

Attitudes of Ontario Secondary School Teachers Toward Aspects of Professional Negotiations and Sanctions

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A Collective Action Scale was administered to samples of Ontario secondary school teachers in 1974 and 1977 in an effort to determine shifting teacher attitudes toward collective bargaining and sanctions. Although teacher attitudes toward collective bargaining have become slightly more favorable, the study showed a significant drop in the support of teachers for the use of sanctions, especially the strike. The only significant predictors of teacher militancy, as indicated by teacher attitudes toward the use of sanctions, were sex and length of residency in Ontario. Despite the findings, it should be noted that the majority of teachers would still strike if basic teacher interests were severely threatened.

A l'aide d'enquêtes par sondage, effectuées en Ontario en 1974 et 1977, nous cherché à déterminer l'évolution de l'attitude des enseignants du secondaire à l'égard de la négociation collective et des moyens de pression qui l'accompagnent. L'échelle d'action collective que nous avons construite démontre que, si les enseignants voient la négociation collective d'un oeil légèrement plus favorable, en revanche ils sont sensiblement moins partisans du recours à des moyens de pression, en particulier à la grève. Les deux seuls facteurs aptes à prédire le militantisme des enseignants, tel qu'il ressort de leur attitude envers le recours aux moyens de pression, étaient le sexe et les années de résidence en Ontario. En dépit des conclusions de l'étude, il faut dire que la majorité des enseignants seraient toujours disposés à faire la grève si leurs intérêts fondamentaux étaient gravement menacés.

In the past few years, especially since 1969, members of the teaching profession in Ontario have been demanding, in an increasingly strong voice, the right to greater participation in educational decision making. The evidence seems clear in the repeated assertions of teacher leaders to "negotiate conditions of work related to quality teaching." Denied this right to the degree they demanded, teachers have taken concerted action to gain their ends.

The instrument by which teachers hope to achieve their objectives of arriving at agreement with school boards on compensation for services and agreement on developing policies co-operatively is generally referred to as "collective bargaining." The devices sometimes employed in the process of negotiation, known as "sanctions," are the coercive measures or interventions designed to compel the adversary party in the collective bargaining process to conform to the will of the user of the sanctions. Teacher

militancy may be defined as the increasingly aggressive posture of teachers as they strive to improve their professional, economic, and working conditions and gain a greater voice in or control of decisions which vitally affect the educational processes with which teachers are intimately involved. Since the instrument by which teachers hope to achieve their ends is collective bargaining, militancy of Ontario teachers may be in large measure gauged by teacher attitudes toward collective bargaining and sanctions.

Over the past two decades teachers in the province of Ontario have made significant progress in achieving salary agreements in written form signed by both teachers and school boards. Progress in extending the scope of negotiations to include discussion of such matters as conditions of work and the determination of educational policy was much slower and did not progress at a uniform rate across the province.

There was in Ontario, prior to 1975, no specific legislation which covered collective bargaining between teachers and school boards. However, despite this lack of legal authorization, there had grown up spontaneously over a period of years a series of procedures governing such professional negotiation. In mid-1975 the government passed legislation, Bill 100, which legalized collective bargaining between school boards and their teachers. The legislation permits both the strike and the lock-out but makes provision for notification of the Lieutenant Governor in Council when the school closures endanger the "successful completion of courses of study by the students affected. . . ." The events which helped to shape the relationship between Ontario teachers and their employers between 1969 and 1977 indicate that teacher militancy has appeared to increase and has been accompanied by teacher bitterness engendered by the perceived adverse public reaction to actions taken by teachers to obtain their legitimate objectives (Selinger, 1976).

Most of the findings of research on teacher militancy have been synthesized into a few statements by Selinger and Goldhammer (1972):

1. All of the following account, in part, for the general demand of teachers to participate in educational decision-making and to establish a collegial relationship with their organization superiors: more males are entering the teaching profession; the average age of active teachers is gradually being lowered; male and female teachers of today are far better educated than at any previous time in history; there is a marked increase in specialization within teaching.

2. The concepts of "democratic administration" and "participatory democracy" are gaining acceptance in the field of education.

3. Teacher power is here to stay and apparently is increasing.

Very few studies have been made in the area of collective bargaining and sanctions and the attitudes of teachers toward these. In 1964 the Alberta Teachers' Association conducted a survey of attitudes of its members

and replicated the study in 1967 (Mitchell, Warren, & Clarke, 1968). The conclusions arrived at were: Teacher dissatisfaction increased over that period of time; teachers were increasingly concerned about status in society; teachers were even more concerned about conditions under which they render service and about sharing in all educational decisions; teachers saw militant behavior as a means of accomplishing their objectives in these areas of concern.

Carlton (1966), in a United States study, found that there was a significant difference in the attitudes of teachers toward collective bargaining and sanctions, with male teachers, more so than female, possessing a favorable attitude toward them. Fisher (1967) did not support this finding in his study. However, he found that teachers were more favorable in their attitudes toward collective bargaining and sanctions than were principals.

