obtained," as Charlotte Towle points out.[21] Or as Eveline Burns puts it, "The real problem is to develop people who know what questions to ask and how to go about getting the answers."[22]

Social case workers neither have all the answers nor have a corner on the art of asking and recording. They do have substantial contributions to make in any social science-social profession team approach to the study of modern society.

[21] Charlotte Towle, *op. cit.*, p. 176.

[22] Eveline M. Burns, "Reconversion and its Implications for the Schools of Social Work," *Social Service Review*, XIX (June 1945), p. 199, quoted by Charlotte Towle in *op. cit.*

BIAS, PROBABILITY, AND TRIAL BY JURY

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There has recently been developing in United States Supreme Court decisions a new attitude toward trial by jury, an idea that trial juries and grand juries alike ought to be bodies truly representative of the community, in the sense of being cross-sections or representative samples from the community.

It is the purpose of this paper (I) to trace the development of this concept in Supreme Court opinions from its inception in 1940 to the present, and (II) to point out the social and economic biases in present methods of jury selection which gave rise to the principle of the representative jury and which that principle will wipe out if it is enforced.

I

Trial by jury is guaranteed as a fundamental right by the Constitution of the United States and by the constitution of each state. Since it was first recognized in the Magna Carta, however, the concept of trial by jury has undergone progressive modification. Blackstone was careful to point out that in the English law it was a privilege and not a right. Our Constitution made the privilege into a right for criminal proceedings in United States courts.

Most recent modifications of the idea of jury trial have come about through changes in the notion of what constitutes a proper jury, so that today the idea of trial by jury and the idea of what constitutes a proper jury are inextricably intertwined. The original Constitution provided only that "The trial of all crimes, except in cases of impeachment, shall be by jury . . ." [Article III, Section 2], and the concept of jury trial was then modified in the Sixth Amendment by defining a proper jury as an impartial one.

A new series of fundamental modifications of the concept of jury trial is now under way in the United States. It began with a decision of the United States Supreme Court in the case of *Smith* v. *Texas* in November, 1940, and the revolution it is working in the concept of jury trial is being made through modification of the idea of what constitutes a proper jury.

The case of *Smith* v. *Texas* [311 U.S. 128][1] concerns a Texas Negro who was indicted and convicted of rape. The conviction was appealed on the ground that it was based on an indictment which violated that provision of the Fourteenth Amendment which guarantees that "No State shall . . . deny to any person within its jurisdiction the equal protection of the laws." Smith contended that equal protection had been denied him because in the county in which he was indicted Negroes had intentionally and systematically been excluded from grand jury service solely on account of their race and color. It has long been settled that a conviction based upon an indictment returned

[1] All citations of this form are to *United States Reports*, Government Printing Office, Washington, D.C., the first number referring to the volume and the second to the page.

by a jury so selected is a denial of equal protection [e.g., *Pierre* v. *Louisiana*, 306 U.S. 354], and this was not challenged by the state. But both the trial court and the Texas Court of Appeals held that the evidence failed to uphold the charge of racial discrimination.

The opinion of the Supreme Court, written by Justice Black, provided the two essentials for the present modification of the concept of jury trial:

(1) It stated definitively, apparently for the first time, the principle of the representative jury: "It is part of the established tradition in the use of juries as instruments of public justice that the jury be a body truly representative of the community." [311 U.S. 130]

(2) It provided a probability basis for assessing the representativeness of the jury. It was established that in Harris County, Texas, where Smith had been indicted and convicted, Negroes constituted over 20 per cent of the population and over 10 per cent of those paying poll taxes. Therefore between 10 and 20 per cent of those eligible for grand jury duty in the county were Negroes. Yet the court clerk testifying from court records covering the years from 1931 through 1938 showed that of 512 persons summoned for grand jury duty only 18 were Negroes, and that of 384 grand jurors actually serving only 5 were Negroes.

The difficulty of the petitioner in trying to establish his case was to prove that the deficit of Negroes in the grand jury was the result of intentional and systematic exclusion, and here the Supreme Court ruled that he need not do so and introduced a basically statistical argument. "Chance and accident alone," it said, "could hardly have brought about the listing for grand jury service of so few Negroes from among the thousands shown by undisputed evidence to possess the legal qualifications for jury service. . . . The state argues that the testimony of the commissioners themselves shows that there was no arbitrary or systematic exclusion. And it is true that two of the three commissioners who drew the September, 1938, panel testified to that effect. . . . But even if their testimony were given the greatest possible effect, and their situation considered typical of that of the 94 commissioners who did not testify, we would still feel compelled to reverse the decision below. . . . If there has been discrimination, whether accomplished ingeniously or ingenuously, the conviction cannot stand." [311 U.S. 131, 132]

