TRANSACTIONS OF THE FOURTH
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ACTES DU QUATRIÈME
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VOLUME II

TRANSACTIONS OF THE FOURTH WORLD CONGRESS OF SOCIOLOGY

ACTES DU QUATRIÈME CONGRÈS MONDIAL DE SOCIOLOGIE

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General Theme

SOCIETY AND SOCIOLOGICAL KNOWLEDGE

LA SOCIÉTÉ ET LA CONNAISSANCE SOCIOLOGIQUE

VOLUME II

Sociology : Applications and Research

La Sociologie : Applications et Recherches

Editorial Note

The papers collected in this volume fall into three groups. There are, first, the Chairman's introductory papers for the Congress sections concerned with the applications of sociology in specific areas of social life. These papers will serve as outlines for the discussion of the shorter papers contributed to the sections, in meetings to be held concurrently on September 9-10, 1959. The shorter papers will be available in mimeographed form at the Congress. It is regretted that three papers, by Mrs. Glass, Professor Janowitz and Dr. Palerm, were not available in time for inclusion in this volume. The papers by Mrs. Glass and Professor Janowitz will, however, be available at the Congress and they will be published later in Volume III of the *Transactions*.

Secondly, there are three papers on the sociological aspects of social planning. The discussion of these papers will be introduced by a number of prepared discussants in a plenary session of the Congress on September 14, 1959. In the afternoon of the same day, the discussion of specific points arising from the papers will be continued in three sectional meetings.

Finally, there are three general papers on the development of sociological research methods, which will be discussed in a plenary session of the Congress on September 10, 1959. This discussion will form the background for the work of ten seminars on detailed problems of sociological method, to be held on September 11, 1959.

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PART ONE

The Application of Sociological Knowledge

La Connaissance Sociologique et son Application à la Vie Industrielle

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Le fait industriel a ouvert, aux sociologues, des champs d'étude particulièrement denses, et propices à l'utilisation des instruments méthodologiques d'investigation les plus modernes. Les travaux des sociologues préoccupés par cet objet, en recourant à ces méthodes, ont-ils, en retour, influencé l'industrie? Telle est la question dont ce rapport doit introduire la discussion. Question à vrai dire embarrassante, en face de la pauvreté des sources d'information. Aussi bien cherchera-t-on moins à dresser un inventaire qu'à dégager des tendances dominantes.

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Dès l'abord, on voudrait préciser cet objectif par deux remarques. L'examen des influences exercées par la sociologie sur l'industrie fait naître une interrogation fréquente: qu'est-ce que la sociologie? Ou, plus exactement: où sont les frontières entre sociologie, psychologie, psychologie sociale, économie sociale? En fait, la difficulté principale est ici de savoir s'il faut s'en tenir a l'étiquette donnée par un auteur à son ouvrage pour ranger une contribution en sociologie ou ailleurs. On évitera de ranimer ici un débat qui n'est pas près de s'éteindre: on a considéré comme sociologiques tous les apports généralement considérés comme tels par les sociologues.

Au surplus, on n'a cherché à saisir l'influence de la sociologie que sur le développement interne de l'industrie: sur la vie des entreprises industrielles et des groupements nés de la vie industrielle (tels les syndicats), sur les rapports entre patrons et syndicats, etc. . . . On n'envisagera notamment pas la contribution des sociologues à la solution des multiples problèmes que posent l'apparition et la croissance d'une industrie dans une société: adaptation de la culture, structure de la population, etc . . .[1]

* * *

Deux questions retiendront successivement l'attention:

1

(1) Existe-t-il une relation entre la connaissance sociologique et la vie industrielle? Par quelles voies? Comment se différencie-t-elle selon les pays?

(2) En quels domaines de la vie industrielle l'influence de la sociologie s'est-elle exercée et, dans ces différents domaines, à partir de quelles bases théoriques?

1. *Connaissance sociologique et vie industrielle.*

A qui s'efforce de repérer les cas d'utilisation systématique de la connaissance sociologique dans l'industrie, il apparaît nettement que ces expériences sont beaucoup moins courantes qu'on est d'abord porté à le croire. Pourtant, incontestablement la sociologie a exercé et continue à exercer une influence dans l'industrie: il n'est, pour en pressentir l'importance, que d'évoquer combien le mot même est à la mode dans certains milieux industriels. La question doit être posée: de quelle manière la connaissance sociologique influence-t-elle l'industrie? En va-t-il de même dans les divers pays?

I

Certes la rencontre entre l'industrie et les sociologues est fréquente dans la *recherche fondamentale*. Rares—trop rares—sont les études qui se déroulent aussi en dehors des entreprises.

Mais en quoi les recherches poursuivies dans les entreprises y introduisent-elles l'application de connaissances sociologiques? Il peut arriver souvent que les hommes d'action—membres de la direction de l'entreprise et représentants du personnel—sont peu informés du plan de recherche; le chercheur prend et garde avec eux les seuls contacts utiles à la réalisation de l'étude, il leur communique tout ou partie des conclusions qu'il a dégagées de ses observations. L'exécution même de la recherche et la communication de conclusions pourront provoquer peut-être quelques modifications dans le milieu.

En fait de recherche proprement dite, il faut pourtant mettre en vedette les expériences de recherche qui ont porté sur le changement social lui-même. Elles sont cependant rares. On les trouve régulièrement citées. Qui n'a entendu parler, par exemple, de l'usine Hawthorne de la Western Electric ou de la Glacier Metal Company ou encore de la Detroit Edison Company?[2] Dans ces expériences, les connaissances théoriques sur lesquelles reposent les hypothè:es du plan expérimental sont le fondement de l'action prévue. Mais combien d'entreprises ont pu être ainsi affectées?

*   *   *

Peut-on dire que c'est par la *recherche appliquee* que les sociologues ont provoqué ou provoquent l'utilisation de leurs connaissances dans l'industrie?[3]

Sans aucun doute notre époque voit-elle se multiplier les interven-
tions des sociologues pour aider les entreprises industrielles à résoudre
leurs problèmes humains.

Mais est-il sûr que, dans ce genre d'intervention, le chercheur peut
formuler les hypothèses de travail mettant en oeuvre les théories
fondamentales? La question qu'on lui pose se rattache-t-elle à des
théories déjà élaborées? Les conditions de son intervention lui per-
mettent-elles de mener le travail comme il est souhaitable? Il arrive
sans doute que, pour l'entreprise qui fait appel à lui, le chercheur
soit moins l'homme qui possède certaines connaissances susceptibles
d'utilisation que celui qui est exercé au maniement de certains outils
(interview, etc. . . .) ou encore celui qui présente l'avantage d'apparaître
neutre à tous.

Par ailleurs, le chercheur lors même qu'il pourrait greffer la vérifica-
tion d'hypothèses sur son intervention peut encore n'être pas toujours
convaincu de l'intérêt de semblable démarche: les sociologues n'ont
pas tous abandonné l'opinion que, dans l'état actuel de nos connais-
sances, il faut d'abord rassembler des faits.

Il apparaît finalement que c'est du côté du *travail de perfectionne-
ment* de ceux qui exercent une fonction dans la vie industrielle qu'on
peut trouver le plus gros effort d'application systématique des connais-
sances sociologiques[4]. De plus en plus nombreux, les programmes de
formation pour dirigeants et cadres d'entreprise ou pour responsables
syndicaux constituent un facteur appréciable de changement social
dans l'industrie contemporaine: de nouvelles représentations sont
stimulées, d'anciens modèles de comportement sont ébranlés, etc.

Le rôle de la sociologie dans la conception et l'exécution de ces
programmes est importante. Il suffit de constater le mouvement
qui conduit les sociologues et les institutions auxquelles ils sont at-
tachés à participer aux actions de formation. La sociologie inspire
les décisions relatives aux matières à approfondir. Les connaissances
sociologiques et psychologiques donnent leur contenu à des sujets tels
que: " Leadership," " Communication," " Organisation," " Forma-
tion," etc. La sociologie guide aussi les décisions relatives aux métho-
des de formation à mettre en oeuvre: formation à l'intérieur de l'entre-
prise ou en dehors de celle-ci, taille des groupes à constituer, etc.

*   *   *

Les efforts visant à appliquer la connaissance sociologique dans
l'industrie ne sont en définitive pas nombreux.

Est-ce à dire qu'on peut considérer comme une entreprise aisée
d'apprécier l'influence de la sociologie dans l'industrie? On peut en
douter, pour plusieurs raisons.

D'abord, peu nombreux ont été les contrôles réalisés. C'est le
cas de quelques recherches à caractère expérimental. Du côté des

actions de perfectionnement, des tentatives sont en cours, mais les méthodes permettant de vérifier l'efficacité des actions sont loin d'être au point. Dans les deux cas, le contrôle des résultats se heurte à des difficultés telles que l'interprétation des observations relevées requiert la plus grande prudence. Comment, dans le jeu complet des nombreux facteurs susceptibles d'entraîner une modification du milieu industriel, établir une relation assurée entre l'action exercée et le résultat observé? Comment interpréter une modification particulière observée dans une entreprise en termes d'efficacité pour celle-ci?

Par ailleurs, l'influence de la connaissance sociologique sur l'industrie ne s'exerce pas seulement par des efforts systématiques. Les sociologues passent aujourd'hui, aux yeux d'un nombre croissant de personnes, pour les spécialistes capables de contribuer à la solution de nombre de difficultés. Ils ont une certaine audience et les résultats de leurs travaux suscitent quelque intérêt. Leurs théories se répandent dans le public; elles sont discutées et maintes idées, même inconsciemment, s'intègrent aux courants d'opinion. Par la position qui lui est faite dans le monde actuel, la sociologie entraîne des modifications plus ou moins profondes dans les représentations mentales des rapports sociaux et des faits collectifs. C'est le cas notamment des représentations que se font les hommes mêlés à la vie industrielle.

II

Cependant, le tableau qu'on vient d'esquisser des voies par lesquelles la sociologie influence le milieu industriel ne rend pas compte de la diversité des situations dans le monde. Dans chaque région du monde, dans chaque pays même, des facteurs particuliers différencient le rôle de la sociologie dans la vie industrielle.

Ce n'est pas ici l'endroit d'une analyse détaillée de chacune des diverses situations. On voudrait simplement esquisser la diversité des situations et dégager les facteurs principaux qui l'expliquent.

Les Etats-Unis occupent incontestablement une position privilégiée au point de vue qui nous intéresse. Alors que le monde industriel, intéressé par la sociologie et par son apport possible, y était déjà en contact avec les sociologues, partout ailleurs dans le monde la perspective d'une collaboration n'était que rarement évoquée.

Au lendemain de la dernière guerre mondiale, le mouvement né aux Etats-Unis se propage, au gré des relations internationales, de voyages d'études, de missions, dans un certain nombre de pays industrialisés. Depuis lors, il s'y est plus ou moins solidement installé. On pense ici à la Grande-Bretagne et à travers elle à certains pays du Commonwealth, aux pays scandinaves et aux pays de l'Europe occidentale (Pays-Bas, France, Belgique, Allemagne Fédérale, Suisse, Autriche). L'action de l'Agence Européenne de Productivité a été un facteur essentiel dans la diffusion du mouvement au cours des dernières années;

on doit en particulier mentionner les Entretiens de Florence et la Conférence de Rome sur les Relations humaines dans l'Industrie (1956) 5 L'importance du mouvement varie certes d'un pays à l'autre; sans nul doute, les sociologues exercent, par exemple, une influence plus grande en Suède qu'en France.   Il faudrait également citer ici le Japon et Israel.

Au cours de ces dernières années enfin, le mouvement parti des Etats-Unis semble atteindre quelques autres pays: l'Italie, certains pays d'Amérique latine et d'Afrique et même, mais avec des préoccupations différentes, les pays de l'Europe de l'Est.   Il semble en effet que, dans des pays comme la Pologne par exemple, on prenne aujourd'hui conscience de ce que le régime économique ne fait pas disparaître les problèmes humains de l'industrie et qu'on se préoccupe de rechercher quelles solutions ont été apportées ailleurs à ces problèmes.

<p style="text-align:center">*   *   *</p>

Les différences qui s'observent de pays à pays dans l'influence que la sociologie exerce sur l'industrie se manifestent aussi dans la manière dont elle s'exerce.   Les facteurs qui rendent compte de ces différences sont nombreux.

L'influence de la sociologie dans un pays dépend de l'existence d'un effectif suffisant de sociologues.   A cet égard, il peut paraître significatif que la Pologne, qui a produit des sociologues de renom et qui leur doit une tradition sociologique, vienne, la première parmi les pays de l'Europe de l'Est, à la sociologie industrielle.

Encore faut-il que le contact entre sociologues et gens d'industrie soit effectivement établi.   Il faut que des sociologues soient ouverts aux questions industrielles et non pas, comme c'est fréquemment et normalement le cas dans les pays à prédominance rurale ou au début du processus d'industrialisation, préoccupés principalement par d'autres problèmes, considérés comme urgents.   Il faut aussi que le système des valeurs qui dirigent les sociologues n'apparaisse pas comme incompatible avec les conditions du milieu industriel.   Il faut que les hommes engagés dans la vie industrielle aient pris conscience de problèmes humains du milieu, qu'ils aient reconnu l'utilité d'un apport du travail sociologique et l'efficacité des solutions apportées aux problèmes humains par rapport à celles que l'on peut donner aux difficultés d'ordre technique ou commercial.

Ces simples indications témoignent de la dépendance du développement des applications industrielles de la sociologie à l'égard des structures sociales même depuis les éléments d'opinion jusqu'à l'existence des groupes de pression et au crédit des institutions scientifiques et administratives.

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2.   *Domaines d'influence de la sociologie et bases theoriques.*

Au lendemain de la dernière guerre, on ne définit pas encore claire-

ment les domaines d'intervention de la sociologie dans la vie industrielle. Les bases théoriques de la sociologie industrielle sont floues et mal assises. C'est l'époque où l'expression de " relations humaines " connaît un succès rapide.

En une quinzaine d'années, les domaines dans lesquels s'exerce l'influence de la sociologie se sont précisés, en même temps que les théories des sociologues voués à l'étude des faits de la vie industrielle.[6]

On va dire d'abord les divers domaines dans lesquels s'exerce l'influence de la sociologie. Ensuite on s'attachera plus particulièrement au domaine où l'influence de la sociologie apparaît des plus fortes à ce jour: la solution des problèmes humains des organisations.

<div align="center">*   *   *</div>

Il est courant de distinguer comme aires d'intervention de la sociologie dans l'industrie d'une part les problèmes propres aux organisations (entreprises et syndicats), d'autre part les problèmes de relations industrielles. On reprendra cette distinction en notant pourtant que dans ce cadre, il n'est pas aisé de ranger la contribution que constituent, sous leurs aspects sociologiques, les travaux des spécialistes de l'économie sociale, les travaux des " labor economists" etc.[7] Les praticiens de l'industrie—tant syndicalistes que dirigeants des entreprises—ont pu y trouver nombre d'informations. De même, il y aurait lieu d'ajouter les travaux relatifs à l'influence des faits de communauté sur la vie des entreprises ou des syndicats[8].

Les problèmes propres aux *organisations* ont reçu de la sociologie un éclairage tout particulier. On ne peut certes assimiler, à cet égard, les entreprises industrielles et les organisations syndicales. L'effort a été principalement concentré sur les premières. Au surplus, ce sont elles qui, en général, ont accueilli l'apport de la sociologie contemporaine avec le moins de réticence et qui ont le plus d'inclination à les transposer en termes d'action.

L'influence de la sociologie a principalement contribué ici à la solution des problèmes d'aménagement de l'organisation, de participation des travailleurs à l'organisation et de conduite des hommes dans l'organisation. Ce sont même ces problèmes qui, pense-t-on, ont été, par la sociologie, traités avec le plus d'acuité et de pénétration. On en reparlera plus loin. Mais il faut attacher aussi le plus grand intérêt aux études portant sur le changement dans les organisations et leurs répercussions dans la vie des entreprises. En dehors des expériences déjà citées d'Eliott Jaques ou de Floyd Mann, les interventions à caractère, disons, sociothérapiques, sont de plus en plus fréquentes dans les entreprises. Dans le prolongement de ces travaux, il y a place, en étroite relation avec toutes autres études sur le changement social, pour des développements théoriques, à peine amorcés à ce jour, sur la sociothérapie des entreprises et, plus généralement, de toutes organisations quelconques.

On ne peut pas affirmer qu'il y ait identité, en admettant même un décalage de temps entre les deux orientations, entre l'influence exercée par la sociologie sur la vie des entreprises et sur la vie des organisations syndicales. Sans doute certains auteurs se sont-ils efforcés de transposer, pour les syndicats, les résultats des travaux relatifs aux problèmes d'entreprise. D'autres ont proposé des théories de l'organisation par référence à toute organisation quelconque[9]. Mais les études sociologiques qui ont surtout retenu l'attention des syndicalistes sont des études empiriques—monographies syndicales, étude de l'influence exercée par un facteur déterminé sur tel aspect de la vie d'un syndicat, etc.—beaucoup moins préoccupées d'une élaboration théorique approfondie que de l'explication historique de situations du moment.

C'est également dans cette perspective que les problèmes de *relations industrielles* ont été abordés. Les études faites ont permis aux uns et aux autres de disposer d'éléments de fait recueillis systématiquement par un observateur moins impliqué dans l'action qu'ils ne le sont eux-mêmes. Elles ont aussi préparé la construction de modèles relatifs à l'analyse des facteurs sociologiques du marché du travail et des rapports collectifs[10].

* * *

Si l'on analyse particulièrement l'influence exercée par la sociologie dans la solution des problèmes humains des organisations, il importe de constater comment la connaissance sociologique a inspiré des manières nouvelles de procéder, qu'il s'agisse des problèmes d'aménagement de l'organisation, de participation des travailleurs à l'organisation ou de conduite des hommes dans l'entreprise. Il importe aussi de se demander comment l'efficacité des expériences dépend de conditions d'action sociologiquement définies.

* * *

Comme toute organisation, une entreprise consiste en un ensemble de personnes poursuivant en commun, chacune à sa façon mais de manière plus ou moins intégrée à l'action des autres, la réalisation des objectifs que s'assigne l'organisation.

Un des problèmes fondamentaux de l'entreprise est ainsi de créer les divers rôles nécessaires à la réalisation de ses objectifs et d'établir les interactions nécessaires à l'exercice efficace de chacun d'eux. La création des différents rôles appelle surtout l'intervention du technicien pour définir les fonctions. On notera pourtant dès l'abord que l'intervention du spécialiste des questions humaines pourra se révéler nécessaire, lorsqu'il s'agira de celles des fonctions dont l'objet même concerne les rapports humains dans l'entreprise. L'organisateur au sens classique du terme est préoccupé du regroupement et de la coordination des fonctions et, pour contribuer à la solution de ces problèmes, il cherche à définir ce que l'on considèrera comme principes d'organisation.

Malheureusement, quelque légitime que soit cette analyse au niveau où elle se place, le chef d'entreprise qui veut utiliser ces principes a tôt fait d'en éprouver la difficulté: l'étude des organisateurs classiques se meut au plan de la rationalité des agencements, l'action de l'industriel découvre des hommes vivant avec leur monde de représentations et d'attitudes, adoptant des comportements donnés selon leur personnalité et leurs multiples appartenances collectives[11]. C'est à la dimension des groupes sociaux que le sociologue porte l'analyse des faits d'organisation, en restituant les principes d'organisation dans le contexte essentiel des lois de la vie des groupes humains.

Ainsi, où faut-il articuler les pouvoirs de décision? On ne peut négliger que les faits d'interactions sont à l'origine de certains comportements et les expliquent pour une part au moins. La prise de décision va dépendre des interactions dans lesquelles se trouve engagé l'auteur de la décision. Au point de l'organisation que celui-ci occupe, la quantité d'informations qu'il détient peut être très différente de ce qu'elle serait à un autre point, etc. Ces faits mettent en évidence l'avantage qu'il y aura pour le chef d'entreprise, au point de vue des facteurs pris en considération ici, à situer le lieu d'une décision, même lourde de conséquences, non pas au lieu indiqué par une idée a priori d'importance hiérarchique, mais au lieu désigné par le réseau des communications effectives. Une Compagnie de Navigation Aérienne déléguera à un employé de rang subalterne le pouvoir de décider du départ des avions, parce que cet employé est par sa fonction en rapport avec le service météorologique, avec le service d'entretien technique, avec les services " passagers " et " bagages," etc.

Il faut aller plus loin. L'organisation doit franchir l'obstacle que peut être la personnalité de ceux qui la constituent. Dès lors, il devient souhaitable de trouver des formes d'organisation qui exercent ce qu'il faut de pression spontanée pour que les gens assument les rôles qui leur sont prescrits ou, tout au moins, qu'ils y soient inclinés[12]. La connaissance sociologique suggère au chef d'entreprise d'établir un système de communication qui développe les pressions nécessaires: circuit d'opérations entraînant l'exécution des tâches en un ensemble interdépendant, diffusion appropriée d'informations sur l'appréciation ou sur la sanction de l'exécution des tâches, diffusion d'informations sur une claire définition des rôles . . .

On comprend aisément que l'on parle d'une sociologie de l'organisation et que celle-ci permette aux praticiens de la vie industrielle de mieux analyser et de mieux résoudre les problèmes qu'ils ont en ce domaine.

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L'entreprise n'a pas simplement à définir des rôles et à établir un réseau de communication adéquat. Il importe que chacun, par l'accomplissement de sa fonction, exerce le plus efficacement son rôle et s'intègre au mieux à la réalisation des objectifs. On peut escompter

que les formes d'organisation développeront plus ou moins de pression organisée. Il reste pourtant une zone d'incertitude, à l'intérieur de laquelle l'élément déterminant sera la motivation de l'intéressé.

Ce fut un premier apport des études industrielles de vérifier combien l'accomplissement d'un rôle dans une organisation peut être influencé par la motivation. Le chef d'entreprise ne peut se contenter de cette constatation. Au contraire, il lui importe de savoir à quoi tiennent les motivations de son personnel et comment elles pourront être influencées dans le sens le plus favorable.

La réponse est cherchée dans plusieurs directions. D'aucuns construisent une théorie des besoins et de leur hiérarchie, dont le caractère simplificateur apparaît rapidement. On fait aussi intervenir l'hypothèse d'une différenciation individuelle de la hiérarchie des besoins selon le niveau de satisfaction de chacun de ceux-ci.

Il faut bien finir par admettre que l'explication ne peut éluder les faits de groupe. On n'entend pas seulement dire que, parmi les besoins des membres de l'organisation, il en est, et non des moindres, qui sont centrés sur la participation de l'intéressé aux groupes dont il fait partie (besoin de considération, etc...). Il faut souligner surtout que l'état de motivation des membres d'une organisation est déterminé, dans une grande mesure, par des besoins que précisément les facteurs de groupe conditionnent dans leur objet et dans le niveau d'aspiration de ceux qui les éprouvent. Il faut également souligner que l'état de motivation est déterminé par un état de satisfaction dont chacun apprécie le degré en se référant à des normes socialement définies. C'est encore un facteur de groupe que les représentations collectives concernant l'identification des moyens de satisfaction.

Des études de " moral " sont exécutées sur ces bases théoriques pour répondre aux questions des praticiens[13]. Plus malaisées sont les études du moral visant à fournir une vue synthétique de l'état du moral dans une organisation: le nombre des variables à prendre en considération est important, comme on vient de le voir, et, surtout, il faut le reconnaître, chacune n'a de signification véritable que saisie à travers le jeu complexe des conditions sociales.

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Les sciences humaines et, parmi elles, la sociologie, sont à même encore d'éclairer la solution des problèmes que pose la conduite des hommes. L'exercice du commandement requiert chez les chefs les comportements le plus capables de déterminer chez les exécutants des comportements correspondant aux rôles définis par l'organisation et produits dans les conditions de motivation les plus favorables. C'est par l'adoption d'un comportement approprié dans la conduite des hommes que la direction d'une entreprise, à travers l'organisation même, conduit l'ensemble humain à la réalisation de ses objectifs.

La connaissance sociologique et psychologique aide le chef d'entreprise à prendre conscience que le chef efficace n'est pas celui qui réunit des " qualités" déterminées, mais se reconnaît à un type de comportement dont on peut faire l'apprentissage. Les études sur le "leadership," l'analyse sociologique et psychologique de la relation sociale de commandement construisent les modèles des comportements à adopter et orientent l'apprentissage à faire. Les formes consultatives, co-opératives et personnalistes de l'autorité ne prennent pas seulement en considération les opérations à faire faire et leurs résultats, mais aussi les besoins des hommes dans l'exercice du rôle qui leur est imparti dans l'organisation[14].

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Comme en tout autre domaine, des actions inspirées par la connaissance sociologique ne sont pas assurées de réussir nécessairement et toujours. Des échecs ont parfois fait l'objet d'un contrôle rigoureux, et les observations faites ont permis de tenter une explication. Ici l'instauration d'un circuit d'opérations mieux défini a pour effet le plus clair de faire peser sur toutes les opérations de l'atelier le freinage pratiqué dans l'une des équipes de travail: cette équipe comprend les ouvriers qui ont le plus d'influence sur le personnel de l'atelier. Là, une politique destinée à augmenter la cohésion des groupes de travail finit, au lieu d'accroître la satisfaction du personnel, par faire naître des tensions entre les chefs d'équipes et leurs supérieurs: on n'a pas compris que le resserrement des liens entre les ouvriers d'une équipe comme entre ceux-ci et leur chef d'équipe pouvait contribuer à renforcer, chez ce dernier, un sentiment d'identification à ses ouvriers. Ailleurs un effort de " démocratisation " du style de commandement en vue de donner aux chefs une efficacité plus grande ne profite qu'à quelques-uns: on s'aperçoit que les ouvriers qui n'ont pas réagi à la modification intervenue sont des étrangers originaires d'un pays dont la tradition culturelle les a familiarisés avec les formes tranchées d'autorité[15].

Dans l'application des connaissances sociologiques à la vie industrielle, des conditions définies sont requises pour l'efficacité des actions. L'existence de telles conditions doit être reconnue par l'analyse sociologique et des précautions préalables sont à prendre en application des connaissances. Tout d'abord, si la voie est légitime qui n'envisage qu'un aspect du réel, qui ne considère celui-ci que sous une seule dimension, lorsqu'il s'agit de la démarche de l'homme de science préoccupé de connaître, par contre, l'action limitée à un seul aspect du réel est forcément inadéquate pour celui qui est préoccupé de provoquer un changement. Ce n'est que dans une opération mentale d'abstraction qu'on peut, dans la vie de l'entreprise, dissocier les communications de l'état des motivations, ou celui-ci des formes de commandement, etc.

Ensuite, autant il est souhaitable que l'homme de science tende à des généralisations prudentes, autant il est dangereux que l'homme

d'action s'empare de ces généralisations en négligeant les limites des hypothèses de leur validité.   Le praticien de la vie industrielle ne peut prétendre appliquer de telles généralisations sans avoir préalablement cherché à reconnaître la texture propre de son entreprise.

Enfin, tandis que l'homme de science est fondé à réserver son intérêt à un champ limité du réel et à considérer les données extérieures à ce champ comme des conditions d'hypothèse, l'homme d'action ne peut pas intervenir sans tenir compte de la dépendance de l'organisation à l'égard de tout son environnement, essentiellement à l'égard de tout le milieu socio-culturel. L'entreprise y est dépendante de faits tenant à l'existence d'autres groupes, comme le fait syndical ou l'édifice des institutions, à l'état de développement des techniques de production, aux attitudes et aux représentations inhérentes à la culture.

NOTES

[1] Une autre Section du Congrès doit débattre des applications de la sociologie aux problèmes de croissance économique des pays sous-développés.

[2] C'est à l'usine Hawthorne que Mayo a mené les travaux qui allaient donner son élan à la sociologie industrielle. La Glacier Metal Company vit les travaux d'Eliott Jaques et du groupe du Tavistock Institute de Londres. La Detroit Edison Company servit de cadre aux expériences de Floyd Mann sur le changement.

[3] Sur la recherche sociale appliquée, voir les articles de R. K. Merton, *The role of applied social science in the formation of policy: a research memorandum*, dans Philosphy of Science, 1949 (16), No. 3, p. 161 et de E. A. Shills, *Social science and social policy*, dans Philosphy of Science, 1949 (16), No. 3, p. 219.

[4] Voir le rapport du Dr Bradford à la Conférence de Rome: L. P. Bradford, *Human relations training*, dans Human Relations in Industry: Rome Conference (January-February 1956), Paris, O.E.C.E. Voir également St. E. Seashore, *The training of leaders for effective human relations*, dans R. Likert and S. Hayes junior, Some Applications of Behavioural Research, Paris, U.N.E.S.C.O., 1957.

[5] Voir R. Clémens et A. Massart, *Les relations humaines au cours du travail:* Les Entretiens de Florence (13-22 avril 1955), Paris, O.E.C.E., 1955 et R. Clémens, *Les relations humaines dans l'industrie:* Synthèse des Discussions de la Conférence de Rome (janvier-février 1956), Liège, Vaillant-Carmanne.

[6] On comparera avec intérêt la part réservée à la sociologie industrielle dans le récent traité publié sous la direction de M. Gurvitch (voir le chapitre rédigé par M. Friedmann et ses collaborateurs, dans G. Gurvitch, *Traité de Sociologie*, Paris, P.U.F., 1958) et celle que lui avait faite l'inventaire dressé par MM. Gurvitch et Moore en 1945 (G. Gurvitch and W. E. Moore, *Twentieth Century Sociology*, New York, 1945).

[7] Voir, par exemple, les travaux rapportés dans les ouvrages de E. W. Bakke, D. M. Hauser, G. L. Palmer, Ch. A. Myers, D. Yoder and C. Kerr, *Labor Mobility and Economic Opportunity*, New York, Wiley and Sons, 1954; G. L. Palmer, *Labor Mobility in six Cities*, New York, Social Science Research Council, 1954; et H. S. Parnes, *Research on Labor Mobility*, New York, Social Science Research Council, 1954.

[8] On pense ici aux travaux des sociologues préoccupés par l'étude de questions telles que celles des relations entre travail et loisir, entre travail et famille, . . .

[9] On verra notamment L. R. Sayles and G. Strauss, *The Local Union*, New York, Harper and Brothers, 1953.

[10] Qu'on pense ici aux travaux des C. Kerr, A. Siegel, W. E. Moore, Ch. A. Myers, Ch. R. Walker, E. W. Bakke, A. Kornhauser, R. Dubir, A. M. Ross, W. F. Whyte, L. R. Sayles, S. Barkin, F. H. Harbison, pour ne citer que des chercheurs américains.

[11] Voir J. G. March and H. A. Simon, *Organizations*, p. 34, New York, Wiley and Sons, 1958.

[12] Voir les tendances dégagées par M. Argyris dans l'inventaire qu'il a dressé, en 1954, des recherches sur les relations humaines dans l'industrie (C. Argyris, *The Present State of Research in Human Relations in Industry*, p. 17, New Haven, Labor and Management Center of Yale University, 1954).

[13] Les travaux de l'Industrial Relations Center de l'Université de Chicago représentent un effort particulièrement important en ce domaine. Il faut mentionner ici l'instrument mis au point, sous le nom de S.R.A. Employee Inventory, par M. Burns et ses collabotateurs (voir, à ce sujet, M. Crozier, *L'étude des problèmes de moral et d'organisation*, deuxième partie de l'article sur *"La recherche sociale dans l'industrie aux Etats-Unis"* para dans la *Revue Française du Travail*, 1958, No. 3, p. 1).

[14] On pense ici aux travaux de R. Lippitt, D. Katz, L. Coch, J. R. P. French junior, N. Maccoby, N. C. Morse, J. Levine, . . .

[15] Cfr les recherches citées, dans sa contribution à l'ouvrage récent édité par MM. Arensberg et autres, (p. 32), par M. Wilensky: H. L. Wilensky, *Human reations in the workplace*, dans C. M. Arensberg and others, *Research in Industrial Human Relations*, New York, Harper and Brothers, 1957.

Agriculture and Rural Life in an Industrializing Society

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In the provisional programme of the Fourth World Congress of Sociology discussion group (b) in Section II, *The Application of Sociological Knowledge*, is announced under the heading " *Agriculture*." At first sight it seems self-evident to list it so since under (a) " Industry " is mentioned. It indicates that the organizers of the congress had a similar interest in the sociological aspects of the two main branches of economic activity. Nevertheless, hardly any sociologist with a special interest in the people engaged in agriculture would be very happy if the discussions in group (b) really had to be restricted to demonstrable influences of sociology on agriculture. Perhaps there would hardly be any discussion at all in this case, while on the other hand the application of sociological knowledge to industry, even if restricted to the direct application, probably would give rise to a broad and profound debate. Industrial sociology is a well-defined, accepted, and rapidly developing branch of sociology, but agricultural sociology does not exist as a specialization in sociology. Those who have the workers in agriculture as their special field of study call themselves rural sociologists, and they refer to their subject as rural sociology. This clearly indicates that they see the scope of their branch of sociology as essentially different from that of industrial sociology. In principle, rural sociology is the study of a certain *part* of human society, industrial sociology of a certain *aspect* of another part of human society. Industrial sociologists do not study industrial society but a certain role of man in industrial society, his role as a member of the collectivity of the workers in an industrial undertaking. Rural sociologists study rural society as a whole.

In view of the history of rural sociology, this contrast might seem surprising. Rural sociology as a separate branch of sociology developed first in the United States of America, and its cradle was the Land-Grant Colleges, the institutions of higher learning in that country, which—at least originally—had as their main aim the education of young people in agriculture and mechanical engineering. It seems logical to expect that in such a technical setting the interest in sociology

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would have been restricted mainly to the problems of the rural popula-
tion as the labour force in agriculture and that, because of that, a kind
of sociology would have developed quite similar to industrial sociology.

It is a fact that from the beginning rural sociologists were interested
in more than socio-economic subjects only.   But it was not their lack
of interest in the economic aspects of human life that caused rural
sociology to develop quite so differently from industrial sociology.
Socio-economic problems are, and always have been given, much
attention in rural sociology.

The most important cause of the different development of the two
branches of sociology is that a special sociological study of the worker
in agriculture, restricted to his role as a member of the labour force
of a separate enterprise, makes—with few exceptions—no sense.   In
industrial sociology the relations among members of the labour force
in the factory or office, their interactions as such, are the problem to
be studied.   Of course, social relations within the institution are in-
fluenced by the local and general characteristics of the broader society
outside factory and office, and one may even ask whether in industrial
sociology sufficient attention is always paid to these external conditions.
But it cannot be denied that the internal structure and the functions of
the industrial labour force and its sub-groups constitute a field of
sociological study of its own.   In many cases the social conditions in
the outside world can be considered a kind of neutral background which
has no specific influence on the situation in the factory in question.

In the study of rural workers the circumstances are different.   First
of all, most agriculture takes place in—as compared with modern
industry—small or very small enterprises.   There are exceptions, of
course.   Plantations and other forms of large-scale agriculture in some
tropical and sub-tropical areas in the non-Communist world, and col-
lective and government farms in Communist countries, often have a
sizable labour force, and they may develop problems somewhat similar
to those studied by industrial sociologists.   But except for a few soci-
ologists working in the field of the sociology of plantations, rural
sociologists in non-Communist countries have been interested almost
exclusively in farmers and peasants with few or no hired labourers.*

In most cases, therefore, the workers on a separate farm hardly
constitute as such a problem for the sociologist.   The special charac-
teristics of interactions and relations among workers on one particular
farm, in their role as members of the labour force, would seldom
offer the possibility of drawing any sociological conclusions of im-
portance.   Most differences of this kind between two farms could
be studied more fruitfully by a psychologist than by a sociologist.

* The literature available to the author gives hardly any information concerning
the possible sociological studies of social relations within the labour force of the
collective and government farms in Communist countries.

For this reason alone the rural sociologist who wants to analyse the social aspects of the rural labour force will study the labour force not of one farm but of a group of farms. He will try, of course, to choose a group of farms and a group of workers belonging to a social entity of a higher order, for example to the same rural community, so that he can study them in their general social context.

But there are other reasons why the sociologist who wants to analyse the rural labour force has to study it in the setting of rural social life as a whole. As mentioned before, the industrial sociologist often can or even must study the labour force of one certain industrial enterprise more or less separated from its social background. This segregation is impossible in the study of the rural labour force. Especially in larger towns and cities, those who work together in one factory or office have few or no face-to-face contacts outside the building where they meet during working hours. People of different income groups working for the same concern ordinarily live in different parts of the city and its surroundings. Even the homes of those who belong to the same social stratum are so dispersed that they usually meet for the first time when they join the labour force of the same factory, and afterwards their contacts are limited to working hours. They do not enter the factory influenced by a prior history of personal relations with their fellow-workers. The broader society influences the social relationships inside the factory only in so far as it creates the general social setting which affects in a general and abstract way the interaction of different categories of workers, but hardly the personal relations between individual workers.

In the countryside, on the other hand, the social relations among members of the labour force are almost always strongly influenced by personal relations outside their work. This is so, first of all, because in non-Communist countries the great majority of the farms are family farms, in the sense that they depend for labour supply completely or almost completely on members of the family living on the farm. In many countries, moreover, hired labour in agriculture still consists to an important—though decreasing—degree of farmhands and maids living in and taking part in the farmer's family life. In these cases, relations among members of the labour force are one aspect of family relations, and they can be studied only in this context. For the reason already mentioned, the sociologist will hardly be interested in the life of one family; he will be inclined to study family life in a rural community as a whole.

The hired labour force living off the farm in a nearby village, as is usual in Western Europe, have lived in close personal contact during their whole life, both with one another and to a great degree with their farmer-employer. They attended the same local school, they played together and fought together and went to the same church. So when

they meet each other as members of the same labour force, their relations and interactions will always be coloured by their prior personal contacts in the rural community. This means again that to understand the real value and the real meaning of the relations among workers in agriculture as such, one has to study them in the context of the social relations in the community as a whole.

The fact that all who belong to the agricultural labour force usually live in the same community and in relatively close personal contact means, finally, that a strong social control will exist. Thus, the attitudes and values embedded in the culture of the local group will be clearly expressed also in the relations among the members of the community in their roles as employers and hired workers. Relations among persons working on the same farm are shaped much more than among those working for a certain factory by the mores, the traditions, the beliefs, and the opinions that characterize the life of the community as a whole. This also indicates that in the study of rural social relations the role as agricultural workers cannot be separated from the structure and the culture of the rural community in general.

So we come to the following conclusions. First: in contra-distinction to industry, the individual enterprise in agriculture—the farm—is usually so small that the social relations of the labour force of any single unit do not constitute an attractive subject for sociological study. Second: relations among rural people as workers in agriculture are generally so strongly interwoven with the social relations in the rural community as a whole that it is almost impossible to study the relations and interactions among workers in agriculture except in the context of the structure and the culture of the rural community as a whole.

Thus, even though rural sociologists often work in close association with persons whose main concern is to increase agricultural productivity, an agricultural sociology more or less comparable with industrial sociology has never developed. Though many rural sociologists, probably most, have a strong interest in the economic aspects of rural life, they all feel that the characteristics of their general subject, rural society, do not permit too narrow a specialization. This does not mean, of course, that no rural sociologists specialize at all. But consciously or unconsciously they feel, I believe, that their branch of sociology has to cover the whole of rural social life and that specialization should not go too far, for in rural life the social roles the individual plays are far more interdependent than in the non-rural world.

Another difference between rural and industrial sociology, which may be explained by the foregoing, is in the relation between research and its application. Research in industrial sociology is often applied directly in industry. Industrial enterprises employ sociologists in order to use the results of their studies to change the organization of their labour force and the attitudes of their workers so that the factory or office will function better.