Two of the more recent and relevant studies were conducted by Hennessy (1975) and Fris (1976). Both researchers, following the concepts of Palmatier (1969), attempted to demonstrate the links between teacher militancy and professionalization. They also sought to show, as did Porter (1961), that higher-order needs for self-actualization and autonomy were more highly related to militancy than lower-order needs such as security and status.

Among Hennessy's conclusions were: Male teachers were more militant than females; there was no difference in levels of militancy of married and single teachers; militancy was positively related to low morale; militancy was not significantly related to teacher acquisition of formal education; high school teachers were more militant than were the elementary; militancy was higher in urban (centres over 100,000 population) teachers than those who resided in smaller centres; there was a positive relation between the professional activity of a teacher and militancy.

The Fris study generally supported Hennessy's findings. In particular Fris indicated that, while teachers preferred accommodative approaches in collective bargaining to more militant or coercive strategies, their attitude toward strategy was conditioned by whether those tactics were institutionalized or not, extra-legal or illegal, and aimed at individuals or collectivities.

In 1973-74 a study was undertaken sampling attitudes of Ontario secondary school teachers toward collective bargaining and use of sanctions to discern if the perceived unrest among teachers could be specified. With this background data it was felt desirable in 1977 to re-survey a sample of secondary school teachers in Ontario. The intent was to find out if there had been any significant change in teacher attitude toward collective bargaining; if there had been any significant change in teacher attitude toward the use of selected sanctions; and if there had been any significant change in the predictors of militancy toward the use of collective bargaining or toward the use of sanctions.

RESEARCH DESIGN AND METHOD

The primary instrument used for data collection in this study was an attitudinal scale designed to elicit emotional responses rather than responses which were the product of an experience and association of the respondents to the topic under study. Guilford (1954) states that there is a positive correlation between what people say on a subject and what they will do about it.

The design and methodology employed in the study are a partial replication of studies done by Carlton (1966) and Fisher (1967). The data collection instrument was modified for use in Ontario and an open-ended "Comments" section soliciting expansion of responses was added. The most marked difference from the previous studies was that this study was longitudinal in an effort to determine shifting teacher attitudes over a period of time toward collective bargaining and sanctions. Therefore, the statistical handling of the data differs almost totally from that of Carlton and Fisher.

Instrumentation

The data-gathering instrument, an attitudinal scale designated the Collective Action Scale (C.A.), was a questionnaire entitled Attitudinal Positions of Ontario Educators on Matters Concerning Teacher Collective Action. The C.A. Scale is a 30-item Likert-type scale designed to elicit attitudes of educators toward sanctions and collective action by teachers. The C.A. Scale has a total of 30 statements. Fifteen statements were designed so that agreement indicated a favorable attitude toward collective negotiations or sanctions and 15 statements were designed so that agreement indicated an unfavorable attitude toward collective negotiations or sanctions. Although in the analysis of the data these two sets of items were treated as subsections, the statements were randomly interwoven with no subsections as such. The items were designed in the above manner to prevent response set from occurring. The respondent who answered mechanically and without regard for the meaning of the statements was clearly identifiable.

The data-gathering instrument requested biographical information of each teacher who submitted a return. Each respondent was requested to indicate:

1. Sex: (1) Male (2) Female
2. Age: (1) <30 (2) 30-39 (3) 40-49 (4) 50-59 (5) >60
3. Marital Status: (1) Married (living with spouse) (2) Unmarried (single, divorced) (3) Widowed
4. Years lived in Ontario: (1) 0-10 (2) over 10
5. Education: (1) Less than Bachelor's Degree (2) Bachelor's Degree (3) Master's Degree (4) Doctoral

6. Years of Teaching Experience: (1) 0-5 (2) 6-15 (3) over 15
7. Geographic Area in which Teaching: (1) Metropolitan
(2) Defined City (population over 20,000) (3) Other

Population and Sample

The population involved in the study was all the teachers listed on the membership rolls of the Ontario Secondary School Teachers' Federation. The OSSTF, who approved the request to conduct the study, drew the sample by selecting a starting-point on the membership list at random and thereafter selecting every one-hundredth name for a sample population of 1%. The OSSTF computer provided a print-out of the sample population complete with school addresses. The sample population drawn in 1974 numbered 340, and in 1977, 363.

The subjects chosen to respond to the instrument were contacted by first-class mail. A stamped, self-addressed return envelope was enclosed with the questionnaire. The return envelopes were coded to facilitate a second mailing to those subjects who had not responded to the first mailing. The second mailing took place three weeks after the first.

The instrument was administered to two different samples of 1% of OSSTF membership, once in the spring of 1974 and once in the spring of 1977. The usable returns of the 1974 sample numbered 234 or 68.82%, and in 1977, 300 returns or 82.64%. In addition, 20 OSSTF members, selected at random, were interviewed in semi-structured interviews to provide a perceptual apprehension of teachers' attitudes and as a partial validation of the data collected by the questionnaire.