In other words, a grand jury may be interpreted as a representative sample from a population consisting of persons eligible for grand jury duty, and if the grand jury can be shown to be unrepresentative in a probability sense, then it has been shown to be an improper grand jury. Moreover, so far as qualifications are concerned, the same principles apply to trial jurors and grand jurors alike. Let us apply a test of significance here, to see what probability theory has to say about the representativeness of the 1931-1938 Harris County grand juries. Out of 512 persons summoned for grand jury duty, 18, or 3.5 per cent, were Negroes. If we assume that only 10 per cent of the population eligible for grand jury service was Negro, we find that the chance of getting 18 or fewer Negroes out of 512 persons randomly drawn from the population of eligibles is very much less than .001.

In the case of *Smith* v. *Texas* the ruling involved racial discrimination and was based upon a very clear constitutional point involving the Fourteenth Amendment. Other Supreme Court opinions, however, continued to apply the principle of the representative jury and further to extend the list of characteristics in terms of which a jury must be representative.

The case of *Glasser* v. *United States* [315 U.S. 60], January, 1942, provided the next important extensions of the notion of what constitutes a proper jury. Glasser contended that he had been denied an impartial trial because of the exclusion from the petit jury panel of all women not members of the Illinois League of Women Voters. He swore that all the names of women placed in the box from which the panel was drawn were taken from a list given the court by the Illinois League of Women Voters, and prepared exclusively from its membership, and

contended that women not members of the League but otherwise qualified were systematically excluded from the panel.

The Supreme Court opinion in the Glasser case, delivered by Justice Murphy, further modified the principle of the representative jury in two ways:

(3) It laid down that selection of jurors should be at large from the community, and not from the membership of particular private organizations or a special group or class. The exercise of the duty of selection "must always accord with the fact that the proper functioning of the jury system requires that the jury be a 'body truly representative of the community,' and not the organ of any special group or class. . . . The deliberate selection of jurors from the membership of particular private organizations definitely does not conform to the traditional requirements of jury trial." [315 U.S. 85, 86]

(4) It specifically recognized the existence and probable effects of unconscious class bias, something which had of course been known to social scientists for decades but which was revolutionary in legal circles in which bias is defined as conscious bias. "The deliberate selection of jurors from the membership of particular private organizations definitely does not conform to the traditional requirements of jury trial. No matter how high-principled and imbued with a desire to inculcate public virtue such organizations may be, the dangers inherent in such a method of selection are the more real when the members of those organizations, from training or otherwise, acquire a bias in favor of the prosecution. The jury selected from the membership of such an organization is then not only the organ of a special class, but, in addition, it is also openly partisan." [315 U.S. 86]

It was in the Supreme Court opinion in the case of *Thiel* v. *Southern Pacific Co.* [328 U.S. 217], delivered by Justice Murphy in May, 1946, that the most sweeping and obvious extensions of the principle of the representative jury were made. Thiel brought suit in a California state court against the Southern Pacific Co. for damages for alleged negligence in its treatment of him while a passenger. He requested a jury trial, and then moved to strike the entire jury panel on the grounds that "mostly business executives or those having the employer's viewpoint are purposely selected on said panel, thus giving a majority representation to one class of occupation and discriminating against other occupations and classes, particularly the employees and those in the poorer classes who constitute, by far, the great majority of citizens eligible for jury service. . . ." [328 U.S. 219] The issue was now wide open before the Supreme Court, as to whether the existence of unconscious economic bias was to be recognized by the Court and admitted as grounds for striking an economically unrepresentative jury as improperly constituted.

In the opinion, delivered again by Justice Murphy—

(5) The principle of representativeness was extended specifically to include *economic* representativeness of the jury. "The undisputed evidence in this case demonstrates a failure to abide by the proper rules and principles of jury selection. Both the clerk of the court and the jury commissioner testified that they deliberately and intentionally excluded from the jury lists all persons who work for a daily wage. . . . Wage earners, including those who are paid by the day, constitute a very substantial portion of the community, a portion that cannot be intentionally and systematically excluded in whole or in part without doing violence to the democratic nature of the jury system. Were we to sanction an exclusion of this nature we would encourage whatever desires those responsible for the selection of jury panels may have to discriminate against persons of low economic and social status. We would breathe life into any latent tendencies to establish the jury as the instrument of the economically and socially privileged. That we refuse to do." [328 U.S. 221, 223, 224]