Though probably most rural sociological research can be classified as practical rather than theoretical, the findings of rural sociology are seldom applied to the rural population in the same sense as those of industrial sociology to workers in industry. Since the rural sociolo-gist almost never studies a separate farm but rather the farms and the population of a rural community as a whole, his conclusions are likely to be general and thus not directly applicable to the conditions on individual farms. This general character of rural sociologists' findings means that there is no manager or managing body, as in an industrial enterprise, with the power to decide whether they will be put into prac-tice. Even if the findings are directly applicable, it ordinarily requires a long period of education before the rural population as a whole is willing to accept them. Moreover, since the conclusions are general, concerning possible changes in the cultural and structural characteristics of the rural population as a whole, this education must also be of a general character. In most cases, thus, it is rather difficult to distinguish the effects of education based on a sociologist's findings from those of education in general or from spontaneous change in rural society. Such education, finally, is not ordinarily undertaken by the rural sociologist himself, but by teachers in agricultural and other schools, by agricultural advisers, by farmers unions, and by all the other clubs and associations that function in rural education in the widest sense. Thus, even though rural sociology laid a base for the evaluation of activities on behalf of the rural population and in particular of agri-cultural extension methods, there is little in rural sociology by which one can evaluate how its own findings affect the behaviour of a rural population.

This rather long introduction may not be quite superfluous: rural sociologists often find that the character and scope of their discipline is not always clear even to other sociologists. It may help in under-standing the character of the papers written to serve as a basis for discussion in group (b) of Section II. These cover in various ways the most different aspects of rural society, so that at first sight one might be inclined to think them rather heterogeneous. They all belong to applied science in the sense that most of them are concerned with problems of practical importance, but not in the sense that the authors try to find direct solutions. If they will help solve practical problems, it is by educating the people who will educate the rural population. As I have indicated, that is the usual way that—we hope—rural soci-ological research influences rural society.

The great variety of the contributions we can consider to be a con-sequence of the general character of rural sociology. It follows from the foregoing remarks that one can expect that papers on rural sociology, whether applied or not, will show a unity as to their subject only in so far as they all deal with rural life.

However, these papers, or most of them, constitute a unity also because of the similar situation of the countryside in the different parts of the world. Even when the concrete subject differed in this respect, the background to the research of almost all the contributors was similar.

This parallel social situation is that of rural life and agriculture in an industrial society or at least one undergoing industrialization. It can hardly be denied, I think, that problems posed by rural sociologists are for the greater part essentially concerned with the position of agriculture and rural society in a world increasingly influenced by industry; one could even argue that without this general problem rural sociology would not exist.

This fundamental problem in rural life has affected the development of rural sociology, though in a different way, both in the so-called underdeveloped countries and in those with a high degree of industrialization. Already in the 19th century the development of modern industry in Western Europe and America caused an important change in agriculture and rural life in the non-Western areas. Because of the great demand in the West for agricultural raw materials, the indigenous agriculture was changed, often by force, from subsistence agriculture to one producing at least partly for the market, while the plantation system continuously developed. The importation of Western industrial products stimulated new economic wants among the peasants, and to satisfy them they needed ready money and therefore also began to grow cash crops, while the imported goods often superseded the products of rural industry. Most of the serious disturbances in rural life in many non-Western areas caused by the industrialization of the West are still not solved, and today constitute the subject of many sociological studies.

At the present time most underdeveloped countries are trying to industrialize rapidly, both to offset the great population growth in most of these countries and to increase their economic and political power. This industrialization will mean a further change of agriculture and rural society. The most essential conditions for industrialization are food for industrial workers and capital. A country that wants to start industrialization cannot tolerate a subsistence agriculture. The production of food must be increased so that part of it can be sold on the market. The capital not supplied by other countries can be created only by the producton of an agricultural surplus with which capital goods for industry can be paid for. The drive to increase agricultural production in the underdeveloped countries, thus, is not only to benefit the agricultural worker but to lay a basis for industry. In underdeveloped countries also, therefore, industrialization is, directly and indirectly, the most important cause of social change in the countryside, and this social change, again, is the most important

reason why rural social research needs to be developed in these countries.   In the following survey of the papers submitted for discussion, I shall try to emphasize the relation between the special subject of each paper and this general problem of rural life and agriculture in a world undergoing industrialization.   In this way we can perhaps find a general starting point for discussion.

From this point of view, *Dr. Kotter's* paper on *the application of sociological research in agriculture* could almost serve as a general introduction.   He explicitly cites the problem of agriculture and rural life in an industrial society as the most significant issue for rural sociological research, and he shows by a number of examples how the most important problems for the rural sociologist originate in this relation.   Kötter discusses at length the question that still often, especially in Western Europe, leads to heated disputes among those interested in the future of rural life—whether rural and urban culture and social life are and have to be essentially different.   Kötter comes to the conclusion—in my opinion the correct one—that differences between town and countryside are not essential.   In fact, both are subject to the same social and cultural forces, though the countryside may sometimes lag considerably in developing culture traits that already dominate most of modern Western society.   For American rural sociologists this conclusion will hardly be surprising, though in Europe not everyone will agree with Kötter.

In a way *Mendras' comprehensive analysis of the spread of progress in agriculture* could also serve as a general introduction to the subject of rural life in an industrializing society.   But while Kötter emphasizes that social change in rural life is necessary in modern society, Mendras points out the difficulties accompanying this change, especially for the small farmer.   On the basis of research he did in France and in Greece, he shows that the small farmer often views change in agriculture and social life as possibly beneficial to the rich farmers, the big ones, but only detrimental to him, perhaps the cause of his ruin.   Many see progress, change, as a new means of oppression that " they," the mighty ones, the big bosses, have invented.   He demonstrates that the culture and structure of rural society often stand in the way of social and technological change.   The agents of the agricultural advisory services, he remarks, must understand that the technical change they are trying to promote is only one element of a more general integration of the traditional rural civilization with modern technical civilization.

In his paper, *Odd Grande* discusses *the sociological aspects of agricultural co-operatives.*   He emphasizes that a sociological point of view as well as that of an economist is needed to understand these institutions, which have become of primary importance for the agriculture of so many countries.   Co-operatives, Grande points out, have been an important object of study by rural sociologists in Europe as well as in America.

The study of the co-operatives, it seems to me, can also be seen in the context of the general problem of agriculture and rural society in an industrial world. Co-operatives can be considered a kind of economic auxiliary to adapt agricultural production to the demands of an industrial society. Agricultural production takes place predominantly in family farms, and thus in small enterprises. This small-scale production fitted in well with the economic structure as a whole when its non-agricultural sector still consisted of handicrafts and small business and when, parallel with production, consumption was also organized on a small scale. But industrialization has changed the scale of all economic life. Modern industry means not only mass production but also the mass consumption of raw materials and the mass sale of commodities. For reasons that need not be discussed here, in the non-Communist countries the development of mass production in industry was not accompanied by the development of larger agricultural enterprises. On the contrary, in both North America and Western Europe, the family farm in the industrial age strengthened its position relative to one based on the use of hired labour. Nevertheless, modern industry demanded mass quantities of raw materials of a uniform quality, and the modern market also demanded from the agricultural producer mass quantities of foodstuffs for direct consumption. On the other hand, modern industry wants to sell in wholesale lots all the products the farmer needs, such as fertilizers, machinery, insecticides, etc. If the farmer depends on all kinds of middlemen to transact business between himself and both modern industry and the mass market, it means that he will sell cheaply and buy dearly. He cannot trust the commission-agent and the urban dealer, as once he could trust the local craftsman with whom he had a personal, face-to-face relation. This is where co-operatives come in. By collecting, processing, grading, and packing, the produce of the individual farm, co-operatives adapted its small-scale production to the demand for mass production of a uniform quality. On the other hand, they combined the small purchases of individual farmers into mass purchases and made a direct contact possible between the farmers as a group and an industrial producer. At the same time, they " tamed " the middlemen for those farmers who preferred not to join the co-operatives.

Modern industry, one may say, forced the farmers to develop co-operatives as a new system of social organization, and all the sociological problems they offer are in fact only part of the general problem of agriculture and rural life in an industrial world.

Migration, discussed in *J. Allan Beegle's* paper, " *Social Components in the Decision to Migrate,*" is for obvious reasons one of the favoured subjects of rural sociology. Apart from the interesting combination of concepts that the author uses to clarify the process of decision-making in relation to migration (" satisfactions," " social costs," and " aspirations "), the paper has a special value in that migration is analysed as

an aspect of social life, and not primarily of the economic, in the community of the out-migration. As the author points out, there are many studies of the social and psychological problems in the migrants' new environment, but few of those in his community of origin. It is hardly necessary to emphasize the strong relation between out-migration from rural areas and industrialization. The development of industry not only attracted rural people to the cities and other industrialized areas, but in a great part of the Western world it probably even effected essential changes in rural patterns of marriage and reproduction. Before the development of modern industry almost all countries of Western Europe had institutional patterns by which some balance was maintained between the rural population and its means of subsistence The systems differed in detail but in all a marriage was inhibited or prevented until the man was sure of a living for his future family, either from a farm or from a fixed position as a farm labourer. As a result people married late and many did not marry at all, so that even if birth control did not yet exist, the birth rate was relatively low.

When modern industry begins to develop, this pressure is eased. Those who cannot establish themselves in agriculture find an outlet in industry, so that a higher percentage of those who remain on the farm can marry. Wherever industrialization develops, thus, the percentage of unmarried people in the countryside declines even where marital fertility remains rather high. In most of Western Europe such systems of maintaining a balance between means of subsistence and population are now disappearing. In the rural population the opinion is becoming more and more general that it is normal to marry, and even to marry at not too high an age. Of course, one reason for this new attitude towards marriage is the spread of birth control to the countryside; it offered a new means of adjusting the number of farmers' sons to the number of farms available. But almost everywhere in Western Europe the rural population still shows a natural increase and in many districts even a large one. At the same time, especially after the Second World War, there has been in both Western Europe and the United States a decrease in the number of gainfully occupied in agriculture. Without the outlets in industry, it would be necessary even now to maintain such a system to keep the balance between the number of openings in the economy and the population. Interestingly, apart from some areas of minor importance, Ireland is the major instance of a country that has hardly experienced this change. In Ireland, industrialization is still in its beginning phase and leaving agriculture in most cases means emigration. Here marrying late or not at all is still a normal means of adjusting population growth to the limited number of openings in agriculture.

That out-migration has become a very important aspect of social life in the countryside is emphasized by *Haller*, who begins his paper on *the occupational achievement process of farm-reared youth in urban-*

industrial societies as follows: " One of the great problems of our age concerns the remoulding of agricultural populations into effective urban work forces." Do persons of rural origin become effective urban workers, Haller asks, and if not, why are they not successful in this respect? The—insufficient—data indicate that the farm-reared person generally enters the urban labour force at a low level and stays there. Haller cites Lipset's explanation of these data: rural areas have poorer educational facilities and a more limited occupational differentiation, effecting a low level of educational and occupational aspiration; the low level of aspiration causes a low level of achievement of farm-reared people in the urban labour force. Previous research has validated one part of Lipset's hypothesis, namely, that there is a relation between the low educational and occupational aspiration and the poor achievement, but not that part ascribing the low level of aspiration to the limited educational facilities and occupational differentiation. In the present paper Haller reports on a study of farm boys in a county near Detroit with abundant educational facilities and a great occupational differentiation. Those who planned to farm and those who did not were carefully compared with respect to their personality, social background, and educational and occupational orientation. His—preliminary—conclusion is that the normal expectation of a farm boy is that he will be a farmer, so that " he will fail to perceive the objective requirements for success in the non-farm world even though he is being presented with them in a casual way almost daily. If, on the other hand, this expectation is disturbed, and he begins to visualize himself as a non-farmer, he will utilize the occupational success information presented to him." In that case his level of educational and occupational aspiration will rise, and his achievements also. But many farm boys originally plan to farm, change their plans rather late when conditions compel them to do so, and they enter the urban labour force at the lower levels and mostly remain there.

I give this short summary of Haller's important paper without comment. That it originates in the problems of rural life in an industrial world is clear.

Bose's study of *the characteristics of farmers who adopt recommended practices* is a very interesting example in an " underdeveloped " country of a type of investigation more or less " classic " in American rural sociology and since 1945 carried out in Western Europe (France, the Netherlands) also. The research in America and Europe has shown that the progressive-backward polarity in agriculture is highly correlated with the farmers' social characteristics, so that when agricultural productivity and income have to be increased, this means that many of the attitudes and values of the farmers have to change. Bose's study shows essentially the same results, but the situation in a country like India seems to be more complicated. Factors that have been shown to be important in Western countries, such as participation in com-

munity activities, are significant there as well, but also the position of the peasant in the caste system and whether he is literate.

We have already mentioned that in the so-called underdeveloped countries the improvement of agriculture not only benefits workers in agriculture but is also a *conditio sine qua non* for the development of industry, so that research like that of Bose is certainly related to agriculture in a world undergoing industrialization.

In the West, furnishing the food supply of the industrial labourer is hardly any longer a problem and agricultural surpluses do not now provide the capital for industrial expansion.   In these countries, that is to say, neither the wish to increase agricultural production itself, nor sociological research conducted in order to bring about such an increase can be considered related directly to industrialization.   But there seems to be an indirect relation.   Today the major concern of the Western governments perhaps is less the income of the agricultural workers as such than the ratio between this and the income of those working in non-agricultural occupations.   Fifty years ago, when the real income of agriculturists was definitely lower than it is today, this gave the governments fewer problems than it does now.   Industrialization and the relative decline of the rural population made urban life " normal " and rural life " abnormal," and with the development of education and modern means of transportation and communications the farming population was made aware of the discrepancy between rural and urban incomes.   Thus, almost all Western governments try to keep a certain balance between agricultural and non-agricultural incomes, for social and political rather than economic reasons.   Unlike underdeveloped countries, they are not trying primarily to increase the total agricultural production—more and more Western countries must cope with agricultural over-production—but to increase the production *per capita* of the agricultural population, so that its income can keep pace with that of non-agricultural sectors.   That is, even when it is not important in economic terms to increase agricultural production in order to facilitate industrialization, the social situation created by this industrialization imposes a policy that effects such an increase.   In such a situation sociological research on the factors in agricultural productivity becomes especially important.

Dr. *Hirsch*, in his paper on *the use and interpretation of quantitative data in the study of rural settlements*, proposes to give community studies a new comparative basis.   By a quantitative analysis of a number of communities, he wants to establish a typology of settlements according to their functions.   Starting from this typology certain anthropological techniques could reveal the qualitative aspects of community life not only of a particular settlement under study, but to a certain extent also of other communities of the same functional type.

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Certainly community studies constitute one of the weakest areas in sociological research in terms of both methodology and theory. Some years ago, an international conference in Europe devoted to the problem of community studies revealed such serious shortcomings in defining their essential scientific aims that a witty—female—sociologist characterized it as: " Eighty sociologists in search of aprob lem." Nevertheless, community studies are among the most important practical activities of sociologists, and particularly of rural sociologists, especially since they are needed as a basis for effective physical planning. It is no accident, then, that Hirsch, who has a good deal of experience with research for country planning in Great Britain, wrote this contribution to community research.

It is clear that industrialization is related to country planning and so also to community studies as a basis for such planning. As long as rural life was based on agriculture and especially traditional agriculture, there was not much to plan. Social and economic life hardly changed in quantity and quality, nor did its physical equipment. It is industrialization that initiated the change—first, because industries were established in the countryside and, second, because an increasing number of urban workers prefer to live in the countryside. Both changes brought about a rapid increase of the rural population, and thus also a fundamental transformation in the physical equipment of rural life. After many unhappy experiences in the 19th century and the beginning of this century, it became clear that only deliberate planning could solve the problems associated with this change in the countryside. It is only during the last few years that planners have begun to pay attention also to those parts of the countryside not yet directly influenced by industrialization. Insofar as this is a response to a real need, it could be easily demonstrated that most of this need originates in the changes in rural life and agriculture indirectly caused by industrialization.

Those familiar with the literature of rural sociology know that *T. Lynn Smith*, perhaps more than other rural sociologists, has specialized in land division and problems related to it. In his paper on *social aspects of land survey and titles in Colombia*, the author describes how most land titles in that country are still based on the antiquated system of surveying introduced by the Spaniards, so that titles are defective, boundaries are vague and partly non-existent, and the relation of plots of land to roads, rivers, and the general topography is often unsatisfactory. He points out how this system—or, perhaps better, lack of system—leads to endless quarrels and law suits, and in general seriously frustrates social and economic life.

Perhaps the relation between industrialization and the systems of land surveying and land division is not obvious, yet for ages and ages everywhere in the world, traditional agriculture got along with simple

and defective systems until at the eve of modern industrial development in the West, the end of the 18th century and the beginning of the 19th the need for exact land surveying was felt.   The rationality and exactitude characteristic of modern business and particularly modern industry apparently inspired the governments when they introduced the new surveying methods, sometimes in spite of the resistance of the rural population.   Interestingly, Smith notes that the land in Colombia used by foreign fruit companies or oil companies was surveyed in a modern way.

For rural sociologists, the importance of the study of systems of land division is closely related to the increase in agricultural productivity and the consequent greater significance of the farm's layout. Many countries have completed big reallotment projects during the last few decades, and still bigger schemes are planned for the future. As a consequence old systems of land division were compared with possible new ones from the point of view of their influence on social and economic development.   Careful studies of the possible land division were also made for big reclamation projects, as in the Columbia River Basin in the United States and the Zuiderzee polder in the Netherlands.   The study of land division by rural sociologists led to the rejection of the famous American checker-board system of land division in the Columbia River Basin.   How this striving to increase productivity is related to the present position of the agricultural population in an industrial world has already been pointed out.

All of the papers mentioned so far had to do with rural sociological research in non-Communist countries.   Those of Tepicht and of Pohoski and Sianko refer to present-day Poland.   *Tepicht's* paper on *sociological research in relation to a social transformation* informs us on the research in relation to the transformation of Polish agriculture into a collective form.   He mentions three subjects of study: (1) change in the social structure of the rural population, (2) evolution of the collectivist " model " in agriculture, (3) " bridges " acceptable to peasants between the individual and collectivist modes of agricultural production.   Most of the paper is devoted to these " bridges," which comprise any kind of joint activities on the village level, such as machinery, tractors, bulls, etc., used in common, as well as mutual help, collective renting of pastures, even collective small-scale industrial activities like the manufacture of bricks.   Most but not all of these activities are under the auspices of " circles of agriculturists," village associations of peasants.   Not every peasant is a member of the " circle " of his village, and not every member takes part in activities sponsored by the circle.

It is difficult on the basis of a rather short paper to judge the incidence and importance of such joint activities.   The careful study of these circles, according to Tepicht, is just beginning.   One gets the impression, however, that the kind of joint activities engaged in by the

Polish peasantry is not essentially different from their counterparts in non-Communist countries. The collective purchase and use of machinery, for example, is the small farmers' normal reaction to the necessity for the greater capital investments in agriculture that have accompanied industrialization. On the other hand, some of the other joint activities mentioned in the paper, such as the small-scale manufacture of bricks, give one the impression of remnants from precapitalist production in the Polish countryside.

That the Polish rural population is now influenced by industrialization is clearly demonstrated by the paper of *Pohoski* and *Sianko*, on the *preference the Polish rural population shows as to the future professions of their children*. A study of this kind is in itself a symptom of a society undergoing industrialization. Where no outlet is anticipated for the rural population in industry and related professions, it would make no sense to investigate peasants' preferences among various occupations. The answers of the parents show that they are conscious of the possibilities offered by a society being industrialized. The percentage of those who would like their children to remain in agriculture is relatively low even among farmers in the strict sense. There is a strong interest in non-manual labour, especially engineering. Those who want their children to be manual workers prefer skilled " technical " jobs. The rather strong interest in various crafts may perhaps be considered a residue of the pre-industrial phase in the Polish economy. On the whole, the data give the impression that rural people in Poland are well aware of the industrialization of the country and that they are highly interested in careers in industry for their children.

The paper of *Moss* and *Cappannari* was intentionally reserved for the last place in this survey. Again and again in the foregoing, the emphasis was that the rural population of a society undergoing industrialization has to face social change. The problem that Moss and Cappanari consider is social changes as such or, better perhaps, the fundamental unwillingness or inability of certain rural populations to accept social change. They investigated an Italian village south of Rome, where in spite of several conditions apparently favourable to change, social life seemed to be almost immobile. As they state in the introduction to their paper: " There is seemingly a tacit assumption on the part of some Western sociologists and anthropologists that possession of sociological knowledge on the part of laymen can be translated into application for promotion of planned social change. Certainly, evidence exists to support this view based on experience encountered by applied social scientists working in various parts of the world. It is our thesis, however, that there is no necessary and attendant relationship between possession of sociological knowledge and its utilization for promotion of social action and social change. Rather our field experiences lead us to believe that many preconditions must

exist before a social scientific community study can have an impact upon the population studied."

Few European sociologists ever assumed, I think, that sociological knowledge, if only used rightly, would more or less guarantee social change in a certain direction. This is true only when an essential willingness exists to welcome social change, a state that does not prevail everywhere even in the United States, the country with perhaps the greatest propensity to social change. Studies by American rural sociologists of the spread of new farm practices, for example, indicate considerable differences among American farmers in their readiness to accept change. European rural sociologists also, not to speak of those working in the so-called underdeveloped countries, often meet in their investigations individuals, sub-groups, and even whole communities and regions which seem impervious to social change.

On the other hand, one cannot assume that this Italian case is characteristic of Europe, or even of Italy, as the authors seem to when they state that " we need first develop adequate theoretical models for European peasantry." In almost every country of Europe, thousands of peasants are willing and even eager to accept social and technological change. Nevertheless, the resistance to change, deeply rooted among parts of the rural population, everywhere, in Europe and outside it, is one obstacle to the government's policy of modernizing agriculture and rural life. Sometimes this resistance is baffling—as, for example, in some parts of Ireland, where all efforts to bring about a change in agriculture and in the way of life of the rural population seem to be foredoomed to failure.

Studies of why certain individuals and groups are willing to accept social change and why others are not, it seems to me, is of great importance to applied rural sociology. Such studies might reveal what general conditions cause this resistance to change and how these general conditions might themselves be altered. Then direct activities in various communities and sub-groups, based on an adequate knowledge of their specific conditions of life and needs, might be more successful. Changing these general conditions will probably often be rather difficult. One reasonable hypothesis, for example, is that stubborn resistance to change is often based on a deeply rooted distrust of everything coming from the outside, a distrust based on past or present bad government and bad public morals in general. To restore trust under such conditions demands patience.

But one must try to understand these fundamental obstacles to change and to remove them, for in a society undergoing industrialization— and today that means in fact in the whole world—change in agriculture and in rural society is a *conditio sine qua non* to continued existence.
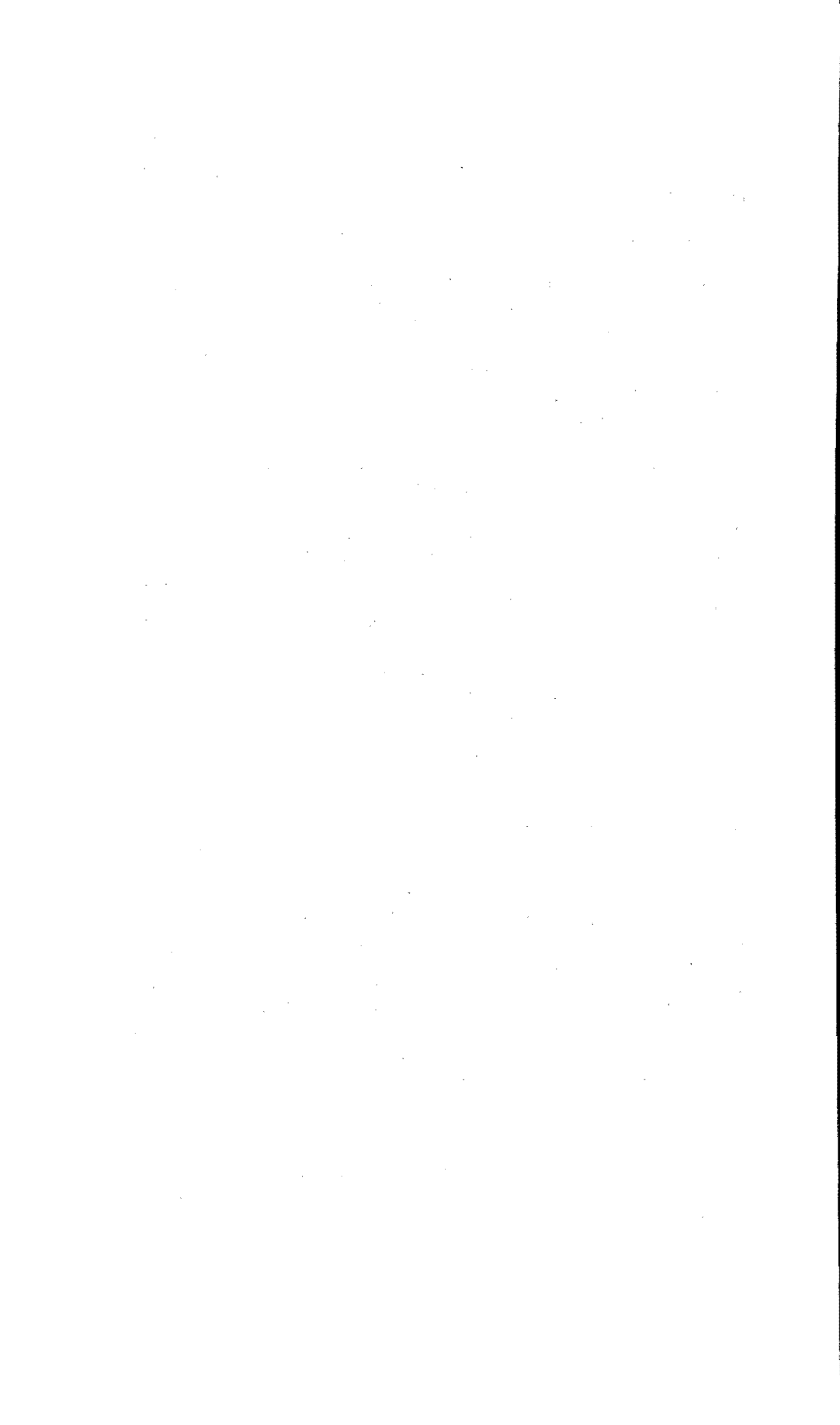
Principles and Problems in the

Sociology of Education

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The sociology of education has had a chequered history since its first promising beginnings at the turn of the present century, when Durkheim gave his remarkable lectures on the subject, Lester Ward expounded his theory of the role of education in social development and progress, and Dewey in his immensely influential *School and Society*, offered one of the first studies of the school as a social institution.

Durkheim's programme for the systematic study of education as a social institution issued, in France, in nothing more than an abortive attempt in the early 1920's to introduce sociology into the training of teachers and educational administrators. In America, pragmatism resulted in a considerable but unusually diffuse and heterogeneous literature, generally classed under the now discredited rubric " educational sociology " and recently subject to close scrutiny and criticism by a new generation of professional sociologists[1]. Very promising developments in Germany in the twenties and thirties were extinguished by Nazism. And in England, where the study of education by sociologists was a by-product of their interest in social stratification and social biology, the work, though of good quality, was restricted in scope.

However, there are signs today of a marked upward swing in the fortunes of this branch of sociological studies. The Second World War interrupted developments everywhere, but the role of education has been so enhanced by subsequent technical and economic developments, and public interest in education has been so heightened, that sociologists are applying themselves with new vigour and, it may be, in a more rigorous spirit than formerly, to the study of education as a social institution.

Admittedly, the position in France is little changed. Demographers have paid some attention to social factors in educational selection at the end of the primary school course; economists have shown some

interest in the relations between the educational system and the supply of manpower; there has been some work on the social characteristics of the teaching profession; and sociologists working on problems of leisure have paid attention to the changing social functions of adult education. But Durkheim's legacy has been almost wholly neglected in the field of education, as was strikingly indicated recently when the Centre d'Etudes Sociologiques made arrangements to commemorate the centenary of his birth with a programme of lectures and courses of study which contained no reference to education or to Durkheim's interest in this field of study.

In Germany, however, the position is very much more promising. The long-standing tradition of interest in social biology continues to give rise to interesting and controversial work on social environment and educability. A major contribution to the sociology of the universities has already appeared from Göttingen and further related investigations are under way there and at other centres. Solid work has been done on the teaching profession; and on public attitudes to education, with special reference to problems of adult education. Moreover, it is noticeable that interest in the sociology of education is not confined in Germany to the marginal men of sociology, or to those focussing their attention directly on educational processes and institutions. Thus, Professor Schelsky derived an illuminating analysis of the social role of the school in contemporary Germany from work on problems of urban and family sociology. The German Sociological Association is actively interested in promoting the development of a systematic sociology of education; and a department of sociology has recently been established in the Hochschule für Internationale Pedagögische Forschung.

In England, problems of social biology and the part played by education in social stratification and mobility remain the framework in which the greater part of work in the sociology of education is undertaken. The highly selective character of the English educational system makes enquiry into these problems especially relevant and rewarding. There is also a growing interest in the sociology of the school, although the greater part of the work so far has been social-psychological in conception as well as in method.

In Belgium interesting work along very similar lines to those in England is accumulating fast, under the auspices in particular of the Institut Solvay. And the beginnings of a similar development are discernible in Switzerland.

Although little news of work in the countries of Eastern Europe reaches us here in the West, it seems more than probable that students of society are being stimulated there, as in Latin America and Japan of which we do have news, to take an interest in education as a social

institution and its response to the new pressures and demands thrown up by rapid social and economic change.

In the United States, source of the greater part of all sociological literature on education, the last decade has seen, not only a freshening of interest in this field of study, but very vocal demands for a more rigorous approach to it.   There have been rumblings of protest since the thirties against the inspiration, technique and tenor of much work styling itself " educational sociology."   But only recently has a small group of professional sociologists with purist intentions begun both to voice radical criticism of the prevailing tradition and to produce examples of work along what they consider appropriate lines.   They raise important matters of principle which are worth our attention at this Congress.   Broadly speaking, they are concerned to be " more sociological than educational " in their work, to be sociologists of education rather than " educational sociologists"; systematic students of educational processes and institutions along disciplined sociological lines, rather than sociologists applying their skills to educational problems.

Two strands of thought seem to underlie this fresh approach: one is the idea that educational institutions offer a ready-made laboratory for the investigation of small-group relations, theories of business organization, communication systems, etc.; and the other is the desire to analyse educational institutions in a consistent theoretical framework, preferably in structural-functional terms.

We shall return to this latter, more weighty, point shortly.   It is worth first remarking briefly on the revulsion from the tradition of " educational sociology " as a branch of applied general sociology.

We shall not get very far in understanding the sociology of education if we treat schools and universities merely as ready-made laboratories for work on the structure of small groups, or communication theory. It is true that an understanding of such matters is valuable in the sociology of education, and that the social psychologist will have recourse to educational groups for his work.   But it is the job of the sociologist of education to make a direct attack on his special problems, using what help he can get from work in other fields; and it is doubtful whether he should make it a primary object of his work to develop general sociological propositions.

Pragmatism injects normative considerations into the definition of the field and into the formulation of the problem, and there are legitimate objections to " educational sociology " in the pragmatist tradition. Two points are worth making, however.   Firstly, the rank growth of " educational sociology " in the United States over the past half-century has tended to overshadow the considerable number of more or less scattered and isolated studies of various social aspects of education

which have been made by American historians, economists and anthropologists as well as sociologists. They have been less conspicuous than the productions of the self-styled " educational sociologists " but there is no doubt that they are cumulative and constitute a more valuable contribution in the long run to the sociology of education. Secondly, we have no need to place ourselves on the horns of a false dilemma in rejecting the pragmatist tradition. Our aim should be to study educational institutions in the same terms as other social institutions, asking the same questions about them, and seeking the answers in the main with the same techniques of investigation, leaving their findings to speak for themselves in their bearings on the problems and policies of educators. The question, however, is: in what terms may education be best studied as a social institution?

Structural-functional analysis, and more particularly, role-analysis, is the answer favoured by most of the recent workers in the sociology of education in the U.S.A. whose views we have been considering. If, as is often the case, they have principally in mind the study of schools, colleges and universities, teachers and administrative personnel, there can be no objection to this as a formal scheme or theoretical framework —although the superiority for this purpose of the concepts " structure " and " function " over the traditional categories " community " and " association " has yet to be demonstrated. But the method has severe limitations if the intention is to study the educational system as an aspect of total social structure, rather than its component units as going concerns. Moreover, even for the purposes of the sociology of educational institutions, the value of the structural-functional method is limited unless applied with thoroughness and with awareness of the importance for structure and function of the external environment or " setting " of the institution.

In the scheme of a structural-functional analysis of society, based as it is on the concept of " social action," education is a means or technique of motivating individuals to behave in ways appropriate to maintain the society in a state of dynamic equilibrium. It assists in socialising them as infants and in inculcating the common value-system; it is mainly responsible for providing them with skills and generally equipping them to take their part in economic and political life, and for seeing to it that some are available to enrich and perpetuate the cultural, scientific and technological heritage. This seems to offer a comprehensive frame of analysis; but there is no doubt that a sociologist seeking to understand educational processes and institutions is severely handicapped if he conducts his analysis solely in terms of the motivated actions of individuals.

" Social action " is heavily conditioned by the framework of opportunities within which it has to take place, and the field of education is no exception to this general rule. The part played by differentiated

educational institutions with specialised personnel is different, it need hardly be said, at different stages of social development. The social pressures and expectations to which educational institutions are subjected vary widely both from society to society, and from time to time in the history of any particular society, and it is of the greatest importance to the sociologist of education to identify these external forces and understand their impact on his subject-matter. Thus, it is arguable that the study of schools, colleges and universities as the relatively self-contained social systems that they indeed are, must rank second (in the sense that it cannot otherwise proceed effectively) to the study of the educational system in its relations with the wider social structure—with its value-system, its demography, economy, social-class and political structures. Only by enquiry at this macrocosmic level where economic, political, and religious power and conflict come into their own as ingredients of social action, as well as the integrating and normative factors which are the stuff of structural-functional discourse, can we map out the effective social environment and define the setting of the educational processes and institutions which are our subject-matter.

Admittedly this is a difficult level at which to work, but the truth is that at any stage of social development beyond pre-literacy, and certainly at the stage of industrialism, it does not do to consider society other than as a process, whatever may be the value of the structural-functional method in dealing with sub-systems of the whole. Moreover, society is a dialectical process; in studying any particular aspect of social organisation—for our purposes, education—we have not merely the task to explore the social forces which bring about the creation of educational norms and institutions and changes in the law and practice of education (a task, incidentally, which sociologists outside Germany have barely touched), but the task, also, to examine in the shorter run the profound transformations which occur in the social functions served by relatively stable educational values and institutional forms. Such tacit transformations of function are at the very heart of the daily lives of schools, colleges and universities, and generate the social pressures and expectations to which they are subjected and which inform the politics of education and the ideological struggles of which it is the centre.

The difficulty in broaching the task of identifying these transformations of social function in the field of education is that so much purely descriptive work remains to be done. We are as yet in no position to attempt even a typology of educational systems in varying relationship with the societies they serve. These societies are crudely classifiable by stage of development into primitive, under-developed, and industrialised economies. The last two, at least, of these categories need further sub-division to be helpful. So far, as concerns the under-developed societies, it has to be admitted that our knowledge is inadequate to enable us to classify them intelligently, especially if our purpose is to

illuminate the social functions of education, and, in particular, the part it plays in economic growth. The importance of investment in the human resources of under-developed countries is a common-place among economists; however, not only is investment in education a lengthy process, but very little is known about the far-reaching social changes it necessarily involves. There must be, for example, important differences in this respect between say, India, China, Kenya and French Morocco, although all are under-developed countries in the more or less strictly economic sense of the term.

In respect of industrialised economies, too, we must admit that hard facts at this level of analysis are scarce. The assumption is that at any given stage of development, industrialism makes characteristic demands on education. But the truth is that we are not certain what these demands might be. Weber did not work out the educational, along with the legal and economic, requirements of his ideal-type of capitalist economy. He linked his typology of education to a classification of class-structures, since he saw it primarily as an agency of social as-similation and differentiation. He did not envisage the developments with which we are familiar, as a result of which these functions have been immensely complicated, not to say over-shadowed, by the pro-gressive involvement of education in the economy and in the dynamics of stratification. Nor have the economic historians come to the rescue with informed accounts of the historical association of different kinds and degrees of educational provision with varying states of the economy, or with comparative studies of the part played by education in the industrialisation of different countries as, for instance, Germany, Britain, Japan and the U.S.A.

Nevertheless, a number of propositions are current concerning economic and social developments, and their implications for educa-tion, under conditions of industrialism. Thus, it is widely held that advancing technology produces progressive shifts in the distribution of employment from primary to secondary and subsequently to the tertiary sectors of production; that what might be termed the " educa-tional threshold " of employment is progressively raised; that the dis-covery and promotion of talent in the population, as distinct from its purchase as a commodity on the open market, is a feature of advanced industrial economies; that occupation replaces wealth as the main dimension of stratification; that education has thrust on to it a selective function which complicates its relations with the family; that indus-trialism produces profound changes in the family itself which in turn affect its relations with the educational system.

A glance at these propositions makes plain their dubious status. Debate on the thesis concerning the redistribution of employment with economic advance has been reopened in connection with discussion of the economics of under-developed territories. A handful of studies

have demonstrated the spread of educational qualifications down the occupational hierarchy; but no-one seems to have enquired more closely into the nature of this development by allowing for variation in the age-structure of occupations and for changes in the volume and distribution of educational opportunity.   The role of occupation as a factor in social mobility has been investigated and a connection with education established, also; but there seems to have been no attempt to test the suggestion that education has come to play an increasingly important part in mobility through occupation, by examining changes in the relationship through time.   That profound changes have come about in the relations of education and the family is not open to doubt —but this is probably the worst-documented of all these propositions concerning education and the advance of industrialism.

It is as well to remember all this uncertainty in regard to fundamental matters.   Admittedly, the fact that these propositions are not findings does not mean that we should not allow them to inform our work on particular problems of the sociology of educational institutions.   Thus, for instance, studies of higher education since Weber and Veblen have based themselves most fruitfully on the dialectical interplay between relatively immutable university constitutions modelled on the medieval corporation and the rationalizing pressures of developing industrialism.   Similarly, our understanding of the formally non-selective American High school has been greatly enhanced by studies of the way in which it actually functions as an informal agency of social selection in response to external pressures.   Furthermore, we can formulate plausible hypotheses concerning developments in Soviet education with the advance of industrialism in Russia; and we can make informed guesses about the educational needs of underdeveloped societies.   Nevertheless, it is time that a frontal attack was made by sociologists, in collaboration with historians, economists and demographers, on these problems of education in relation to the wider social structure.

As has already been indicated, a great deal of descriptive work remains to be done.   This kind of work is sometimes referred to as " sociography " with disparaging implications, but not, I think, justifiably.   Descriptive surveys provide the raw material for more sophisticated work.   We must have, for example, surveys of the social distribution of educational opportunity; of the social composition and output of particular institutions or types of institution; of the family origins and the educational and occupational history of teachers and other social groups of special importance to us.   Of course, this is the kind of information that one always feels should be provided by government in the course of administration; just as demographers can work with census material, so sociologists should have their official sources of basic information of this kind.   Such surveys are exceedingly time-consuming and expensive for the private academic to undertake and

it is perhaps remarkable that so much has, in fact, been done. The besetting difficulty with private enterprise in this matter is to ensure that data are collected and presented at a uniform level of competence, that changes are recorded through the regular repetition of surveys, and that findings are made internationally comparable. The question of competence is importance. It is surprising how often one still comes across statements about, say, the democratisation of access to higher education, which rely on a bare statement of the social composition of institutions with no attempt to relate the information to the composition of the relevant population at large. This can be particularly misleading if figures of this kind are crudely compared historically or internationally. The problem of measuring the social distribution of opportunity is, in fact, a demographic one, and should be treated as such with at least the same degree of refinement as are changes in the degree and direction of social mobility or in patterns of family-building.

In short, we need more not less " sociography " in the field of education; but we must systematise our approach and refine our methods of collecting the data we need, not only in order to develop a systematic sociology of education, but also in order to be able seriously to speak of its *application*, to the problems of advanced industrial countries no less than to those of the under-developed territories.