Reliability and Consistency

Item analysis was undertaken to assess the data provided by the Collective Action Scale, its consistency across items, and its reliability across administrations in 1974 and 1977.

Table 1 provides some insight into the internal consistency of the questionnaire used in this study. The correlation of the total instrument with the subsections is satisfactorily high: total instrument with sanction subsection, 0.95 in 1974 and in 1977; total instrument with collective negotiation subsection, 0.90 in 1974 and 0.88 in 1977. The correlation of the two subsections is, of course, somewhat less: 0.73 in 1974 and 0.69 in 1977.

The reliability with which the questionnaire produces data is presented in Table 2. The stability of the measure in terms of the whole instrument is very good, with a reliability coefficient of 0.92 in 1974 and 0.93 in 1977. In terms of the sanction subsection the reliability is equally acceptable, with coefficients of 0.91 and 0.92 in 1974 and 1977 respectively. The reliability of the collective negotiation subsection is somewhat less, but still acceptable, with coefficients of 0.81 in 1974 and 0.84 in 1977.

TABLE 1

Correlations Among Responses on the Subsection and Total Questionnaire on the 1974 and 1977 Administration

<i>Questionnaire Part</i>	<i>1</i>	<i>2</i>	<i>3</i>
1. Collective Negotiation	1.00	0.75	0.90
2. Sanction	0.69	1.00	0.95
3. Total Questionnaire	0.88	0.95	1.00

NOTE: Correlations above the diagonal are for the 1974 Administration; Correlations below the diagonal are for the 1977 Administration.

Sample size for the 1974 Administration was $n = 234$; Sample size for the 1977 Administration was $n = 300$.

The general increase in reliability of the 1977 sample over that of 1974 may be due in part to the percentage increase in the returns of usable questionnaires from 68.86% in 1974 to 82.64% in 1977, the larger return yielding a more reliable measure.

ANALYSIS AND RESULTS

Having considered how the Collective Action Scale performs, next we will consider the results it produced. The questionnaire was designed so that the scores of an individual would fall between 15 and 75 on each of the subsections of the scale. Responses were weighted from a high of 5 for the most militant response to a low of 1 for the least militant response. If a respondent was undecided or failed to answer a question, the item was automatically scored as 3, the median or neutral point in the scoring.

Table 2 presents the summary statistics describing both administrations of the instrument. We observe that at least one respondent on each of the administrations selected the most militant response to all 30 items, since in both 1974 and 1977 the highest total score was 150. However, in neither 1974 nor 1977 did any respondent select the least militant response to all the items. The lowest score on the collective negotiation subsection was 34 in 1974 and 26 in 1977, and for the sanction subsection it was 67 in 1974 and 51 in 1977.

The mean score on the collective negotiation subsection was 59.94 in 1974 and 58.34 in 1977. This decrease is also observed on the sanction subsection, with mean scores of 58.56 in 1974 and 54.55 in 1977. Consequently, the mean scores on the total instrument display the same shift to a less militant position from 118.50 in 1974 to 112.90 in 1977.

The details of how items of the Collective Action Scale were responded to by the study sample are contained in Table 3. This table presents for each item in the scale the percentage of respondents choosing each category of response, the mean score, and the standard deviation. The 1974 data are found in the first row of figures opposite each item and the 1977

TABLE 2
Statistics Describing Both Administrations of the Collective Action Scale

	1974	1977
COLLECTIVE NEGOTIATION SUBSECTION		
Number of Respondents	234.00	300.00
Number of Items	15.00	15.00
Mean Score	59.94	58.34
Standard Deviation	7.28	8.11
Highest Score	75.00	75.00
Lowest Score	34.00	26.00
Reliability ^a	0.81	0.84
Standard Error of Measurement	3.09	3.16
SANCTION SUBSECTION		
Number of Respondents	234.00	300.00
Number of Items	15.00	15.00
Mean Score	58.56	54.55
Standard Deviation	10.63	11.79
Highest Score	75.00	75.00
Lowest Score	19.00	25.00
Reliability ^a	0.91	0.92
Standard Error of Measurement	3.07	3.30
TOTAL QUESTIONNAIRE		
Number of Respondents	234.00	300.00
Number of Items	30.00	30.00
Mean Score	118.50	112.90
Standard Deviation	16.70	18.34
Highest Score	150.00	150.00
Lowest Score	67.00	51.00
Reliability ^a	0.92	0.93
Standard Error of Measurement	4.55	4.83

^a Computed by applying a formula due to Hoyt (1941).

data in the second row. For all 30 items of the scale, the mean response in 1974 is higher than in 1977. For example, looking at the first item, 7.3% of respondents selected the least militant response in 1974 and 10.3% selected it in 1977, while 14.5% of the respondents selected the most militant response in 1974 and 17.0% selected it in 1977. To summarize the response to this item, the mean score is taken into account: In 1974 it was 3.33 and in 1977 it had decreased by .06 to 3.27. The other 29 items also produced, in varying amounts, a shift to a less militant position. Statistically speaking, what does it mean? The analyses which follow were performed to formulate an answer to that question.