(6) The principle of representativeness was extended by a list of "background" or controlling factors with respect to which juries ought to be representative (a list not

unlike the list of controlling background factors for a stratified representative sample), and by an implicit reiteration of the probability basis for assessing the representativeness of a jury. "The American tradition of trial by jury, considered in connection with either criminal or civil proceedings, necessarily contemplates an impartial jury drawn from a cross-section of the community. This does not mean, of course, that every jury must contain representatives of all the economic, social, religious, racial, political, and geographical groups of the community; frequently such complete representation would be impossible. But it does mean that prospective jurors shall be selected by court officials without systematic and intentional exclusion of any of these groups. Recognition must be given to the fact that those eligible for jury service are to be found in every stratum of society. Jury competence is an individual rather than a group or class matter. That fact lies at the very heart of the jury system. To disregard it is to open the door to class distinctions and discriminations which are abhorrent to the democratic ideals of trial by jury." [328 U.S. 220]

(7) Finally, in the case of *Ballard* v. *United States,* the representative principle was explicitly extended to include sex as well. In the Supreme Court opinion, delivered by Justice Douglas in December, 1946, the statement runs thus: "The systematic and intentional exclusion of women, like the exclusion of a racial group, or an economic or social class, deprives the jury system of the broad base it was designed by Congress to have in our democratic society." [329 U.S. 195]

II

The principle of the representative jury was developed presumably to wipe out an existing evil of economic and social bias operating in grand juries and trial juries throughout the nation. The extent of that evil, however, can be assessed only by determining how much bias juries selected by present methods actually exhibit. The pragmatic importance of the principle of the representative jury, in other words, depends upon the changes which it will introduce if actually put into operation in the selection of jurors and grand jurors. These changes can be assessed only by determining how unrepresentative juries are at present. This paper now provides such an assessment of the economic bias of persons nominated for grand jury service in the United States Criminal Court, Southern District of California, County of Los Angeles, for the years 1935 to 1947 inclusive.

During these 13 years, 1,563 persons were nominated for grand jury duty, though not all of them served. Since those who actually served were chosen by lot from the nominees, however, a consideration of the list of nominees provides a fair indication of the nature of persons chosen for and actually serving as federal grand jurors in this area.

Each person nominated for grand jury duty swears to certain facts concerning himself, and among these facts is his occupation. It is possible, therefore, to get an idea of the economic status of grand jury nominees by classifying them by occupation.

Columns 1, 3, 4, and 5 of Table I show the results of classifying by occupation the 1,176 nominees who returned their occupation on the official form which nominees are required to fill out. The occupational groups are those of the 1940 U. S. Census, except that some of the census groups have been combined for convenience. The original forms, filled out and sworn to by the nominees themselves, were used, and the standard census index was used in the assignment of occupations to classes.

Column 1 in Table I shows the occupational distribution of persons who were actually employed when nominated. Column 3 classifies housewives by their husbands' occupations, on the assumption that husband's and wife's economic attitudes will tend to be alike and to reflect the husband's occupational level. Column 4 gives the distribution of retired nominees by their last occupation. Column 5 gives the total of Columns 1, 3, and 4.

We now need an indication of the occupational distribution of all persons who were at this time eligible for federal grand

jury duty in the County of Los Angeles. Under California law a juror to be competent must be a citizen of the United States over the age of 21, a resident of the state and county for one year preceding nomination, possessed of his natural faculties, of ordinary intelligence and not decrepit, and possessed of sufficient knowledge of the English language. [California Code of Civil Procedure, Section 198] We have no occupational distribution for a group so precisely defined, but we do have in the 1940 Census an occupational distribution for a group nominees by occupation, while Column 6 shows the distribution which would have resulted had the nominees represented a true cross-section of the community. We have a column of actual numbers and another column of expected numbers, to which we can apply the chi-square test of goodness of fit. In comparing Columns 5 and 6 we find $\chi^2 = 2349.4$ for eight degrees of freedom, which indicates that the probability that the actual distribution was got as a sample from the community at large is exceedingly remote. The .001 point for χ^2 for

TABLE I. OCCUPATIONAL DISTRIBUTION OF PERSONS NOMINATED FOR GRAND JURY DUTY IN THE UNITED STATES CRIMINAL COURT, SOUTHERN DISTRICT OF CALIFORNIA, COUNTY OF LOS ANGELES, 1935 TO 1947