It is difficult to think of any contribution to the understanding of education as a social institution which would not, directly or indirectly, bear fruit in application to the practical problems of educational policy-makers, administrators or teachers. Alternatively, it is difficult to think of any problem in the field of educational policy and organisation, or in teaching, which has not got its social aspect, to the understanding of which sociology can make a contribution. But a list of possible applications of sociology in education, or of educational problems to which the sociologist might profitably turn, would be more wearisome than fruitful, and I propose to confine myself to mentioning, by way of illustration, two problems of major practical importance to which the sociology of education can make a contribution. One, which we have already touched upon, is the problem of economic growth and the part played in it by investment in human resources, that is, by education. The other is the closely related problem of the *educability* of individuals under different social circumstances and different educational arrangements. The sociologist's contribution to the problem of educability is to analyse the social factors which influence the educational process from two main sources.

There are, first, those which derive from the external social environment of teacher and pupil, that is, from their family environment and general background and, in the case of teachers, from their professional needs and habits as well. These express themselves in the attitudes, values and assumptions brought by teacher and taught into their mutual

relationship, and play an important part in determining the response and adjustment of both to the institutional framework within which they meet. Secondly, this institutional framework itself exerts social pressures which are an important ingredient in the process of education. These derive from the formal organisation of schools, colleges and universities—from the formal hierarchy and the roles within it, the disciplinary arrangements and the organization and content of the teaching. Some of these pressures are overt and others tacit. In practice, the educability of an individual, given his personal endowment and unique life-history, is a complex function of the interaction of all these social factors, that is to say, of his socially determined capacity to respond to the demands of the particular educational arrangements to which he is exposed. The point is clear if we think of introducing compulsory education into under-developed territories; it is equally valid when we are concerned, in advanced industrial societies, to introduce secondary education for all, or to open wide the doors of the universities.

Some, but surprisingly little, work has been done by anthropologists on the potential or actual response to schooling of the populations of under-developed territories. None of this work appears to be systematic, or on any scale, and for the most part it seems to consist of informed speculation. It seems surprising that there are no sociological studies of, for example, missionary schools in Kenya or on the South African Reserves, where Traditionalist and Christianised families live side by side, and surprising that no one has assessed the impact of education on their respective lives and the destinies of their offspring, or examined the underlying reasons for a differential response to available educational opportunities.

In industrialized societies, social-class and ethnic influences upon learning are now the subject of a considerable literature. But it is noticeable that far more work has been done on the cultural background of pupils than on the organization and social climate of schools and colleges which also determines the positive or negative response of their pupils.

Too many sociological studies of schools are, in fact, studies of the social life of adolescents, and little account is taken of the more or less subtle demands and pressures of the formal organization of school life and work. Even where the social system of the school is not treated as a whole, but particular roles are described and investigated, such as that of principal, or particular relations, such as those between teacher and pupil, it is rare to find the analysis buttressed by accounts of the historically determined formal constitution and effective social environment of the school. It is as though a political scientist were to concentrate on describing the social system of the House of Commons

as if it were a social club, with no more than passing references to its formal functions and the historical and social determinants of its internal dispositions. Of course, it can be illuminating to regard the House of Commons as a social club—but only if its historically prescribed functions and formal distribution of roles are constantly borne in mind. Similarly, we gain a lot by looking at " the separate culture of the school "—but only if we continually relate that culture to the historically-determined purposes and constitution of the school as an organization. Again, the point is so clear, as to be hardly worth making if we apply it to, say, missionary schools in under-developed countries; but it is equally valid when studying the American High School or Liberal Arts College, the French Lycée, the German Berufsschule or the English grammar school.

It is interesting to note that, so far as the sociology of the universities is concerned, this line of criticism hardly applies. They have a long and self-conscious history, and scholars who have sought to understand their functioning and development (even the sociologists among them) have not made the mistake of neglecting their distinctive corporate organization and formal structure. It may be that the a-historical, social-psychological bias of much work on schools is attributable to the fact that the sociology of the school tends to be almost an American monopoly, and that there is so much less variety in the United States than in Europe in the historical antecedents and constitution of schools in the public system.

However that may be, the attempt to see the school as well as the university as a social institution and to analyse it as a community or an association, or as a social system, is of some practical importance in an era of expanding secondary education. Traditional forms of organization may be strained, as in England, by the tasks of assimilation imposed by mass education, or, as in the United States, by selective functions for which they were not designed. Problems of recruitment to the teaching profession make it increasingly important to understand the special features of the conditions in which they work and the special occupational hazards to which they are exposed.

The influence on the educability of individuals of their social origins and environment is a much more complex problem than any posed by the sociology of schools or universities, if only because discussion of it persistently and inevitably reverts to the nature-nurture controversy and because the respective contributions of sociologists and psychologists are rarely well-defined.

The sociologist's contribution is indirect. He aims to demonstrate the nature and extent of environmental influences on educational performance, rather than to make statements about the intellectual quality of populations or about the final relations of nature, nurture and

educability. He can isolate important features of social background associated with more or less successful performance in educational institutions of various types. Thus, English and American sociologists have been concerned to demonstrate the social character of the apparently academic problem of " early leaving " from grammar schools and " drop-out " from High Schools; French and English sociologists have worked on similar lines on the problem of the social determinants of allocation to courses of secondary education; and German sociologists have studied the influence of war-time catastrophes on the response to school of the children of refugee or displaced families. They have drawn highly debatable, indeed suspect, conclusions from their findings; but these need not concern us here.

Generally speaking, the emphasis in this work is shifting from the study of gross material factors such as poverty in the home, or overt disruption of family life, to more subtle features of background affecting motivation and response to learning in general, and to particular kinds of schooling. This is a more involved line of enquiry than it appears at first sight, and the division of labour between sociologist and psychologist becomes less clear the nearer one gets to the heart of the problem.

The sociologist identifies and weighs the relative importance of relevant features of home background on a fairly gross level; for example, social class; or, within classes, family size or parents' educational or vocational aspirations for their children. Then he must assess the incidence of these features of background in various social groups, whether social classes, religious or ethnic minority groups. Finally, together with the psychologist, he must try to understand how they exert their influence on response to school. Thus, to take family size as an example, we first establish the fact of a negative association between size of family and performance in school. Two questions then suggest themselves: first, does the correlation hold, or is it as strong, in all sub-cultures—e.g. in religious and ethnic minority groups? and second, is family size a causal factor, in the sense that it produces an educationally favourable or unfavourable environment for children; or is it merely an index, under certain social circumstances (e.g. when not dictated by religious principle) of a complex of educationally relevant attitudes and values?

Similarly, we may take as another example, parents' attitudes towards their children's education and subsequent occupation, which we know to be an important factor in school performance. In this case, the question is, how far are these attitudes, when favourable, a relatively simple function of material prosperity, so that with the spread of " middle-class " standards of living among manual workers we can expect a corresponding diffusion of what we have come to call " middle-class " attitudes in the matter of education and vocation? Or is the

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association between these attitudes and father's occupational grade and material prosperity altogether more complex? Is it that favourable attitudes to education are part of, or embedded in a way of life which is a function of type, rather than social grade, of occupation; and that the clustering, hitherto, of occupations at a number of fairly well-defined levels of material prosperity has obscured profounder differences in the lives of those following them, differences which only emerge when a common material handicap is removed? Thus, the socio-economic groups "skilled manual workers", "foremen and supervisors" and "salaried employees" begin, under the impact of prosperity and security, to which all will not respond in like manner, to differentiate themselves into occupations which show affinities, cutting across the boundaries of these traditional groupings, in the way of life they facilitate and encourage in those who follow them. This way or style of life expresses the common features of a wide range of family attitudes and practices in which are embedded the attitudes of parents to their children's educational and occupational prospects, and of which in certain circumstances family size may be an index. At this point, not merely the sociologist and the psychologist, but also the anthropologist has a contribution to make to the detailed study of the ways of life engendered by pursuit of different kinds of occupation.

Work on these problems clearly has implications, not only for practical policy in matters of educational organization and curriculum-building, but for the study of social mobility. It enables us to envisage answering questions such as "what kinds of working-class families tend to produce children apt for mobility through education?", which is an important preliminary to answering questions as to the potential fluidity of a society in which technological changes may produce shifts in the occupational structure involving new pressures on education.

It will be obvious to everyone who interests himself in the work of the Education Section of the forthcoming Congress that this statement does no more than touch upon an arbitrarily selected handful of the many issues involved in the sociology of education. An attempt has been made—not wholly successfully—to obtain contributions to our programme which will illustrate some of these issues. As it is at present planned, the programme provides, apart from discussion of this statement, for consideration of papers (a) on the relations of the educational system to the wider social structure, (b) on the sociology of schools, including administrators and teachers, (c) on the sociology of higher education.

One omission should perhaps be explained. The Third World Congress devoted a number of meetings to the problem of social mobility and education in under-developed societies, and it did not seem reasonable to cover this ground again after so short an interval. On the other hand, it was hoped to obtain contributions relating to

other aspects of the role of education in the life of these societies, or in the process of economic growth generally.   It is a matter for regret that this has, so far, proved impossible.   If, however, this gap is filled before we meet in September, time will be set aside for discussion of these important topics.

NOTE

[1]See Gross, Neal "Sociology of Education 1945-55", in *Sociology in the United States of America.   A Trend Report,* Ed. H. L. Zetterberg, UNESCO, 1956.

Health and Social Well-being

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1. The first and second world wars were accompanied by enormous loss of life; people of all ages and nationalities were killed as a result of the fighting or else in cold blood by Hitler's followers in the numerous concentration camps. Many others were wounded or fell sick in the extensive territories of Europe, Asia and Africa. The number of these victims would have been much greater if the medical services had not made every effort to cure quickly many severely wounded and sick people and to prevent frequent cases of severe disablement and grave infectious and parastic diseases. The extensive use of new and effective chemical preparations such as sulphonamides, antibiotics, D.D.T. and above all penicillin, since it is among the most widely used, for the prevention and treatment of infected wounds and various infectious diseases, has revealed their possibilities and the vast opportunities that are open to present day medicine and biology for safeguarding people's health.

The most effective way to prevent mass extermination and crippling, however, is to destroy the actual causes of war and armaments which, if they were used, could lead to mass extermination and crippling as was the case during the atomic raids on Hiroshima and Nagasaki in 1945.

The sad experience of the second world war led to the effort to maintain universal peace and to create social well-being and a high standard of health for people of all nations of the world regardless of the colour of their skin or their religious and political outlook. Both the Charter of the United Nations and the Constitution of the World Health Organization mention the fundamental tasks of maintaining and raising the standard of health of people throughout the world.

2. Medical workers are called upon to carry out the great humanitarian task of safeguarding and raising the health standards of people throughout the world, and medicine itself is both a science and a practice, which is bound in equal degree to present day natural and social sciences and is based on them as well. On the one hand, medicine as a science is an integral and inalienable part of natural science and is closely connected with sections of it like biology, physiology, chemistry, physics, mathematics and technical sciences; on the basis of achievements in these sections contemporary medicine builds up its equipment

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and techniques for preventing, diagnosing and treating illnesses and for creating sanitary surroundings.

On the other hand, medicine in both its scientific and practical aspects takes far-reaching action to prevent, diagnose and treat illnesses and to create hygienic surroundings, and is very closely connected with such social sciences as philosophy (the general outlook of scientific and practical medical workers), political economy, sociology, statistics and the actual economy in each country together with its socio-political structure, which opens up various opportunities for developing medicine on a scientific basis and putting into general practice achievements in contemporary biology and medicine so as to maintain and raise the health standards of people in every country.

3. Medicine is a good example of the measure of the unity and close co-operation between theory and practice. For instance, if scientific research in the field of physiology and pharmacology, organic and biological chemistry, physio-chemistry, general biology and physics had not been developed and extended, present day medicine would not be equipped with such broad practical means as chemical sulphonamide preparations and their numerous variants and combinations, the many chemical synthetic insecticides and several anti-cancer preparations, synthetic hormones and vitamins which are studied and used in practice, ferments, amino acids and alkaloids, numerous antibiotics and the study of chemical forms which open up unheard of opportunities for combining them in many bio-chemical variations. In no other field of knowledge do scientific achievements come so quickly into general use as they do in medicine.

Moreover, the urgent practical requirements of present day medicine in order to prevent, quickly diagnose and successfully treat illnesses and to make men's surroundings healthy dictate the trends of scientific research in the various sections of contemporary natural science (*physics*—ionising radiation, optics, acoustics, wave physics, electronics; *chemistry*—the synthesis of biological preparations and physio-chemical research methods; *general biology*—cytology and human genetics; *mathematics*—their application to medical research and statistics etc.).

4. Nowadays it is universally clear that various kinds of illness possess their own biological characteristics and to an even greater degree their own social characteristics. For example, malaria is characterized by malarial plasmodia which are passed on by mosquito germ-carriers, or biological agents. But the absence of good irrigation systems, hydraulic installations, incorrect methods of sowing rice which lead to marshiness and lack of attention to natural swamps, the lack of control over the extermination of mosquito germ-carriers and methods of fighting them, which are all purely social measures, make it

possible for malaria to spread over large areas and infect wholesale tens and hundreds of millions of people.

The same may be said of the whole group of parasitic and infectious diseases (cholera, smallpox, tuberculosis, leprosy, venereal diseases, bilharziasis, typhus, dysentery etc.) which are caused by some parasitic, microbe or virus strains whose pathogenic features are directly connected with social factors (the character of the surroundings and the degree to which they are sanitary; sewerage, drains, the type of food in the locality, the lack of vitamins and albumen, an unbalanced diet, food hygiene, the water supply and quality of drinkable water, polluted water sources and the mineral content of the water). These social factors can either entirely eliminate various infections or else make it possible for them to spread widely and cause major epidemic outbreaks.

There is one group of illnesses which is wholly connected with social factors alone. To this group belong the cardio-vascular illnesses and most neuropsychic diseases.

Even cancer, although it is connected with malignant cellular growth in the various human systems and organs, is in many ways connected with social conditions, such as air pollution through escaping gases and small dust particles, for example, especially with regard to chemical undertakings, together with the high dust content of the air in mines and pits, in the case of cancer of the lungs; while cancer of the internal organs (the stomach, liver, bladder etc.) is connected with the various chemical admixtures to food and water. All kinds of narcotics— alcoholism, morphinism etc.—are completely bound up with social factors.

5. A general survey of the most important illnesses reveals the very close connection between the biological and social characteristics of these illnesses and the decisive importance of social factors in the elimination or sharp decline of a series of important diseases. Thus in the countries of Eastern Asia for instance, such diseases as malaria and leprosy are still widespread and there are still cases and occasional major outbreaks of such diseases as cholera and smallpox, whilst the plague and typhus are still not completely eradicated. In Mediterranean countries malaria, leprosy and trachoma are also widespread. In African countries malaria, leprosy, trypanosomiasis, smallpox and trachoma are widespread and yellow fever is sometimes met with. The same applies to several countries in South America. On the other hand in European and North American countries cardio-vascular illnesses, degenerative diseases, neuropsychic illnesses and cancer are widespread. It should be added that cancer and cardio-vascular diseases are to be found in all the countries mentioned above, although their incidence is lower than in European and North American coun-

tries; perhaps this is partly due to the fact that these diseases are overlaid by many acute infectious diseases so that the so-called chronic non-infectious diseases go unnoticed; in addition medical statistics are almost completely lacking and health services in general are underdeveloped, especially in rural localities. At the same time, in many similar geographical conditions the change in social standards in the USSR and Eastern European countries has brought with it the complete and long-established eradication of such horrible diseases as the plague, cholera and smallpox, whilst malaria and trachoma, which at one time caused such a high proportion of blindness, have been almost completely eradicated. Typhus diseases have also been eradicated and there has been a sharp decline in tuberculosis infections. In order to make clear how it is possible, given the conditions of a new social system, to eliminate quickly one kind or another of infectious disease, malaria may be given as an example. Thus in 1946, the year after the end of the war, there were three million five hundred thousand cases of malaria in the U.S.S.R., whilst ten years later, in 1957, there were only five thousand and ninety seven. Isolated cases of malaria occur in scattered and remote rural localities in Central Asia and the Transcaucasus, but an effort is being made to eradicate malaria completely in the coming year or two.

6. The basic means for preventing, diagnosing and successfully treating diseases are the contemporary diagnostic and therapeutic methods and medication, combined with their wide use free of charge, the creation of a vital system of prophylactic and therapeutic institutions such as out-patient departments, hospitals, epidemiological intelligence stations and their corresponding diagnostic laboratories, disinfecting equipment and equipment for exterminating pests and rats, insecticides, maternity homes and creches, maternal and child welfare centres, an extensive system of hygiene education by means of special institutions, together with their branches in clubs and schools. At the same time it is essential to train qualified medical nursing staff of all kinds such as midwives and male nurses, together with doctors specialized in various subjects including preventive medicine through a system of medical schools and universities and institutes for postgraduate training in medicine. The definite improvement in man's surroundings is the most effective and decisive way of preventing illnesses, which may be done as follows: the elimination of marshes and swamps through regular drainage (hydraulic installations), the elimination of deserts through regular irrigation and tree planting, the provision of generally hygienic water supplies and sewerage, the elimination of endemic, parasitic, microbe and virus natural foci and their germ-carriers, especially mosquitoes and helminths, the avoidance of pollution and the constant cleaning of the air and water tanks to get rid of industrial wastes and refuse, the elimination of helminths and various pathogenic microbes from the soil and soil cultivation on favourable lines so as to maintain the correct

amount of trace elements and soil microbes, and finally a well-balanced and adequate diet for all groups of the population.

It is evident that all the measures listed above and especially extensive hygiene action in communities can only be undertaken by a society in which the productive forces are not used for personal gain but for the benefit of society as a whole and where productive relations are constructed on socialist lines on the basis of collectivized industry and agriculture and their planning by the state.

7.   Besides the exceptional importance of taking effective action to prevent, quickly diagnose and successfully treat illnesses and to set up the medical hygiene institutions mentioned above and create healthy surroundings, significance should also be attached to the amount and quality of medical staff—nurses, midwives, male nurses, doctors and sanitary engineers.

Thus Knatson, the American health expert, affirms in a work written in 1927[1] on public health work and the kind of staff that is capable of carrying it out, that the health service will become increasingly connected with other types of social activity, other sectors of social life, and therefore future health organizers must be able to impress themselves on leaders of other branches of social life and on society as a whole. Knatson states that unfortunately the training of medical staff and of health organizers in particular does not include such social sciences as sociology, anthropology, political and economic sciences, since we have long recognized the influence of social and economic factors on illnesses. Furthermore Knatson gives his opinion on the way to train workers for the health service. He says that it would be preferable if the social health course gave students a thorough grounding in the main subjects dealing with public health and especially in the social sciences. After such a course students should have a much better understanding of the social and political problems they are likely to come across in the course of their professional work. The social health course should familiarize students with the world of ideas, and broaden their intellectual horizons.

We in the U.S.S.R. fully agree with the opinion of Knatson and in Eastern European countries this is a basic principle in the training of all medical staff.

Contemporary medicine is the fusion of the biological and social sciences and therefore both of them must form the basis for training all medical specialists.

8.   In order to carry out a successful campaign against disease it is necessary to take note of the main and decisive trend in this great struggle for health, besides gaining a mere comprehension of the biological unity of the general tasks; we must be aware of the fundamental research and practical problems, and the efforts of society as a whole,

governments and above all medical workers themselves should be con-
centrated in order to solve them.   The World Health Organization, as
a result of a resolution of the last General Assembly of the United
Nations that arose from a suggestion from the Government of the
Ukranian S.S.R., decided to organize an International Health Year on
medical research and the basic scientific problems in the field of health
and medicine.   The twenty-third Session of the Executive Board of
the World Health Organization and the twelfth World Health Assembly
decided to hold this year in 1961.   The following scientific medical
and health problems were mentioned:

(a)   Parasitic and infectious diseases and their gradual eradication,
starting with malaria and smallpox.   The eradication of these diseases
was decided on before the World Health Assembly met.   The eradica-
tion of malaria in the countries of Eastern Asia and especially in India
is of particular significance for the Indian government, as was evident
from the speech by Prime Minister Nehru at the Regional Conference
organized by the South East Asian Regional Office of the World Health
Organization on the 16th March of this year. [2]   The eradication of many
parasitic and infectious diseases is very important from the social and
economic points of view, as well as from the medical aspect.

(b)   The prevention and the fight against illnesses caused by ionizing
radiation have taken on an enormous social significance at the present
time.   In view of the increasing use of atomic energy for peaceful
purposes and the construction of many large nuclear installations for
electrical power stations, scientific research and underwater and surface
vessels, the protection of people from the harmful effects of ionizing
radiation has become one of the current problems of present-day
health.   One of the essential ways of preventing illnesses that are
caused by the effects of radiation as mentioned above is to put an un-
conditional stop to atomic tests and explosions of the various new
types of thermo-nuclear weapons and the destruction of armament
stocks.

(c)   The study of all problems connected with the biological and
social aspects of cancer, including the study of the so-called cancer
epidemiology on the basis of a well-organized survey of the morbidity
and death rate of cancer in the various countries of the world together
with a careful comparison and extensive analysis thereof.

(d)   An all-round study of cardio-vascular diseases, which cause a
higher morbidity and death rate in European and North American
countries.   The epidemiological study method, which entails the care-
ful statistical study of morbidity and the death-rate in various countries,
the clarification of the factors which enable this disease to develop, and
the ways of diagnosing it and treating it successfully are all of special
importance for these countries.

(e) The study of genetics in order to understand the nature of several diseases with exclusively or predominantly biological characteristics, including a series of degenerative diseases, cancer and neuropsychic diseases.

1960 will be World Mental Health Year. On 7 April of this year, which is World Health Day as laid down in the Constitution of the World Health Organization and observed each year, a campaign was initiated to prevent and reduce psychic diseases. It must be recognized however, that success in this field is completely bound up with social conditions. The English health expert Bourne is quite right when he states that many illnesses, and above all illnesses of the psyche, are caused by anxiety motivated by material needs and uncertainty with regard to the future, and especially with increased unemployment.[3] If this basic cause is removed, the source of the overwhelming majority of diseases of the psyche and of neuroses in particular will be eradicated. The causes of the latter, however, lie in the vicious socio-economic system, and to cure this doctors are not needed, or at least not doctors alone.

9. The general public, as well as health experts, now admit the social and economic importance of health standards, which play a decisive role in a country's economic power, its progress and cultural development, its science and technical prowess. In order to underline this fact reference should again be made to Nehru's speech at the conference on malaria eradication in East Asian countries on 16 March of this year, and also to several facts on the growth of cardio-vascular and neuropsychic morbidity in some countries. For instance, in the U.S.A. the incidence and death rate of cardio-vascular diseases is growing.

Neuropsychic diseases show the same tendency. Thus, for instance, Frank Tallman calls the problem of psychic diseases the number one national problem of the U.S.A. because he says that approximately 6% of the population of the U.S.A., or one out of every sixteen persons, totalling more than 9,000,000 in all, suffer from diseases of the psyche and neuropsychic disorders[4]. Of this number 1,500,000 suffer from serious psychic diseases. In the book by Winslow entitled *The Cost of Sickness and the Price of Health* published in 1951 by the World Health Organization a lot of information was given on major economic losses as a result of the increase in various illnesses. The author estimates that the total economic loss through illness comes to 38 milliards of dollars. Of this amount 5 milliards account for losses connected with short-term illnesses.

10. In order to understand the main problems in the field of public health we must read the Constitution of the World Health Organization: " Health is a state of complete physical, mental and social well-being " and the right to the " highest attainable standard of health is

one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition." At the present time it is necessary to create the conditions in human society for ensuring effective social well-being. The social well-being of all countries and their governments is the basis of their health, as is revealed in a series of examples of the social characteristics of an overwhelming number of illnesses. The creation of the required amount of medical hygiene institutions and an adequate medical staff of all types also depends on the solution of the basic problems in every-day life through the establishment of social well-being. The problem of how to ensure the maximum social well-being in the social and economic structures of contemporary societies can be solved without difficulty by every healthy person who works objectively and without prejudice, especially in the field of sociology. In addition there are sufficient examples of the progressive system which already exists for almost one third of mankind on our planet at the present time. It is also possible to solve this problem along the lines applied in this social system with regard to health standards and the eradication of many diseases.

NOTES

[1] Knatson, 1927.

[2] Nehru Prime Minister. Speech at World Health Organization Third Asian Malaria Conference. 16 March 1959.

[3] Bourn, A. *Health of the Future*, London, 1942.

[4] Tallman, Frank. " The Doctor's Role in the Preservation of Mental Health," *Journal of the American Medical Association*, No. 4, May 22, 1954, pages 327-331.

The Relationship between Sociology and

Demography

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In the last World Congress on Population held in Rome in 1954, out of the 122 subjects for discussion on the agenda, at least 50 might have been properly included in a congress of sociology. On the other hand, among the 155 topics discussed in the Third World Congress of Sociology, at least 38 might have been included in the agenda of a congress of demography.

These figures would perhaps be sufficient to show the importance of the interdependence between the two sciences. This is quite natural since points of contact such as these promote scientific progress, whereas any science which isolated itself completely would ultimately degenerate.

But in the vast field of the human sciences—which have a less definite scope than have the physical and natural sciences—this interaction might even cause conditions quite unfavourable to scientific progress; that is, it might be due to confusion, inadequate preparation, or to lack of comprehension of the subject. Thus there might be unwarranted intrusion of sociologists into territory reserved for demography, and of demographers into the territory reserved for sociology, resulting in a confusion of ideas on subjects which had previously been clarified, or in delaying the solution of problems well on the way to being solved.

Therefore, having to dwell on the subject of the reciprocal contribution between these two sciences in this preliminary report, it seems fitting that I should mention something not only on the utility of this interchange, but also on the limits to which it must be restricted in order to avoid degenerating into utter confusion. This task is much more difficult since no general agreement has yet been reached on the definition of sociology itself, while the definition of demography still remains a matter of controversy. At this stage, the word definition is to be understood in its etymological meaning of specifying the particular domain of a science.

Let us start with demography, about which there are fewer uncer-

tainties. Conflicting definitions of this science are still given today, the controversy which began at the end of last century not having yet been settled[1]. Originally this science was defined as the statistics of populations, and it was considered merely as a branch of the statistical method. Later it was considered a science by itself, though always connected with the statistical method, and was defined as the statistics or quantitative science of population. Today this definition is almost universally accepted. But, there are even some who, perhaps more correctly, I believe, divorce this science from its strict dependence on the statistical method, and define it more simply as the " science of population." In fact, the use of the noun " science " linked to the adjective statistical was in itself a contradiction since no science can exclude the use of any method, of any form of observation, for a better knowledge of the laws governing the phenomena which constitute its field of study.

It is precisely this extension of the method that has strengthened the ties between demography and general sociology. In fact, when demography was considered a part of applied statistics it could go very little beyond simple descriptive ends, whereas it is the very plurality of methods, of observations and research which paves the way for the investigation of causal relationships and, therefore, enlarges the common meeting ground with collateral sciences.

When we consider demography as the science investigating the causes operating in the phenomena of the movement and structure of population, its relationships to general sociology, which has the class structure of society as its object, appears very strict. This relationship is not only horizontal, but also vertical, since population, framed within the natural laws which govern it, constitutes the basis of all social phenomena.

However tight these links might have become, however well demography may absorb the notions or the methods of the other social sciences and of sociology in particular, the line of demarcation of its domain will always be clearly indicated by the end and purpose of the investigation. In fact, according to whether this purpose is directed towards a better understanding of the phenomena of the flux or structure of population, the investigation falls within the domain of demography.

On the other hand, if such purpose is directed to a better understanding of the essence or of the formation or of the changes in social structure, the investigation lies in the field of sociology.

What does sociology really mean, then? Such a question is far more difficult than the previous one because, rather than being a science in itself, sociology appears today as a combination of sciences having the various aspects of human society as their object. At the very

centre of this combination one could place a " general sociology " which aims at a unified study of all social forms, in their origin, in their cohesive forces, and in their development.

Beginning with *Comte*, general sociology has acquired different appearances, or rather, different contents. Though defined as positivistic, it was inspired by aprioristic conceptions and traced the essence and the development of social forms back to certain general principles acquired through intuition. Apart from the recent contributions of various philosophical trends, general sociology, according to the nature of its general principles, has had different, and sometimes conflicting contents. Due to the basic lack of stable principles, sociology had scanty success so that, perhaps even as a reaction to this instability and vagueness, *behaviouristic sociology* spread especially in America where it still has a very great following.

Based on the principle that in order to understand social laws, one must examine the behaviour of man, it is a positive form of sociology, though sometimes its contributions seem to enlarge too fully the study of minute and superficial social relations. As a result, many recent studies of this new positive sociology (spread over the most varied sectors of social life), seem to get confused with inductive studies, even with a statistical basis, which are being carried out by the different social sciences and particularly by demographers. It is in these very superficial sociological contributions that the above mentioned unwarranted intrusion into the field of demography takes place.

Besides behaviouristic sociology, which came into being as a reaction against the old general sociology, I feel that out of the ruins of the latter is emerging an effort to gather whatever truths are still valid from it. This is a truly positive sociology, that is, a sociology following the inductive or Galilean method and penetrating deep into the essence of society, thanks to combining the results attained by specialized social sciences. It is not a combining which leads to the simple collection or even co-ordination of knowledge acquired by the above mentioned sciences, but rather a process of integration which manifests itself in the comprehension of other causal relationships and of other phenomena which each specialized and related science could not reach. The knowledge acquired through such a combining, falls within and actually constitutes, the specific aim of positive general sociology. Obviously, this is the form of sociology which has the closest reciprocal ties with demography.

To sum up what has thus far been said as a preamble to the work of this section, in which we must demonstrate, with new and specific examples, the relationships of demography to sociology, let us remember that the demography with which we are concerned here, is not understood as the collection of the results which may be obtained

through the application of the statistical method to the phenomena of population, but, rather, as the science dealing with these phenomena through any method of observation and investigation.

On the other hand, sociology is a scientific combination composed of specialized social sciences among which—arising from the contributions of the dominant philosophic trend—a positive general sociology is found.   It may be looked upon as the heir of the old sociology (which considered society as a corporeal or psychical entity, governed by the law of evolution), whose positivism, however, is not taken as a philosophic system, but as a method of investigation.   Such sociology, studying society in its simple and complex aspects, is surrounded by specialized sociologies which study only particular aspects of society or social relationships.

It is easy to understand, therefore, how intimate the connection is between demography as a science in itself and positive general sociology. However, care must be taken, as I said at the outset, to consider as improper certain intrusions into the field of demography made by some superficial students of behaviouristic sociology who aim at discovering, through a rudimentary application of the quantitative method, nonexistent causal relationships or relationships already clarified with more accurate description of their causes made by demographers.

On the other hand, we should not consider as evidence or demonstration of this useful interchange the improper intrusions into the field of sociology made by demographers who, with the mere support of information concerning the status or the movements of population, pretend to foresee the rise or fall of specific civilizations or social structures or political currents, and so forth.

The subject cannot be strictly defined.   One could not separate in any clearcut manner those intrusions which are improper, fruitless or negative from those which are fruitful, constructive and proper.   But, since I have led the treatment of this subject along this path, I think it is fitting that I give some typical examples of interchange between these two complex scientific fields which have particularly contributed to the advance of knowledge.

It has been stated above that the concurrence of two or more social sciences contributes to forming the objectives of the new positive general sociology.   Let me give an example which pertains particularly to sociology and demography.

Biometry defines the characteristics of the species which influence the phenomena of procreation or of the breeding of the offspring.   Anthropometry formulates the laws of the distribution of the psychical and physical characteristics of the human species.   The combination of these notions gives rise to the sociological concept of " natural popu-

lation," that is, of a population likely to give life to a social structure, vital and endowed with a state of stable equilibrium and wholly independent of any other social group. In fact, a stable, vital, and independent society can only be based upon a population having the same features, namely, a natural structure.

This is a fundamental notion of sociology since it invites the sociologist better to understand the intimate causes of certain social evils, of certain phenomena of decadence, or even of progress or greater success, when caused by deviation of the demographic texture from its natural structure, or by the full respect of it.

Demography borrows this support from positive sociology and makes it a principle of its own. The object of demography is the study of population, namely, the phenomena of the structure and the flux of any group of people in a given area, or of any grouping within this group. Demography knows now that in the midst of these data stands forth the concept of population with a natural structure. This science must utilize such a pattern of " natural structure " as a guide in order to achieve its most important tangible end, namely, the formulation of essential rules towards a rational demographic policy. In fact, only by aiming at a natural structure does population achieve its balance and its greatest potentiality. Only by having recourse to a natural structure may a greater assurance be acquired for the success of a policy directed to populating new territories and to regulating the movements of emigration, or more so of immigration.

Thus, this is a typical example by which positive general sociology, through data taken from biometry and anthropometry, has contributed to demography[2].

Moreover, the useful support which sociology can give to demography is very clearly seen in the interpretation of certain phenomena affecting the flux or the movement of population, when the causes which bring about such phenomena are not revealed through the usual forms of observation employed by this science. When such causes originate from remote psychical, moral or spiritual conditions, they may be better detected by sociological investigation.

For instance, demography has reached no conclusion as to the causes of the very strange and different trend that the birth-rate has followed among many populations at the end of the last world war and in the post-war period. After eliminating from the birth-rate statistics, the effect of well-known superficial causes, such as the variations in frequency of marriage, the structural variations by age of the prospective parents, and their respective marriages, and even after taking temporary causes into account, such as demobilization, the return of prisoners of war, and so on, demography has disclosed that the increased birth-rate of the last years of the war in some countries was not an illusory

phenomenon. On the contrary, it was a real phenomenon which rapidly disappeared in some countries, in others showed a slower parabolic decline, and in still others, as in the United States, acquired a permanent character.

The attempts to explain all these unexpected phenomena, which took place contrary to all the predictions prompted by the experiences of previous wars, were quite useless. As " ultima ratio " a purely sociological explanation was chosen according to which the increased rise in the birth-rate of the war and post-war periods was due to the unbalancing of the equilibrium between reason and instinct in favour of the latter. This unbalancing was perhaps provoked by the war's impact which caused the rationalizing and regulating forces to yield before the violence of the forces of instinct. Therefore, an attempt is made to explain this demographic phenomenon using the concepts of sociology.

It is true that this conception is unsatisfactory since it does not account for the unbalancing of the equilibrium between the forces of instinct and the forces of reason which occurs in certain countries and not in others having the same degree of social evolution. It does not explain, moreover, why the effects of this unbalancing were temporary in some countries and more enduring in others. But all this is of little importance. I have cited this example as one of the cases in which sociological data are introduced into the specific field of demography. The problem cited is still unsolved and the contribution of sociology will perhaps be the deciding factor in its solution.

The contribution directly given by demography to positive general sociology and to the special sociologies is perhaps even more abundant and more important. A typical example of such a contribution is offered by the study of the natural differences of population increase between the various social strata, into which population may be divided, and by the study of other natural differences which occur between these strata.

There are social classes endowed with a noticeable potency for selfdevelopment, whereas others are not even able to maintain their numerical constancy. Now, since these social classes may differ, in their somatic characteristics, immunity to disease, intellectual tendencies, ideals, and so on, the differences in increase of these classes, producing different numerical proportions in the course of time, may in part account for certain transformations, in a certain community, of its somatic, intellectual, and ideological characteristics. And so, the assistance given by demography benefits all the sciences and special sociologies concerned with these characteristics, as well as general sociology which from the natural differences of population increase can draw data to account for certain changes in society, which may take place with the passing of time.

Moreover, in international relations what matters is not only the different capacity of natural population increase of neighbouring or competing countries, but also and particularly, the differences in the capacity of increase of social classes or strata into which the populations of these countries are divided. In fact, in countries where the disposition for population increase is weak or negative the necessity for immigration of foreign labour principally occurs among the lower levels of the social pyramid. Therefore, it happens that these lower strata are strengthened by individuals endowed with a greater reproductive capacity and, consequently, destined to expand in the country of immigration, towards the upper strata of society. Hence may arise very serious internal problems as well as the necessity for processes of assimilation or denationalization which may lead to international controversies and conflicts[3]. These are notions drawn from demography which, by intruding into the field of positive general sociology, stimulate further investigation in other directions.

We have now discussed some typical cases in which a social phenomenon assists in the understanding of a demographic phenomenon, and in this case any new conclusions thus reached fall within the domain of demography. We have also discussed examples in which a demographic phenomenon is of use in understanding a social phenomenon, and in this case new conclusions fall within the domain of sociology.

The cases cited, for the purpose of putting our ideas in order, refer to what may be called " general sociology." But these relationships are even more evident if we consider the specialized sociologies, from criminology to religious sociology, to urban and rural sociology, and so forth, since very often changes in population structure by age, social status and profession, are correlated with changes in other social phenomena.

Perhaps I have dwelt too long on old familiar notions, but it was proper to recall them as an introduction to the work of this Section where we shall explain, in terms of practical scientific investigation, the varied aspects of the interchange between our two sciences. In fact, the contributions discussed may be grouped, though with some uncertainty, under three headings, according to whether (a) they deal generally with the interrelation existing between sociology and demography or serve, through the example under discussion, to illustrate the process of development of modern positive general sociology deriving from the joint contributions of the social sciences; (b) they deal more specifically with the contribution demography has made to sociological investigation; or, (c) they illustrate the contribution sociology has made to demographic investigation.

In the first group we refer to the report made by Professor Nora Federici—" The Contribution of Demography in the Understanding of Social Phenomena." Professor Federici very properly defines

demographic phenomena as primary sociological phenomena, since population itself constitutes the texture of social structure. Therefore even assuming that demography had merely the task of collecting and assessing the phenomena of population, this would be sufficient to warrant its intimate connection with sociology. But demography, which is already a positive science—as Professor Federici very justly states—appears as a bridge between biology and sociology. This simile also serves well to illustrate what was mentioned above when we discussed the sociological concept of population with a natural structure, which demography borrows to serve the ends of demographic policy, and how this concept arises from anthropometry and biology.

On the other hand, Professor Federici insists on showing how the studies, whose aim is to emphasize the differences in the incremental capacity of the various classes, strata, or groups into which population is sub-divided, may have a noticeable importance in the understanding of problems of special interest to the sociologist.

I feel that Dr. R. Illsley's report—" Socio-Medical Significance of Demographic Categories "—may also be placed in this group. His report is based on the results of observations carried out for ten years in Aberdeen under the auspices of the Medical Research Council. These results, from a pooling of demographic, obstetrical, and anthropological data, demonstrate how the scientific body of positive general sociology is growing under the influence of these converging forces.

In the second group, as I said before, are placed the reports dealing with the concrete contributions made by demography to general sociology and, particularly, to this or that specialized sociology. Of course, it should always be borne in mind that, because of the intimate interdependence between all the social sciences, it is difficult to find reports in which a single relationship between demography and sociology is dealt with. Rather, there are generally involved many relationships, in which the support of demography, though predominant, is added to that of other sciences.

Here, for example, is an important report by Mr. Calvin F. Schmid —" Demographic and Social Correlates of Crime Areas in the Large American City." In this study Mr. Schmid on the one hand identifies certain areas of a large city which demonstrate a particular predisposition to crime, and on the other hand he examines the demographic, economic, and environmental characteristics of such areas in order to bring to light the causal relations which exist between the two. This report demonstrates the advantages which criminology may derive from demography and allied sciences.

Dr. Alexander Lehner—"Social Mobility in a Rural Muncipality"— taking advantage of a method aiming at measuring the flux of social

mobility (which is based upon the classification of population by profession or by social status), offers an interesting study of the differences which the flux displays in a small rural municipality as compared to that of large urban areas.

Even Professor G. Lasorsa confirms the importance of the contribution of demography to sociological studies with a monograph on " Trends of Phenomena modifying Social Forces."