Factor analysis on the data was performed primarily to determine whether most of the variance in the data could be accounted for by some small number of components. Secondly, such an analysis would show whether or not the collective negotiation statements loaded, for the most part, on the same factor(s) as did the sanction statements. A principal factoring without iteration, with an oblique rotation to the terminal factors, was performed separately on the 1974 and 1977 data. Table 4 summarizes the initial factor matrix data for both administrations of the data-collecting instrument. In selecting those factors from the initial factor matrix considered significant enough to be retained for the final rotated solution, those with an eigenvalue equal to or greater than 1.0 were chosen. From the 1974 data, the first seven factors were selected; from the 1977 data, the first six factors were retained.

Generally speaking, when the information contained in Table 4 is considered, two things became apparent. On both occasions one factor accounts for better than one-third of the total variance in the data. However, to account for three-quarters of the total variance, an additional nine factors are required. While it is encouraging to have the linear relations in the data well summarized by the first principal component, it must be remembered that the residual two-thirds of the total variance is accounted for by a large number of other components. To draw an analogy, the tune is discernible but there is a lot of noise.

An oblique solution was chosen to help define the underlying dimensions of the two sets of data. Table 5 presents the results. For each item in each of the subsections, the factor with the highest factor loading is reported. None of the 30 C.A. Scale items had loadings greater than .49 on more than one factor. These factor loadings represent the direct contribution of a given factor to the variance of the variable (in this case the items in the C.A. Scale).

Interestingly, the two subsections were for the most part defined by different sets of factors. Moreover, these factors appear to be quite stable across time from 1974 to 1977.

In the 1974 administration, Factors 2, 4, and 5 appear only in the collective negotiation subsection; Factor 1, only in the sanction subsection. Factors 3, 6, and 7 appear in both subsections.

In 1977, Factors 2, 3, 4, and 6 appear only in the collective negotiation subsection, while Factors 1 and 5 appear only in the sanction subsection. The five collective negotiation items which loaded highly on Factor 2 in 1974 are grouped together on Factor 4 in 1977. The four collective negotiation items which loaded highly on Factor 4 in 1974 are grouped, along with 1974's item loading on Factor 6, together on Factor 3 in 1977. Both the collective negotiation items loading on Factor 5, along with the item loading on Factor 7, in 1974, load on Factor 2 in 1977. The two items loading on Factor 3 in 1974 did not pair up on the same factor in 1977; one loaded on Factor 6 and one loaded on Factor 4 in the second admin-

TABLE 3
Percentage of Respondents Choosing Each Category of Response, the Mean Score and Standard Deviation for Each Item in the Collective Action Scale

Questionnaire Items	Response Categories ^a (1: least militant — to 5: most militant)					Mean Score	Standard Deviation
	1	2	3	4	5		
1. Teachers' organizations should participate in the selection of new teachers.	7.3 10.3	21.4 23.0	17.5 12.7	39.3 37.0	14.5 17.0	3.33 3.27	1.17 1.27
2. Teachers' organizations should have responsibility in the choice of new teachers.	8.1 11.7	26.1 25.3	19.3 15.7	32.9 34.3	13.7 13.0	3.18 3.12	1.20 1.26
3. Teachers should be able to withhold services when satisfactory agreement between their organizations and the school board cannot be reached.	5.1 8.7	8.5 14.0	6.0 6.3	40.6 42.0	39.7 29.0	4.01 3.69	1.13 1.27
4. Collective negotiation should omit the threat of withholding of services.	5.6 14.7	23.9 22.7	9.8 8.7	33.4 33.7	27.4 20.3	3.53 3.22	1.27 1.39
5. Teachers should be able to organize freely and to bargain collectively for their working conditions and salary.	0.4 2.3	3.0 2.7	1.3 5.0	32.5 36.3	62.8 53.7	4.54 4.36	0.71 0.88
6. Teachers' organizations at local, provincial, and national levels should publicize unfair school board practices through the media, such as T. V., radio, newspapers, and magazines.	2.6 2.0	6.8 8.3	10.2 15.0	36.8 44.0	43.6 30.7	4.12 3.93	1.02 0.98
7. I believe that collective negotiation by teachers is a conspiracy against the country.	3.0 1.0	0.0 0.7	1.7 3.3	15.8 20.3	79.5 74.7	4.69 4.67	0.78 0.67

