0	100.0	0.0
TOTAL	160	64.4	31.2	4.4

\*This number roughly corresponds to number of respondents presenting the item.

Table 2. Unfavorable experiences from contact with the Voyageurs National Park issue presented by residents of International Falls, Minnesota; (N=75).

Subject Category	Number of responses*	Fact (%)	Feeling (%)	Fact and Feeling (%)
1. Park has limited access	2	100.0	0.0	0.0
2. Public facilities are inadequate	25	92.0	8.0	0.0
3. Park will bring litter and crowding	30	83.3	16.7	0.0
4. Park will restrict activities and travel	52	76.9	23.1	0.0
5. Desires of local people have not been heard	4	75.0	25.0	0.0
6. Park will tie up too many resources	7	71.4	28.6	0.0
7. Restricts logging and hurts local economy	20	70.0	25.0	5.0
8. Lakes are dangerous--safety problem	9	66.7	22.2	11.1
9. Visitors cause pollution and destruction	22	62.8	31.8	0.0
10. Property owners losing land to government	20	50.0	40.0	10.0
11. Area does not meet national park standards	9	44.4	44.4	11.2
12. Disagree with regulations on activities	7	42.9	57.1	0.0
13. Miscellaneous	5	40.0	0.0	60.0
14. Imputed effects of Park Service policies	25	40.0	32.0	28.0
15. Control of area from outside of community	10	40.0	50.0	10.0
16. No perceived benefits from Park	15	40.0	60.0	0.0
17. Park will be too commercialized	5	40.0	60.0	0.0
18. Leave the area as it was in the past	4	33.3	66.7	0.0
19. Government has too much control	6	33.3	66.7	0.0
20. Park will attract undesirable types	7	28.6	71.4	0.0
21. Park will benefit big business and city folk	5	20.0	40.0	40.0
22. Many unanswered questions remain	13	7.7	0.0	92.3
23. Government cannot be trusted about the Park	3	0.0	0.0	100.0
TOTAL	304	59.5	29.6	10.9

\*This number roughly corresponds to number of respondents presenting the item.

## DISCUSSION

The free-answer format of the questionnaire (Figure 1) is crucial to the analysis technique used. This format sets few definite alternatives and lets the respondent use his own words and ideas in a way not allowed by more restrictive types of questions (Payne, 1951). Some caution is needed in applying this technique. Uniformly high interviewer skill aids objectivity. A skilled interviewer can ask questions and record the answers so as to get considerably more material than one with less skill. Also, the categorizing of the collected free answers requires substantial time by a coder who thoroughly understands the subject matter.

The authors think this effort can be worthwhile since the results enable both the public and managers to better understand a complex issue such as Voyageurs National Park. Results include the acquisition of an extensive list of positive and negative views, the possible uncovering of widespread misconceptions regarding factual components, and the pinpointing of emotionally loaded aspects. Responses can aid in the formulation and evaluation of policies and actions. The potential use of this method in the analysis of policy issues appears promising.

## LITERATURE CITED

- Payne, Stanley L. 1951. The Art of Asking Questions. Princeton University Press, 249 p.
- Solem, Allen R. 1974. On Structure and Process in Work Motivation. Human Relations, 27:779-792.

Figure 1. Item from the interview schedule.

One useful way to look at the creation of Voyageurs National Park is in terms of what is factually or objectively good about it and what is factually or objectively wrong with it. As indicated below, please write down the facts as you know them and the feelings you have about Voyageurs National Park.

The space below has to do with facts. Under the left side describe those things about the creation of Voyageurs National Park that factually or objectively are undesirable. Then in the space to the right describe those things that are factually good or desirable.

<u>Negative facts</u>	<u>Positive facts</u>
(space)	(space)

The space below has to do with feelings. Under the left side describe those things about the creation of Voyageurs National Park that give you unpleasant 'gut' reactions or cause you to feel frustrated, angry, or hurt. Then in the space to the right describe those things that give you feelings of elation or pleasure.

<u>Negative feelings</u>	<u>Positive feelings</u>
(space)	(space)

There may be things about the creation of Voyageurs National Park that you can't separate into facts and feelings. If so, describe them in the space below.

Table 3. Favorable (F) and unfavorable (U) aspects of the Voyageurs National Park issue presented as fact, feeling or fact and feeling by International Falls respondents cross-tabulated with the investigator classification of field structure, interpersonal or ego-centered, and mixed.

RESPONDENT CLASSIFICATION		INVESTIGATOR CLASSIFICATION OF RESPONSES							
		Field Structure		Interpersonal or Ego-centered		Mixed		Total	
		F	U	F	U	F	U	F	U
Fact	(o)#	72	119	22	56	9	6	103	181
	(e)*	56.0	85.7	36.1	78.0	10.9	17.3		
Feeling	(o)	15	24	31	59	4	7	50	90
	(e)	27.2	42.6	17.5	38.8	5.3	8.6		
Fact and Feeling	(o)	0	1	3	16	4	16	7	33
	(e)	3.8	15.6	2.4	14.2	.8	3.2		
TOTALS		87	144	56	131	17	29	160	304

# (o) is the number of responses observed.

\* (e) is the number of responses expected, is calculated by multiplying row total times column total, and dividing by the total number of observations.