Professor Giovanni Schepis in his paper—" Contribution of Demography to Researches on Electoral Sociology "—illustrates the advantage afforded by the analysis of demographic conditions to the development of electoral sociology.   Electoral sociology investigates the manifestations of the free and secret will of the elector in order to find out, among other things, the correlation between such manifestations and the environment, in its various demographic, psychical, moral, cultural, and economic aspects.   Professor Schepis emphasizes the importance of the purely demographic factor, which may seem secondary as compared to other factors of a moral and economic character.   Thus he offers an essay on collective behaviouristic sociology and shows the importance for a better understanding of such behaviour of the knowledge of the very structure of population considered in its various aspects, and the renewing flux of this structure.

Similar observations could be made as regards religious sociology and every other branch of behaviouristic sociology.   However, we are always brought back to the concept that population constitutes in itself, as Federici remarks, a primary social phenomenon.   Therefore, demography when studying its laws, is a sort of platform from which the development of positive sociology springs.

Mention can be made here of Professor Carmelo D'Agata's report —" Representative Statistical Inferences of Demography and Sociology "—though it covers less the scientific contributions of demography and more the method generally used in the study of demographic and allied phenomena, i.e. inferences obtained through sampling, which are being more and more widely employed in the field of sociological research.   Professor D'Agata points out that when an interest is taken in the spiritual life or in the psychological conduct of population or of certain segments of population, the proper choice of the area limitation of the world and the rational selection of the sample become more difficult.

These are the contributions which mainly illustrate the propulsive influence of demographic studies on sociological studies.   Nor are essays lacking which demonstrate the propulsive influence that the evidence obtained from sociological research may have on demography. As I said the distinction is subtle and the classification dubious.   Yet I feel that we may include in this group the report submitted by J. P.

Gibbs and W. T. Martin—" Societal Differences in Participation in Sustenance Activities and Related Variations in Levels of Sustenance: A Study in Human Ecology."—covering the relationship existing between social structure and the age distribution of the labour forces. By social structure here is meant a number of characteristics such as the availability of natural resources, the level of technological development, and the development of the productive means of livelihood.

The authors give a measure of this characteristic which is composed of various elements and, under this composite nature, distinguish several types of societies according to the degree of development of their social structure. As a result they define the relationship existing between the above mentioned development and the proportion of population by age which is potentially productive and, consequently, economically active, i.e. fully employed or available for employment. As a result of the large number of young people who are not introduced into productive life, but who are engaged in their professional training, and of the aged who retire from work, though still physically fit, this proportion increases gradually as the living standard of the social structure is raised.

The causes of the above relationship are intuited, but the importance of the investigation lies in the fact that it has brought this relationship to light and made it measurable. This result was attained through having given an explanation of a very complex characteristic of society, as is the development of productive organization, and through having given some measurement of this complex characteristic. Thus the way was paved for the discovery of a hidden law governing the distribution of population at the productive age, according to whether this population actually participates in productive activity, or to whether it is engaged in professional training, or has retired from active productive life before attaining retirement age.

These notions are of intrinsic concern to the demographer and they stimulate investigation in a variety of directions. For example, such notions are directly linked with discoveries previously made by the demographer who, by utilizing on the one hand the rate of survival table of a given generation and, on the other, the statistics showing the average individual income and consumption by age, constructs the two curves of the income and consumption variation of the life of a generation. By superimposing the two curves, there appears described between them two areas of deficit: one for the period of early life and the other for advanced age. In these periods, the expenditure on consumers' goods exceeds income, whereas in the middle area, corresponding to the period of adult life, income exceeds consumption[4].

These curves are determined by consumption and income, and by other phenomena such as fertility, mortality, and health conditions. Now, Gibbs and Martin's sociological investigation warns the demo-

grapher that the extension of the two external areas as compared to the central one depends also on the structural evolution of society. In fact, the degree of such evolution increases the burden on the active adult generation for the up-bringing and education of the rising generation and for the sustenance of the aging generation. All this indicates that in the complexity of factors favourable and unfavourable to the solidity of social structure, which appear during the period we are examining, the progress of productive organization operates as a cause strengthening the connecting link which binds the aging generation to the rising one.

I have dwelt at some length on the report of Gibbs and Martin, because it offers not only a typical example of the contribution made by sociological investigation—such as the discovery of the degree of evolution of productive organization—to the understanding of a demographic phenomenon—such as the structure of the labour forces,—but also an opportunity of considering, with the contribution of the other demographic and economic phenomena, how this process of exploration, by hinting at the links of social solidarity which bind one generation to the other, brings us back again to the domain of sociology.

The above report has therefore given another demonstrative proof of how the field of a new positive general sociology is being widened due to the combined collaboration of the specialized social sciences. I feel I can include in this group also an important study by L. F. Schmid and others: " Further Generalizations concerning the Ecological Structure of the American City: A Factor Analysis." The stress is laid here on the concept that the study of the ecological structure of an urban community—taken as a mosaic of segments each having distinct characteristics—sometimes appears as an indispensable introduction to social, economic, and demographic investigation. Mention should also be made here of the monograph by F. M. Martin—" Social Implications of Recent Mortality Trends in Britain." But as I said above, the assistance that sociology may give to demography is revealed more often when the causes of certain demographic changes are due to hidden factors which depend on or are connected with the changes in the social environment. In this context the assistance of the sociologist to the demographer is most efficacious. I have mentioned at the outset the sociological interpretation of the causes determining the abrupt increase in the birth-rate which occurred in the war period.

A very valuable essay on this subject has been contributed by Professor Kurt Mayer—" Fertility Changes and Population Forecasts in the United States." The position taken by Professor Mayer is that the changes in the fertility of each population are due to changes in social structure and no generalization may be made even among the nations of the West. In fact each country has had its own peculiar

history in this social transformation.   For this reason he refers only to the United States and very clearly sketches the history of social changes which have occurred there since colonial times with the conquest of limitless territories by means of primitive farming methods and, then, through a progressive stage of industrialization and urbanization, down to the history of the last twenty-five years when the urbanization process almost reaches the saturation point and social class barriers collapse under the onslaught of technological progress.   At this stage, social conventions, including also those relative to procreation, show a tendency to uniformity.

Thus during colonial times the entire social structure stimulated the formation of large families and in later years—a period of progressive rationalization of agriculture, of mechanization, and of urbanization—led to a decrease in the rate of reproduction.   On the other hand, in the recent phase of social normalization—and consequently of the normalization of reproduction—the tendency towards decreasing the rate of reproduction stops and the opposite trend towards increasing the birth-rate appears even in the upper classes which formerly had the lowest birth-rate.

In short, reproduction is affected by a new social equilibrium which came into being in the last twenty-five years.   In the light of these sociological facts, Professor Mayer concludes that the recent increase in the birth-rate traced back by some to contingent psychological factors connected with the turbulence brought about by the war—is perhaps, at least as far as the United States is concerned, a consequence of a new structural equilibrium of population and society.   This assumption may certainly give rise to problems interesting for discussion because of the doubts it raises, but meanwhile I would like to underline its propulsive importance for the study of the secular dynamics of fertility and for the problem of demographic predictions.

In this report, which sets the themes for the discussion to follow, I am sorry that I cannot comment on the other contributions, already announced by their respective authors, but of which I have not yet received a complete text or a summary.   I hope, however, that those contributions may also fall within the framework outlined in these pages—a framework by which the discussion itself could be oriented.

NOTES

[1] Reference is here made to: A. Freiherr von Firps: *Bevolkerungslehre und Bevolkerungspolitik*, Leipzig, 1898; R. Benini: *Principi di Demografia*, Firenze, Barbera, 1901; L. Livi: *Le leggi naturali della popolazione*, Padova, CEDAM, 1940; M. Boldrini: *Demografia*, Milano, Giuffrè, 1956.
[2] See also L. Livi: *Le leggi naturali della popolazione*, Padova, Cedam, 1941.
[3] See also: C. Gini, *I fattori demografici della evoluzione delle nazioni*, Torino, Bocca, 1914.
[4] See: R. Benini, " Population," in *Enciclopedia Italiana*.

The Application of Sociology to Social Welfare Planning and Administration

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1. This is a very appropriate time for an international exchange of experiences and ideas on the application of sociology to social welfare planning and administration. In many countries, which already have developed social welfare systems, a rethinking is going on caused by important social changes, which challenge the traditional social welfare structures. At the same time countries with less developed social welfare institutions are fighting with grave problems of rural poverty and simultaneously with social problems caused by industrialization.

Many of the questions facing the social welfare planners in countries with a low level of living or less developed social welfare have called for research very similar to the types of social research which were so prominent in Western Europe during the 19th century, and in fact up till recent times: studies of the extent and structure of poverty, its causes and human effects; studies of levels of living in various social groups. New community development programmes have, however, also called attention to the need for studies of the attitudes of the population towards such programmes and to the need for evaluative studies of the programmes themselves.

Economic development in North Western Europe and North America has not fully succeeded in eradicating destitution, but the higher level of employment and the extension of social security systems have, together with the general increase in real income of most social groups, shifted the emphasis of social welfare policies from problems related to poverty to other social problems. Reduction of economic distress is still an important objective of social policy, but new problems have been recognized.

New problems are caused by the changes in the occupational composition of the population, in particular the increasing proportion of " white collar " workers. Others are due to the growing proportion of the old in the population and to the gradual extension of the period of education and training of children and youth.

Further, the problems of personal adjustment in industrial, competitive societies have attracted increasing attention. Also, the development of large scale social welfare programmes and institutions have

promoted an interest in evaluative studies of these institutions and their relation to social needs.[1]

2.   It is hardly necessary for this paper to enter into a discussion on the delineation of the social welfare field.[2]   In 1957 the United Nations' European Office called a special seminar in the Hague to discuss the Relationship between Research, Planning and Social Welfare Policy, in which administrators and social scientists from Western Europe participated.[3]   For the purpose of the seminar it was agreed that the term " Social Welfare " should be interpreted to cover the following areas of activity: social security, including social insurance and assistance; family, youth and child welfare; the social aspects of housing, health and community welfare.   This delineation corresponds well with modern definitions of the area of social welfare.

3.   Even if it is not mentioned in the definition it is obvious that the various kinds of welfare measures for old age are included in social welfare.   This field of study has been rather prominent in Europe, North America and Australia in recent years and the International Association of Gerontology has set up co-ordinating Social Research Committees in the United States and Europe.[4]

Another research area which has been very prominent in many countries is child and youth welfare, in particular in relation to prevention of delinquency and evaluation of therapeutic methods and study of correctional institutions.

In the United States the social sciences have during the last decade increasingly been recognized as an important aid to the development of social welfare.   After a long separation between the social scientists and the practitioners, the findings of sociology and social psychology are beginning to find their way into social work.   Social scientists and the methods of social research are gradually beginning to be used in studies of the programmes and services administered by public and private welfare agencies.   An inventory of research and demonstration projects in fields related to programmes conducted or assisted by the Social Security Administration of the U.S. Department of Health. Education and Welfare[5] lists 372 projects recently completed or in process in 1957.   A quarter of the projects were devoted to basic or background research, about half studies of services, and the remaining fourth programme and administration research.

In 1956 amendments to the Social Security Act created provision for federal grants to social research, " which relate to the prevention or reduction of dependency, or will aid in effectuating co-ordination of planning between private and public welfare agencies, or will help improve the administration and effectiveness of programmes carried on or assisted under Social Security Act and programmes related thereto."[6] No funds, however, have been appropriated as yet.

In Great Britain a number of studies have been undertaken by social scientists and official bodies in recent years on various aspects of the social welfare services, and on living conditions of groups whose needs have particular impact on social services. The Nuffield Foundation has in particular supported social research in ageing. The Institute of Community Studies has been concentrating on family studies.

In Germany a large number of social science institutes have undertaken research after the war on the living conditions of needy groups and on various aspects of the social security systems.[7]

In France, l'Institut National d'Etudes Demographiques has carried out studies throwing light on various aspects of family policy.

In Italy large scale studies of poverty have been undertaken in the post-war period.

In Denmark social research has during the last two decades increasingly been initiated by public bodies in order to provide systematized information either as a basis for new social welfare legislation or for the purpose of examining the effects of existing legislation and administration. In order to secure a continual programme of social welfare research, an independent National Institute of Applied Social Research was established by the parliament in 1958.

The developments here mentioned are only indicative examples. The papers presented to the groups will give further evidence that social research increasingly is being applied to social welfare planning and administration in a wide range of countries.

4. The progress in this field should, however, not be overestimated. In view of the serious human problems which social welfare services are trying to meet, and taking into account that the cost of social welfare programmes in most Western countries amounts to 10—15% of the net national income, only very limited funds are being used for research pertinent to this field.

Our knowledge about needs to be met and the programmes and their effect is full of gaps. In most fields we have only summary statistics. Studies contributing to deeper analysis of the social services are lacking in important fields, and existing studies are often out of date.

A recent Danish report by a Government Committee on the Establishment of an Institute for Applied Social Research expressed its concern in the following way: " It is the view of the Committee that the legislature, the administration and the general public has not at hand sufficient material for analysis of the functioning of the social services, their effect on the individual and other effects, *inter alia*, on the national economy. The material at hand does not give sufficient basis for

judgment whether the means used, in money or in organization, are put to the best possible use and are invested in the most important points; where such large amounts are used, as the case is here, no useful method should be neglected to throw light on the various schemes and the ever-changing social conditions which are the background for existing and future legislation."

An expansion of research in the social welfare field does not, however, in itself necessarily increase the application of its results. Much relevant research is never taken into use. There are many reasons for this, the main reason being lack of communication between researchers on one hand and policy makers and administrators on the other. The legislators and administrators have a strong belief in their common-sense knowledge and the social scientists have difficulties in getting close to such problems, that trouble the policy makers.

5. Let me now turn to the specific problem of this discussion: What contribution has sociology hitherto made to social welfare planning and administration, and what can be the most fruitful areas of application in the future? As a matter of fact, sociology in the more narrow sense has directly contributed relatively little to this field. General sociological knowledge and specific sociological research has been systematically applied mainly in the field of prevention and treatment of delinquency, in particular juvenile delinquency. Also sociologists have been increasingly active in the field of social gerontology. But in general sociologists have been rather distant from the problems of social welfare planning.

However, this does not mean that sociology has had no influence on social policy in this century. I agree with Gunnar Myrdal, when he says " that, while there was little participation on the part of social scientists in the actual technical preparation of legislation and still less in administering induced social changes, their influence was nevertheless very considerable, and that this influence was due in the main to their exposition and propagation of certain general thoughts and theories."[8]

The particular influence of sociology has been through general studies of social development and surveys of living conditions in all strata or in certain groups. Most of the specific analysis of social welfare *per se* have been undertaken by economists, statisticians and social workers. There is, however, " a sociological core which corresponds to and should direct and inspire a whole mass of social investigations, which is not economic or political, and which is only in part (and it always must be in part) psychological."[9] What is then this sociological core?

6. First to be mentioned is the study of the social forces which are active in shaping the demand for various forms of social welfare

in various cultures. In this connection the actual living conditions and the economic structure are basic targets for study, but the social attitudes and values related to social welfare and the institutionalization of such values are very important, but undeveloped, fields of study. Here the sociologists and social psychologists should have an important field of research.

The American social security economist Eveline M. Burns has listed the research problems in this field as follows: " Among them the more relevant to social security policies seem to be the value attached by the members of the community to economic welfare and a high standard of living for themselves and their families; the prevailing attitudes toward conformity with certain patterns of behaviour, such as assuming responsibility for the support of oneself and one's family; attitudes toward status and the precise attributes which are held to confer status; attitudes toward the use of means tests; attitudes toward the desirability in principle of greater or less inequality in incomes; and attitudes toward government activity as such."[10]

One of the prominent research problems in the social welfare field is the conflict between the values of security and humanitarianism on the one hand and individual initiative and self-reliance on the other. This problem has been running through the history of social welfare in the Western countries since the Middle Ages, but its impact is felt in our times as well, as is demonstrated by the discussions on " The Welfare State " during the last decade.

A related research problem of great importance for social welfare policies and administration is the moral attitudes in various groups of the population and among social welfare personnel to deviants and dependent people, their concept of such individuals and how they are expected to behave when assisted or corrected.[11] Policy-makers or administrators are usually not fully aware of the basic values and assumptions behind their activities. Neither are they very specific about the objectives of existing programmes. Studies of general as well as of specific assumptions and objectives are, however, not only of scientific, but also of practical importance. " Again and again it has been shown that societies include provisions in their laws because of a belief that individuals are motivated to economic activity by certain desires or stimuli or because they believe that these legal provisions will have certain economic or social results. Yet many of these assumptions are untested, and until they are verified there can be no assurance that the social security institutions are well adapted to the needs and circumstances of the nation."[12]

7. Another basic research area for sociologists as well as political scientists is the institutional mechanisms which promote, hamper or modify social welfare development, such as political parties, trade

unions, employers' associations, religious bodies, medical associations, community groups and boards of private welfare agencies.   When certain social welfare programmes are administered by independent bodies, e.g. health insurance societies or child welfare societies, their bureaucracies may be important power groups, progressive of conservative.   Where welfare services have been organized by religious bodies, a clash often arises when public activities and controls are expanded. Studies of the power structures in the social welfare field might be very elucidating, but have hitherto been very rare.[13]   The power structures also are important determinants of the success of any research work which might be undertaken.[14]

8.   The living conditions of " problem groups " and their " needs " for social services have been the fields of social welfare research to which sociologists have given most attention.   Peter Townsend may be right in wondering why so few sociologists have been studying " the submerged fifth,"[15] but it is a fact that sociologists have made their main contributions to social welfare developments by research on poverty and its causes, delinquent youth, families in trouble, unmarried mothers, widows and the elderly.

The knowledge about living conditions of such " problem groups " is still unsatisfactory in most countries, and many earlier studies need to be renewed.   But what has almost totally been neglected in many countries is studies of " normal families," their daily lives, their social problems, their welfare needs, how they are being satisfied, overlooked or overestimated.   Sociological studies of this kind are of growing importance to social welfare planning and administration in countries where welfare programmes are covering an increasing proportion of the population.   The need for research is also increasing, because " social problems " are more complex than in earlier times, when " social problems " were synonymous with poverty and the confrontation between actual living conditions and " minimum standards " was easier.

" Not only are the " needs " and " situations " different but they are differently seen.   The social-individual equation of need is a different equation and, again, it is differently seen.   Freud for one, in undermining our psychological innocence, and Marx for another, in opening our eyes to economic realities, contributed to changing our perception of the equation.   So have the infinite and cumulative processes of social and technological change since the end of the nineteenth century."[16]

Whether studies of living conditions are dealing with " problem groups " or " normal families," the questions which are relevant to social welfare planning are those which are related to " needs " for services, met or unmet.   The information gathered must be organized in such a way that the researcher can confront his factual material with

various standards for income and services, specified by policy-makers, administrators or interested groups or suggested by himself. " Standard setting " must necessarily be based on value judgments, which in themselves are extra scientific, but it is possible to indicate the underlying assumptions and knowledge on which standards are based.

Further, it is possible to secure some information on the opinions held by the " consumers " and the " producers " of social services on preferred welfare standards. A few sample surveys have recently been undertaken, studying public opinion on social welfare.[17] They have focused on three types of data: first, public knowledge on existing benefits and services; second, public evaluation of the adequacy or inadequacy of these benefits and services; third, expressed wishes for changes.

Some of the surveys have been very revealing, not least because they have shown that the factual knowledge about existing social welfare programmes is very low, particularly in the lower social classes. It is to be hoped that such surveys will be undertaken by sociologists in many countries and on various aspects of social welfare in order to give information to policy-makers on public opinion in this field and guide those who are responsible for communication with the public on the content of the welfare legislation and the services available.

9. Analysis of existing welfare services is a research area which sociologists share with many others. The sociologists can, in my opinion, most profitably use their particular scientific and technical skills on studies aiming at evaluation of the results of the programmes. The increasing interest among sociologists in evaluation techniques is promising, but our methods have to be further developed. Rather few evaluative studies in the precise sense have as yet been accomplished. We have many descriptive follow-up studies, but only few investigations have been studying the question which is relevant to evaluation: what part of the changes observed during or after an action programme can be attributed to the programme as such.[18]

The demand for scientific evaluation of success or failure of welfare activities is relatively often voiced by agencies dealing with social case work and group work.[19] Evaluative studies of the direct and indirect effects of social welfare schemes are, however, called for in a much wider field.

Pointing out the need for an international science of social policy, Alva Myrdal[20] has stressed the necessity of assessment of the results of the social experiments going on all over the world under varying cultural conditions. It is useful to evaluate the results of refined social work in socially advanced countries. But it is even more important to study the effects of the social welfare activities which in

recent years have started on a pioneering basis in countries with far greater social problems. Assistance to such countries which ask for scientific evaluation of the results of their social action programmes is a major responsibility for sociologists today. The activities in this field undertaken or sponsored by the United Nations and by UNESCO[11] should therefore be strongly supported by the International Sociological Association.

NOTES

[1] Important recent contributions to analysis of the impact of in lustrialization on social welfare are: Harold L. Wilensky and Charles N. Lebeaux, *Industrial Society and Social Welfare*, New York 1958, and Richard M. Titmuss, *Essays on The Welfare State*, London 1958.

[2] For a discussion of criteria for delineating social welfare, see, for example, Wilensky and Lebeaux pp. 138-47.

[3] The proceedings are published by United Nations European Office of the Technical Assistance Administration, Document UN/TAA/SEM/1957/Rep. 3, Geneva 1958.

[4] The European Committee has published a first report with suggestions for cross-national research on (a) pensions, assistance and levels of living; (b) work and retirement; (c) family and institutional care. *Cross-National Surveys of Old Age.* Report of a conference in Copenhagen 1956. (To be obtained from the Danish National Institute of Social Research, Copenhagen, Denmark, and Division of Gerontology, University of Michigan, Ann Arbor, Michigan, U.S.A.).

[5] *Current Social Research.* Compiled by Community Research Associates. New York 1957. See also the bibliographies in Wilensky and Lebeaux *op. cit.* and in *New Directions in Social Work* (ed. Cora Cassius) New York 1954.

[6] Wilbur J. Cohen: " New Opportunities in Social Security Research," *Social Work*, April 1957.

[7] Hans Achinger, " Sozialforschung und Sozialpolitik," *Sozialer Fortschritt*, Juni 1956, p. 116-119.

[8] Gunnar Myrdal, " The Relation between Social Theory and Social Policy," *British Journal of Sociology*, September 1953, p. 215.

[9] T. H. Marshall, *British Journal of Sociology*, September 1953, p. 209.

[10] Eveline M. Burns, *Social Security and Public Policy*, New York 1956, p. 272.

[11] A Parsonian model for a study of these problems is presented by Mary Bosworth Treudley, " An Analysis of the Dependency Role in American Culture," *Social Casework*, May 1952, pp. 203-208. For a critical review of the literature concerning the " problem family " and its treatment, see A. F. Philip and Noel Timms, *The Problem of " The Problem Family*," Family Service Units, London 1957. See also, Lloyd E. Ohlin, Donnel M. Pappenfort and Herman Piren " Major Dilemmas of the Social Worker in Probation and Parole," *National Probation and Parole Association Journal*, Vol. 2, July 1956, pp. 211-225.

[12] Eveline M. Burns, *op. cit.* p. 279.

[13] For a discussion on this topic and references to some American studies, see Wilensky and Lebeaux, *op. cit.* pp. 265-282.

[14] See Donald R. Cressey, " The Nature and Effectiveness of Correctional Techniques," *Law and Contemporary Problems*, Vol. 23, Autumn 1958, pp. 757-771.

[15] In his chapter, " A Society for People," in *Conviction*, pp. 93-120, McGibbon & Kee, London 1958.

[16] Richard M. Titmuss, *op. cit.* p. 40.

[17] E.g. Morris Janowitz, " Public Perspectives on Social Security," *Social Work*, July 1956, pp. 94-l0l, and: PEP: " Ordinary Families and the Social Services," *Planning*, vol. XXII, No. 403, 1956.

[18] See Herbert H. Hyman and Charles R. Wright, *Youth in Transition*, New York. Bureau of Applied Social Research, 1955. This book is a research case study and discussion of evaluation techniques used in the study of an institution engaged in training youth for citizenship.

[19] Research problems in the social work field are discussed in David G. French, *An Approach to Measuring Results in Social Work*, New York, 1952.

[20] In: *America's Role in International Social Welfare.* New York, 1955.

[21] Volume VII No. 3, 1955 of the UNESCO *International Social Science Bulletin*, is devoted to articles on evaluation techniques.

The Present State of Sociological Knowledge
concerning Race Relations

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The sociological study of race relations has progressed as sociology has developed as an independent social science discipline. At the same time, however, the problems with which sociologists have been concerned in this field as well as their conceptual approach and methods of study have been influenced largely by the changes in race relations during the present century. Originally, sociological interest in race relations was dominated by the biological concept and viewpoint concerning race and reflected the political interests of Europeans in regard to non-European peoples.[1] With the development of anthropology, racial differences were increasingly redefined in terms of cultural differences and race relations in terms of cultural contacts.[2] As the result of two world wars which undermined and destroyed on the whole the colonial system and changed the relations of Europeans and non-Europeans the sociological viewpoint in the study of race relations has gained ascendency. In this summary analysis of sociological studies of race relations which provides a sort of introduction to the papers in this section, the purpose is to indicate the nature and significance of the sociological contributions to the study of race relations and to point out some of the problems which call for further study.

One may note the shift from the biological to the sociological study of race and race relations in the statement by Fouillée at the First Universal Races Congress in London in 1911.[3] At that meeting he insisted that a factor of supreme importance which had been neglected in discussions of race had been the idea which a race had of itself which included race-consciousness in relation to other peoples. More-over, while Fouillée recognized the role of skin colour in identifying different races, he nevertheless called attention to the role of language and customs, and especially religion, in creating racial unity and solidarity. However, the clearest expression of the sociological approach to race relations was probably formulated by Park. Although he states that his formulation is in terms of the definition of the race relations in the United States, it provided a clear sociological approach

as distinguished from other approaches to race relations. According to Park, " Race relations, . . . are relations existing between peoples distinguished by marks of racial descent, particularly when these racial differences enter into the consciousness of the individuals and groups so distinguished, and by so doing determine in each case the individual's conception of himself as well as his status in the community."[4] This conception of the sociological approach in the study of race relations may be criticized on the grounds that it fails to take into account the ecological, economic, and political aspects of race relations. More-over, since Park conceived race relations to be relations " which are not now conscious and personal " but " are fixed in and enforced by cus-tom, convention and the routine of an expected social order,"[5] his definition is essentially a static conception which omits the dynamic aspects of race relations. Without undertaking a formal definition of race relations which would expand Park's definition, I shall proceed to an examination of sociological studies which are representative of a more inclusive sociological approach to race relations.[6]

Although most of the earlier sociological studies of race relations dealt with problems of race prejudice, assimilation and other social aspects of the problem, a systematic review of studies in this field would logically begin with ecological studies of race relations. In fact, while ecological studies of race relations deal with a pre-social stage or extra social aspect of race relations, they are important for a number of rea-sons. First, they are concerned with the demographic aspects of race relations, with racial competition and survival, and with the distribu-tion of races with reference to geographic factors and natural resources. In this sense, ecological studies provide an understanding of the back-ground in which the economic relations of races are rooted and out of which political institutions emerge in order to maintain certain patterns of race relations. Then too, ecological studies of race relations reveal the impersonal aspects of race relations or those relations which are characterized as symbiotic relations.

Although the migrations of races have generally been studied by geographers, it appears that increasingly sociologists have been working in this field. In this connection there come to mind the studies which are being made of the migration of West Indians to Great Britain. There are important studies dealing with the succession of races, out-standing among which are the studies of Lind in Hawaii.[7] Perhaps some of the most noteworthy studies dealing with the ecological as-pects of race relations are concerned with segregation.[8] In fact, the study of racial segregation in the cities of the United States has engaged the energies of many American sociologists who have attempted to develop precise quantitative methods in order to measure degrees of segregation.[9] There are indications that sociologists in other parts of the world are beginning to study the ecological aspects of race relations in cities. The study of the racial ecology of the city of Durban in

South Africa is an indication of this trend.[10]

Since the ecological aspect of race relations is concerned with the competition of races, studies of the racial division of labour provide a transition from the ecological to the economic aspects of race relations. The racial division of labour, as understood here, refers to a racial division of labour based upon an impersonal process of competition free from legal and other restraints. There have been a number of studies in this field from various parts of the world but not as many as the importance of the subject warrants. Some studies have been made of the situation in the United States but there the racial division of labour is complicated by legal, political, and customary restrictions upon the employment of Negroes on the part of both capital and labour. More valuable studies have been made of the racial division of labour in Canada by Hughes, in Hawaii by Lind, and in the West Indies by Broom.[11] From the standpoint of economic institutions one may refer to the work of Thompson on the plantation and Hughes' studies of race relations in modern industry.[12] Since the problem of the integration of Negro workers is so important in the new policy of the integration of Negroes into American society, sociologists have begun to give more attention to this phase of race relations. Moreover, sociologists especially in the United States are beginning to appreciate the necessity of taking into account the political elements in the analysis of race relations. For this reason, a recent study, *Race, Jobs and Politics*, of the Fair Employment Practices Committee assumes special importance.[13]

On the whole, however, the political aspects of race relations have been neglected especially in the United States. By political aspects I am referring to political institutions and the power structure which are so important in shaping the relations of persons with different racial backgrounds. Lohmann's study of racial segregation in the capital of the United States represented a radical departure from the usual approach to the problem.[14] Instead of studying the attitudes of whites, Lohmann studied the social structure of the dominant white community which maintained racial segregation and moulded the attitudes of citizens. Increasingly, the political elements in race relations are forcing themselves upon the attention of all sociologists as the result of the break-up of colonialism and the emergence of new nation-states. Different types of racial frontiers are being recognized and defined as areas for research. Attention is being focused especially upon the areas in the world where multi-racial communities exist or where multi-racial societies are beset with problems of social organization.

In the United States where major emphasis was generally placed upon the social psychological aspects of race relations, little attention was directed to the study of the problem from the standpoint of social

structure and institutions. What came to be known as Warner's " caste-class " school of race relations tended to direct attention to the structural or essentially sociological aspects of race relations.[15] However, a number of scholars challenged the relevance and utility of the caste concept in studying race relations in industrial-urban societies not only in the United States but also in South Africa.[16] Nevertheless, there is still the need to investigate race relations from the standpoint of social organization in the United States. For example, no one can provide an adequate understanding of the resistance to desegregation of public schools in the Deep South without studying it against the background of the economic structure of the Deep South and its political power which is aligned with northern industrialists and capitalists. Unfortunately, most of the literature on racial desegregation in the United States is devoted to the legal and social psychological aspects of the problem.[17] Simpson and Yinger have shown the relevance and utility of structural-functional theory in the study of race relations especially in relation to racial desegregation.[18] Perhaps the most important study so far of the relationship of social organization to race relations is the study of segregation in the nation's capital referred to above.

Race relations in Brazil have generally been studied in the context of the economic and political organization of the country. This was true of Freyre's studies in which he described and analysed the role of the Negro and mulatto in the structure of Brazilian society.[19] Moreover, in Freyre's studies the process of racial mixture is placed in its true social perspective and the important role of the mulatto in the evolution of an urbanized middle-class society in Brazil during the nineteenth century.[20] The writer undertook some years ago a comparative study of race relations in Brazil and in the United States in terms of ecological, economic, and political differences which provided the background of race relations in the two countries.[21] The work of Pierson, which deals intensively with the situation principally in Bahia, throws light on the racial division of labour and other aspects of racial relations within Brazil.[22] More recently Wagley and Bastide have carried out studies in Brazil which have helped to clarify the racial situation there in relation to the class structure of the country and the changes which are occurring in its social organization.[23]

Africa offers a wide field for the study of race relations. There race relations may be studied in its larger economic and political aspects where Negro independent states are coming into existence and in the multi-racial communities faced with the problem of integrating different races into a social organization. Much work has been done in South Africa but sociologists are being attracted to other areas.[24] Some of the most important studies of race relations in Africa have been carried on by Balandier in West and Central Africa.[25] In his various studies Balandier has studied the demographic and economic aspects of race

relations including the racial division of labour and has illuminated the role of messianic movements in the nationalistic awakening in Africa. Sociologists are beginning to pay special attention to the emergence of a middle class in Africa.

The racial situation in tropical Africa resembles in some respects the changes which have occurred and are taking place in another tropical area, the West Indies. Although this has been an area which has long been recognized as a laboratory for the study of race relations, only recently have any significant sociological studies been undertaken there.[26] Among recent studies reference should be made to the studies by Williams, Henriques, Clarke and Broom.[27]

The study of the West Indies as a racial frontier naturally leads us to England where the migration of West Indian Negroes has created an important area for the study of race relations in Europe. Little has made an important study of Negroes in Britain and under his direction other studies have been made of race relations by Collins and Richmond.[28] This brief reference to the studies of race relations in England might conclude our survey since it brings to a full circle the cycle of race relations which began with the expansion of the European or white race which created the racial frontiers in the modern world. The descendants of those who manned the slave ships to the West Indies are rubbing shoulders today with the descendants of the slaves on the streets, in the marketplaces, and in the factories of England.

However, I cannot conclude this rather sketchy account of the present status of sociological research in regard to race relations without saying something concerning sociological theories of race relations. Some attempts were made to outline a natural history of race relations. This gave rise to what was known as cycles of race relations.[29] Although these cycles of race relations provide a good descriptive account of successive phases of social contacts under certain conditions, they can hardly be regarded as generalized theories of race relations. More recently Blumer has undertaken to outline a general theory of race relations. After a critical analysis of the theoretical approaches to race relations and of the nature of race relations, he comes to the conclusion that students of race relations can only contribute a " policy theory " rather than a scientific theory of race relations because of the changing character of the phenomena which are being studied.[30] Freedman in his critique of recent studies of race relations reveals the lack of any genuine theoretical basis of sociological studies of racial relations.[31] Then, I would add that in the sociological approach to the study of race relations, there is still a need to determine whether one can include the contacts, for example, of Chinese and Malayans within the category of race relations. I would go so far as to say that some recent attempts to include racial and religious groups in the single category of minorities only introduces confusion in the study of race relations.

However, when one studies the vast work which has been done in the sociological study of race relations, it is possible to make some generalizations about the definition of problems in the field and the utility and validity of certain approaches.   First, it is clear that the social psychological approach is too narrow and that while it may reveal many interesting and important facts especially concerning interpersonal relations, it does not reveal the important economic, political and other cultural and institutional factors which are determinants of race relations.   In the modern world, at least, the economic factor is of primary importance in race relations and as, Voegelin has indicated, the idea of race is a political idea which sets up symbols and welds the diffuse mass of individuals into a group unit.[12]   It is especially important for sociologists to take account of this aspect of race relations in view of the emergence of nationalistic movements among the peoples of Africa and Asia.   It is probably because of the political implications of the race idea that in the United States where there is an announced policy of racial integration, it is difficult to secure financial support for the scientific study of race relations.   Fortunately, to compensate for this tendency there is a growing interest on the part of sociologists in the study of race relations in Africa, the West Indies, and South America and even in Asia.

NOTES

[1] Richard Hofstadter, *Social Darwinism in American Thought*.   Philadelphia: University of Pennsylvania Press, 1944.

[2] Edward B. Reuter, " Fifty Years of Racial Theory," *The American Journal of Sociology.*   Vol. L, pp. 452-61.   E. Franklin Frazier, " Sociological Thoery and Race Relations," *American Sociological Review.*   Vol. XII, pp. 265-71.

[3] Alfred Fouillée, " Race from the Sociological Standpoint " in *Papers on Inter-Racial Problems.*   G. Spiller, Editor, London: P. S. King and Son, 1911, pp. 24-29.

[4] Robert E. Park, *Race and Culture*, Glencoe, Ill: The Free Press, 1950, p. 81.

[5] Ibid., p. 83.

[6] E. Franklin Frazier, *Race and Culture Contacts in the Modern World*.   New York: Alfred A. Knopf, 1957, pp. 31-36.

[7] See Andrew W. Lind, *An Island Community: Ecological Succession in Hawaii.* Chicago: The University of Chicago Press, 1938.   See also Otis Dudley Duncan and Beverly Duncan, *The Negro Population in Chicago.*   Chicago: The University of Chicago Press, 1957.

[8] See, for example, Ernest W. Burgess, " Residential Segregation in American Cities " *The Annals of the American Academy of Political and Social Science.*   Vol. CXL; E. Franklin Frazier, " Negro Harlem: An Ecological Study." *The American Journal of Sociology*, Vol. XLIII, pp. 72-88.

[9] See Duncan and Duncan, *The Negro Population of Chicago*: passim.

[10] Leo Kuper, Hillstan Watts, and Ronald Davies, *Durban: A Study in Racial Ecology*, London: Jonathan Cape, Ltd., 1958.

[11] Leonard Broom, " The Social Differentiation of Jamaica " *American Sociological Review* Vol. XIX, pp. 115-24; Clarence E. Glick, " The Position of Racial Groups in Occupational Structures." *Social Forces*, Vol. XXVI, pp. 206-211; Everett C. Hughes and Margaret L. McDonald " French and English in the Economic Structure of Montreal," *Canadian Journal of Economics and Political* Science, Vol VII, pp. 493-505; Andrew W. Lind " Occupation and Race on Certain Frontiers," in Andrew W. Lind (ed.), *Race Relations in World Perspective*, Honolulu: University of Hawaii Press, 1955, Chapter III.

[12] See Everett C. Hughes, " Race Relations in Industry " in William F. Whyte (ed.). *Industry and Society*, New York: McGraw-Hill, 1946, Chapter VI, and Edgar

T. Thompson, " The Plantation as a Race-Making Situation," unpublished statement before the conference on Race Relations in World Perspective (Honolulu: University of Hawaii, 1954).

[13] Louis Ruchames, *Race, Jobs and Politics: A Story of the F.E.P.C.*, New York; Columbia University Press, 1953.

[14] J. D. Lohmann, *Segregation in the Nation's Capital*, Chicago: National Committee on Segregation in the Nation's Capital, 1949.

[15] Here it should be noted that as early as 1904, William I. Thomas, in " The Psychology of Race Prejudice," *The American Journal of Psychology*, Vol. IX, pp. 609-10, had stated that the antipathy of whites for Negroes in the South " is rather caste-feeling than race prejudice, while the feeling by the northerner is race-prejudice proper.   In the North, where there has been no contact with the negro and no activity connections, there is no caste-feeling, but there exists a sort of skin-prejudice—a horror of the external aspect of the negro—and many northerners report that they have a feeling against eating from a dish handled by a negro.   The association of master and slave in the South was, however, close, even if not intimate, and much of the feeling of physical repulsion for a black skin disappeared."

[16] See Brewton Berry, *Race Relations*.   New York: Houghton Mifflin Co., 1951, pp. 317-19; George Simpson and F. Milton Yinger.   *Racial and Cultural Minorities* New York: Harpers and Brothers, 1953, pp. 327-30; I. D. MacCrone, " Race Attitudes: An Analysis and Interpretation " in Ellen Hellmann (ed.) *Handbook on Race Relations in South Africa* New York: Oxford University Press, June, 1949, p. 685; and Oliver C. Cox, *Caste, Class and Race*.   New York: Doubleday and Co., Inc., 1948.

[17] See, for example, studies listed in George E. Simpson and J. Milton Yinger. " The Sociology of Race and Ethnic Relations " in *Sociology Today* (New York: Basic Books, 1959, p. 392, footnote 23. Concerning the Negro in the United States see St. Clair Drake, " Recent Trends in Research on the Negro in the United States," *International Social Science Bulletin*.   Vol. IX, pp. 475-92.

[18] Ibid., pp. 384-94.

[19] Gilberto Freyre, *The Masters and the Slaves*, New York: Alfred A. Knopf, Inc. 1946.

[20] Gilberto Freyre, *Sobrados e Mucambas*, Sao Paulo: Companhia Editora Nacional, 1936, Chapter VII.

[21] E. Franklin Frazier, " A Comparison of Negro-White Relations in Brazil and in the United States," *Transactions of the New York Academy of Sciences*, Series 2, Vol. VI, pp. 251-69.

[22] Donald Pierson, *Negroes in Brazil*, Chicago: The University of Chicago Press, 1942; and " Race Relations in Portugese America " in Andrew W. Lind (ed.) *Race Relations in World Perspective*, Honolulu: University of Hawaii Press, 1955, Chapter 19.