8. I feel that strikes on the part of teachers are an undesirable consequence of collective bargaining.	12.0	37.6	10.2	20.9	19.2	2.98	1.36
	21.0	35.3	7.0	20.0	16.7	2.76	1.42
9. I believe militant teachers' groups are made up almost entirely of malcontents and misfits.	2.1	3.8	8.5	38.0	47.4	4.25	0.92
	2.3	8.3	14.6	37.0	37.7	3.99	1.03
10. Teachers should not strike to enforce their demands.	6.8	16.7	8.5	38.5	29.5	3.67	1.25
	16.3	19.3	9.0	36.0	19.3	3.23	1.39
11. I feel that the good teacher can always get the salary he/she needs without resorting to collective negotiations.	1.3	3.0	6.0	34.6	55.1	4.39	0.83
	2.3	2.3	4.7	45.0	45.7	4.29	0.85
12. I believe that collective bargaining, alias professional negotiation, is beneath the dignity of teachers.	0.4	2.1	3.0	35.5	59.0	4.50	0.70
	0.7	2.3	5.3	38.0	53.7	4.42	0.76
13. I believe that strikes, sanctions, boycotts, mandated arbitration, or mediation are improper procedures to be used by school teaching employees who are dissatisfied with their conditions of employment.	3.0	9.0	10.7	35.0	42.3	4.05	1.08
	5.7	11.7	9.0	38.0	35.7	3.86	1.19
14. I feel that the teacher cannot withhold his/her services without violating professional ethics and trust.	6.4	10.3	6.9	39.7	36.8	3.90	1.19
	11.0	17.3	8.7	38.7	24.3	3.48	1.32
15. I feel that collective negotiation is chipping away by inches at local control and should be resisted.	1.7	6.0	25.6	40.2	26.5	3.84	0.94
	1.7	8.3	20.3	49.0	20.7	3.79	0.92
16. I think collective negotiation can help to unite the teaching profession into a cohesive body.	1.3	6.4	12.8	55.1	24.4	3.95	0.86
	2.0	11.3	14.6	56.3	15.7	3.72	0.93

<i>Questionnaire Items</i>	<i>Response Categories</i> (1: least militant — to 5: most militant)					<i>Mean Score</i>	<i>Standard Deviation</i>
	1	2	3	4	5		
17. I think collective negotiation by teachers' organizations may lead to totalitarianism in education — a kind of dictatorship by the teachers.	0.4 2.3	7.3 6.7	10.3 12.0	48.3 52.7	33.8 26.3	4.10 3.90	0.88 0.93
18. I think collective negotiations can provide a vehicle whereby teachers gain greater on-the-job dignity and independence in performing their functions.	0.9 3.0	7.3 9.7	15.8 16.0	49.6 52.7	26.5 18.7	3.94 3.74	0.89 0.97
19. I believe that most of the leaders in the drive for collective negotiations are insincere power seekers who do not have the best interests of education at heart.	2.1 2.3	4.7 7.3	9.8 10.7	46.6 47.3	36.8 32.3	4.11 4.00	0.92 0.97
20. The local teachers' organizations should seek to regulate standards for hiring of new teachers.	4.7 8.0	21.8 21.0	23.9 18.3	39.3 40.3	10.3 12.3	3.29 3.28	1.06 1.16
21. I think teachers have a right to impose sanctions on school boards under certain circumstances.	1.3 2.3	4.3 10.0	9.0 6.4	49.1 50.7	36.3 30.7	4.15 3.97	0.85 0.99
22. I think that sanctions are a step forward in acceptance of teacher responsibility for self-discipline and for insistence upon conditions conducive to an effective program of education.	0.9 5.0	9.8 15.3	22.7 17.6	44.4 45.0	22.2 17.0	3.77 3.54	0.93 1.10
23. I believe sanctions are a means of improving educational opportunity and eliminating conditions detrimental to professional service.	2.1 6.0	11.1 16.0	10.3 15.0	54.7 48.7	21.8 14.3	3.83 3.49	0.97 1.11

24. I believe that censure by means of articles in provincial affiliate magazines, special study reports, newspapers, or other mass media is a legitimate technique for teachers to use.	1.7	4.3	11.6	54.3	28.2	4.03	0.85
	1.7	5.0	14.3	57.3	21.7	3.92	0.84
25. I feel that the traditional position that teachers, as public employees, may not strike is the only defensible position for a responsible school district to take.	2.1	9.4	9.8	39.3	39.3	4.04	1.03
	5.0	16.7	11.0	38.3	29.0	3.70	1.20
26. I do not feel that the services of teachers are so necessary to the public welfare as to necessitate the forfeiture of their right to strike.	4.3	11.1	14.1	39.3	31.2	3.82	1.12
	8.0	20.0	15.0	37.0	20.0	3.41	1.24
27. I believe that any teacher sanction to other coercive measure is completely unprofessional.	1.7	5.6	8.9	37.6	46.2	4.21	0.94
	4.0	7.3	7.7	49.3	31.7	3.97	1.02
28. All attempts to infringe upon school board authority in the selection and adoption of textbooks and other curricular materials should be resisted.	5.1	5.6	16.2	40.2	32.9	3.90	1.08
	3.7	5.7	16.3	47.0	27.3	3.89	0.99
29. I believe that when the school board denies the reasonable request of the teachers, the teachers have a right to present the facts to the public and to their professional associates in other school districts.	1.7	1.3	3.4	38.0	55.6	4.44	0.78
	0.3	2.0	2.0	51.0	44.7	4.38	0.66
30. I think collective negotiation can bring greater order and system to education.	0.9	5.1	19.7	46.2	28.2	3.96	0.87
	1.3	7.0	18.6	50.7	22.9	3.86	0.89

^a Data for both administrations are presented: 1974 above, 1977 below.