	Employed		Housewives	Retired	Total	Labor Force	Difference
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Professional and semiprofessional workers	203	(104.0)	69	15	287	(129.4)	157.6
Farmers and farm managers	34	(8.8)	2	—	36	(11.0)	25.0
Proprietors, managers, and officials	495	(113.3)	84	28	607	(141.0)	466.0
Clerical, sales, and kindred workers	181	(225.0)	23	2	206	(279.9)	− 73.9
Craftsmen, foremen, and kindred workers	24	(134.3)	2	—	26	(167.2)	−141.2
Operatives, and kindred workers	1	(158.9)	1	—	2	(197.7)	−195.7
Domestic and protective service workers	3	(39.7)	1	4	8	(49.5)	− 41.5
Other service workers	4	(98.4)	—	—	4	(122.4)	−118.4
Laborers, farm and other	—	(62.6)	—	—	—	(77.9)	− 77.9
Total	945	(945.0)	182	49	1176	(1176.0)	

closely approximating the desired one and eminently a cross-section of the community, viz., those persons in the labor force who were over 21 years of age.

Column 2 in Table I shows what the occupational distribution of the 945 employed grand jury nominees would have been had their occupational distribution been that of persons over 21 years old in the labor force. Column 6 shows a similar distribution, but based on all 1,176 nominees for which occupational data were available. Column 7 shows the discrepancy between Columns 5 and 6.

Let us now apply the probability basis for assessing the representativeness of these grand jury nominees which the Supreme Court itself inaugurated in the case of *Smith* v. *Texas*. Column 5 in Table I shows the actual distribution of 1935-1947 grand jury eight degrees of freedom is but 26.125. If the reader objects to the classification of housewives by their husbands' occupations, he can make a similar test based only upon the column for employed nominees in Table I, and he will find in this case that $\chi^2 = 1889.6$, again for eight degrees of freedom.

A comparison of Columns 5 and 6 in Table I reveals the economic bias in the occupational distribution of these federal grand jury nominees. There are 287 professional and semiprofessional workers, an excess of 158 over the number which should have been nominated on the principle of the representative jury. The excess is even more marked for proprietors, managers, and officials, the actual number being 607, over four times as great as the representative number of 141.

Deficits on the lower economic levels are just as pronounced as excesses in the higher. Only 26 craftsmen, foremen, and kindred workers were nominated in 13 years, whereas 167 should have been. Only two operatives were nominated in the 13 years, whereas nearly 200 should have been. An even dozen service workers were nominated, whereas for representativeness 172 should have appeared in the list, and not a single laborer, farm or otherwise, appears in the list at all.

It needs to be pointed out that the bias shown by Table I is a bias in the selection of persons who *might* serve on the grand jury. Not all persons nominated actually serve; for some are excused and some are not needed. But no one not nominated *can* serve, and therefore Table I shows without the slightest doubt that the lower occupational and economic classes are systematically and with remarkable efficiency excluded from the federal grand jury in this court.

In view of the well-known correlations between socio-economic status and political and economic attitudes, there is a strong presumption that the occupational bias shown in Table I resulted in political and economic bias as well. For the sake of illustration, however, let us investigate with the meager material available the probable distribution of labor *v.* management attitudes in the list of grand jury nominees, and contrast it with the probable distribution in the list of nominees which would have resulted from the principle of the representative jury.

In January, 1946, the Fortune Poll gave a distribution of answers to the following question, based on a nationwide sample: "Suppose you had been acting as a referee in labor-management disputes during the past three months, do you think your decisions would probably have been more often in favor of labor's side, or more often in favor of management's side?" The distribution of answers was as follows:[2]

	Total	Executives	Farmers	Workers
Favor labor	25.7%	18.2%	24.3%	38.9%
Favor management	44.7%	62.2%	50.2%	30.8%
Don't know	29.6%	19.6%	25.5%	30.3%

We see from these answers that the proportion of workers who would have favored labor is over twice as large as the proportion of executives who would have done so. Conversely, the proportion of executives who would have favored management is over twice the proportion of workers who would have done so.

To get a more precise idea of the extent of the bias shown by Table I, let us apply the percentages given by the Fortune Poll to the actual and the representative distributions of Table I. Let us assume that by executives Roper means proprietors, managers, and officials, and let us for the sake of argument even assume that professional and semiprofessional workers are to be classed with Roper's "workers." If the actual list of nominees then reflected national sentiment as of January, 1946, there would be among the 1,176 nominees 327 who would have favored labor and 560 who would have favored management, or a ratio of 5 to 3 in favor of management. Had the nominees been chosen on the principle of the representative jury, however, they would have exhibited a slight pro-labor majority, for there would have been among them 427 persons who would have favored labor and 409 who would have favored management. This bias, moreover, has not operated in a vacuum, for this group of nominees voted indictments in scores of cases involving a labor *v.* management issue.

[2] Reported in the *Public Opinion Quarterly*, X, 121, Spring, 1946.