[23] Charles Wagley, *Race and Class in Rural Brazil*.   UNESCO, 1952.

[24] Ellen Hellman (ed.) *Handbook on Race Relations in South-Africa*, New York: Oxford University Press, 1947; Eugene P. Dvorin, *Racial Separation in South Africa*, Chicago: The University of Chicago Press, 1952; and Hilda Kuper, *The Uniform of Colour.   A Study of White-Black Relationships in Swaziland*.   Johannesburg: Witwatersrand University Press, 1947; and Sheila Patterson, *Colour and Culture in South Africa*, London: Rutledge and Kegan Paul, Ltd., 1953.

[25] See Georges Balandier, " Race Relations in West and Central Africa " in Lind (ed.) *Race Relations in World Perspective*, Chapter 7, which contains references to his various studies.

[26] Ulysses G. Wetherley, " The West Indies as a Sociological Laboratory," *The American Journal of Sociology*. Vol. XXIX, pp. 290-304.

[27] Eric Williams, *The Negro in the Caribbean*, Washington, D.C.: Associate in Negro Folk Education, 1942; Fernando Henriques, *Family and Colour in Jamaica* London: Eyre and Spottiswoode, 1953; Edith Clarke, *My Mother Who Fathered Me.*   London: George Allen and Unwin Ltd., 1958; and Leonard Broom, " The Social Differentiation of Jamaica " *American Sociological Review* Vol. XIX, pp. 115-24; and Vera Rubin (ed.) *Caribbean Studies.   A Symbosium*.   Jamaica: University College of the West Indies, 1957.

[28] K. L. Little, *Negroes in Britain*.   London.   Kegan Paul, Trench, Truber and Co., Ltd., 1947: Sidney Collins, *Coloured Minorities in Britain* London: Lutterworth Press, 1957; Anthony Richmond, *Colour Prejudice in Britain.*   London: Routledge

and Kegan Paul, 1954; and A. T. Carey, *Colonial Students* London: Secker and Warburg, 1956.

[29] See Robert E. Park, "Our Racial Frontier on the Pacific," *Survey Graphic*, Vol. 9 (May, 1926); Emery S. Bogardus, "A Race Relations Cycle," *The American Journal of Sociology*, Vol. XXXV, pp. 612-17; and W. O. Brown, "Culture Contact and Race Conflict" in E. B. Reuter (ed.) *Race and Culture Contacts.* New York: McGraw-Hill Book Co., Inc., 1934, Chapter III.

[30] Herbert G. Blumer, "Reflections on Theory of Race Relations" in Andrew W. Lind (ed.) *Race Relations in World Perspective*, Honolulu: University of Hawaii Press, 1955, pp. 3-21.

[31] Maurice Freedman, "Some Recent Work on Race Relations: A Critique," *The British Journal of Sociology*, Vol. V, pp. 342-54.

[32] Eric Voegelin, "The Growth of the Idea of Race" *The Review of Politics* Vol. II, pp. 283-86, in *Race: Individual and Collective* Edited by Edgar T. Thompson and Everett C. Hughes.   Glencoe, Ill: The Free Press, 1958, pp. 250-52.

Recent World Developments
in Applied Family Sociology

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Interest in marriage and the family has been high since the beginnings of recorded history. Indeed, from the standpoint of consumer interest, it is quite likely that there has been enough concern about the issues of marriage to justify an active, applied family sociology for centuries. Yet love, courtship, marriage, and parenthood have only recently been considered seriously as objects for systematic scholarly study. Most of the empirical research on marriage and family behaviour has been concentrated in the last twenty years. It has been more the tardiness of the social scientist in developing a sociology of everyday family living than a lack of interest on the part of a consuming public which has held up the collaboration of research worker and research user in this arena of activity.

In this paper I should like to comply with the objectives of Section II, on " The Applications of Sociological Knowledge," by identifying a series of such applications from family sociology in selected countries, after first presenting a picture of the background setting for developing an applied family sociology. It is my contention that applications of family sociology in the countries participating in the Fourth World Congress of Sociology have been forthcoming only after certain conditions have been met: (1) a relatively high volume of research writing, (2) favourable acceptance of the specialism of family sociology as a legitimate area of inquiry, (3) emphasis in topical treatment on problems which lend themselves to ready application, and (4) development of a methodological stance that encourages application as a means of validating findings experimentally. For this analysis of the necessary conditions facilitating applications of family sociology, I will draw heavily on my recent survey of the literature undertaken for the International Sociological Association's trend report on the *Sociology of Marriage and Family Behaviour*[70].

I

NECESSARY CONDITIONS FOR DEVELOPING APPLICATIONS

A. *Minimum Volume.* Once sociologists accepted marriage and the family as a legitimate area for systematic study, the volume of research

and writing grew tremendously.   Since 1900, in the United States alone, more than 12,000 books and articles have been published on some aspects of marriage and family behaviour, and the volume of production approximates 300 publications a year at the present time.   In the survey undertaken for the trend report on the sociology of marriage and family behaviour, I found over 2,200 monographs and articles reported from thirty countries for the twelve-year period 1945-56.   It is only reasonable to suppose that a certain minimum volume of writing in a country is necessary before the findings of research become merchandisable to a consuming public.   This is apparently the case, with the growth greatest in countries where the volume of publication is highest.   The number of publications was highest for the more industrialized countries and the countries where social science is most firmly established: U.S.A., France, Belgium, Germany, Japan, Netherlands, and England reporting from fifty to 1,400 publications over the twelve-year period; Italy, India, Austria, Switzerland, Sweden, and Finland reporting twelve to twenty-four publications; and the balance of the thirty countries surveyed limiting themselves to fewer than twelve publications for the period in question.

B.   *Favourable Acceptance by Scholars.*   Is family sociology viewed as a legitimate field of inquiry?   Relative to other fields, family sociology ranks high in frequency of publication in a selected few countries.   In an unpublished survey of twenty leading European social scientists from eleven countries in 1956, Hill found relatively few who felt their sociological compatriots would rank the research problems of the family high in assessing the most significant problems to be tackled in the immediate future.   Problems within the provinces of industrial sociology, urban sociology, and the sociology of religion were invariably placed ahead of the issues in the sociology of the family by these scholars. In a special edition of *Mens en Maatschappij* (July-August, 1956), on the development of sociology and social research in the Netherlands, family sociology was ranked nineteenth out of thirty fields of sociological inquiry in frequency of publication from 1852 to 1956.   In striking contrast is the attention given to family sociology in international meetings, in the United States, and in Germany.   Of 194 papers presented at the Third World Congress of Sociology, thirty-four were on the family.   In addition, family research has been the focus of five international seminars of the UNESCO Institute for Social Sciences of Cologne, 1954-58.   In the United States, sociologists have for several years ranked marriage and the family within the first four among twenty-four fields of sociological inquiry in frequency of research projects reported, only social psychology consistently outranking it[154]. In Germany no field of inquiry ranks higher today than family sociology, with the most reputable leaders of sociology being men who have made their reputations with family publications.   Belgium, France, and Japan also devote considerable space to family sociology and report increased acceptance of it as a social science specialism.

C. *Topical Emphasis on Practical Problems.*   Is it possible that the lower ranking of family sociology as an arena for investigation in some countries is due to the relatively abstract and distant quality of the family treated? Countries which concentrated primarily on the macroscopic analysis of the growth and development of domestic institutions in Western civilization, or on the esoteric issues of marriage customs among historic and primitive peoples, would not be expected to win high readership among students today, and certainly would not be likely to develop an applied family sociology.   Further attention to the topical emphasis of research in the family in different countries is warranted.

From detailed annotations of all research undertaken in some countries, and a 15-40 per cent sample of the more productive countries for the 1958 trend report, it has been possible to identify the range of topics treated in thirteen countries. The subject matter covered by these writings covers a wide panorama of topics, some of which are central but many of which are marginal when viewed as potential applications to everyday family living. Table 1, Topical Emphases of European, American, and Asian Researches, 1945-56, provides an overview of the major topics treated.

European and Asian writers are much more evenly distributed in their over-all treatment of topics than is the United States. They tend to emphasize broader societal settings such as the macroscopic study of family institutions, ethnographic descriptions of marriage customs and family patterns, the studies of family and community transactions, and the surveys of ameliorative aids, including national policies for families.   (Belgian scholars devote almost forty per cent of their writing to this question of policies and programmes for families.)   There is, however, also lively interest in most of the countries of Europe in the impact of family and parental patterns on children and on the study of the family as a small group association, especially in descriptions of family role structures and functions, in which their relative volume surpasses the American researchers.

It is quite apparent that the different topical areas shown in Table 1 are by no means equally amenable to application in the lives and practices of families or in the practices of family-serving agencies.   The more macroscopic the studies, in general, the more difficult it is to distill applications from them.   The more abstract or theoretical the problem, the more remote from immediate application it is.   Reversely, the more microscopic the topic and the more empirical the focus, the easier it will be to take the necessary steps to operationalize the variables and to make applications in life situations or in agency programmes of service.

If we collapse the details of Table 1 into a second compilation showing the proportion of studies that are clearly macroscopic and

Table 1

TOPICAL EMPHASES OF EUROPEAN, AMERICAN, AND ASIAN RESEARCHES, 1945-56

Topical Categories	Europe		United States		India and Japan		Total	
	No.	%	No.	%	No.	%	No.	%
Macroscopic Studies of Marriage and Family as Institutions, Ahistorical and Historical	74	14.48	5	2.51	22	23.65	101	12.58
Ethnographic Descriptions of Marriage Customs and Family Patterns, Kinship Rules and Procedures	40	7.82	1	.51	11	11.82	52	6.48
Family Transactions (Microscopic) with Societal Agencies (Community, Neighbourhood, Kin, Friends, Government, School, Church, Helping Professions)	71	13.89	15	7.53	13	13.47	99	12.33
The Family as a Small Group Association ..	65	12.72	33	16.58	24	25.80	122	15.19
Family Role Structures and Functions ..	47	9.19	14	7.03	16	17.20	77	9.59
Interpersonal Relations in the Family ..	15	2.93	12	6.03	7	7.52	34	4.23
Family Development Studies	3	.59	7	3.51	1	1.09	11	1.37
Parental Family Contexts of Child Development	68	13.30	42	21.10	2	2.15	112	13.95
Influences of Family on Health or Personal Development of Members	48	9.39	22	11.05	0		70	8.72
Family and Parental Correlates of Child-Rearing Practices	0		5	2.51	0		5	.63
Family and Parental Correlates of Deviant Child Behaviour	20	3.91	15	7.73	2	2.15	37	4.61

Mate Selection Patterns, Procedures, and Processes	**13**	**2.54**	**35**	**17.58**	**3**	**3.22**	**51**	**6.35**
Assortive Mating..	7	1.36	13	6.53	3	3.22	23	2.86
Love and Preferential Mating ..	2	.39	11	5.52	0		13	1.62
Dating, Courtship, and Pre-Marital Sex Practices	4	.78	11	5.52	0		15	1.87
Marriage and Divorce	**41**	**8.02**	**36**	**18.09**	**5**	**5.37**	**82**	**10.21**
Marriage Adjustment and Prediction Studies..	10	1.95	21	10.55	1	1.09	32	3.98
Factors Influencing Divorce and Separation ..	12	2.34	12	6.03	0		24	2.99
Marriage and Divorce Statistical Trend Studies	19	3.71	3	1.50	4	4.30	26	3.24
Family Reproductive Behaviour Studies	**30**	**5.87**	**9**	**4.52**	**3**	**3.22**	**42**	**5.23**
Factors Affecting Family Size	20	3.91	6	3.01	2	2.15	28	3.49
Factors Affecting Family Size Attitudes (both towards Ends and Means)	10	1.95	3	1.50	1	1.09	14	1.74
Family Functioning under Conditions of Severe Stress	**16**	**3.13**	**2**	**1.01**	**3**	**3.22**	**21**	**2.62**
The Multi-Problem or Hard Core Family ..	11	2.15	0		1	1.07	12	1.49
Family Crises and Adjustment	5	.98	2	1.01	2	2.15	9	1.12
Surveys of Ameliorative Institutional Aids ..	**48**	**9.39**	**3**	**1.50**	**0**		**51**	**6.35**
Education for Marriage and Parenthood Programmes	8	1.56	2	1.01	0		10	1.25
Family Allowances and Social Security Provisions	19	3.71	1	.51	0		20	2.49
Review of National Policies and Programmes	21	4.10	0		0		21	2.61
Family Research Methodology	**9**	**1.76**	**11**	**5.52**	**0**		**20**	**2.48**
Miscellaneous	**36**	**7.04**	**7**	**3.51**	**7**	**7.52**	**50**	**6.23**
TOTAL	511	100.00	199	100.00	93	100.00	803	100.00

institutional or microscopic and associational in their focus by clusters of countries, we get a new perspective on the problem of applying family sociology in different countries of the world.

Table 2 tells us that the Asian countries of Japan and India and the German-speaking countries of Austria, Germany, and Switzerland, together with Holland, are high in macroanalytic treatment of marriage and family institutions, with the United States exceedingly low, devoting less than three per cent to macroscopic research.   Reciprocally, the U.S.A. is very high in its attention to micro-sociology, with nearly three-fourths of its studies so focussed.

Europe has not only outproduced the United States in the macroscopic analyses of the interrelations of family and society, but it has also moved farther in the microanalysis of family transactions with other systems in the society such as neighbours, kin, friends, school, helping professions, and so on.   Placing the family in community context has been especially important to European and Japanese researchers.   In my 1956 survey, with only one exception, family researchers in eleven countries listed the need for research on the impact of our changing society on the family and the interplay of the family and collateral agencies as among the most important for sociology to attack today.   Accordingly, as Europeans have shifted to empirical studies of the family, they have treated this primary group less frequently as a closed system of interaction and more frequently as a transacting entity with other collateral systems.   No single category of studies holds more promise in building an applied family sociology, since these studies focus on the interplay between the family and the significant groups which make up its social network.   The work of Saal[117] of Holland, of Hanssen[64] of Sweden, of Mogey[100] and Bott[19] of England, and Y. Talmon-Garber[135] of Israel offer excellent illustrations of this development.

Closely approximating the popularity of the family as a transacting entity is the topical area of the Family as a Small Group Association, to which the United States also is committed.   It should be noted from Table 1, however, that three subcategories make up this grouping : Family Structures and Functions, Interpersonal Relations within the Family, and Family Development Studies.   The European and Asiatic countries are contributing most to the first and most esoteric of these three subcategories.   The development of a social psychology of the family, catching the interactional patterns within the family, appears concentrated in the United States, with England, Italy, and Japan providing occasional contributions.

Interest in the impact of Parental Family Contexts on Child Development is highest in France, Belgium, Scandinavia, and the United States.   As will be shown later, this is an area of high application and avid readership among consumers.

Table 2

DISTRIBUTION OF PUBLICATIONS BY MAJOR FOCUS FOR ASIA, EUROPE AND THE UNITED STATES, 1945-56

	Italy, France, Belgium, Scandinavia and England		German Speaking and Holland		India and Japan		15% Sample of United States Publications	
	No.	%	No.	%	No.	%	No.	%
Macroscopic Studies of Marriage and Family as Institutions	37	10.9	37	20.9	22	21.4	5	2.5
Clearly Microscopic Studies of Living Families ..		(44.3)		(44.6)		(41.7)		(73.4)
Family Transactions with Societal Agencies ..	40	11.8	31	17.5	13	12.6	15	7.5
Family as a Small Group Association	40	11.8	25	14.1	24	23.3	33	16.6
Parental Family Contexts of Child Development	51	15.1	17	9.6	2	1.9	42	21.1
Mate Selection Studies	8	2.4	5	2.8	3	2.9	35	17.6
Marriage Adjustment Studies	11	3.2	1	.6	1	1.0	21	10.6
Other	152	44.8	61	34.5	38	36.9	48	24.1
TOTAL	339	100.0	177	100.0	103	100.0	199	100.0

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The studies reported on mate selection lend themselves well to application and are predominantly validating in character, verifying theories of propinquity, of endogamy-exogamy, and of complementary needs as they operate in mate selection. The courtship studies include replicas of the earlier studies of the rating-dating complex, changes in courtship patterns, effects of parents on courtship involvement, and studies of the positive and negative controls exercised by dating young people in determining the bounds of sex play on their dates. In all of Europe during the trend period only thirteen such studies were undertaken; hence this appears to be primarily an American concern.

Marriage and divorce research divides between studies of marriage adjustment and statistical analyses of the incidence of marriage and divorce. The marital success studies in the United States continue to concentrate on such problems as the religious and economic factors in marriage and on testing the findings about marriage success in other regions and societal contexts. Slater and Woodside[123] in England, and Karlsson[78] in Sweden, have carried out studies which permit cross-national comparisons with work in the United States. Two formidable studies have been completed in the United States on marriage prediction during the 1945-56 period: Harvey J. Locke, *Predicting Adjustment in Marriage*[94], and E. W. Burgess and Paul Wallin, *Engagement and Marriage*[25]. These publications made advancements in research design by introducing the control group idea (Locke) and the longitudinal method (Burgess and Wallin) to marriage research. Thoughtful treatises of post-divorce adjustment and remarriage have also made their appearance in the United States recently. Goode, *After Divorce*[59], and Bernard, *Remarriage*[10], add significantly to our understanding of the post-divorce period.

European and Japanese interest in marriage and divorce leans toward statistical trend studies and studies of factors influencing separation and divorce, with scanty attention given to marriage adjustment treatments. Precisely the opposite is true for the United States, where marriage adjustment and prediction obtains the lion's share of attention.

This quick overview of the attention given to macroscopic as against micro-family studies suggests American efforts are by and large more likely to see application in the lives of families of our day than are European and Asian researchers. This may not hold for applications to be carried out by community agencies and government. Further examination of the studies listed in Table 1 is needed to appreciate this fact.

Family reproductive behaviour studies have been highly developed in Europe. Research on this problem has received generous subsidies in several countries, and the legislative programmes providing for family allowances have been responsive to demographic testimony

about the differential birth rate and the factors associated with it. Of the research centres of Europe, few equal the National Institute of Demographic Studies in Paris in the budget devoted to research, the high calibre of personnel employed, and the facilities provided for their work.

Holland is a major source of studies on Families Functioning Under Stressful Conditions, with nine out of sixteen studies for Europe conducted there. The Dutch reflect the interest of social workers in England and the United States in the hard core, multi-problem family upon whom so much of public welfare funds and services are expended. Interest in the patterns of adjustment to stress in the United States continues in adjustment to a variety of crises: sudden impoverishment, prolonged unemployment, institutionalization of a key family member for mental illness, unexpected pregnancies, war separation and reunion, alcoholism of a member, and the vicissitudes of a natural disaster. Even more critical stresses were chronicled in Europe in response to war bombing, declassing due to impoverishment following the war, and responses to the floods in Holland and England. The implications of research conducted on families under stresses of natural and wartime disasters for utilizing the family as a therapeutic milieu in future war-born disasters provide high motivation to scholars and clinicians alike.

The surveys of ameliorative institutional aids for families are largely limited to Europe. Belgium and France provide the bulk of these critical reviews of national policies and family allowances for Europe. Studies of this sort may someday provide us, however, with better bases for national and local policies in family assistance, so that family associations can be served without weakening their basic integrity. The thoughtful treatise by Alva Myrdal, *Nation and Family*[104], remains a classic of this type of sober analysis.

D. *Developing an Appropriate Methodological Stance.* From an examination of the subject matter covered in research reports for Europe, Asia, and the United States we have made certain deductions about the possibilities of an applied family sociology. An analysis of the stance or posture taken by research workers in these countries should provide additional insights in this regard.

Table 3 has been prepared to divide the researches annotated for the I.S.A. trend report according to methodological stance as *prescriptive*, *descriptive*, or *analytic*. European and Asian workers are more likely to be prescriptive, to see action recommendations as the goal of their research, than American scholars. Almost half of Belgian and a fourth of German papers are prescriptive-evaluative in stance, compared with less than a tenth of Dutch and French and a handful of American studies. Yet the most characteristic approach to their data by European-Asian workers is *descriptive* rather than prescriptive, with 51 per cent of all studies in 1951-56 so oriented (dropping from 61

Table 3

METHODOLOGICAL STANCE OF RESEARCH REPORTED FOR EUROPE AND ASIA AND FOR THE UNITED STATES
1945–50 vs. 1951–56

Stance	Europe and Asia		No. of Publi-cations	United States		No. of Publi-cations
	1945–50 %	1951–56 %		1945–50 %	1951–56 %	
Prescriptive (Evaluative, action oriented)	13.7	16.9	36	3.0	.8	3
Descriptive (Factual, informational)	60.8	51.2	119	16.8	21.5	39
Ethnographic	19.6	12.8	32	3.0	3.1	6
Historical	15.7	15.1	34			0
Survey	21.6	21.5	48	10.6	15.4	27
Case Study	3.9	3.5	8	3.0	3.1	6
Analytic (Explanatory)	25.5	32.0	68	80.3	77.7	154
Typological	9.8	8.1	19	13.8	6.1	17
Discerning	3.9	3.5	8	21.2	10.8	28
Statistical	11.8	20.4	41	45.5	60.7	109
TOTAL	100.0	100.0	226	100.0	100.0	196

per cent, 1945-50). American studies peak up in contrast in the concern for *explanations* of *findings*. The *analytic stance* attempts to identify the sequential relationships in research data through the juxtaposition of typologies or the progressive cross-classification of crucial variables (discerning), or through correlation and analysis of variance. This search for causal explanations seems to be the preoccupation of three-fourths of American studies reported. Almost equally concerned with analysis and explanation are Dutch and Scandinavian researchers, with about two-thirds of their researches taking this stance.

We have evidence from the analysis above that many European and Asian writers show a lively interest in the implications of their findings for action and that this interest appears to be on the increase, whereas in the United States detachment and objectivity appears to be a controlling norm. Foote and Cottrell[51] have noted this phenomenon among family researchers in the United States and have urged a change of stance:

> " Family studies suffer from the penchant that researchers have developed of viewing families as if they were ' spectators ' in a specious attempt to be objective; this gives a flat two-dimensional quality to much of scientific writing which makes it dull by comparison with lay writing, uninteresting because the researcher is uninterested . . ."

It is hard to evaluate the implications of the trends in Table 3 for the development of an applied family sociology. The prescriptive

stance may guarantee quicker application of findings, to be sure, but may it not also preclude the development of an explanatory theory on which to build a sound programme of action? The second or descriptive stance so characteristic of most European research writing produces what Blumer[14] has termed " interpretive theory." This is a valuable and important contribution in its own right, providing a theory that sensitizes people to the dimensions of their social world. Its aim is not to form scientific propositions but to outline and define life situations so that people may have a clearer understanding of their world, its possibilities of development, and the directions along which it may move. Blumer asserts that, particularly in a changing society, there is a need for meaningful clarification of basic social values, social institutions, modes of living, and social relations. Empirical study alone doesn't provide the insights needed, although some help may be gained from analyses made by empirical science. Its effective fulfillment requires a sensitivity to new dispositions and an appreciation of new lines along which social life may take shape. The European-Asian writing continues primarily at this level of interpretation, difficult to challenge, and even more difficult to verify, but highly suggestive for trial and application.

The analytic stance, with its emphasis on detachment and on the search for explanations, points toward the development of a more ambitious type of theory which at times transcends both interpretation and application. Occasionally the problem may be stated in such a way that it may be tested in an educational experiment. At that point the interests of the social engineer and the social scientist merge, but the findings will be utilized by the social engineer in social programming, whereas the social scientist will have used them to validate and test a hypothesis. Thus the fruits of the analytic stance may be deposited at the door of social application.

American research appears committed to the development of this latter type of analytic theory, although few family researches to date have been carried all the way to the stage of validation through field or laboratory experiments. One such project is the Puerto Rican family and fertility project at the Social Science Research Centre of the University of Puerto Rico, which over a five-year period explored the family factors in fertility planning and control[71]. It was designed to follow through three stages of increasing specificity and control, beginning with a reconnaissance stage of *exploration,* continuing with a *quantitative verification sample survey* verifying the findings from the exploratory foray with a representative sample, and concluding with *experimental validation* through an educational experiment. From this study it has been possible to outline a broad programme of social action for social agencies and government bureaus which would have a high likelihood of success. It provides a partial proof of the feasi-

bility and promise of the analytic stance in building a sound applied family sociology.

In summary, the development of an applied sociology may be expected to have proceeded farthest in those countries where the volume of publications is greatest (U.S.A., France, Belgium, Germany, Japan, the Netherlands, and England); where family sociology is ranked highest among fields of inquiry by scholars (U.S.A., Germany, France, Belgium, and Japan); where the topical treatment is more frequently of problems which lend themselves to ready application (U.S.A., Belgium, France, Scandinavia, Germany, and Holland); and where the methodological stance is favourable to application as validation of theories (U.S.A., Holland, and Scandinavia). On these four criteria the United States, France, Belgium, and Germany most frequently appear. A survey would be needed to verify this prediction. It would be especially interesting to discover what types of applications are most likely to be made in these different countries.

This, then, is the backdrop for viewing the development of an applied family sociology. We recognize as setting features the relative newness of family sociology as a discipline, the relatively high volume of publication in its brief history compared with other fields of sociological inquiry, the unevenness of quality of its products, the heterogeneity of emphasis in topical treatment, and the varied stances taken by researchers to their data. These have affected the readiness or resistance of researchers to merchandise their findings along broader lines for increased use by consumers.

We can identify at least four sources of cues used by family researchers in deciding what to study: (1) consumers (in the United States this means mainly high school and college students and young parents), who want to know how to prepare for marriage and parenthood; (2) action agencies (particularly health, education, welfare, and child guidance), which need knowledge about the family for use in planning their programmes of service; (3) policy boards of government, which need basic information about the needs of families and the family consequences of social programmes; and (4) fellow social scientists, whose work charts the theory into which family research must be integrated.

In most of the countries of the world, family sociology has taken shape primarily from the fourth source. Despite the high readership of family materials by the consuming public and agency personnel, the development of research programmes has been affected more by the interstimulation of colleagues in pointing up issues to be studied than by the pressing questions posed by interested consumers. If, in the discussion which follows, a case is made for a substantial amount of applied family sociology, it has been produced more as a by-product than as the direct outcome of research planning. The applications picture might have looked quite differently if family sociologists had

been more sensitive to the utilitarian implications of their work and less motivated by basic science orientations.

II

SOME APPLICATIONS OF FAMILY SOCIOLOGY

In his efforts to develop theory, the social scientist is seldom concerned with its applicability. " Pure " research referred to as investigation, the object of which is knowledge for its own sake, has been supported by society because it has produced knowledge which eventually proves useful. There are also social scientists who are attracted by the possibilities of putting to work the " pure knowledge " of the basic researchers in the solution of problems arising out of human relationships. It is the applied research performed by these social scientists which converts social science theory into utilitarian forms and structures.

Chombart de Lauwe in France has devised an ingenious scheme in the research centre he directs for joining the two types of social scientists productively. He has a basic research team working on the " pure " problem of motivations and aspirations in family life and another group working on the applied problems of housing and space utilization. These teams meet together periodically to work over one another's research findings for useful leads and insights, thereby enriching the final products for both groups.

Ernest Greenwood[60] in a provocative paper has described the process of converting social science theory into principles which can then be applied productively to the solution of a problem in human relationships:

" Viewed ideally, the conversion process may be broken down as follows: The social scientist first attempts to classify the professional's problem as a specimen within a large class of phenomena already identified and described by his science. Having done this, he then brings to bear upon the problem the generalizations which his science has formulated about this class. These formulations serve as his conceptual tools for observing the problem intensively, isolating its elements, and re-ordering them, so that they are seen in a new light. As a result, alternative solutions to the problem begin to emerge, each of which is tested. Around the successful solution a generalizing proposition is formulated which may henceforth serve as a guide for action whenever this type of problem recurs; the latter is a *principle*."

Greenwood reminds us that the methods employed in pure and applied research are identical. In both instances the process consists of logical, technical operations which are communicable, repeatable, and verifiable. The aim of applied research is also generalization about

classes; the concern is not with individual and specific problems but with a class of problems. As Young[153] has expressed it, the implied question for investigation always is: What *type* of action is indicated in a given *type* of situation to achieve a given *type* of goal? The classes are narrower, to be sure, than in pure research, with the family sociologist interested in marital conflict rather than social conflict in general.

Moreover, applied research is related to theory, just as pure research is. The case for joining the two processes as Chombart de Lauwe has done is certainly suggested by Greenwood's formulations[60]:

> " In the process of applying scientific theory to problem-solving, the applied researcher tests its validity. If the theoretical propositions of a social science are accurate models of social reality, the researcher should be able to extrapolate from them to type problems and to evolve fitting principles for them. A theoretical model that cannot be applied is incorrect. Should the extrapolation from theory fail to yield the anticipated solution, it might indicate that the theory required revision; and the problem situation might furnish the very clues suggesting the lines of revision. On the other hand, should the application of the theory yield practical principles, it would be a corroboration of the theory, with a consequent strengthening of the theoretical system of the social science. Therefore, while the immediate purpose of applied research is utilitarian, its ultimate result is to refine and build social science theory."

The process of application of findings from any science may be seen profitably from four perspectives: from the axis of the basic needs of people which require attention; from the viewpoint of the interpreters of research findings, the middle men who facilitate applications; from the vista of the receiving audiences ultimately served; and from the standpoint of the research findings most and least utilized. I should like to pay some attention to each of these perspectives in considering family sociology applications. What do people feel they must know and be able to do in order to fufill their marriage and family obligations satisfactorily? Who are the interpreters of research findings, and what are the instrumentalities through which they work? Who are the major ultimate consumers of family research findings? What concepts and propositions have proved most useful?

A. *Basic Family Tasks.* It has been possible to boil down into highly condensed form the common denominator of objectives toward which most families in Western civilization are striving. These can be seen as basic tasks to which families must dedicate themselves to survive and grow in our complex societies:

Basic Family Tasks With Which All Families Must Cope To Survive

    I. Planning and Controlling Family Size

more families will be satisfied to meet the minimum requirements of reproduction and physical maintenance of family members, but these families find stresses such as prolonged unemployment or hospitalization of the homemaker crippling crises which bring agencies into the picture to restore family equilibrium. The majority of families master sufficiently the basic tasks listed above so that they survive exigencies, crises, and stresses without turning to social agencies for help more than once or twice during their life span.

A family sociology oriented to the needs of families might hope to make applications which would permit families to perform the above tasks more effectively. Viewed dynamically, a good family is one which is successfully mastering the basic tasks of reproduction, physical maintenance, socialization, gratification of affectional needs, and of providing the motivation and morale necessary for the stimulation and development of the personality potentials of its members. Increasingly, families are judging their success by the yardstick of personality development of their members. To be sure, the breadwinner may use income and type of work to judge his success in the breadwinning role, and the mother may think of the aesthetics and comfort of a well-ordered home for judging her role as hostess and housekeeper, but together husband and wife as parents are increasingly appraising their success by the happiness and achievements of the children. The success of the marriage is likewise seen in highly personal terms of happiness and companionship.

We may ask ourselves to what extent family sociologists in the countries covered by the recent trend report on marriage and family behaviour have related their research to the basic family tasks listed above. Table 4 has been prepared to identify the tasks to which we have been sensitive and the tasks to which little attention has been given. We have added one task to the list above in preparing Table 4; namely, the task of forming new families through mate selection and courtship.

Of more than nine hundred books and articles listed in the annotated bibliography of the trend report, nearly three hundred may be classified as related to one of the basic tasks of families. If the German-speaking countries of Austria, Germany, and Switzerland and the Scandinavian countries of Denmark, Finland, Norway, and Sweden are treated as two units instead of seven, we have in Table 4 eight areas with a respectable number of publications that lend themselves to direct application for families coping with their basic tasks.

The countries tabulated are uneven in the proportions of their writings oriented to applied problems. The United States leads with 86 per cent, followed by the Scandinavian countries with 56 per cent. The Japanese and French writings are proportionately least oriented to the tasks of operating families, with 16 and 19 per cent respectively.

Table 4

DISTRIBUTION OF PUBLICATIONS ON MARRIAGE AND FAMILY BEHAVIOUR BY BASIC FAMILY TASKS TO WHICH

RESEARCH APPEARED ADDRESSED FOR COUNTRIES OF ASIA, EUROPE AND AMERICA, 1945-56

Basic Family Tasks	United States %	France %	Belgium %	Eng. %	German Speaking %	Holland %	Scandi-navia %	Japan %	Total No. of Public.	%
The Formation of New Nuclear Families Through Procedures of Mate Selection	10.5	0.0	4.3	0.0	0.0	0.0	0.0	0.0	9	6.3
Planning and Controlling Family Size	6.4	15.4	21.7	9.1	0.0	31.6	13.3	15.4	31	10.3
Physical Maintenance of Family Members (Food, shelter, medical care, residential mobility)	1.7	7.7	4.3	0.0	0.0	0.0	6.7	7.7	8	2.7
Socialization of Offspring (Expectations, objectives, policies, and practices and their impact on children)	31.4	38.5	43.5	9.1	42.8	10.5	26.7	0.0	90	30.0
Allocation of Resources and Responsibilities										(12.4)
Handling authority and accountability	2.9	7.7	0.0	18.2	9.5	0.0	0.0	7.7	12	4.0
Handling income and other resources	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6	2.0
Division of labour, differentiation of roles	5.8	3.8	4.3	9.1	0.0	0.0	6.7	0.0	14	4.7
Division of time, scheduling of tasks	0.0	0.0	4.3	0.0	4.8	0.0	20.0	0.0	5	1.7
Maintenance of Order										(16.4)
Within the family	7.0	0.0	8.7	0.0	4.8	5.3	13.3	15.4	20	6.7
Between family and outsiders	8.7	15.4	4.3	9.1	14.3	5.3	0.0	30.8	29	9.7
Maintenance of Family Morale (Marital satisfactions, solidarity, rewards for achieving, motivations to do tasks)	22.1	11.5	4.3	45.4	23.8	47.4	13.3	23.1	66	22.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
Total number of publications addressed to above issues	(172)	(26)	(23)	(11)	(21)	(19)	(15)	(13)	300	
Proportion of total reported addressed to above issues	(86.0)	(16.0)	(28.0)	(25)	(24.0)	(24.0)	(56.0)	(19.0)	(36.4)	

The task area attracting most attention from family sociologists in most of the countries surveyed was that concerned with the socialization of children into functioning responsible adults, with almost a third of all publications so oriented.   Japan, England, and Holland report scanty work here, suggesting that psychology rather than sociology may be the major discipline concerned with research on socialization in these countries.

The fifty-four American studies reported focus heavily on the impact of parental attitudes, beliefs, and practices on child attitudes, behaviour, and personality development as these vary by social class and historical time period.   The works of Baldwin[5, 6, 7], Sears and associates[121, 122], Bossard[17, 18] and Duvall[39, 40], are distinctive in the contributions they make to an applied sociology of parent-child relations.   In France the work of Chombart de Lauwe is outstanding for its scope and practicality, considering the impact of the situational features of type of living quarters, social class, and wife working on parent-child relations [29, 31] and the impact of the ecology of the streets of Paris on child behaviour[30].   The research in the German-speaking countries appears in contrast to the foregoing to be clinically oriented, concerned with the neurosis-producing aspects of poor family and mother-child relations[48, 52, 62, 120].

Second in frequency of attention among basic family task areas is the maintenance of family morale, to which better than a fifth of the studies were addressed.   England and Holland lead, with almost half of their studies devoted to this task area.   Their focus is predominantly on the problems of the multi-problem family and the unhappy social consequences of family disorganization[11, 65, 92, 107, 115, 148]. American research includes a concern for the problems of morale of sick families but enters this task area to discover what types of families succeed best under stress and what their characteristic procedures are in adjusting to crises[47, 53, 68, 75, 83].   Interest in ways of achieving family solidarity through strengthened marital relations characterizes several studies in the United States, England, and Sweden too numerous to be listed.

Further examination of Table 4 tells us that family sociologists are largely neglecting the study of the homely task area of physical maintenance of family members.   With the exception of a few scattered studies of housing and residential mobility as it affects family life[77, 116, 143, 146, 147], this vital task area is untouched in the 1945-56 period.   It is of course possible that studies of family performance on the task of physical maintenance are being conducted by disciplines other than family sociology.

Similarly, the subcategories of the basic task, Allocation of Resources and Responsibilities, dealing with income allocation and time

allocation, are severely neglected.   Most of the studies of time schedu-
ling of tasks are being done in Scandinavia[15, 118, 127].   The income
allocation studies are all American.   The other two subcategories of
this basic task area attract only slightly more attention, yet success in
this task area is extremely important for the smooth functioning of the
family as an instrumental organization.   The problems of power allo-
cation and division of duties are especially crucial in industrializing
societies where the traditional pattern of patriarchal authority and a
division of duties into " men's jobs " and '' women's work '' are
breaking down.

Problems of keeping members of the family in line, happy and con-
tented with their assignments and maintaining good relations with
outsiders, have elicited attention from most countries.   Studies of
the internal problems of family relations are predominantly carried by
American writers focussing on sex relations[128, 137, 138], emotional
alignments in the family[49, 63], and neurotic husband-wife relations[9,
90].   Japan, especially, is challenged by the task area of the nuclear
family and extended family relations, with almost a third of her studies
so oriented[79, 140, 85].   French researchers are more concerned with
the quality of neighbouring relations and the problems of isolation and
anomie among urban worker families[20, 142].   German researchers
are probing in-law relations and contacts between the generations[152,
52].   Other excellent work on the interrelations between the family and
its social network were noted earlier.*

Perhaps the two task areas in which the research has been most quickly
and adroitly merchandised are in the areas of family formation (mating)
and planning and controlling family size.   Americans are almost alone
in their concern for aiding young people to make a good marriage
choice.†   The studies of family planning vary in their emphasis by
countries.   In France and Belgium they are in part addressed to the
validity of national natalist policies[26, 56, 86, 145].   In Holland interest
is more frequently on achieved fertility, attitudes toward ideal family
size and about the use of birth control by regional and religious cate-
gories[36, 37, 73, 105, 141].   In the United States relatively little interest
is shown in policy implications, greater concern being shown for social
and psychological factors influencing family size[97, 109], effective
fertility planning[4, 72, 132, 149], and the relation of these to marital
adjustment[108, 113].   Japan[84], India[28], and Puerto Rico[71] in the
period since the trend report have published reports of research on
their first experimental projects designed to precipitate effective fertility
planning and control.   This is the most active and complete applica-
tion of family research findings uncovered by this report.‡

We have demonstrated in the projects tabulated in Table 4 some

*See earlier discussion of Family Transactions.
†See our previous discussion of this emphasis.
‡See details on the Puerto Rican experiment in an earlier discussion.

sensitivity by family sociologists to the major tasks families everywhere are facing. Let us illuminate now the problem of joining researcher and consumer more poignantly by a listing of problems phrased in the consumer's own words as they appear in " letters to the editor " or in public discussions.

B. *Pressing Questions Raised by the Marrying and Child-Rearing Public.* There is usually great disparity between the phrasing of a problem by a researcher and the view of the same phenomenon by people engaged in manipulating family relations in society. Young people about to marry want to know certain things about marriage and parenthood *now* in order to make decisions which are vital to their future. Parents engaged in rearing children and operating families likewise face problems which require foreknowledge about the consequences of future actions they might take.

The nature of the problem of linking research interests of contemporary family sociologists with the problems presented by the marrying public can be highlighted by examining the phrasing of questions the latter would like to have studied:

QUESTIONS MARRYING PEOPLE WOULD LIKE STUDIED

a. *From Those Dating and Courting*

How can you meet the kind of people you want to marry?
What about love at first sight?
How can you tell if it's love?
How can you choose a suitable mate?
What is the best age to marry?
Why do some people never marry?
Do marriage courses do any good?
How do you involve another into a commitment to marry?

b. *From Engaged Couples*

How long should an engagement be?
What about testing your sex compatability before marriage?
What sorts of engagements ought to be broken?
How much money does it take to get married?
Do war marriages work out?
How do interfaith marriages turn out?
What about honeymoons?
How do you know when you are ready for marriage?

c. *From Newly Marrieds*

How long does it take to adjust in marriage?
Are lovers' quarrels normal?
Does it pay to plan ahead, pay cash, or live it up as you go?
How do you get along with in-laws?
Do children increase the chances for a happy marriage?