TABLE 4

The Eigenvalues, Percentage of Total Variance Accounted For By Each Factor, and Cumulative Percentage of the Total Variance of the First 10 Factors in the Initial Factor Matrix

<i>Factor</i>	<i>Eigenvalue</i>	<i>Percentage of Total Variance</i>	<i>Cumulative Percentage</i>
<i>1974</i>			
1	11.13	34.8	34.8
2	2.75	8.6	43.4
3	2.04	6.4	49.7
4	1.68	5.3	55.0
5	1.51	4.7	59.7
6	1.17	3.7	63.4
^a 7	1.01	3.1	66.5
8	0.97	3.0	69.6
9	0.84	2.6	72.2
10	0.80	2.5	74.7
<i>1977</i>			
1	11.89	37.1	37.1
2	2.40	7.5	44.7
3	2.23	7.0	51.6
4	1.60	5.0	56.6
5	1.32	4.1	60.7
^a 6	1.11	3.5	64.2
7	0.96	3.0	67.2
8	0.93	2.9	70.1
9	0.88	2.7	72.9
10	0.82	2.6	75.4

^a The number of components retained for the final rotated solution were those with eigenvalues greater than or equal to 1.0.

istration of the instrument. Hence, in the collective negotiation subsection, Factor 2 in 1974 appears to be the same as Factor 4 in 1977, Factor 4 in 1974 is equivalent to Factor 3 in 1977, and Factor 5 in 1974 is Factor 2 in 1977. This is strong evidence for the stability of the factors across time. In the sanction subsection the same stability is observed: Factors 1 and 7 group together as Factor 1 in 1977.

To sum this discussion of the factor analysis we repeat the salient points:

1. Seven factors in 1974 and six factors in 1977 had eigenvalues of 1.0 or more and were retained for the final rotated solution; approximately

two-thirds of the total variance in the data was accounted for by these factors;

2. One-half of that variance was explainable in terms of the first principal component;

3. After rotation, the resulting factor pattern matrix revealed that the factor pattern underlying the collective negotiation subsection was different from that underlying the sanction subsection;

4. The factors proved to be stable across time.

Previously it was pointed out, as summarized in Table 3, that the mean score on each of the C.A. Scale items was less in 1977 than it had been in 1974. This shift represented a change in the direction of a less militant attitude. The question raised in the discussion of that table's data was: "Statistically speaking, what does it mean?"

A multivariate analysis was performed on those data to test the significance of the change between the two administrations of the scale on its two subsections. This analysis was based on two assumptions: first, that the items in the subsections were not independent, and second, that the two samples of OSSTF members were independent — that is, that the data were not repeated measures.

The factor analysis provided information with which to address the first assumption. Since approximately one-third of the total variance in the data can be accounted for by the first principal component, about 35% in 1974 and 37% in 1977 of the linear relationships in the data can be singly summarized by the component. Hence the C.A. Scale items are not totally independent. The second assumption is assured by the fact that the two respondent groups were randomly selected from the OSSTF membership list at two widely separated points in time.

TABLE 6

Multivariate Analysis of the Difference in Mean Response Between 1974 and 1977 on the Collective Negotiation and Sanction Subsections of the Questionnaire

<i>Subsection</i>	<i>Mean Score 1974</i>	<i>Mean Score 1977</i>	<i>Change in Mean Score</i>	<i>Degrees of Freedom</i>	<i>F Value</i>	<i>Significance</i>
Collective Negotiation	59.94	58.34	—1.60	15,518	1.368	$p < .158$
Sanction	58.56	54.55	—4.01	15,518	2.109	$p < .009$

NOTE: 1974 $n = 234$; 1977 $n = 300$.

Table 6 reports the results of the multivariate analysis. The difference between the 1974 and 1977 mean response to the collective negotiation

items is not significant. However, the difference between the 1974 and 1977 mean response to the sanction items is highly significant. The probability that this difference did not occur by chance is 99%. In other words, when the respondents reacted to the items on the issue of sanctions and their use, they were significantly less militant in 1977 than they were in 1974.