How soon should the first child be planned for?
How can you space children best?
How many children make the ideal size of family?
How can you get over feeling let down about your marriage?

d. *From Seasoned Couples*

How can you run a family successfully?
What is a successful family?
Should the man be the head of the house?
Can a mother do justice to her husband and children and work
    gainfully?
What does it do to the children to have the mother away from
    the home working?
How important is sex in a good marriage?
How do you rear children to be responsible?
What do you do with bratty behaviour?
How much giving in is involved in being understanding?
What can families do together to increase their stability?

e. *From Embattled Couples*

Does marriage counselling do any good?
Do people who get divorced regret it later?
Is divorce better for the children than living in an unhappy home?
How do you know when you are ready for a divorce?
What do divorces cost?
Can second marriages be happy?

The family sociologist has not been totally unresponsive to these
questions, as reference to Table 1 and Table 4 will show.   Numerous
studies of mate selection and courtship practices have been undertaken,
especially in the United States.   Studies of engagement, of marital
adjustment and the factors making for marital success provide insights
relevant to a number of the questions posed by engaged couples and
the newly married.   Similarly, the studies of parental practices and
their personality consequences and the studies of divorce offer partial
knowledge about the questions raised by parents and alienated couples.
The questions as posed, however, are not entirely researchable and
therefore are infrequently studied.

Before the questions posed above can be studied, it is necessary to
rephrase them in more general form, treating the question as a specimen
within a larger class of phenomena already identified and described by
the sociologist.   Having done this, the researcher is able to bring to
bear upon the problem the generalizations which the science has already
formulated about this class.   The original problem now looks different-
ly, can be studied more intensively in a new light.   Alternative solutions
to the problem begin to emerge, each of which is tested.

We might consider the consumer question, " What is the best age

to marry?" A simple transformation of the question becomes: " How is age related to marital success?" There are, first of all, a number of empirical regularities reported by the statistician. Age at first marriage is higher for the college educated, for salaried people, for professional classes, than for other classes. Age at marriage is lower in the United States than in most countries of the West, and lower, especially for men, today than in any decade since 1890. It is lower for women than for men. Divorce and separation are especially high for marriages that take place before age twenty and are less likely for people in the late twenties. Marital adjustment is more likely to be adequate for couples marrying in their middle and late twenties. Given these regularities, the research problem may be rephrased: What types of people marry below age twenty, for what reasons, and with what success? What types of people marry in their middle twenties, for what reasons, and with what success? Readiness for marriage, intellectual and emotional maturity, and relations with parents may be introduced to throw light on the empirical regularities which suggest young marriages are more likely than older marriages to be vulnerable to divorce. Cross-cultural studies may be suggested to ascertain whether the same relationship holds true in other societies.

It is apparent in examining the questions listed above that many are researchable using purely descriptive methods: What types of people are most likely to meet and marry? What types of people never marry? What are the procedures in mate selection which check suitability and compatability? What are the steps in involving and committing another to marriage? What types of interfaith marriages present the fewest problems?

Other questions rephrased in research form demand the analytic method, since it is necessary to establish the amount of relationship between variables: How does election of a marriage course affect chances for a successful marriage? What types of engagements have a low rate of marital success? How is length of engagement related to marital success? Do children increase the chances for a happy marriage? What are the effects on children of the mother's outside employment? How does size of family relate to family solidarity and integration? What contribution does a satisfactory sexual relationship make to marital happiness? What is the chance of happiness in a second marriage? What types of marriage counselling succeed, with what types of clients?

Still other questions are quite unresearchable at the present state of our science: How can you tell if it's love? How do you know when you are ready for marriage? How can you get over feeling let down about your marriage? How do you know when you are ready for a divorce?

Perhaps this is enough to demonstrate the gulf between the theory-

oriented researcher and the personal-and family-oriented consumer at the point of stating the problem to be studied.   Similarly, at the point of considering the findings of the research there is a difference in language and understanding of findings.   Indeed, research is rarely undertaken with the consumer either as the problem-poser or as the audience for the final report.   It has been necessary for a group of interpreters to process research findings before they have become very useful for the marrying public.

C.   *Development of a Corps of Interpreters.*   Crucial to the development of an applied family sociology has been the emergence of a group of middlemen to transform research findings into the language of potential users.   These interpreters are found predominantly in the secondary schools and colleges performing the teaching function, but also are increasingly located in social agencies, churches, government bureaus, and as writers for the mass media.

Teachers and lecturers are found serving young people in the about-to-be-married ages in over 1,200 colleges and universities, in several hundred high schools, and in adult education programmes throughout the United States.   The instrumentality used is usually the " preparation for marriage " course, which ranges from a three-week unit to a full year's course of study in high schools, and from a non-credit series of lectures to a full year's course in colleges.   Most frequently it is an elective three-hour-a-week course running for fifteen weeks.

Marriage courses have been initiated in American colleges largely in response to the expressed wishes of the student body.   Students often led the way by organizing extracurricular lecture series.   Although widely attended, such lectures were limited in their educational value because they were outside the regular educational structure of the college.

Beginning in 1927, when Ernest R. Groves taught the first functional marriage course ever offered in the United States, colleges began to assume responsibility for marriage education.   Sometimes the courses were offered on a non-credit basis, but increasingly they have become a full-fledged part of the curriculum.

The idea of marriage courses spread slowly from college to college. By 1949, Henry Bowman found that half of all the colleges in the United States gave such a course, and roughly ten per cent of graduating seniors had taken it.

Robert O. Blood[13] has described the unique characteristics of the marriage course and has identified its major objectives in quotable form:

" The most distinctive characteristic of the typical marriage course is that it is designed to be ' functional ' rather than ' academic.'   In traditional academic courses on ' The Family,' attention is paid to families representing many cultures and many historical

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eras. A functional course, by contrast, draws upon theoretical and historical materials only insofar as they are relevant to the personal lives of the students. Thus the individual can reasonably expect on completing a functional course to be better prepared for the experiences he will encounter in courtship and marriage. He may also gain a fuller understanding of the behaviour of others and some knowledge which would be useful in the ' helping professions,' but these would be incidental by-products of the course. The main focus is on materials which will aid the student in his own living.

In order to have the maximum functional value for the student, marriage education seeks to provide each of the following:

1. Knowledge of the behaviour of others

The potential sources of factual information for a marriage course are numerous. Although most often taught by sociologists or home economists, such courses may provide useful information from such diverse additional fields as psychology, medicine, biology, law, religion, and economics. Knowledge of facts and figures about human behaviour is therefore a fundamental aim of marriage courses.

2. Knowledge of the consequences of behaviour

There are all sorts of potential consequences of any given decision. If students are to choose wisely, they should know the differential consequences of each alternative open to them at any particular juncture. Hence, marriage courses provide information about the practical effects of different courses of action.

3. Knowledge of social norms

One goal of marriage education is to increase awareness of the norms held by society in general and by particular segments such as religious groups. Whether he decides to conform or not, the individual does well to take social norms into consideration in deciding his course of action.

4. Knowledge about potential problems and achievements in marriage

Whenever a person is about to embark on a new experience, he likes to be " briefed " on what he may encounter. Marriage courses, in particular, orient the individual to what's ahead of him in marriage.

5. Knowledge of means of achieving marital goals

It may be only frustrating to learn what problems may arise in marriage unless one also learns how to solve them. Fortunately there are certain basic " human relations " skills which may be

not only studied but even practiced in the discussions and role-playing of a marriage class.   Especially valuable in marriage is skillfulness in the inter-personal processes of communication and decision-making.

6.   Self-insight

Because marriage education uses materials pertinent to the personal lives of students, it may result in increased awareness by the individual of his own scale of values, his special needs, and other aspects of his personality.   For many instructors, such increased self-insight is a major goal of the course.

7.   Personal growth

Finally, the experience of taking a marriage course should facilitate the growth of the student toward social and emotional maturity.   A student may find that he has achieved greater acceptance of the views of others or increased sensitivity to their needs. Just as importantly he may have been able to come to accept his own feelings and desires.

Seen as a whole, the aims of marriage education are unusually comprehensive in scope.   They include the usual element of mastery of factual material, but they also stress the growth of the individual in skill, understanding, and emotional maturity."

To aid the teacher in transmitting research materials to students, the marriage and family textbook has been created.   The text is usually organized around the practical problems of mate selection, courtship, sex adjustments, marital success, and parenthood.   Interest is maintained by starting with the questions dearest to the student and working outward, rather than presenting a logical, systematized organization of materials from the viewpoint of the instructor.   Marriage textbooks, written primarily by family sociologists, constitute the most typical exhibit that can be found of applied family sociology.   Consider the part and chapter headings of one widely used text:

Part I   Anticipating Marriage

    What You Bring to Marriage
    How Do You Know It's Love?
    Dating
    Becoming Involved
    The Meaning of an Engagement
    Marriage and the Facts of Life
    Does Morality Make Sense?
    Who Gets Married?
    Wedding Plans

Part II   What It Means To Be Married

    Just Married
    Money Matters in Marriage

Common Conflicts in Marriage
When Crises Come
Facts and Feelings About Divorce
What Holds a Marriage Together

Part III   The Making of a Family

Where Babies Come From
Getting Ready to be Parents
What It Means to be Parents
Family Life and Religious Living

Research findings are widely quoted in marriage textbooks, and further elaborated by teachers and lecturers in classroom discussion. Students in marriage classes participate in research by filling out questionnaires on their own courtship and mate selection experiences and by distributing questionnaires to their parents about their own marital and family problems.   Judson T. Landis of the University of California has been most ingenious in his use of students as research subjects, claiming it serves to make research more functional, more closely related to their problems[87].   He has studied in this fashion a series of practical issues: length of time to achieve adjustment in marriage, interfaith marriage combinations which have highest probabilities of success, effects of pregnancy on marriage adjustment, impact of divorce on children, problems of campus marriages and marriages in wartime. Clifford Kirkpatrick of Indiana University has also employed college students fruitfully as subjects, with studies on the course of and duration of love involvements, the extent of sex aggression among student daters, and the use of the honeymoon by college students.

The United States has elaborated the profession of the interpreter of family sociology in the schools further than any other country—indeed, the complex of marriage educator, marriage textbook, and preparation for marriage course is almost uniquely found in the Americas.   Preparation for marriage courses have also been taught in a few Canadian settings, in Panama and Puerto Rico.   A manual for engaged couples is available in Puerto Rico, patterned after U.S. marriage manuals, by Sra. Celia Nunez de Bunker, *Conque Vas a Casarte*[22]. It is more dependent on psychological than sociological insights and makes no reference to research findings to support these insights.

Europeans, for their part, have elaborated programmes for parents in what have been called Schools for Parents.   France takes credit for the organization of the first such school in Paris in 1929. Isambert[74] points out that the School for Parents in Paris focusses much more than the comparable child study programmes in the United States on the psychology of the parents and of the family as a whole.   " Thus the school hopes to succeed in promoting solidarity between generations, and the acceptance by both parents and children of a simultaneous

education of either, lasting all their lives." The school publishes courses of study for parents in its two journals, *Ecole des Parents* and *Bulletin de Liaison des Ecoles des Parents*, but also provides individual consultations for parents, discussion groups for parents and groups of young people, focussing, especially for the latter, on problems of marriage preparation. Other Schools for Parents have been established in Belgium, Brazil, Italy, Poland, Switzerland, and Yugoslavia. Belgian writers have described for their countrymen these and other developments in family life education in a series of reports[34, 35, 96, 119].

A second set of interpreters of research findings are found among the professionals who man the psychiatric and social work agencies, the pastoral counselling services, and the information services of government bureaus serving families. These workers purvey factual information about marriage and parenthood and principles of family sociology in the course of counselling clients in trouble. They will also develop pamphlets for clients to serve the same purpose. The series of pamphlets prepared by the United States Children's Bureau, *Infant Care, Your Child From One to Six,* and *Adolescence,* have been read by millions of parents, as have the provocative series of more than thirty pamphlets by the Public Affairs Committee on family relations, all authored by well-known experts, covering crucial issues of marriage and parenthood: *So You Think It's Love, Why Some Women Stay Single, If I Marry Outside My Religion, Building Your Marriage, Planning Your Family, Having A Baby, Keeping Up With Teenagers, Making the Grade as Dad, Democracy Begins in the Home, How to Be a Good Mother-in-Law,* and so on.

Closely aligned with these latter interpreters are the writers for the mass media who are condensing and highlighting research findings for the millions who read the women's magazines and the newspapers. Who are these purveyors of family life materials for the millions? A gifted few have had specific professional training in psychology, medicine, or family sociology: Clifford Adams, Evelyn and Sylvanus Duvall, David Mace, Ernest G. Osborne, Paul Popenoe, and Lee Steiner are educators of some standing who have done regular columns or held down radio and television programmes. A host of educators write occasionally: Benjamin Spock, Lawrence K. Frank, Milton Senn, Judson Landis, Emily Mudd, and Ernest W. Burgess might be so listed. But the majority of writers are freelance journalists who develop articles from current issues, and use members of the universities' research and teaching staffs as their major sources. In the United States Vance Packard, Michael Drury, Jack Pollack, Amram Scheinfeld, Ernst Havemann, Norman Lobsenz, Dorothy Barclay, Catherine Mackenzie, Myrtle Meyer Alred, and Gladys Dennys Schultz are among those who have been most responsible and competent in processing family research for the everyday consumer.

D. *The Audiences for Family Sociology.* We find with Nelson Foote that the great bulk of family research writing does not appear directed to the family man in his home setting but to professional colleagues of the researchers[50]. This can be seen in Table 5 in the tabulation of the 900 books and articles in the annotated bibliography for the I.S.A. trend report 1945-56 by audiences served. The great majority of publications, 76.5 per cent, for all countries listed, are primarily for the eyes of colleagues. Of this number, family life educators appear recipients of 10 per cent, with the United States contributing disproportionately to this figure.

Publications beamed more directly at the marrying and child-rearing public constitute a small fraction of the total output, 8.8 per cent. Indeed, no countries except the United States and Belgium made more than a token gesture in this direction, with 24 per cent of the U.S. writing and 7.7 per cent of Belgian efforts so directed. The U.S. places more emphasis on the very early stages of family formation and establishment, concentrating on the about-to-be-marrieds, the newly married, and young parents, than on the later phases of parenthood. The European treatment is more frequently on the later stages of the family cycle.

A secondary audience of professionals working with families constitutes a group one step removed from the consumer. A number of publications, 9.5 per cent, listed in Table 5 are so directed. England with 21.5 per cent, the U.S. with 23 per cent, and Scandinavia with 18.5 per cent lead in this orientation to professionals in the helping agencies.

A third audience are the policy makers, the boards of local, state, and federal agencies, the leaders of political parties and legislatures. Here the writing is not heavy, 5.2 per cent, but is substantial for individual countries. Belgium leads with 14.1 per cent, France 9.2 per cent and Holland 7.3 per cent follow. The United States is almost unconscious of this potential audience for research writing, 1.5 per cent. The content of the writing is concerned primarily with questions of levels of living related to welfare legislation[11, 55, 57, 110], excessive burdens carried by large families[2, 21, 26, 56, 91, 145], pro-natalist legislation, and the evaluation of the adequacy of policies for family life[8, 16, 27, 33, 38, 111].

Analysis of the applications of family sociology by audiences served suggests the need for greater consideration of audiences other than our fellow researchers in the formulation of the research problem and in the writing up of research findings. In the tabulations of research publications in Table 5 four audiences are identified, two of which are barely visible in most countries: the marrying and child-rearing public and the members of policy boards. Still another possible audience not reached by our research writing is the businessman who would like to understand the market behaviour of the consumer in order to redesign

Table 5

DISTRIBUTION OF PUBLICATIONS ON MARRIAGE AND FAMILY BEHAVIOUR BY AUDIENCES TO WHICH WRITING

APPEARED DIRECTED FOR COUNTRIES OF ASIA, EUROPE AND THE UNITED STATES, 1945-56

Audiences Served	United States %	France %	Belgium %	Eng. %	German Speaking %	Holland %	Scandi-navia %	Japan %	Total No. of Public.	%
Marrying and Child-Rearing Public										
About-to-be-married	8.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	18	2.4
Married couples ..	4.0	0.0	0.0	7.1	0.0	1.2	3.7	0.0	13	1.7
Expectant parents	.5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	2	.3
Parents of infants and young children	3.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	9	1.2
Parents of teenagers	2.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	8	1.1
Parents with aged dependents and aged	2.0	.6	0.0	0.0	1.1	0.0	0.0	0.0	6	.8
Parents unspecified as to stage ..	4.5	0.0	0.0	0.0	0.0	0.0	0.0	1.4	10	1.3
Helping Professionals and Agencies										
Psychiatrists, pediatricians, clinics	9.5	.6	1.3	2.4	2.2	3.7	0.0	0.0	27	3.6
Social workers, marriage counsellors, family agencies..	8.0	0.0	0.0	14.3	3.3	2.4	11.1	0.0	30	4.0
Ministers, churches	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	1.3
Legal counsellors, domestic courts, legal aid clinics ..	.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	.1
Housing agencies..	0.0	0.0	0.0	4.8	1.1	0.0	3.7	0.0	4	.5
Policy Boards of Government Legislatures..	1.5	9.2	14.1	2.4	0.0	7.3	3.7	2.7	39	5.2
Fellow Family Sociologists										
Fellow researchers and theorists primarily	19.3	87.8	70.5	69.0	92.3	83.0	77.8	94.5	506	67.1
Family life educators	31.7	0.0	6.4	0.0	0.0	2.4	0.0	1.4	71	9.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
Number of publications reported	(199)	(163)	(78)	(42)	(90)	(82)	(27)	(73)	754	

his product and revise his mode of merchandising it. He will be a critical audience, since his criterion of success will be the record of his increased sales.

Nelson Foote urges researchers to consider research problems which can serve multiple audiences. If this is not possible and one audience is selected, he proposes a closer, more collaborative relationship between the subjects and the researchers. This he feels can be accomplished through more functional research[50]:

> ... just as people in the field of family life education have learned to speak of functional courses, it seems feasible and desirable to develop what might correspondingly be called functional research, research the excellence of which can be judged by the degree to which it facilitates through increased understanding the living of its subjects. Specifically, this probably would imply setting up in the design of a functional study some measure of (desired) change in behaviour as the dependent variable of major interest.

> ... any study intended for its subjects as an audience can be appraised in terms of the kind of relation established between the subjects and the investigator. Not only is their degree of participation likely to affect the outcome of the research in terms of obtaining data, but it also affects the quality of the data in ways that are blithely overlooked when researchers fail to report how they obtained the co-operation of their subjects. In a society where everyone is becoming familiar with social science techniques and findings, and expects sooner or later to obtain some benefit from family research, the relationship of investigator and investigated is bound to receive more attention from the latter if not the former.

E. *Concepts and Propositions Most Utilized.* What master concepts and major generalizations are most widely applied from family sociology? To answer this question adequately would require observation of families for concept use and application, observation of professionals engaged in serving families, a content analysis of their staff conferences and journals, and an extensive content analysis of the courses of study for young people and of the magazines and newspapers which they read for counsel on problems of marriage and parenthood. We have neither the time nor the resources for an appraisal of this rigour for the present paper. I will attempt rather to speculate from personal observations I have made over twenty years of participation in the basic and applied sectors of family sociology.

Let us begin with concepts and propositions from sociology at the macroscopic level—sociology in grand scale. Widely quoted and of great influence have been such propositions as the following:

1. The family is the microcosm of society.

2. For a civilization to survive it must foster a strong family system.

3. American families are in transition from institutions to companionships.

4. Authoritarian propensities in personality are traceable to authoritarian patterns in families.

5. As societies have industrialized and urbanized, the patriarchal patterns have been displaced by more democratic patterns of authority in families.

6. As societies have industrialized, families have ceased to be units of production and have become primarily centres for meeting the consumption needs of their members.

These propositions are drawn from a descriptive theory which would be hard to prove or disprove with contemporary methods of research. They have, however, sensitized people to the importance of the family to society and have highlighted the impact of social change upon family forms. Professionals have been hard put to devise programmes of reform or of service to deal with the implications of these generalizations.

At a less grandiose level are concepts and propositions about the family as the basic unit of action and responsibility in our society. Here the propositions can be divided into parts:

1. The family is the basic unit of health and disease.

2. The family is the basic unit of mental health and mental disorder.

3. The family is the basic unit of acquisition, property holding, and of consumption.

4. The family is the basic planning and decision-making unit.

Around each of these notions of the family as the unit of action a lore of applied sociology has grown up. As professionals sought to serve individuals in need, they discovered their efforts were largely nullified if they ignored the individual's family in their service. It has been necessary to work through the family to accomplish the agency's objective.

The Family as the Unit of Health. Physicians and health educators have discovered that patients have families. To change the diet, health practices, or to assure recovery of a convalescent, the family must be won as an ally. Many psychosomatic disorders have turned out to be organic responses to family aggravations[81, 112, 144]. Richardson in a classic book, *Patients Have Families*[114], makes the case for taking a family history on every patient, asserting that there are behind the illnesses of most patients aggravating family patterns. American

medical schools are experimenting currently with an additional dimension of training for medical students, assigning them families to follow over a two-year period to record the family contexts of illnesses as they arise. The implications of the family as the unit of convalescence are just beginning to get the attention they deserve[131].

The Family as the Unit of Emotional and Mental Health. Spiegel and Bell[125] have recently completed a summary of the growing literature on " The Family of the Psychiatric Patient." They cover over three hundred publications by sociologists, psychiatrists, and social workers and identify three major foci:

    I. The Family as a Genetic Agent in Mental Illness

        A. Behavioural Relations Between Parents and Children

        B. Structural Aspects of the Family as Genetic Factors

        C. The Family and Constitutional Endowment

    II. The Impact of Mental Illness Upon the Family

        A. The Impact of Development of the Illness and of Hospitalization

        B. The Impact of Other Crises

        C. The Impact of Treatment

    III. The Family and Treatment Procedures

        A. Diagnosis

        B. Individual Treatment

        C. Group Therapy

        D. Marriage and Family Counselling

        E. Family Care for Psychiatric Patients and the Relations of Families to Treatment Facilities

These three foci constitute an outline for an applied family sociology concerned with the family as the unit of mental health. Unfortunately, the research data are inadequate as yet to make possible family diagnoses and programmes of treatment sufficient to make use of the family as a positive instrument in rehabilitating psychiatric patients. Ackerman's recent work, *The Psychodynamics of Family Life*[1], performs yeoman service in developing an appropriate conceptual framework and laying bare his own procedures in diagnosis and treatment.

The Family as Acquisitive and Consuming Unit. Family sociology has largely ignored this facet in the United States, and the work of LePlay and Engels has had to be rediscovered. Economists have made little use of the family in their researches, treating the consumer as an

individual or as a member of a household.   The professionals most eager to apply what is known about the family as a consuming unit have been advertising agencies, marketing services, and finance counsellors.   Advertisers have actively sought to create a market for the products of their clients by whetting the appetites of families for more goods.   Banks have encouraged savings, and insurance companies have urged long-term planning for future contingencies.

The Family as the Basic Planning Unit.   The research on decision making and choice making among families is readily applied by agencies concerned with fertility control and the spacing of children[4] and agencies providing guidance and counsel to child-rearing families.   In recent years it is being recognized that both parents need to be included in any plans formulated with the family.   A remarkable book by Foote and Cottrell[51] devotes several chapters to the advantages to social agencies of *planning with families* to enable them to transcend their present levels of competency.

These four views of the family as the basic unit of action and service permit a distillation of many of the findings from family research which have reference to the family as a holistic unit.   Concepts which highlight family functioning, family transactions, family development, and family adjustment are frequently mentioned in the applied literature by professionals.

Social workers are currently using the concept of family functions to develop a profile of " adequacy of family functioning " by assessing families on each of several family functions at intake, during treatment, and at the close of treatment[54].   The concept of role is also put to work by other workers to designate the sources of conflict in a family and the procedures for resolving tensions, with modifiers of role appearing frequently as role conflict, role consensus, resolution of role conflict, role complementarity, role reciprocity, role performance, and role expectations.   These concepts appear frequently in discussions of clinical work with families[124, 126].

Family transaction concepts are just beginning to be applied in the discussion of the networks of friends, kinfolk, and work mates as they influence family behaviour.   " Living up or down to the Jones " is an old application of this cluster of concepts.   Some of the writings of Marquand reflect preoccupation with the class and occupational network of families.

Two family development concepts have seen wide application: the stages of the family cycle and the developmental task.   Developed first by students of family expenditures to demarcate stages in the family's life span when expenditures characteristically exceeded income, the concept of family cycle stages has been widely applied by social workers, psychiatrists, and marketing analysts.   Today there are several ways

of dividing the family's life span into stages, depending on the focus one wishes to achieve. Architects now design houses with stages of crowding and high activity use as the criteria[61]. Child guidance workers view the developmental tasks of the family members, both parents and children, as a means for identifying compatible and incompatible stages. Marketing analysts find age composition of families excellent bases for predicting demand for products used primarily by families at certain stages[89]. The history of these concepts has been recently summarized by Duvall[40].

Family adjustment as a concept is one of the most ubiquitous in the language of the helping professional. It has been used frequently in assessing progress by marriage and family counsellors. Divided into phases of adjustment, the concept has been employed in counselling the bereaved, the families of the alcoholic, the unemployed, and the families victimized by a natural disaster. The research literature on families in crises has been widely read and applied by disaster workers, public health nurses, ministers, and social workers. They speak freely of open and closed ranks adjustment to desertion of a spouse, of the course of adjustment, and of the angle of recovery from the crisis. The researches dealing with family adjustments to crisis and some of the applications made are touched upon by Hill[69].

The foregoing concepts might be termed middle range concepts as contrasted with the macroscopic grand scale concepts with which we began this section. Middle range concepts can be much more frequently operationalized for survey and experimental verification and are easier to apply to programmes of service. There are, however, even more microscopic concepts which have found wide application, particularly in the functional marriage courses. For this analysis I have done an incidence count of the concepts most frequently included in the indexes of three widely used textbooks in preparation for marriage[12, 42, 88].

The concepts listed in Table 6 are for the most part master concepts which, with modifiers, stand for a host of sub-concepts. The frequent use of role as a concept betokens its use as social role, personal role, sex role, parental role, sibling role, child role, wife role, husband role, breadwinner role, homemaker role, or role expectations, role performance, role conflict, and role consensus. In frequent use is the complex of changing roles of men and women and of parents and children. Similarly, a master concept like dating will appear in a variety of forms as random dating, steady dating, double dating, blind dating, Dutch dating, solo dating, or as the object of explanations as in motives for dating, functions of dating, ways of dating, and advantages of dating.

From Table 6 it is apparent that marriage texts have made heavy use of concepts related to interpersonal relations before and after marriage. The highest frequencies are given to role on the general concept side,

Table 6

INCIDENCE OF GENERAL AND SPECIFIC MASTER CONCEPTS

IN INDEXES OF THREE APPLIED FAMILY SOCIOLOGY TEXTBOOKS

General Concepts			Frequency Mentioned	Specific Concepts (Pre-Marital)			Frequency Mentioned
Role ..	..	..	38	Dating	..	..	56
Marriage forms	..	..	10	Pre-Marital sex relations ..			36
Polygyny				Sex education	..	..	20
Monogamy				Sex differences	..	..	20
Endogamy				Love and romance		..	18
Marriage prohibitions		..	8	Singleness ..	..	..	18
Developmental tasks		..	8	Mate selection	..	..	16
Social change	..		6	Readiness for marriage	..		14
Common-law marriages		..	6	Emotional maturity		..	10
Value systems	..	..	4	Courtship expectation		..	8
Consanquinity	..	..	4	Marital status	..	..	8
Cultural conditioning		..	4	Sex ratio	..	..	4
				Mating gradient	..	..	4

Specific Concepts (Marital)	Frequency Mentioned
Marriage adjustment ..	108
Mixed marriages	44
Sex adjustment	40
Marital happiness.. ..	30
In-law relations	22
Family planning and birth control	22
Marriage conflict	16
Marital success	12
Remarriages	10
Family budgeting	8
Readiness for parenthood	8
Empathy	4

which carries expectations for behaviour between the sexes and between the generations within the family. In concepts dealing with the period before marriage, sex relations is the problematic area, with dating, premarital sex relations, sex education, love, and sex differences ranking highest. Mate selection and singleness overlap in their concern for who gets married, who marries whom, and how this can be done more expeditiously. The number of concepts applied in this area of family sociology as elaboration of the above master concepts is legion. The vocabulary of the marriage text on premarital relations is rich and colourful, and the generalizations are equally numerous, as we shall see in a moment.

The master concepts most frequently indexed for the marital and child-rearing phases of family life likewise bulk up heavily on the issues of interpersonal relations in marriage. The concept most used is

marriage adjustment, which with marital happiness and marital success make up the major quest, apparently, of this sector of applied family sociology in the United States. Sex adjustment, marriage conflict, and problems of mixed marriages are aspects of this same adjustment-in-marriage theme. In-law relations constitute a focal area of application of researches, with anthropologists' findings on kinship relations quoted[103] as well as recent empirical studies on adjustment between parents and their married offspring[130, 133, 134], and in-law relations of the newly married[41]. Family planning and family budgeting concepts are indicators of applications of decision-making and problem-solving generalizations to the control of family size and the planful allocation of family resources. Research findings on these matters, however, are not cited very frequently in the texts examined.

In examining the propositions most widely applied in these texts, it is apparent that they are, for the most part, two variable propositions in which the one is a dependent variable of some interest to the marrying public and the second is an explanatory variable. The applications take the form in the three marriage texts of explaining, then, a selected few issues of high interest:

1. What is associated with marriage adjustment?

> Age at marriage
> Age differences
> Accommodation
> Adaptability
> Adjustment with in-laws
> Agreement on sex
> Time required to adjust
> Duration of acquaintance
> Length of engagement
> Premarital relations
> Elopement
> Parental opposition
> Education and intelligence
> Problem-solving ability
> Money
> Quarreling
> Childhood happiness
> Family background
> Happiness of parents' marriage
> Children, sex education in childhood
> Personality characteristics
> Empathy
> Dominance
> Confusion of roles
> Agreement on child training
> Church attendance

       Readiness for children
       Developmental tasks

2. What is associated with sex adjustment?

       Misinformation
       Premarital coitus
       Honeymoon experience
       Conditioning of children
       Need for counseling

3. What is associated with marriageability?

       Adaptability
       Divorce in parents' marriage
       Empathy
       Problem-solving ability
       Family background

4. What is associated with divorce?

       Adaptability
       Age at marriage
       Length of engagement
       Years married
       Premarital relations
       Premarital pregnancy
       Mixed religions
       Religion
       Second marriages
       Personality traits

5. What is associated with age at marriage?

       Emotional maturity
       Time to adjust in marriage
       Marriage adjustment
       In-law adjustment
       In-law relations
       Divorce

6. What is associated with emotional maturity?

       Ability to love
       Readiness for marriage
       Readiness for parenthood
       Relations to in-laws

7. What is associated with sexual promiscuity and premarital pregnancy?

       High school marriage
       Age at marriage
       Source of sex information

Personality problems
Marriage failure

8. What is associated with family size and use of birth control?

Income
Religion
Residence

Catholic-Prostestant marriage
Birth rate
Sex adjustment
Social class

In the specific area of courtship and mate selection, the propositions are less frequently of the correlational variety such as we have just cited and more frequently flow from the description of courtship patterns. In the assorting of mates into suitable combinations the concepts of homophily, homogamy, and residential propinquity are used, for which two propositions are supported:

1. Similars prefer one another's company.

2. Similars are more likely to meet, and having met, to become involved and marry.

3. People meet and marry those closest geographically.

But the concept of complementary needs is also utilized with its modifying proposition:

1. Socially, similars are attracted, but psychologically, at the level of temperament, opposites can best meet one another's needs.

In appraising the patterns of dating and courtship the concepts of rating, the mating gradient, and bargaining are used, provoking three propositions:

1. In every dating system there is a distributive order, with dating frequency high at the top and low at the bottom of the order.

2. Men tend to marry downward educationally and intellectually, leaving the most educationally marriageable women with low chances for marriage.

3. Courtship is a bargaining process with marriage as the ultimate compromise.

The discussion of the course of involvement from first date to engagement uses many sensitizing concepts, such as dating as dalliance, stages of intimacy, the principle of least interest, and the conditions for love. These also have their attendant propositions:

1. Dating is aim-inhibited courtship characterized by thrill seeking and exploitation.

2. In courtship the limits of intimacy are set by women until the engagement and may be used to demarcate the degree of commitment achieved.

3. In any relationship the one who cares most is vulnerable to domination and exploitation by the one who cares least.

4. To be vulnerable to a love involvement requires previous satisfying experiences with love and sufficient dissatisfaction with parental love to seek it elsewhere.

Perhaps this is enough analysis of the use of concepts and the application of propositions in the preparation for marriage course to suggest the extent to which applications have been made from research findings when viewed by content.

The application of propositions is complicated by virtue of the persistence of contradictory findings in the research literature. In one of his more pessimistic moods, Foote characterized family sociology as amateurish in its development. I have elsewhere[70] identified a number of these propositions around which controversy continues:

1. People tend to marry others like themselves rather than their opposites.

    —one hundred fifty studies support; Winch[151] and associates at level of temperament against—

2. Age at marriage in the United States has been decreasing each decade since 1890.

    —U.S. Bureau of Census analysts support; Thomas Monahan [102], in two volume analysis of state vital statistics records, against—

3. For success in marriage, when one marries is more important than whom one marries.

    —Levy and Munroe[90] assert; most marital adjustment researchers against—

4. Vulnerability of interracial, international, and interfaith marriages to maladjustment is significantly greater than for homogamous marriages.

    —Most marriage text writers for; Strauss[129], Dyer and Luckey[43], Hill[68], and Hawaiian study by Komura[80] against—

5. The economic factor by itself is not significant in marriage adjustment or divorce.

    —Burgess and Cottrell[23], Locke[94] for; Goode[58] and Williamson[150] against—

6. Children tend to bring family solidity and invulnerability to divorce.

—Levy and Munroe[90], census reports for; Burgess-Cottrell [23], Christensen[32], Reed[113], and Monahan[101] against—

7. American families are becoming democratic companionships.

—Burgess and Locke[24] for; Hill[67], Johnson[76] against—

8. Middle-class families are more restrictive, demanding, and punitive in their child-rearing patterns than working-class families.

—Havighurst and Davis[66] for; Duvall[39], Maas[95], Sears, Maccoby and Levin[122], and Littman[93] against—

9. Adolescents look more to their peers than to their parents for their values and standards.

—Mead[98], Tryon[139], and Parsons[106] for; Elkins and Westley[45] against—

10. Fathers are of diminishing functional importance in the personality development of children in America.

—Mead[99], for; Bach[3], Elder[44], Tasch[136] against—

The above conflicting views on propositions are drawn from American writings. Differences among German scholars on the question of the functional position of the father in the literature on the family in Germany have been ably summarized by König[82].

Foote and Cottrell[51] suggest that the dilemma we face of so many conflicting propositions in family sociology is due to the low level of generality of observations on which our principles are adduced. Even the concepts we employ are often rudimentary and isolated with little systematic deductive relation to each other. We therefore have had to be satisfied with plausible *ex post facto* explanations and imputations of findings. Extensive tissues of speculation have been permitted to survive indefinitely along with conflicting propositions such as those listed above.

I see hope, however, in the simultaneous growth of interest in experimental designs and in controlled applications of family sociology in the programmes of educational, health, and welfare agencies documented in this paper. We will have the possibility of putting conflicting propositions to the validity test of the educational experiment and the controlled application. We need no longer settle arguments among rival systems at the level of assertions of taste or style but shall be able to validate the best of the competing propositions empirically. The growth of a vigorous applied family sociology will play an increasingly important part in the era ahead of codifying and validating the host of untested generalizations of contemporary family sociology.

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The Sociology of Leisure Time

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I. Leisure time and present day society

The interest of scholars—sociologists, psychologists, educationists—and of politicians in leisure time and leisure activities has developed only during the last few years. Idleness is an attitude of man that in past centuries was exalted and philosophically praised as an opportunity for elevation above the common people, to devote oneself to studies and to private and public administration. Nor could it have been different, as long as work remained a servile activity and only involved brute force and manual labour.

Industrial civilization progressively depreciated idle people, by setting work in the first rank, not only as a source of prosperity, but as the prime object of man. Labour in industrial production indeed requires rational organization and scientific co-operation, which came to upset the myth of work-condemnation, making of the worker the protagonist of the modern social machine.

The dignity of labour is still slowly being conquered, but though not yet completely attained, it arouses in the worker an insuppressible need of culture; though sometimes the machine might still seem to be the centre of productive activity.

The worker's dignity is however conditioned by the ending of brute fatigue and the predominance of mental action over physical action; work is the more worthy, the more cultivated is the worker's mind and the more elevated his humanity.

When the labour movement was established and its organization of resistance created, demands for longer leisure time were put forward, together with claims for higher wages. These requirements concentrated thus into three main points; shorter hours of daily work, shorter hours of weekly work, and paid annual holidays.

The claim for the reduction of working hours has been originated by several connected aspirations: defence of wages, struggle against the exploitation of physical power and against fatigue, acquisition of spiritual endowments (culture, exercise of political rights, recreation), distribution of work to wider categories of workers. These reasons

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are mingled with others that appear to be even more bound to the aim of progress and ascent, such as the class struggle and the tendency to social mobility. But no aspiration could have been easily realized unless accompanied by the technological development that permitted a reduction of working time and of the numbers of people employed in manual labour, and later in all industrial activities.

The displacement of labour from primary to secondary and tertiary activities, and the acquisition of even more automatic instruments and mechanical sources of energy allow an affirmative answer to be given to workers' demands. It is often the employer himself who proposes a modification in the working hours, and many public authorities— also in countries having governments of a conservative tendency—care about the opportunity for workers to occupy their leisure time and organize recreational and educational mass plans.

Together with the need for a proper salary and for the eight hour working day, the more enlightened sectors in the managing class have foreseen since the last century the absolute necessity of a development in workers' education. Vague, contrasting tendencies and aspirations had met: on the side of intellectual and upper class people there was the will to bridle the people's cultural power, to restrict them to the sphere of production; on the side of the working class there was the desire to reach the cultural level of the wealthy, as these people already understood that culture is not only the consequence of better financial conditions, but an opportunity and instrument for spiritual and material elevation.

However the universal suffrage, granted as a direct consequence of egalitarian theories and of the social disturbance produced by demographic and industrial expansion, made the division into cultural categories always more incongruous. Technical progress imposed the necessity of a wider choice of specialized workers by drawing them from a wider class possessing a minimum basic culture.

The idea of workers' education has undergone different modifications: the principle of granting culture was abandoned, and replaced by the independent need of individual and collective amelioration, so as to guarantee a sufficient opportunity of choice and participation in democratic life—political and productive—to all citizens aware of their rights and their duties. The struggle against illiteracy, provision of a solid basic education, a minimum of receptive capacity for a sound vocational education are to-day considered to be the urgent duties of a civilized country, to strengthen the culture and reinforce administration and economics.

The succession of traditional periods in man's life ranging from school preparation in childhood and boyhood to working activities in maturity, and rest in old age, is progressively being replaced by the

principle of *permanent education* that works all through life, and at every moment. The introduction of mass media accelerated this process, but also emphasized the danger of cultural and political comformity, against which a defence is necessary.

One of the needs that workers' education is to fulfil—to fill the gaps left by school, to offer adult people the education they did not receive as children—is even more evident with regard to vocational education.

Many problems appear in this respect: first of all the deficiency of normal vocational schools; secondly the necessity of modifying or improving the previous knowledge; thirdly the rapidity of technical and economic transformation, and finally the mental changes occurring as people grow older. All these problems that elderly people have to meet, created the trend to a profitable use of leisure time, that is with the purpose of facilitating a professional career. Leisure hours can thus be devoted to vocational preparation. Evening and Sunday classes have always in fact been associated with the development of industrialization and workers' movements.

The third active basis for the labour movement consisted in the labour and political organizations, and it is well known how most labour victories found their origin in the unselfish and voluntary activity that workers undertook through the sacrifice of their leisure hours. Still to-day the sociology of leisure time, used for establishing social relations and organizing people's institutions, is one of the fundamental areas of social enquiry.

The opportunity of finding in such organizations the main sources of satisfaction and development of creative powers depressed and impoverished by routine work, can explain much of the success of the labour movement. In many cases the activities in a political party or in the trade unions represent the most effective and important reply to the conditioning which occurs in working hours.

II. Sociology of Leisure Time

The development of sociological studies of leisure time, is very recent. The problem of justifying such studies is a very complex enterprise, for most currents of social philosophy, as well as several currents in general philosophy, are inclined to emphasize labour and the right or duty to work. Much less space is devoted to leisure time and leisure time problems. Labour, with all its associated problems, with the complicated network of social relations and juridical institutions it has created, was for more than a century the centre of attention of scholars and politicians. In the past industrialization had immensely sharpened the social struggle, and complicated with several new problems the reality of labour relations: the factory is not only the cause of the formation of an urban proletariat, but of a particular type of society with its own structures, rules and human groups. A large

proportion of the studies and literature on modern society are dedicated to labour organization and to the worker in industry.

Anyway the process of industrialization is very far from ending, and is producing some effects different from the ones that could be studied in the past, and not to be foreseen. The most recent studies about the theories of economic development make it evident that the most advanced stage of technological progress is caused by the displacement of labour from the primary or secondary sectors of production to the tertiary one, the very one of trade, recreation and leisure time activities. The labour force in the U.S. for instance, is at present distributed in the three sectors as follows: primary activities 11%, secondary activities 33%, tertiary activities 56%. Recent years have also shown that the numbers employed in the secondary activities are already declining both absolutely and relatively.

It happens consequently that the interest of sociologists should move from the labour sector to the problem of leisure time. Leisure time offers noteworthy matters of interest, for most decisions of men, for instance, are even more influenced by the experience they have during their leisure time, than by that of their working time.

The modifications of the centre of interest of sociology are accompanied by analogous modifications in the field of practical enquiries and applications. Economics too is restoring the value of studies concerning consumption and the use of income, and it is in this way that a convergence is arising between economics and sociology. For practical application studies concerning the influence of the machine and repetitive work on the individual psyche are replaced by studies concerning the influence of the cinema, T.V., and electrical appliances. And in every country the problems of human settlement are more concentrated on the state of roads, on the access to shops and entertainments, on public gardens, than on the industrial situation on the structure of workers' quarters.

However, sociology was always more inclined to social enquiries carried on with a scientific method, and giving up any philosophical and a priori interpretation of social reality; it is necessary therefore to dwell more carefully on the problem of method in social enquiry. The enquiries carried on during recent years can be grouped into three fundamental types: (a) studies of the whole society; (b) studies of particular sectors; (c) experimental studies. This last sort of enquiry has become very common mainly with regard to human relations, to group dynamics, to children and youth groups. It is usually done in a laboratory and its purpose is not to check the reality, but to discover the attitudes of individuals in a given and verified situation. Enquiries in a specific sector concentrate either on a problem, or on a group of men, or on a particular society. The first kind includes

enquiries investigating prostitution, juvenile delinquency, influence of films and television on the formation of citizens; the second kind includes enquiries on young people, on coloured people, on workers, etc. Studies of a particular society investigate the working milieu in a factory, a particular residential district, or a cultural association.

In contrast, other sociologists considered that the behaviour of men in a society could be better known through the complete consideration of all aspects of social reality, though in a general and superficial way, rather than through a deep but partial consideration. Furthermore the behaviour in leisure time is much more representative of the structure of a certain society than the behaviour in working time; that is why most studies of the global aspects of society are especially directed to the analysis of activities during non-working hours.

The most interesting side for such enquiries is offered by the effect of the process of industrialization on social and human relations, and on urban and rural collectivities. A wide net of data, informations, enquiries has thus developed, that has illuminated many sides of contemporary civilization. The action of U.N.E.S.C.O. has facilitated such studies by the exchange of information and persons.

Among the most interesting recent studies on the sociology of leisure time, those of Joffre Dumazedier stand out for their careful analysis of this field. His work may be summarized as follows:

First, he has clearly distinguished between attitudes, behaviour and relations which should be classified as " leisure time," and the others which should not. He has given a subjective definition of leisure time, according to which the traditional division of the day into three parts (work, rest and leisure time) has no sociological significance. When the actions performed during this time are necessary, compulsory and inescapable, such as eating, study, time devoted to the family and to social obligations, it cannot be truly considered as leisure time, for all physical and mental dispositions characterizing leisure time are missing.

Secondly, as a consequence of the first principle maintained by Dumazedier, the attitude of leisure time is recognized by the way of approaching the leisure activities, namely by the active, independent positive response to the negative sides of industrial civilization, to the sense of passivity, regimentation, and conformity that modern social life unceasingly generates. On the whole, Dumazedier emphasizes the ties existing between employment of leisure time and development of adult education, as being the main means for re-creating the sense of life and reality that would be lost by the conditioning of the adult man in modern society.

The exclusive stress of Dumazedier on the two propositions he suggests can either be accepted or rejected. But his effort is surely fundamental for understanding the problems that leisure time raises in our

time. Dumazedier's studies are not confined to the theoretical field, but include empirical research. In particular a large enquiry was carried on in a town of Eastern France: Annecy. The author's propositions were tested here, and some techniques for analysis and research, considered peculiarly fit, were developed and used to find out how people acted during their leisure time.

The U.N.E.S.C.O. Institutes in Germany (Institute for Education, Institute for Youth, Institute for Social Sciences) have recently decided to make use of the Annecy experience in order to extend similar enquiries to other countries and so to dispose of common methods and comparable results. Thus there was constituted an international research group joined by scholars from Belgium, France, Holland, Italy, Germany, Poland, Yugoslavia and Great Britain. National research groups are already working in some of the above countries, and specific enquiries on the problem of leisure time have already started. Some of the reports presented in this Section originated in the initiative promoted by the U.N.E.S.C.O. Institutes.

III. The Reports Presented to the Congress

At the moment of writing the present report not all the abstracts promised by the contributors to our Section have been received. The reports presented (February 1959) can be classified into two main groups: (a) general reports dealing with the problems of leisure time; (b) reports on particular researches.

The first group might include: the report from Professor Orzack and Professor Friedmann on theoretical aspects of attitudes in leisure time; the report from Professor Nowakowski, concerned with the interpretation of leisure time in Poland to-day.

The following might belong to the second group: from Professor Meyersohn reporting on the attitude of the workers of an industrial concern in South California towards a modification of their working schedule; from Professor Elberling reporting an investigation accomplished in the town of Slagelse, (in connection with the initiative of the U.N.E.S.C.O. Institutes); from Professor Zajaçzkowski, about the enquiry carried on in the town of Pruszkòw, (also in connection with the initiatives of the U.N.E.S.C.O. Institutes).

The first two reports point out similar details in leisure behaviour: one of them from the point of view of a country (Poland) just in the initial phase of its industrialization, the other from the point of view of a country (U.S.A.) in an advanced phase of the same process. Every discrepancy between the two reports is excellent evidence for the progressive results of modern industry on social behaviour.

The report from Professor Nowakowski underlines several noteworthy points on the rapid industrial development of Poland during

the post-war period: the urban population rose from 27% of the entire population in 1931 to 45% in 1956; besides horizontal mobility, vertical mobility was very strong; a large number of peasants have turned into workers, workers into white collar people, independent workers into salary earners; the gainful employment of women, even married women, is increasing; rural communities tend to disappear, social settlements based on neighbourhood are transformed; the inhabitants of villages travel daily to town for work.

These phenomena occur in all developing countries, and with regard to the very problem of leisure time occupation, it is to be noticed that: the mass media of communication have triumphed over individual culture; the habit of mass annual vacations has become popular; workers' clubs are forming everywhere; family life and its traditions, mores, structure, are no longer the fundamental elements of education and socialization.

And finally a consequence of these transformations is steadily gaining ground: the need to acquire a thorough knowledge of the social reality, that leads to more numerous and thorough sociological studies.

In the report of Professor Orzack and Professor Friedmann, four principal subjects are listed, which are fundamental for a country in an advanced stage of development: industrial civilization is more inclined to emphasize consumption than production; the time devoted to work is constantly decreasing; the individual is obliged to consider more carefully the assignment of his use of leisure time among the different possible activities; the industrial workers enjoy more available leisure time than other social classes.

Of the three studies of behaviour in leisure time, only the one by Professor Meyersohn is completed, while the statistical data of the other two are still being worked out at the time of writing this report. The most interesting part of the two enquiries concerns the methodology in use, easily comparable. Both were concerned with small towns: 20,000 inhabitants in Slagelse (Denmark), 36,000 in Pruszkòw (Poland).

The enquiry in Slagelse was accomplished in four different stages:
1. a study of the cultural organizations and adult education associations;
2. questioning of the participants in adult education courses;
3. interviews with a 5% sample of the total population;
4. intensive interviews with a small number of persons who will keep detailed diaries of the different hours of their day.

The following subjects are to be elucidated;
(a) influence of the development of industrialization on leisure activities;
(b) relevance of leisure activities to the amelioration of life conditions;

(c)   evolution and extension of leisure needs in various classes and social groups;

(d)   evaluation of the collective forms of action in leisure time;

(e)   influence of leisure activities on some aspects of social life.

The enquiry held in Pruszków can be divided into two different stages:

1.   questioning of a 4% sample of the whole population;

2.   intensive interviews with a limited number of persons to verify the distribution of their activity in the different hours of the day.

The themes worked out by the researchers consisted of:

(a)   the relevance of leisure time to the process of social integration;

(b)   the contents of mass education;

(c)   the relationship between social and cultural groups and stratification by class, profession, and education.

Both enquiries have used the questionnaire worked out by the international research group.

The study carried out by Professor Meyersohn aimed to show the variation occurring in the attitudes of the workers of a small industrial concern following a modification in the working hours.   The plant used to follow the usual work schedule of five days from Monday to Friday.   In late 1957 the management decided to alter the work schedule, so that once a month the plant would operate from Tuesday to Saturday instead of the usual Monday to Friday.   This revision meant that once a month all the employees would be able to spend three consecutive days away from work instead of two.   This alteration is evidently not great, but sufficient to allow a long weekend once a month.   Most workers expressed approval of the new calendar and confirmed their attitude six months later.   The reasons why the plan has been popular are to be looked for in the conception of leisure time as: emancipation, return to nature, opportunity to turn to a really significant world, effective refreshment.

The criticisms of the new plan—except when they derived from a particular situation—suggested two principal hypotheses:

(a)   that a very close relationship exists between satisfaction in leisure time and satisfaction at work;

(b)   that leisure time is more appreciated by those people who make plans ahead for their leisure activities.

The enquiry confirms most remarks of Dumazedier and others on the sociology of leisure time and—though limited by the limited field considered—it proves that such enquiries can be very effective and illuminating.

IV.   Some results from the most recent enquiries.

Leisure activities can be divided into main groups; educational and recreational.   They assume a particular importance for workers,

since the end of their working activities coincides with the deliverance from the constraints and conditioning of work. Many of the attitudes of the adult in modern society present noticeably different characters according to his working situation. The work influences the attitude to leisure and not vice versa. During leisure time, the social relations surely change but there is no doubt that the way people react during leisure time is a consequence of their working activity.

Actually the study of social researchers is chiefly concentrated on the attitudes of subordinate workers. Their leisure activities are mostly organized by other people—non-workers—so that a conflict still exists between consumers and producers of cultural and recreational activities. Some kinds of activities correspond to deeply rooted traditions of the civilization and milieu where they are carried on, so that their origin and cause is to be found in the society which contributed to create that social climate. The workers become a part of it, and absorb passively the local cultural values with little opportunity for taking an active part in creating them. But the workers' needs and interests do not always correspond to this given cultural world, and indeed the media of organizations and associations where they express their requirements differ greatly from the traditional media for spreading education and recreation.

Popular education seems to be the main way to develop the masses' requirements; in the meantime several trends, different from the most evidently popular ones, modify the natural course of thought of workmen, peasants and workers in general. The solution to the genuine problems of the workers can be found more easily in the labour and political movements, in the mass organizations, than in cultural or sports clubs. So far the question is open—and not only for to-day—concerning the relation between social action and culture, trade unions and education.

The dichotomy between workers and non-workers that was at the basis of most literature of adult education in modern sociological studies, does not hold the same relevance as it had in the history of political thought in the past. Studies of social stratification indicate that the passage from one socio-economic position to another is less marked than it might appear when a class is opposed to another in a reciprocal conflict. Two consequences arise from this reality: mobility from one class into another is very frequent; the difference of class creates a social and cultural common ground that cannot be overlooked.

One of the most serious problems arising from the distinction of population into classes and occupations consists in evaluating whether these factors create any formal or artificial divisions, or correspond to facts of a real value. The behaviour of well specified groups in the

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population can doubtless prove their belonging to a class or social stratum, but could be a mere label arbitrarily attached to a group of persons by the investigator. With regard to the subject of leisure time the uniform attitude of several persons might be considered as the essential sign of their belonging to a class, but could also be the too easy device for classifying people in abstract social groups. This means that participation in a given activity (folklore, dance, sport, etc.) can doubtless correspond to a given social, economic, political category; namely the category of people who have a uniform attitude even in other fields such as the economic, social and political ones. However it can happen that certain leisure attitudes condition the people so as to become the only differentiating element of social groups.

Clear evidence of the above is offered by the influence of the *availability* of leisure time in the behaviour of people. Two forms of leisure time can be distinguished; short leisure time (post-work hours, weekend and bank holidays) and long leisure time (annual vacation). The short leisure time is normally included in the daily course of events, with no substantial modification; it may become one essential element of routine in the alternating daily duties. The long vacation on the contrary produces a profound modification in the development of the individual's activities. In this case leisure time is not *joined* to work but *replaces* work; the rest, which usually rewards the work's weariness is now becoming the reward of leisure activities. Short vacations are the complement to work, namely the rule; while long vacations are the exception. They quite upset the whole life and the arrangement of the different hours in the day.

V. Remarks on Method

The international research group on leisure time, sponsored by the three U.N.E.S.C.O. Institutes has supervised the preparation of a questionnaire to be used for the enquiries in different European countries. The questionnaire consists of 30 questions, some of which are considered " compulsory "—for all members of the international group must answer to them—others are considered " optional ", i.e. they can be omitted or replaced. The questionnaire also includes a set of statistical data concerning the qualification of the interviewed persons. A form is also included, where the interviewed persons should state which activities he is engaged in at every hour of the day.

The questionnaire is the chief instrument for this sort of enquiry as the comparison, the codification and the correct checking of the answers is permitted. It is also quite appropriate for those societies that have already achieved a certain standard of economic and cultural development. It proves not to be so suitable for a society still developing, or for a society including very dissimilar standards of life in its population. Moreover, it is hard, and in some cases impossible, to

pick out any unknown or unexplored sides of social reality by means of this instrument. New plans of enquiry are often necessary for some questions concerning leisure time (behaviour of particular categories of citizens, political and social stages of transformation, under-developed areas, economic crisis, etc.) which could not be foreseen or conveniently included. In such cases informal types of interviews are more efficient, as they go deeply into diverse aspects of the phenomena.

The phenomena of leisure time present some peculiar features that ought be to underlined in advance, for finding out what methods would be better employed. First of all some mass manifestations can be quantitatively studied (size of audience, number of T.V. sets, etc.), but individual verification is also advisable. Here the questionnaire is evidently the chief instrument, supplemented by a diary of activities in the day, week, or month, kept by the interviewee himself.

There are other leisure activities such as family meetings, reading, etc., that cannot be statistically measured. Here too the questionnaire can be valuably used, at least within some limits: but the *causes* of the attitudes, and the quality of the activities, are neglected.

The subjects are little prepared to give reliable and sincere answers. A worker can offer reliable information about his salary, his income, his working hours, about the objective elements of his job. Asking him how he occupies his leisure time will mean to invite him to consider a landscape where he moves without any determined tendency or rather unconsciously.

Many questions furthermore tend to state as typical a sort of behaviour often occasional or temporary, and differently arranged with other sorts of behaviour, even opposed, in the same subject. This should lead to the utmost care in generalizing the collected remarks, for leisure time, out of the very nature of the present technical and economic evolution, becomes the actual time of full freedom of the individual, and cannot be submitted to a strict classification. Leisure is the phase of individual life, where creative imagination can become active. Here the individual gets out of the common conformity, escapes from routine, feels really himself and is consequently fit for the most abnormal and irrational manifestations. All these factors can be noticed by thorough interviews, free in subject and freely articulated. But it proves even more useful to set a whole community at the centre of the enquiry, rather than a single man. New forms of behaviour would be discovered and details of human and social relations analysed. The centre of interest is not provided by single attitudes or reasons but by the way the community exists and regulates itself as a whole, as a complex of social, professional and economic categories, and instruments of material life. This enquiry tends to discover the *soul* of the community, all that composes its peculiar values.

There is one very relevant point in this respect, that might escape a partial or sectarian enquiry which only considered the man *uti singulus* and not as a member of his society. This point consists in the value and importance of the voluntary association, and in the action of independant associations for recreation and culture. The phenomena of association, the creation of a proper organization of cultural and recreational clubs, are an important aspect of modern society. They often give a character and identity to the collectivity, and turn into valuable means of democracy and democratic life. They are often the only expression of people's freedom and one of the most healthy and true powers of their vitality and spirituality.

Medical Sociology with Particular Reference to the Study of Hospitals.

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The sociology of medicine has emerged as a relatively distinct area of study in the United States primarily within the current decade. Some examination of medical matters from a sociological point of view occurred before 1950 of course. But only recently have such efforts been part of a larger sociological focus on the social institution of medicine and health care. And only recently have more than a handful of sociologists given their major attention to research and theory in this realm. To explore the circumstances which have contributed to the manifest growth in manpower and funds devoted to sociological research in medicine would constitute an intriguing problem in the history and sociology of science. In this paper, however, two other tasks claim priority. Part I briefly outlines the range of current work in the area, and attempts to show how medical sociology* both overlaps and diverges from public health, preventive medicine, and social medicine as these fields are conceived by their practitioners. Part II is deliberately selective; in order to exemplify accumulated knowledge as well as unsolved research problems, it focuses on sociological studies of hospitals in the United States.

I. MEDICAL SOCIOLOGY IN PERSPECTIVE

Although medical sociology is a relatively new field, the range of current research interests is broad. Some of the variety is illustrated in the programme of this meeting, which includes Dr. Valabrega's intensive analysis of the relation between physician and patient as well as the wide view Dr. Gadourek provides in his report of the attitudes toward health and medical care of the people of the Netherlands. Applications of sociology to medicine are also represented here in such diverse topics as Dr. Silver's study of family health maintenance and Dr. Kendall's report of findings of value to medical educators from the sociological study of the medical school.

The field of medical sociology as a whole exhibits even more diversity; Kendall and Merton[22] have noted that at present the field has at least

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* The terms, " medical sociology " and " sociology of medicine " are used interchangeably throughout this paper.

four interrelated though distinct subdivisions. One division comprises the social etiology and ecology of disease, in which research is directed toward elucidating the relation of social factors to illness. Another division deals with sociological components in therapy and rehabilitation; here investigation focuses on how patients are restored to their normal social roles. A third considers medicine and health care as a social institution, and thus examines that part of the social system that acts to guard the health of mankind. The fourth is the sociology of medical education, which emphasizes the social processes involved in professional training for practice in the health disciplines.

Research accomplishments in the four subdivisions have been described and inventoried under somewhat different rubrics by Caudill[6] and by Freeman and Reeder[13]. On the whole, progress is manifest although findings suitable for immediate application are still relatively rare[30].

Medical Sociology and Related Areas of Medicine

The outlined subdivisions—and the term " medical sociology " itself—imply a blending of the medical and social sciences; to a greater or less extent the nature of the problems investigated has required interdisciplinary co-operation. Nevertheless, medical sociology can be distinguished from certain fields in medicine with which it is often associated, namely, public health, preventive medicine, and social medicine.

Public health deals with organized efforts to control and prevent diseases that threaten the community as a whole. Smillie describes it as " that responsibility which rests upon the community for the protection of life and the promotion of the health of its people[36, p. 1]. It is necessarily concerned with the social structure of the community but often only as that relates to organized political and social action for the promotion of community health. Preventive medicine is often associated with public health in the titles of academic departments, but it is equally concerned with control and prevention of diseases that threaten the individual. Thus it is also an aspect of clinical medicine, for each physician must evaluate every patient he encounters in terms of preventing illness as well as curing it. However, its predictive powers are derived from studying large numbers of patients of various types. Preventive medicine frequently deals with the social attributes of individuals who are ill, but only rarely with social relationships.

Social medicine on the Continent and in Great Britain usually refers to what is elsewhere called public health. Epidemiology is its mainstay, particularly the epidemiology of chronic disease where considerations of poverty, social class, occupation, age, sex, and marital status play a more important role than in acute infectious processes. As

with public health there are strong overtones of social action in social medicine. In the United States there is perhaps more emphasis on social medicine as the technology of medical care, i.e., study and promotion of effective, economical means of distributing services to patients.

Sociology has been involved in all these fields, and it is no accident that sociologists are finding their way into medical schools in Departments of Public Health and Preventive Medicine. They are also finding a place in departments of Internal Medicine and in Psychiatry, as well as in schools of Nursing and Hospital Administration. But it should be noted that sociology in the past has not been regularly connected with research in these areas, and that interest in the social concomitants of health and illness is not enough to mark research as sociological. Investigators from the several fields tend to differ in both their orientation and motivation for defining research problems, which may help explain the relation of studies done by sociologists to those carried out by medical personnel.

The basic discipline in which an investigator is trained of course orients him to define the scope of his research in particular ways, while his motivation for doing research often affects research goals. Relevant disciplines include epidemiology, clinical medicine, nursing, social work, pathology, biochemistry and physiology; sociology, anthropology, social psychology, and clinical psychology. Motives include improvement of existing health conditions through political or social action, helping the sick directly or indirectly, meeting immediate operational needs in ongoing programmes, advancing pure knowledge, and of course, achieving recognition or even acclaim. Some of these sorts of motivating forces are undoubtedly found among those in all disciplines—e.g., achieving recognition[27]—while others are inculcated in the course of training in particular disciplines.

The medical training of physicians, nurses, and social workers ordinarily gives them a service orientation; and when they do research they are likely to want to help the sick and to solve operational problems. More generally, since most of the workers in public health, preventive medicine, and social medicine have had medical training of one sort or another, research in these realms is strongly service—and improvement-oriented, whether it focuses on the individual patient or on conditions affecting the health of society at large. In contrast the training of sociologists and other social scientists more often stresses the advancement of pure knowledge, so that their research tends to be oriented more toward accumulating basic knowledge about patterned social relations and processes than toward the practical uses of this information.

Collaboration between Social Scientists and Health Workers

When social scientists join a team of medically-trained investigators,

they sometimes find that the problems under study and the objectives sought through research are foreign to them[35]. Medical investigators may react in like fashion to formulations advanced by social scientists. Gradually, however, as a result of working together, interchange of information and points of view tends to occur. We have described our experiences during the early stages of such a process in a previous paper[15]. As that paper as well as reports by others (e.g.,[26]) indicate, working partnerships between social scientists and health workers can be achieved though they do not come about without deliberate effort on both sides. An egalitarian atmosphere where physicians, social scientists, nurses, and other health personnel can work together with mutual respect and free communication is essential to productive collaboration.

As we have also suggested elsewhere[30], a new and hybrid discipline is emerging from such working partnerships, with theoretical foundations in both medical and social science. Although medical sociology in the United States today refers primarily to the application of sociological theory and method to health problems, continuing collaborative research on interdisciplinary problems appears to be generating a distinctive body of knowledge that is neither primarily "medical" nor "social," but an intimate blend of the two sets of disciplines.

II. SOCIOLOGICAL STUDY OF HOSPITALS

Social scientists have given considerable attention to hospitals and to the social interaction that takes place in hospitals. There are of course cogent reasons for this focus.

The hospital is now a major context for medical care and service in many parts of the modern Western World. While the doctor's office and the patient's home remain significant, particularly since the end of the nineteenth century the hospital has taken on greatly increased importance as a setting in which human disease processes are ameliorated, cured, or prevented. The hospital is no longer what it once was: primarily a last refuge for the sick and dying poor who had no other place to go for the custodial or terminal care that was commonly offered by indifferently trained workers and untrained volunteers. Today the hospital is the nexus of the highly complicated apparatus of modern patient care; it serves largely to co-ordinate the many types of people and agencies engaged in helping the sick. It accommodates the wealthy as well as the poor, and in it, large numbers of skilled professional and technical personnel provide a wide range of effective services.

Indeed, hospitals now constitute an extensive service industry. In the United States, for example, there were in 1957 close to 7,000 approved hospitals with a total of about one and one-half million beds and nearly 101,000 bassinets. Together, these hospitals had an average daily census of about one and one-third million patients and,

over the course of the year, there were some 23 million admissions and
3.8 million births[1, p. 369]. These and other statistics suggest that
hospitals have become a highly valued, integral feature of the social
structure, and that most people have some contact with hospitals in
the course of their existence. As a patterned aspect of the lives of a
great many people, then, hospitals invite and receive sociological
study.

Moreover, to choose hospitals as a sociological laboratory is to have
a fruitful opportunity for applying and extending concepts and theory
in a variety of problem-areas. As Hall[19] among others has observed,
hospitals are a type of bureaucratic institution. To study them is to
contribute to theories of bureaucracy (which until recently have been
based largely on observations of bureaucracy in government) and also to
provide a better understanding of the social structure of hospitals.
Formal and informal relationships within and between occupational
groups can also be studied to advantage, since modern hospitals have
many different experts and specialists who, by the nature of their
common focus on the patient, come into contact with each other in
the course of their work far more often than is the case in many other
types of work organizations. And because these several occupational
groups have differing degrees of prestige in the society, their interaction
among themselves and with patients (who of course also have differing
degrees of prestige derived from their other societal statuses) poses
interesting problems in social stratification. Also, since some part of
the education of professionals in the health fields frequently takes
place in the hospital, it is possible to investigate the socialization pro-
cesses which help turn the layperson into a practitioner[28]. In addi-
tion, for exploration of the relation between social environment and
states of health or disease, the hospital provides a semi-controlled situa-
tion in which dynamic sequences of events can be followed with greater
accuracy and insight than is possible in many other settings. Finally,
the hospital is a community institution and thus of interest in terms of
its many-sided relationships with the public as well as with other com-
munity organizations, such as churches, schools, public health depart-
ments, and local governments.

Research in one or another of these problem-areas has occurred not
only because of the social and theoretical importance of hospitals, but
also because hospital personnel have been willing to co-operate with
social scientists. Just as it is impossible to study the social structure
of a factory without interviewing and observing labourers, managers,
and executives, so it is necessary to have access to hospitals in order to
understand them and the people in them. As the potential contribu-
tion of social scientists in the field of health and medicine has become
better understood, hospitals in the United States have increasingly
welcomed these investigators. For example, two sociologists and a
physician recently reported a study[5] of six hospitals which they under-

took at the explicit request of the American Hospital Association, which speaks for most of the hospitals in the nation.

What has made hospitals worth investigating makes the work accomplished worth describing, and the remainder of this paper is a step in that direction. It is only a step rather than something more ambitious for only studies of the internal social structure and functioning of hospitals will be considered. Such studies fall into two main groups. In the first group are those which describe and explain the particular characteristics of the hospital as an organization or social system[2, 3, 5, 7, 17, 18, 20, 21, 24, 37, 38, 39, 40, 41]. In the second group are the investigations that deal not with the entire hospital structure but with selected parts, such as the outpatient clinic, the ward, or the operating room[4, 8, 9, 10, 12, 14, 23, 42, 43]. On the whole we shall be more concerned with the first group of studies than with the second.

Hospital Organization: Preliminaries

What kind of social organization is most representative of hospitals? How much variation is there from hospital to hospital? In what sociologically significant ways are hospitals similar to and different from other complex organizations such as industrial plants, churches, universities, business firms, or government units?

These deceptively simple questions have been asked implicitly or explicitly by all who have approached the hospital as a social system. But only provisional answers have emerged to date, partly because empirical investigations of hospital organization have been largely qualitative case studies. Each of the available studies describes the structure and dynamics of one or a few particular hospitals rather than of a representative cross-section of these institutions. Selection of cases to be examined has occurred more often by chance than by design. Such procedures are probably unavoidable in a new field, but they make generalizations about the " typical " hospital hazardous. They also tend to hamper accurate classification of the hospital relative to other complex structures. (See however,[25, 29, 38]).

Certain very broad statements are of course possible without first-hand observation. Clearly, hospitals are formal organizations with distinctive goals and a complex structure of specialized occupations. Provision of medical service is obviously primary among their goals, but education, research, and sometimes financial gain may also be included. Rules governing achievement of goals may differ from hospital to hospital, as may the extent to which work is divided and supervised. Hospitals vary in size (generally indicated by bed capacity) and in facilities for diagnosis and treatment. They also vary in terms of their patient population, who may have different diseases, stay for long or short periods, be young or old, ambulant or bed-bound.

To go beyond these orienting statements we turn to the research

itself, focusing first on the theoretical model for analysis that investigators have used, and then on findings relative to three selected problems: (a) structural sources of strain and conflict within the hospital; (b) factors affecting variations in hospital structure; and (c) the effect of hospital environment on patients and their health.

Framework for Analysis

The two main types of hospitals that have come under scrutiny are mental hospitals and general hospitals. As might be expected, even when different researchers have studied the same type of hospital the specific concepts they employ vary somewhat according to their orientation and training. However, the broad theoretical model used in all the studies has been relatively consistent. Regardless of terminological differences, researchers have tended to view the hospital both as a " natural system " and as a " rational structure."[16].

The rational model conceives of the organization " as a structure of manipulable parts, each of which is separately modifiable with a view to enhancing the efficiency of the whole[16, p. 405]. The natural-system model, on the other hand, " stresses the interdependence of the component parts," and " planned changes are therefore expected to have ramifying consequences for the whole organizational system "[16, p. 406] while unplanned changes are viewed as predictable consequences of strains within the system. Carried to their logical extremes, these two models have somewhat contradictory implications for research. They have, however, been more moderately viewed as complementary orientations, each of which calls attention to phenomena likely to be overlooked if only the other model were taken into account.

Applied to the study of hospital organization, this means that researchers have examined the informal structure as well as the formal; departures from bureaucratic standards as well as adherence to them; unanticipated consequences of action along with those intended; strains, tensions, and conflicts as well as adjustments; dysfunctional and functional patterns; the hospital's requirements for survival as well as its official aims; and the norms and values of occupational subgroups and patients as well as formal hospital rules. That is, analysis of the formal or " blueprint " organization of the hospital has generally served as a starting point for research rather than as an ultimate objective. More often than not, too, dynamic interpretations rather than merely static descriptions of phenomena have been offered.

Structural Sources of Strain and Conflict

Studies of both general and mental hospitals uniformly suggest that certain contradictions are inherent in the structure of these institutions, and that these may constitute " built-in " sources of strain for personnel and patients. Indeed, to identify contradictory elements is in large part to describe the structure of the hospital, for they apparently pervade

the system. And to locate resulting strains is at the same time to open the way for considering alternative arrangements that might reduce strain.

Nowhere are inconsistencies more evident than in the authority and prestige structure of the hospital. As Smith[37, 38], Wessen[41, 42], and others [e.g., 5, 24, 39], have noted, the official organization of positions and departments is only a partial and somewhat misleading representation of the actual situation. Official organizational charts generally depict an administrative hierarchy that is headed by a lay governing board and in which physicians appear as " staff " rather than " line " personnel. Yet it is well known that physicians head another, non-administrative chain of command that focuses primarily on clinical activities and involves all whose duties directly concern the care of patients. Although not usually shown on the organizational charts, this clinical hierarchy of authority is not an informal or *sub rosa* phenomenon. It is customarily supported by hospital rules and endorsed by hospital administrators. Nurses, social workers, technicians, dieticians, etc. are enjoined to follow a doctor's orders in caring for his patients, and if they fail to do so they are subject to formal penalties.

In spite of such administrative recognition, further analysis indicates that the clinical hierarchy does not accord with the administrative hierarchy in important respects. In the clinical system, the basis for prestige and authority is professional training in medical subjects; the doctor is accorded highest status because he is the acknowledged expert in this realm. In the administrative system, however, the primary basis for prestige and authority is bureaucratic rank; the high status of members of the hospital's governing board is due to their formal position in the organization rather than to any training as experts which they may have had. Moreover, the norms and values that govern behaviour in the clinical system constitute a complex medical subculture which has service to patients as its dominant orientation and which requires appropriate training for effective participation. In contrast, norms and values in the administrative system necessarily include considerations of organizational efficiency and economy as well as of service. And for participation in many aspects of this system—e.g., building maintenance, purchase and supply, or accounting departments —formal training in the medical subculture is not required.

These differences between clinical and administrative systems are important because the two are not independent. Many hospital workers are involved in both systems. They may have high status in one system but not the other, as would seem to be the case for doctors. They may have divided loyalties, as can occur for nurses who often have administrative responsibilities in addition to professional duties. And since the line between professional and administrative jurisdiction cannot always be drawn easily, many types of hospital personnel face conflicting demands from representatives of the two systems.

Additional potential difficulties stem from related structural characteristics which require brief mention though they cannot be discussed in detail here. The emphasis on appropriate medical training for participation in the clinical system would seem to be in large part responsible for the pattern of blocked occupational mobility that tends to prevail in hospitals; the many occupational and professional groups represented there have been likened to social castes which can neither be entered nor left for higher-status groups without formal, off-the-job education. Yet by the time members of lower-status hospital groups realize this, they may have no choice but to continue in their initial occupation even though they might prefer another.

Moreover, by the nature of the primary aims and activities to which hospitals are committed, the work of any of the groups cannot be entirely routinized according to hard-and-fast rules. While true emergencies are perhaps less common in hospitals than the layman imagines, crises having to do with life and death often occur. Coping with crises requires flexible rules, yet this need is not always readily apparent to those who are somewhat removed from the patient's bedside, the surgical operating room, or the emergency treatment station. Hospital administrators no less than elevator operators may experience frustration when prevented from applying a general hospital regulation to a particular situation where, in the judgment of a physician, it is unwarranted or even harmful to a patient's best interest. On the other hand, physicians may be frustrated when confronted with inadequate technical facilities, equipment, or other arrangements for medical care which cannot be changed because of the hospital's financial condition. More generally, medical service aims and activities can easily conflict with those which promote bureaucratic predictability, efficiency, and economy. When this occurs, representatives of one or another interested group in the hospital are of course likely to be disturbed.

Of a somewhat different order is the last potential source of tension to be noted here, namely, the disparity between training for medical service roles and training for the patient-role. When people first enter a hospital as patients, they have rarely been explicitly informed about hospital rules or professional norms for their conduct; frequently they have only a vague idea of what to expect or of what is expected of them[31]. Hospital staff members, in contrast, have quite distinct expectations. Although they may be willing to teach patients what to do in order to fulfil these expectations, they also anticipate conformity. Patients, however, may for various reasons be unable or unwilling to learn or conform, so that the stage is set for discord.

In the sociological literature much has been made of the tension and strain that can ensue from disparities of the sorts we have described. Nevertheless, not all researchers have been equally explicit about

whether the strain was only potential or was observed to occur rarely, occasionally, or routinely. Nor have they always been careful to specify for whom particular contradictions posed problems, and whether there were institutionalized mechanisms for resolving the problem even though the contradiction might remain. Some of the problems faced by the hospital administrator would seem to disappear, for example, when he is not a layperson but a doctor, as is usually the case in mental hospitals and in large teaching hospitals. His professional training tends to legitimate his administrative authority and, simultaneously, to provide valuable knowledge of the professionally-approved limits of action in this realm[11, 14, 29]. This arrangement does not, of course, eliminate the distinction between administrative and clinical authority systems. But it does consolidate them in a way that is impossible to the lay administrator. Moreover, the relative dominance of the clinical hierarchy over the administrative hierarchy in all hospitals studied suggests that this condition may represent a point of equilibrium and order in work relationships that may be more functional than dysfunctional for both organizational and professional aims. Possibly, in order to achieve their diverse purposes, hospitals must contain an irreducible residue of contradiction and resultant strain which may be mitigated but not eliminated entirely.

In brief, now that numerous structural sources of potential strain in hospitals have been identified, research is needed that systematically explores actual variations in these structural conditions as they may be related to observed signs of conflict and disequilibrium, on the one hand, or to signs of accommodation, adjustment, and balance, on the other hand. When such comparative studies of carefully selected hospitals are available, it may be possible to plan beneficial changes and innovations in hospital organization that are currently only dimly imaginable.

Factors Affecting Variations in Hospital Structure

Even casual examination of studies completed indicates that the hospitals described are far from identical although they have some features in common. More than casual examination is required, however, to establish point-for-point similarities and differences along all significant dimensions; as we noted earlier, no precise analysis of the range of variation in the social structure of hospitals yet exists. In the absence of such an analysis, it is perhaps premature to discuss the factors that might contribute to variations in hospital organization. Nevertheless, it is not too soon to call attention to the problem of identifying these factors, or to suggest that the problem be taken into account in future comparative investigations of the sort outlined above.

Major clues to at least some of the relevant factors may well lie in the several classifications used to describe hospitals in medical and governmental statistical reports. It should be possible to say quite a

bit about the social structure of a particular hospital on the basis of knowledge regarding whether it is publicly or privately owned; non-profit or proprietary; large or small; teaching or non-teaching; general or specialized; designed to serve long-term or short-term patients; high or low number of admissions, births, and deaths; relative size of budget. As some sociologists[29, 40] have suggested in attempting to account for variations in the social structure of mental hospitals all these charac-teristics probably represent conditions that either directly affect or indirectly limit the kind of social organization a hospital may have. But the problem of determining the exact dynamic role played by these and other possibly influential factors has received scant empirical attention.

Effects of Hospital Environment on Patients and their Health

Information about the effects of the hospital environment on patients and their health presents a more encouraging picture. The nature of the relation between doctor and patient or between nurse and patient has of course long been recognized in medical circles as a factor which may speed or hinder recovery from illness. Medical personnel have also been aware for some time that the character of a patient's social relations with his family, friends, and work associates can play a part in both the development and amelioration of disease. Thus the general principle that social experiences may affect (and be affected by) disease processes is far from new. However, recent study of hospita-lized patients has led to refinement and extension of this principle in at least two directions.

First, available research suggests that patients—unless they are literally unconscious—tend to develop more or less patterned social relations not only with hospital staff members but also with other *patients* in their immediate hospital environment, and that under some circumstances these patient-patient relations can affect disease pro-cesses. As might be expected, most of the work on this problem has been done in mental hospitals[7, 17, 18, 21, 39], where patients are likely to be ambulatory and to have long-term illnesses that by their very nature call attention to and pose special difficulties in social relations. But networks of social relations and shared norms among patients have also been shown to develop in other types of hospitals, among patients who are bed-bound and whose diseases run a wide gamut in type and duration[5, 12, 19, 23, 33].

Unfortunately, evidence for the existence of such hospital-induced associations among patients is more plentiful than evidence which definitely links these associations to significant changes in disease states. Anecdotes, interviews, and participant observation may be enough to establish the possibility of dynamic links of this sort. How-ever, only studies that over time employ relatively strict controls and precise observations of organic, social, and psychological states can

demonstrate such links. Studies of this kind have begun e.g., [33] but additional research is necessary to fulfill the promise contained in the " discovery " of structured social relations among patients in the hospital.