The univariate analysis examined the change in the mean score on each of the 30 items in the C.A. Scale between the two administrations of this instrument. This analysis was again based on the two assumptions that the scale items were independent and that the respondent groups were independent by virtue of the sampling procedure. While the relationships among the items cannot be denied, it can be observed from the factor analysis that not all the items within each subsection have their highest factor loadings on the same factor. Hence a univariate analysis is not unjustified.

Table 7 reports the results of the Univariate Analysis. For only 4 of the 15 items on collective negotiation is the change in mean response significant. It is not surprising that the Multivariate Analysis, considering the subsection as a whole, resulted in a non-significant *F* value.

When the 15 items on sanctions are tested over time, 11 of the 15 items show a significant shift to a less militant position. This result is not surprising either, since the subsection as a whole produced a highly significant change between the two administrations of the C.A. Scale.

In light of the fact that the data suggest OSSTF members are less militant in 1977 than in 1974 with regard to the issue of sanctions and their use, it was of interest to determine if there were significant predictors of this attitude in 1974 and in 1977. Moreover, it was reasonable to ask if the significant predictors in 1977 were the same as those in 1974. A Stepwise Multiple Regression (Table 8) was performed on the data to explore these questions.

The only significant predictor of militancy in the collective negotiation subsection in 1974 was marital status: Single persons, excluding the widowed, were more militant than those who were married. In 1974 there were no significant predictors in the sanction subsection.

In 1977 the significant predictor of militancy on items dealing with collective negotiations was sex: Males were more militant than females. In the 1977 sanction subsection, two significant predictors existed: Sex was the most significant — males were more militant than females. The other predictor on this subsection was Years in Ontario: Those teachers who had lived in Ontario 0-10 years were more militant than teachers who had lived in Ontario for more than 10 years.

An open-ended section, "Comments," was included in the data-collection instrument for 1977 soliciting an expansion of responses to items on the Collection Action Scale. These comments were supplemented by 20 semi-structured interviews with OSSTF members. Because a "Comments"

TABLE 7
Univariate Analysis of the Difference in Mean Response from 1974 to 1977 to Each of Items in the Questionnaire

Item Number	Collective Negotiation Subsection		Significance	Item Number	Sanction Subsection		Significance
	Change in Mean Response ^a	F Value			Change in Mean Response ^a	F Value	
1	-.06	0.229	$p<.623$	3	-.32	9.618	$p<.022^*$
2	-.06	0.343	$p<.559$	4	-.31	6.917	$p<.009^*$
5	-.18	6.441	$p<.011^*$	6	-.19	4.745	$p<.030^*$
7	-.02	0.082	$p<.774$	8	-.22	3.247	$p<.072$
9	-.26	8.754	$p<.003^*$	10	-.44	14.650	$p<.001^*$
11	-.10	1.844	$p<.175$	13	-.19	3.410	$p<.065$
12	-.08	1.881	$p<.171$	14	-.42	14.570	$p<.001^*$
15	-.05	0.393	$p<.531$	21	-.18	4.706	$p<.030^*$
16	-.23	8.235	$p<.004^*$	22	-.23	6.985	$p<.008^*$
17	-.20	3.010	$p<.083$	23	-.34	13.541	$p<.001^*$
18	-.20	5.574	$p<.019^*$	24	-.11	2.091	$p<.149$
19	-.11	1.817	$p<.178$	25	-.34	12.409	$p<.001^*$
20	-.01	0.004	$p<.948$	26	-.41	15.735	$p<.001^*$
28	-.01	0.028	$p<.867$	27	-.24	7.488	$p<.006^*$
30	-.10	1.189	$p<.276$	29	-.06	1.189	$p<.276$

NOTE: Across items, the degrees of freedom are (1,532); 1974 $n = 234$; 1977 $n = 300$.
a For each questionnaire item, the mean response was lower in 1977 than in 1974.
* Any F value with a probability of occurring by chance equal to or less than .05 is considered significant.

TABLE 8

*Predictors of Militancy on the Collective Negotiation and Sanction
Subsections of the Questionnaire in 1974 and 1977*

<i>1974 Predictors</i>	β	<i>Standard Error of β</i>	<i>1977 Predictors</i>	β	<i>Standard Error of β</i>
Collective Negotiation Subsection					
Marital Status	—3.35*	1.27	Sex	—4.29*	1.19
Age	—0.81	0.52	Teaching Experience	—0.46	0.97
Education	0.52	0.91	Years in Ontario	—4.24	3.01
Geographical Location	—0.34	0.69	Geographical Location	—0.85	0.65
Years in Ontario	0.58	1.50	Education	—0.88	0.86
			Marital Status	0.93	1.20
			Age	0.35	0.66
Sanction Subsection					
Sex	—2.58	1.77	Sex	—8.73*	1.65
Age	—1.67	1.03	Teaching Experience	—1.33	1.35
Education	1.00	1.31	Years in Ontario	—9.03*	4.18
Teaching Experience	1.28	1.44	Age	—0.99	0.92
Geographical Location	—0.63	0.99	Geographical Location	—0.85	0.90
Marital Status	0.65	1.86	Education	—1.11	1.20
Years in Ontario	—0.72	2.13	Marital Status	0.19	1.67

* Significant predictors.

section was not included in the 1974 study, no determination could be made of a shift in the intensity of militancy. However, the comments do support and verify the data yielded by the 1977 administration of the Collective Action Scale. In addition, these responses add insight to the interpretation of the statistical data. Of the respondents in the 1977 segment of the study, 27.2% volunteered comments. The number of comments greatly exceeds the number of respondents since over 90% of the respondents offered two or more comments.

The more relevant of the responses may be summarized as follows:

1. Three percent were concerned that excessive financial demands by militant teacher representatives jeopardized collective bargaining and created ill-will among the public toward teachers;

2. Seven percent felt that school boards were militantly unco-operative in negotiations, probably in order to maintain a master-servant relationship; and that Bill 100 encouraged this attitude on the part of school boards;

3. Seventeen percent were opposed to the use of the strike under any circumstances as a weapon to enforce teacher demands or interests;

4. Thirty-eight percent indicated they were not opposed to the strike in order to enforce demands or interests of teachers. However, only 19% of these did not qualify their support of the strike sanction. The remaining 81% indicated that, while they favored the right to strike, they were reluctant to use this tactic unless a severe threat existed to the basic interests of teachers. Almost one-quarter of these respondents wanted some viable alternative to the use of the strike;

5. Six percent felt the credibility of the teaching profession would be enhanced if teacher organizations both controlled entrance to the teaching profession and had authority to purge poor teachers from teaching ranks;

6. Seventeen percent of the comments stressed that the current collective bargaining procedures were an extreme of the adversary system. There was a need to develop mechanisms for school boards and teachers to meet on an ongoing basis to discuss issues and points of disagreement. Thus the partners in education would develop a better understanding of each other which would lead to mutual trust and to better processes in order to pursue the common tasks.

SUMMARY AND DISCUSSION

With regard to the effectiveness and reliability of the data-collection instrument used in the study, it was found that the correlation of the total instrument with its subsections is very high. The correlation of the subsections with each other is satisfactory. The reliability of the Collective Action Scale is very high. That the reliability improved from 1974 to 1977 is probably because of the increase of the percentage of usable returns from respondents. The instrument proved reliable across a period of time in the measures which it examined.

The overall result of the data showed a decrease in teacher militancy in the period of 1974-77 with regard to the issue of collective negotiations and use of sanctions. The difference between the mean responses to the collective action subsection was not significant. This indicates no real lessening of the favorable attitudes teachers hold toward the use of collective negotiations as an instrument to order their relationships with their employers. However, the difference in means was highly significant for the sanctions subsection, clearly indicating a less favorable teacher attitude toward the use of sanctions as a means of enforcing teacher demands.

The only significant predictor of militancy toward the issue of collective negotiations in 1977 was sex: Males are more militant than females. With regard to use of sanctions, two predictors of militancy were identified: sex and years resident in Ontario with teachers with less than 10 years of residency. Age, marital status, level of formal education, years of teaching experience, and geographic area of teaching were not found to be predictors of militancy of teachers. Therefore it can be inferred that secondary school teachers in Ontario are a relatively homogeneous group and that a division of secondary school teachers in Ontario by any of the non-significant predictors mentioned, except sex, is not feasible when speaking about their attitudes toward collective negotiations and the use of sanctions.

That the major finding of this study indicates teacher militancy, particularly in regard to the issue of the use of sanctions, has lessened in intensity from 1974 to 1977 should not obscure the fact, which has not been stressed, that the militancy of members of OSSTF remains at a very high level in 1977. Indeed, when neutral responses are eliminated, there is an indication that teacher attitudes have become slightly more favorable toward collective negotiations in 1977 than they were in 1974. This is so probably because teachers view professional negotiations as the only viable mechanism available to them which can increase teacher participation in educational decision-making.

The study does show a significant drop in the support of teachers for the use of sanctions. The secondary school teachers' strike in metropolitan Toronto made a deep impression on all teachers throughout Ontario. The use of their ultimate weapon, the strike, did not appear to obtain large gains for teachers; many felt there was an overall monetary loss. The most unexpected consequence of the strike, for teachers, was the perceived bitter reaction of the public toward teachers because of this teacher action. Teachers interpreted the public reaction as evidence that their services were not very highly valued in society.

Loss of teacher support for other sanctions has not been as great as the loss of support for the use of the strike. Still, the majority of OSSTF members would participate in a strike if the stakes were high enough and the survival of basic teacher interests were severely threatened. Both school boards and leaders in teachers' organizations should note an increasing concern on the part of teachers with the inadequacies of an adversary system and a desire for social mechanisms to replace it. Reluctant militants teachers may be, as some have named them, but militants of increasing sophistication they are.

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