Similar comments apply to a second and more inclusive research outlook, which views the entire hospital as ideally constituting a " therapeutic community " or *milieu* for patients. This outlook emphasizes as potentially significant therapeutic agents not only the social and psychological relations among patients and between patients and hospital staff members; it stresses also the indirect influence that formal and informal relations *within* the hospital staff can have on patient's recovery. Disturbance, tension, or conflict in any of these sets of relations is said to have negative effects on the recovery of patients, as are staff attitudes or hospital rules favouring custodial care rather than active therapeutic procedures based on social interaction.

Studies[2, 7, 10, 17, 18, 21, 39] that explore these possibilities have been undertaken in mental hospitals almost exclusively, sometimes as adjuncts to action programmes designed and undertaken by the hospitals in the hope of improving patient care. In a gross and preliminary way, the findings appear to support the hypotheses. But definite conclusions await further research and more systematic evaluation of operating programmes. Such research and evaluation poses difficult theoretical and methodological problems, as Schwartz[34] has observed. Nevertheless it is required for full understanding of the dynamics of patient care in hospitals as well as for the important implications it might have for improving that care.

Summary and Conclusion

The first part of this paper outlines some of the parameters of the sociology of medicine and suggests that at least in the United States the field is distinguishable from Public Health, Preventive Medicine, and Social Medicine. Although the content of the latter fields in some measure overlaps that of Medical Sociology, the research problems emphasized in each field tend to vary according to the basic disciplines in which investigators are trained; those trained in the medical sciences characteristically have research orientations and goals that differ from those trained in the social sciences. Nevertheless, as a result of interdisciplinary collaboration medical and social scientists are gradually developing mutual understanding as well as a distinctive body of knowledge. To exemplify this knowledge, the second part of the paper considers recent sociological investigations of hospital structure. It reviews the reasons for sociological interest in hospitals and describes the framework for analysis investigators have used in their studies. Attention is given to available research on three selected problems: structural sources of strain in hospitals, factors affecting variations in

hospital structure, and the effects of the hospital environment on patients and their health.

In general, it may be concluded that the sociology of medicine is on the way toward assuming important stature both for sociology and for health care. As this new discipline grows it may be expected to contribute to a greater understanding of man himself, the ills that befall him, and the means of giving him a fuller and healthier life.

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PART TWO
Sociological Aspects of Social Planning

The Theoretical Assumptions of Social Planning

GUNNAR MYRDAL

I

This paper—the title of which has been provided for the author by the organizers of the Congress—is concerned with state planning. In its modern usage the term " planning " implies the dynamic idea of being undertaken in order to engender " development ". The specific " goals " for development are in the final instance determined by the political process in the state, as conditioned by the political institutions prevailing there and the internal and external pressures at work. Planning consists in a conscious and organized attempt by the government to spell out those goals in realistically attainable " targets ", related to a future point of time, and to initiate and co-ordinate public policies for the purpose of causing such changes in the national community that the targets are achieved.

The word " social " in the title is here understood to express the idea that rationally in planning, not only economic but all other policies as well, should be held within the field of vision. All policies require an organized effort in the form of the disposal of human and physical resources, which constitute their cost to the community. They all have additional effects—some desirable but some undesirable—besides the effects directly aimed at. The effects reached by given efforts along one particular policy line become different, depending upon what other efforts along other policy lines are also pursued. Because of these interrelations between various types of public policies—which will be commented upon at greater length below—the co-ordination sought by central state planning must attempt to embrace them all. No single public policy measure, whether directed to increasing agricultural production, improving educational or health levels or any other advance, can be rationally determined merely by special and independently undertaken planning. In principle, the goals cannot be translated into realistic and operative targets in any particular field except by a co-ordination of all public policies within and outside this field.

The basis of objective rationality in planning consists of the knowledge that can be obtained of the physical and psychological changes, which make up the costs and effects of public policies, and of their interdependence as the policies are varied. Their evaluation is a different matter. Values are not true or false; they cannot be " known "

in any other form than the recognition that actually certain people make certain evaluations. There is therefore no other way of evaluating these changes for the purpose of state planning than in terms of the development goals and the attitudes to other elements in the developmental process as these evaluations actually emerge from the political process, referred to above. Fundamentally, a state development plan can never be anything else than a political programme. The decisions contained in the plan about what particular combination of policies to pursue, how far and by what means, can only be determined by a weighing of costs and effects evaluated in these political terms—though of course, the knowledge of the complex facts and their involved interrelations can be more or less comprehensive and correct. More specifically, the attempts at " welfare economics " in the old tradition of psychological hedonism and philosophical utilitarianism, which still determine so much of theoretical speculation in the social sciences and particularly in economics, are a metaphysical illusion.

The words " theoretical assumptions " in the title are here understood simply as a demand for logical clarification of the definitional relations referred to above and others to be accounted for below. To these " assumptions " certain broad generalizations which have an empirical basis can also be added.

One such generalization is the division of the world into two spheres: the non-Soviet and the Soviet countries. In many fundamental respects the scientific problems of state planning are, of course, the same in both spheres. But the political processes determining the goals of planning, the targets and the policy measures to be undertaken, and the sanctions utilized to enforce the policy measures are so different in the two spheres that planning in a monolithic Communist state becomes a different matter. The discussion in this paper will be devoted to the problems of planning in the non-Soviet countries.

Another similar generalization is the recognition of the fact that outside the Soviet orbit there are two fairly distinct classes of nations: one small upper-class group which is comparatively very well off, and one much larger lower-class group which is very poor. Between the individual nations in both groups there are differences in levels of average income, though not so large as to render invalid the distinction made; there is also a smaller middle-class group of nations. As between the two main groups there is a very big difference not only in economic levels but also in education, health and all other levels of living; the poorer countries show generally more economic inequalities and the social stratification there is usually much more inegalitarian and rigid. In spite of depressions and wars the rich countries continually show a rapid development to ever-higher levels, while on the whole the poor countries have been, and still are, developing much more slowly, when they are not stagnating or regressing. The class

gap has therefore been widening for generations and it is widening today. The industrialization which is taking place in the non-Soviet world is mainly a continued industrialization of already-industrialized countries. It is clear that both the need for planning and the conditions under which planning can take place are very different as between these two main types of countries.

When the term " underdeveloped countries " is used in this paper it is understood as a synonym of the poor countries.

<center>II</center>

The idea of central state planning did not play an important rôle in the countries which are now rich and progressive at the time when they were in their early stages of development. The industrial revolution was not the effect of state planning for development towards higher economic levels for the masses, but of enterprise by individual entrepreneurs wanting to exploit new inventions for their own profit. The state interventions in the economic life were always many and important but they were dispersed in their direction and not co-ordinated in a planned fashion. They were pressed upon the state by interested groups to meet special and temporary needs.

Under the influence of many changes and, in particular, during the last half-century the unending sequence of wars and other international crises, the trend in all the rich countries has steadily been towards a swelling volume of state interventions. The need for a rationalizing co-ordination of public policies has thus arisen more as an afterthought, when the interventions had multiplied and thus created situations of complexity, confusion and contradiction. While as a historical fact these measures of public policy had not originated and been motivated as instruments of state planning for development, the elements of economic planning which are now gradually spreading their influence in those countries have been felt to be necessary because of the very growth of unplanned complexes of public policies which have to be co-ordinated in order to become more harmonious and effective for their purpose.

In the same way, the redistributional reforms, the regulations of the labour market and of labour conditions generally, and the gradual building up of the huge structures of public policies for primary and higher education, for public health and for the care of the sick, the unemployed, the aged and the children have been the result of a long process of piecemeal social changes which have been pressed forward in the different fields as independent and unrelated policy measures motivated on their own merits. It is, for instance, rather remarkable that the financially more and more expensive social security schemes have all this time been propagated in terms merely of social justice and welfare for the needy. When the opponents of these schemes, who argued that they would ruin the economy of the country, were

repeatedly wrong, this was largely due to the effects of these reforms in raising the labour efficiency of the masses of the people which had, however, never been an important part of their motivation. Again, when gradually considerations of these wider effects and interrelations are coming to the fore in public discussions, the explanation is mainly that these policy measures are so many and so big, and redirect the distribution of such a very large portion of the national product in the rich countries, that they simply must be co-ordinated with each other and with the development of the entire national household.

In the last half-century all the rich countries have become democratic " welfare states " with fairly explicit goals of economic development, full employment, increased social and economic equality, etc. Against the background of the historical growth in these countries of their economies and their public policies in the economic and social fields, it is understandable, however, that planning there takes on a pragmatic and less comprehensive and programmatic character. But as the state is increasingly involved in regulating the national economy, it becomes compelled to make long-term forecasts and to modify its economic policies in the light of what these forecasts show. A very much improved basis of statistical and other information is also becoming available to governments. Likewise, where as a matter of fact in many of these countries the state finds itself responsible for fixing or decisively influencing the level of rents, regulating the whole market for houses and determining the volume and composition of new construction, the state authorities are bound to make forecasts of the future course of the family curve and other factors determining the demand for housing, and also of the effects of building activity upon economic trends in the short and the long run. The rapid development of higher and professional education now absorbs such large funds and concerns such a large portion of the young people that it cannot be carried on any longer as an independent line of public policy but has to be planned carefully on the basis of calculations of future demand for and supply of labour trained in this way, which necessarily involves a forecast and a plan for the whole national household. Sweden is now inaugurating a compulsory pension scheme guaranteeing the aged an income in stable value terms corresponding to two-thirds of their earnings during the best fifteen years of their working life; it is clear that a redistributional reform of this magnitude must be founded on considerations embracing the entire economic and social life of the nation.

This development is perhaps most clearly reflected in the role of the fiscal budget. Until fairly recently the state budget was on the whole managed in close analogy to the financial plans and accountings of an individual person or an individual business firm. During the Great Depression it became customary, however, when deciding upon state incomes, state expenditures and the balancing of the budget, to take

into consideration also the effects upon total demand and supply in the national community as a whole and, consequently, upon general business conditions. We have now come into a third stage of this historical process, where the preparation of the fiscal budget tends to become an all-embracing forecast and plan for the entire household. The driving force behind this increasing emphasis on planning in the handling of the fiscal budget in the rich countries has, of course, been the fact that there the budget has gradually come to encompass an ever-larger share of the national product which is a consequence of the secular trend to expansion of the volume of public policies. This trend has also been spurred recently by the huge and rising costs of military preparedness in the era of the Cold War.

Planning is an entirely different problem in the poor countries. For most of these countries it cannot be assumed that they will become industrialized and develop economically by a process of change similar to the one which once occurred in the now rich and progressive countries. They are very much poorer than those other countries were in their pre-industrial stage. The relation between population and resources is usually worse, and the population trends are more sinister. They have not at their disposal a competitive international capital market. They have not the emigration outlets that Europe had. Their social and psychological climate is less propitious to development. And the magnitude of the problem is totally different: the countries which are now rich and progressive could rise as tiny islands in an ocean of underdeveloped people whom they could exploit as sources for primary goods and as markets for manufactured commodities. Now it is this whole " outside " world which attempts to rise out of long ages of stagnation. Development there will not come by itself: it has to be initiated by state policies. Planning becomes a precondition of industrialization and rising levels of living and not, as in the rich and progressive countries, a later consequence of economic development and of the growth of economic and social policies directed to utilizing and sharing an abundance that was largely already created.

The underdeveloped countries are thus compelled to attempt what in the light of the history of the rich countries appears as a short-cut. From the developed countries they are now taking over political ideas and forms, not as they were in the historical epoch when those countries begun to develop but as they are today. The goals for planning are being defined in terms of the welfare state which is the accomplishment of the latest decades in the rich countries. The political basis is sought in universal suffrage, which again in the rich countries was only won in that later era of the welfare state. In regard to the technique of planning they are compelled from the beginning to seek a much more complete system of co-ordinated public policies, than the system of policies which was reached gradually and pragmatically in the rich countries. The Soviet system of development of underdeveloped

countries offers such a technique. What some of the underdeveloped countries are now actually trying to accomplish—and what many more are reaching for is to combine important elements of the Soviet planning technique with a democratic political system of free elections based on universal suffrage, and to gear it to the ideals of the advanced welfare state of rising levels of living for the broad masses of people.

III

Of all the problems of planning in underdeveloped countries only one abstract aspect will be further commented upon in this paper, namely the interrelations between public policies operating in various fields. In the introduction the view was expressed that there exist such interrelations that rational planning must attempt a co-ordination between them all. In this section it will be argued that such a rational co-ordination is particularly needed in an underdeveloped country not only because, for obvious reasons, the great poverty there makes the most effective use of available resources imperative, but also because these relations, as will be demonstrated below, are much stronger when levels of living are so very much lower, as they are in such a country.

From this point of view it should not be looked upon as an accident that the plans actually produced in the few underdeveloped countries which have come further than to a general declaration of intentions—for instance, India's First and Second Five-Year Plans—in their general approach are comprehensive social plans, containing not only a budget for state investments in overall capital facilities and industrial plants and a system of interventions in trade, agriculture and private industry, but also programmes for public policies in the fields of education, health, population, administration, etc.

All these programmes require financing, and already, from the point of view of costs to the community, they need to be weighed in comparison with each other and in competition with the financial requirements for investment in industry and agriculture. The cost point of view stands in those plans as a collective representation of the flexible but real limitations for development policies which will always be present in two directions: the dangers of internal inflation, if demand increases too much ahead of supply, and of drain on the foreign exchange resources, if demand turns too much towards foreign goods. As the effects on the price level and in regard to the demand for foreign goods are very different for different types of expenditures—and different also depending on the way they are financed—this weighing of costs is anything but simple. Even the Indian planning, which is far ahead of planning in any other underdeveloped country, has not been very successful in laying a rational basis for this weighing of the costs to the community in a specifying study of the real economic effects of different types of expenditures. It still relies too much on a reasoning in fiscal terms of the balancing or under-balancing of a budget composed of

taxes and loans on one side and expenditures on the other, all reckoned in sums of money. This problem will have to be left aside in this connection. Important for the argument is only the recognition of the interrelation in planning between all public policies on the cost side where they represent a competition for available scarce resources, however this is accounted for, and the obvious reminder that this competition must be particularly tense in a poor country with little leeway for permissible waste.

All public policies are also interrelated on the effect side, and this type of interrelations is, as already stated, vastly more important in poor countries. A basic fact, which is often forgotten in the economic discussion of their development problems is that in those countries there is not a clear-cut distinction between saving and consumption. In a rich country the workers usually consume enough to maintain an optimal degree of labour efficiency, and this fact makes more relevant the type of abstract economic reasoning where " saving ", in the sense of non-consumed income, is counterposed to " investment " and where total output in an industry or in the national economy as a whole is analysed as a function of investment. But at the very low levels of consumption in the poor countries, and particularly in those of them where a large portion of the population is undernourished, increased consumption may be a productive investment in higher labour efficiency.

Similarly, in the rich countries levels of education have been for a long time generally so high that further advances, at least in so far as elementary schooling is concerned, have no great and immediate importance for labour efficiency. The low level of labour efficiency in a poor country is, however, to a very high degree related to the low level of education. Industry is starved of literate workers who can understand a complicated production process and work according to written instructions and a draft. The primitive techniques used in agriculture and the great difficulties met in improving them through extension work and by other means, as well as the difficulties meeting the attempts to organize co-operatives and make them effective for the masses of people, and not only for the better situated few, and to introduce a more rational system of credits than the one managed by the usurious moneylender, etc., are also connected with the inability of the farmers and tenants to read and write, make calculations and keep accounts. Raising educational levels is indeed a condition for making rapid advance in practically every direction and, more particularly, it constitutes an investment in higher productivity in trade, industry and agriculture. The same is true of policy measures to improve health conditions. Between health and education there is the further relation that improved health levels can only be effectively attained through education. And, more generally, deficient consumption, particularly in regard to essential needs such as food, shelter, and light when the

sun has set, is bound to reflect itself in greater difficulties in making educational and health policies effective, while, on the other hand, those policies, if they were successful, would raise levels of production and consumption all round.

Naturally, raising levels of education, improving health conditions, and reaching a situation of higher wellbeing, where people would not need to go hungry, are all things which have a value in themselves for the community. They represent a very important part of the goals for all development to higher productivity; they are indeed the reason why such a development is a political objective. But at the same time raising these levels is a means of reaching higher productivity. The investments in man, implied in those policies, are often of a fairly long-term nature; but in this respect they are not very different from most of the state investments in overall physical capital like dams and power plants.

There is no doubt that very generally the poor countries in their understandable eagerness to raise production levels in agriculture and industry rapidly are putting too little emphasis on the need for pro-ductive investments in human beings and directing too little attention to the need for raising labour efficiency. This would be revealed if the planning organs of these countries would follow up their correct approach to planning as embracing all fields of public policies by estimating more closely the effects on the productive efficiency of the working population to be expected by various public policies outside the field of economic production in the narrow meaning of the term. A part of the explanation for the low level of productivity—which constitutes their poverty—is, of course, in some of these countries acute population pressure in relation to land and other natural resources; in all underdeveloped countries another part of the explanation is low capital intensity in production. Planning becomes naturally directed towards exploring and utilizing better the available physical resources and attempting to provide more capital by saving at home and inflow from abroad. But productivity is dependent also on labour efficiency; low labour efficiency is in its turn related to low levels of essential consumption and of education and health. It is also related to the extraordinary high levels of unemployment and underemployment prevailing in underdeveloped countries which create a mental climate where labour becomes wasted.

Keeping all these important relations in mind, it would be rational to make the broadest outline of the plan in terms of the human factor: the quantity of available manpower, its quality which can be improved, and its utilization which can be increased and directed towards most effectively spurring development and raising levels of living. The problems of capital formation and industrialization would then be set in a more true perspective as a part only of the general plan to

achieve the most effective utilization of the manpower resources. The fact that a better nourished, better educated and healthier people, which is fully engaged in work, is in itself an important part of the broader goals for development planning should then rationally carry the implication that in allocating resources, investments in improving the living and working conditions of the masses of people should even be given a certain preference co-efficient to be determined in the political process, so that the public policies representing such investments in what Marshall called " personal capital " should be pursued further than a calculation merely of their effects on productivity would warrant. There is, however, no doubt that already for pure productivity reasons, if those were rationally estimated, these policies ought to be afforded a greater part of the available resources than at present they have at their disposal in most of the poor countries. The plan should then be closed on the cost side by realistic considerations of the two limitations mentioned: pressure on the price level and drain on foreign exchange which, as mentioned, are very inadequately represented by the fiscal budget which can have little relevance except for administrative and control purposes, particularly in those underdeveloped countries outside the Soviet orbit where it regulates only a comparatively small part of the entire economy.

In this connection it should be noted that the Soviet Union, which has provided so much of the planning ideology to the underdeveloped countries, besides setting off a high savings quota for physical investments in a very rapid industrialization, at the same time managed to provide resources for advances in education and health towards levels which are now reaching as high or higher than in the rich countries in the non-Soviet orbit. This country's conspicuous success in engendering an accelerating development process is very much due to this, and to the systematic efforts to put the people to work. Housing and much else in the consumption budget was for a long time given a low priority, but instead certain other items in the level of living, which were deemed to be particularly important for productivity, were provided for the more generously. Social security and, later, housing and clothing were, in this policy of selective consumption choice, given their chance only when the national product had risen so high that they could more easily be provided for while still keeping very high not only the physical investments but also the levels of the particularly productive items of consumption like those for education and health. It has to be remembered, however, that the Soviet Union had a great advantage over most of the underdeveloped countries today in the fact that for a long time it had an agricultural surplus—even in spite of all the mistakes in its agricultural policies.

IV

A main theoretical assumption of social planning in an underdeveloped country should be the full realization of the interrelations

between all public policies as exemplified above. We know also the general form of these interrelations. The form is circular causation through which an induced change, like all other changes when once the threshold of stagnation is passed so that momentum can be gathered, has cumulative effects. This implies that the social system can be made to move further, sometimes much further, than corresponds to the initial change.

The situation of the human beings in an underdeveloped country, *viewed from the point of view of its development goals*, can be characterized in terms of low levels of performance and living in a number of respects: low levels of work discipline, punctuality and orderliness; apathy, conservatism, lack of alertness, adaptability, ambition and enterprise; submissiveness to exploitation; inaptitude for co-operation; low labour efficiency; low wages and earnings; malnutrition; low housing standards; low levels of personal hygiene and public and private facilities for hygiene; low health levels; high birth rates; low levels of literacy and education, etc. The community, viewed in the same way from the angle of desiderata of the planning for development, is similarly characterized by a number of less satisfactory conditions: small industrial sector; low capital intensity and primitive production techniques, particularly in agriculture; low labour productivity; rapid increase in population and labour force; high and often rising unemployment and underemployment; low levels of efficiency and honesty in public administration and politics; less developed provincial and local organs for self-government; weak infrastructure of voluntary organizations, etc. The number of negative characteristics should be identified, specified and quantified by empirical analysis of existing conditions. When measuring the levels, there will be regional differences and differences related to age, sex, religion, occupation and social class.

The important thing is that a change upwards of any one of these levels will tend to cause all other levels to move in the same direction, and that these secondary changes in their turn will then support the primary change and push it further, with similar effect a second turn, and so on, in a circular causation. When once the vicious circle holding down people in a balance of stagnation—where " poverty becomes its own cause "—is turned into a virtuous circle, the whole social system will then be moving towards higher levels in all respects. Passing the threshold to sustained development may be a difficult operation, particularly if population increase is rapid and perhaps in the Malthusian fashion becoming stimulated by any advance in living levels, sterilizing a large part or all of the total savings in the community into purely " demographic investments " and increasing the relative scarcity of land.

In the most general terms this is a theory of the interrelations, the knowledge of which must be the objective rational basis for social

planning. The system of conditions which are relevant for stagnation or development in a particular society should be ascertained by empirical analysis. Their levels should be measured quantitatively, as well as the effects of a change on one level to change all the other levels, and *vice versa*, in the short and the long run. Upon the basis of such knowledge the strategic problem can be posed and solved: by what combination of induced changes a maximum movement of the whole social system towards the postulated goals of development can be brought about by a given effort.

That a social plan for development cannot be constructed in the perfect terms of this theory of circular causation with cumulative effects, does not need to be emphasized: it would have to include full knowledge of some of the least accessible functional relationships in society, which are still largely left rather vague even in the rich countries with their flourishing social research. But a clear idea of what planning for development implies is of paramount importance for giving it a rational direction. To be rational, planning has to follow the lode star of this vision of what social planning should be, if it were perfect, even though in constructing his plan for development the practical planner has to substitute ever so uncertain estimates for the full knowledge of all the functional relations assumed in the theory. And it should be added that those estimates can gradually be made more reliable by directing research towards improving them. Meanwhile, a request which should be met by any planning, and which also can be met, is full clarity about what knowledge has not been available to the planner: what relations he has abstained from studying altogether, in what respects he has substituted estimates for satisfactorily-founded knowledge, and what these two procedures imply for his practical conclusions.

V

From the point of view stressed in this paper the economic models, which have been sketched in the literature and which are increasingly being utilized in actual planning are, of course, only partial plans, and they are partial in a systematic fashion. This implies that of necessity they are hedged by abstract assumptions concerning al relations to the social system at large which are outside the specific relations studied in the models. This would hold true even if in future by the use of electronic techniques the analysis within its field could be specified in regard to the widest range of commodities and industries, to different technologies and types of labour, and so on.

That a model is only a partial one certainly does not mean that it is useless. In the difficult task of planning for development every clarification of the relations within one important part of social reality is a very worthwhile contribution. But to be really useful much more effort should be devoted to making explicit the abstract assumptions, which in this case are very radical. It is of the utmost importance

that they be kept constantly present in the planner's mind, so that he does not begin to handle an economic model as if it were a general one. In order to draw valid and relevant policy conclusions, estimates *must* be added concerning all the excluded interrelations within the entire social system. Logically, only when the economic model has in this way been transformed to a general social model can policy conclusions be inferred from the knowledge that the model contains, and the particular value premises.

The economic models not only concern a part of the social system which is of particularly great importance. They also give the appearance of covering a field that is more easily accessible for quantitative analysis. To an extent this appearance corresponds to a real difference, in so far as economic facts and interrelations have been the objective for a long time of much more intensive statistical and other empirical investigations. But partly it is only a reflection of an assumption which is not very realistic and less so for the underdeveloped than for the richer countries.

The assumption is the existence of markets for factors of production and for the services and goods produced in various industries. Under this assumption costs and prices can be expressed in a common denominator, money, so that the profitability of allocating scarce resources between alternative uses can be determined. This assumption is usually fortified by the further assumption that this procedure is " objective ", in contra-distinction to the evaluation of the effects of efforts in fields where these effects do not have a market value in money. Different from " productive investments " in this sense, policy efforts in those other fields would then have to be evaluated " independently " by a political judgment which is not supposed to be " objective " in the same sense. Similarly all considerations concerning the distribution of the national product are usually excluded from " objective " determination by the economic planning model and left for " independent " political judgment. This line of reasoning would thus define economic planning as an " objective " procedure, while planning in all other fields would be " political " and would, more particularly, draw a line of demarcation between " directly productive " investments and so-called " social " investments and redistributional reforms.

The several variations of this thought, implicit in so much of contemporary economic discussion and elaborated in the theoretical systems referred to as " welfare economics ", are of course, nothing else than one modification or another of John Stuart Mill's idea of a distinction between, on the one hand, the sphere of production and exchange where objective economic laws rule and, on the other hand, the sphere of distribution where political judgment has to be exercised. Such a distinction has, however, long ago been proved to be logically untenable. More specifically, planning cannot be rationally based on the price relations. This would hold true even were the markets perfect

in the technical meaning of the term—if the price relations had not first by intentional interventions been changed in such a way as to give incentives to public and private enterprises in line with the goals for development planning, as emerging from the political process. In underdeveloped countries actual costs and prices can still less be assumed to render an " objective " basis for planning as, firstly, a very large part of the economy is there non-monetized and outside markets, for instance most subsistence farming, and as, secondly, almost all markets and particularly the capital and labour markets are very far from perfect and show immense internal differences in actual ruling prices.

This is said not in order to deprecate the economic models operating in terms of markets, relative costs and prices and profitability of investments. Even if costs and prices in an underdeveloped country have to be founded on very courageous and not very realistic approximations—if possible adjusted so as to be " correct " from a planning point of view as just hinted at, in a similar manner as the price level is adjusted to remain unchanged—the calculations implied in a model will assist in clarifying many interrelations in a very important part of the social system. This clarification is, however, only in the nature of a likeness or an illustration, giving emphasis to certain important relations and a broad idea about how they are shaped, but not directly rendering practical policy conclusions. The two necessary reminders are: first, that a reasoning directed towards such conclusions does not become more " objective " and liberated from the necessity of having to depend also on value premises simply because it has been pursued in terms of markets, costs and prices in money, and second, that by logical necessity every partial model must operate with huge abstract assumptions in regard to the relations with the rest of the social system, which should be made explicit, so that due regard to those relations can be inserted before drawing the practical conclusions, *i.e.* fixing the targets and determining the public policy interventions in the economic as well as in all other fields.

M

Problèmes et Techniques
de la Planification Sociale

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Il y a environ quarante ans, on a assisté à la naissance des premières tentatives de planification sociale sous la forme de ce qu'on appelait en Union Soviétique, au cours des années 1920, les " chiffres de contrôle ". Quelques années plus tard, dans ce même pays, entrait en vigeuur le 1er plan quinquennal (P.Q.), suivi d'un 2ème P.Q. et d'un 3ème P.Q. interrompu par la 2ème guerre mondiale.

Depuis la fin de celle-ci, on a vu de nombreux autres pays s'engager, ou tenter de s'engager, dans la voie d'une planification sociale.

La planification sociale représente aujourd'hui une activité collective d'une importance considérable tant par ses conséquences pratiques et par la façon dont elle agit sur le destin d'une partie de l'humanité que par les problèmes nouveaux qu'elle pose et les techniques qu'elle met en oeuvre.

Ce qui caractérise la planification sociale, c'est qu'elle vise à soumettre à un plan de développement l'ensemble de toute une société en effectuant un choix entre plusieurs lignes de développement possibles.

Elle se distingue ainsi des programmes de développement qui n'intéressent qu'une activité économique donnée (par exemple un programme de développement industriel).

Telle que nous la concevons ici, la planification sociale se distingue même d'un programme de développement économique, en ce sens qu'elle porte aussi sur les secteurs de la vie sociale qui n'entrent pas dans ce qu'on appelle généralement " l'économie ", en particulier sur l'éducation et la santé publique.

Etant donnée la longueur des délais qui s'écoulent généralement entre le début de la mise en oeuvre d'un plan de développement social et la maturation de premiers résultats, la planification sociale tend nécessairement à être une planification à moyen ou à long terme, couvrant par ses prévisions une période de plusieurs années.

En tant qu'activité collective tendant à déterminer le développement de toute une société, la planification est par nature une activité politique

qui met en jeu les organes de l'Etat, et elle suppose l'existence d'un appareil administratif spécifique ayant des fonctions d'information, de choix, d'impulsion et de contrôle.

Le rôle d'initiative et de responsabilité qui revient à l'Etat n'est évidemment pas exclusif de l'initiative et de la responsabilité d'autres groupements ou collectivités ayant une vocation soit politique (parti), soit économique (coopératives, entreprises, etc.); soit professionnelle (syndicats), elle n'est pas exclusive non plus d'innombrables initiatives individuelles. Le problème est ici, celui de la coordination de ces initiatives diverses dans le cadre du plan. Un aspect particulier de ce problème est constitué par les rôles respectifs du centre et de la périphérie dans la préparation (centralisée ou décentralisée) du plan et dans son exécution (problème de la concentration ou de la déconcentration des décisions).

La pratique actuelle ne connait pas seulement des plans de développement économique et social mais aussi des efforts poussés de prévisions économiques, ce qu'on appelle des " budgets économiques ". L'élaboration de ces derniers ne correspond pas à une activité de planification sociale car ces " budgets " ont un caractère strictement économique et visent essentiellement à la prévision tandis que la planification vise à la fixation et à la réalisation de tâches ayant un caractère obligatoire.

Le présent rapport sera exclusivement consacré à l'examen des problèmes et des techniques de la planification sociale; j'exclurai donc de mes développements la théorie de la planification et l'étude de ses conséquences et de ses résultats. Ces deux questions font, on le sait, l'objet de deux autres rapports.

Même limité à l'étude des problèmes et des techniques de la planification, ce rapport serait condamné à être beaucoup trop long si je ne limitais pas mes références aux exemples des planifications soviétique et indienne, qu'il m'a été donné d'étudier de relativement près et, éventuellement, à l'exemple de la planification chinoise.

En règle générale, j'écarterai donc de mon rapport toute analyse portant sur d'autres expériences de planification que je connais moins bien et je ne tenterai pas non plus de rappeler les diverses thèses ou conceptions théoriques qui ont pu être développées sur les problèmes et les techniques de planification, ni de discuter de ces thèses ou de ces conceptions.

En dépit de cette délimitation du sujet, celui-ci reste encore suffisamment vaste pour que je sois obligé, au risque d'être incomplet, de faire un choix concernant les problèmes et les techniques dont je discuterai.

La planification sociale, telle qu'on peut l'observer jusqu'à maintenant, et, en particulier, telle qu'on peut l'étudier en Union Soviétique

et en Inde, a un but principalement *économique*.   Plus spécifiquement, elle est conçue comme un moyen d'accélérer la croissance économique. Elle est d'ailleurs conçue soit comme le seul moyen possible de fonctionnement de l'économie (c'est le cas de l'Union Soviétique où domine la propriété sociale des moyens de production), soit comme le moyen le plus efficace d'accélérer la croissance économique (cas de l'Inde).

En Union Soviétique, outre son objectif économique, la planification a explicitement pour but de permettre la réalisation d'un type donné de société, d'abord la société socialiste, où domine le principe " à chacun selon son travail " puis ce type de société étant réalisé, le passage de la société socialiste à la société communiste, où domine le principe " à chacun selon ses besoins ".

En Inde, l'idée que la planification doit permettre de réaliser une société de type socialiste n'a pas non plus été absente, mais ce que cette société devrait être n'a pas été défini avec précision.

Cependant, dans l'un et l'autre pays, il a été explicitement admi's au niveau des plus hautes instances politiques, que la réalisation des objectifs sociaux supposait pratiquement une élévation rapide de la production et du niveau de vie.   En conséquence, il apparaît légitime de discuter d'abord des problèmes et ensuite des techniques de la planification sociale en fonction du but premier assigné à celle-ci, a savoir l'accélération de la croissance économique.

I.
LES PROBLEMS DE LA PLANIFICATION SOCIALE.

Il me semble que si on aborde, comme je propose de le faire, la question de la planification sociale sous l'angle de sa tâche première d'accélération de la croissance économique, on peut légitimement grouper les principaux problèmes que soulève la planification sociale en trois catégories:
   (i) l'utilisation des ressources existantes;
   (ii) la formation de ressources nouvelles et;
   (iii) l'harmonisation de la croissance et le contrôle des tensions.

Comme la plupart des classifications, celle-ci n'est pas exempte de défauts mais je pense qu'elle permet d'ordonner de façon assez logique la discussion des principaux problèmes.

(1) *L'utilisation des ressources existantes.*

Le problème de l'utilisation de plus en plus complète des ressources existantes est évidemment un des problèmes que la planification sociale doit résoudre par priorité.

La plupart des pays dits " sous-développés ", en effet, ne souffrent pas tant d'un manque de ressources que d'une mauvaise utilisation, ou même d'une " inutilisation " de celles-ci.   Ceci était vrai de l'Union Soviétique avant les P.Q. et est encore vrai de l'Inde actuelle.

La non-utilisation des ressources concerne, tout d'abord, les res-

sources naturelles, en particulier le potentiel d'irrigation, les ressources énergetiques, les gisements, les terres inexploitées. Ces ressources restent très souvent en friche, soit parce que le problème de leur mise en valeur n'a pas été posé à l'échelle nationale (alors que cette mise en valeur suppose un effort national), soit par manque de moyens complémentaires, soit par ignorance de ces ressources, faute de recherches géologiques suffisantes.

Cette non-utilisation, ou cette sous-utilisation, concerne aussi les ressources humaines. En Inde, on estime que l'equivalent de 30 à 40% de la population active agricole est pratiquement inemployée; c'est là, évidemment, une extraordinaire ressource inutilisée et qui, si elle était appliquée á la réalisation de grands travaux tels qu'irrigation, construction de barrages, assèchement, drainage, défrichement, construction de routes, etc. . . . pourrait rapidement accroître la capacité de production du pays. On sait qu'en Chine, au cours de ces dernières années, des millions d'hectares ont pu être défrichés, irrigués et reboisés par l'utilisation des énormes ressources en main d'oeuvre jusque là inemployées que recélaient les campagnes chinoises. Ainsi, les surfaces irriguées en Chine ont plus que triplé depuis l'instauration de la République Populaire grâce à la conjonction de grands travaux et d'innombrables travaux de moindre envergure.

L'utilisation des ressources inemployées se heurte à nombre d'obstacles, en majeure partie de nature sociale. J'essaierai, dans la suite de ce rapport, d'examiner certains de ces obstacles et j'aborderai aussi la question des techniques mises en oeuvre pour les éliminer ou les surmonter.

(2) *La formation de ressources nouvelles.*

Ainsi qu'on le sait, un des principaux obstacles à un développement économique rapide est l'insuffisance des ressources complémentaires nécessaires à la mise en oeuvre des ressources existantes. Cette insuffisance peut s'opposer à l'utilisation immédiate de ressources connues, ceci même en l'absence d'obstacles sociaux s'opposant de façon fondamentale à cette utilisation.

Les deux formes principales de l'insuffisance de ressources complémentaires sont le manque de techniciens et de cadres qualifiés pour la réalisation de certains travaux et, le manque d'équipements. La solution de ces deux sortes de problèmes spécifiques constitue une des tâches fondamentales de la planification sociale.

Posée en ces termes, l'insuffisance de ressources complémentaires, et donc la nécessité de créer des ressources nouvelles (si l'on fait abstraction de l'aide technique et financière étrangère) semble soulever seulement des problèmes techniques: développement de l'enseignement, lancement de certaines productions ou importations d'equipements, etc. . . .

Pourtant, à l'arrière-plan de ces problèmes techniques et condition-
nant leur solution de façon décisive, se posent des problèmes économi-
ques et sociaux particulièrement complexes.

En effet, la formation de nouveaux techniciens et de cadres qualifiés
et, plus encore, l'accroissement de la production d'equipement, exigent
que tous les biens consommables fournis au cours d'une période don-
née ne soient pas consommés par ceux qui les produisent et qu'une
fraction de ces biens soit transférée d'une part à des non-producteurs
(par exemple aux élèves des écoles techniques ou aux étudiants des
écoles d'ingénieurs ainsi qu'à leurs enseignants) et, d'autre part, à ceux
qui produisent des biens d'equipement et des biens intermédiaires.

Certes, dans toute société qui connaît un minimum de division sociale
du travail, des transferts du type de ceux que nous venons de mention-
ner s'opèrent régulièrement, ne serait-ce que pour permettre aux pay-
sans (qui sont, dans les sociétés économiquement peu-développées les
principaux producteurs d'objets de consommation) d'assurer l'entre-
tien de leurs moyens de production.   Ainsi, en Inde, le système tra-
ditionnel "*jajmani*" implique l'entretien aux frais des cultivateurs
d'un village, selon des règles très précises, des artisans qui leur fournis-
sent leurs moyens de travail.   Comme on le sait, avec le développement
de l'économie monétaire, ces transferts peuvent s'effectuer sur une
échelle beaucoup plus large et avec une souplesse bien plus considér-
able.

Cependant, il importe de souligner la différence essentielle qui
sépare ceux des transferts de cet ordre qui sont destinés à permettre le
simple remplacement de moyens de production qui existaient antérieure-
ment et ceux qui permettent d'ajouter des moyens de production sup-
plémentaires aux moyens de production qui existent déjà.   Ces
derniers transferts sont seuls, en effet, à créer des ressources nouvelles.
Ils conditionnent donc le développement économique.

Ce sont les problèmes posés par la création à une échelle rapidement
élargie de ressources nouvelles, création qui aboutit à un processus
d'accumulation productive, que la planification sociale doit néces-
sairement résoudre.   Cette accumulation suppose, en définitive, que
la production globale excède régulièrement la consommation globale,
c'est à dire que l'activité productive de la société engendre ce qu'on
a appelé un " surplus économique ".

(*a*) *Le surplus économique planifié.*

C'est la formation, l'accroissement, la mobilisation de ce surplus
économique qui constitue un des problèmes centraux de la planifica-
tion sociale, ainsi que le Professeur Paul Baran l'a fortement souligné
dans son livre " *The Political Economy of Growth* " (New York, Mon-
thly Review, 1957).

On peut proposer diverses définitions du surplus économique.   Du

point de vue de la planification sociale, il importe de retenir essentiellement deux notions: celle de " surplus économique planifié " et celle de " surplus économique effectif ".

La première notion est de caractère normatif, elle correspond à l'excédent à venir de la production possible sur la consommation socialement nécessaire des producteurs. La seconde notion est de caractère statistique, elle correspond à l'excédent observé de la production sur la consommation des producteurs.

Nous ne pouvons pas nous proposer ici de discuter des diverses difficultés que soulèvent ces définitions. Je me limiterai donc à souligner que ces difficultés concernent, notamment:

(i) la mesure globale de la production et de la consommation; cette mesure suppose l'utilisation d'un système commun et général d'évaluation, tel que le système des prix; l'adoption d'un système déterminé implique des options théoriques fondamentales;

(ii) la mesure de ce qu'on considère comme la production possible et la consommation nécessaire des producteurs; en effet, dès lors que le volume de la production et de la consommation doit cesser d'être déterminé par des forces spontanées mais doit, au contraire, être déterminé *a priori* par des organismes sociaux, il est indispensable que s'établisse une harmonie entre ce que producteurs et consommateurs acceptent de produire et de consommer et les prévisions impératives des organismes sociaux; faute d'une telle harmonie, la société connaîtra des tensions excessives et l'effort de planification risquera d'être voué à l'échec. Nous rencontrons ici le problème de l'harmonisation de la croissance et du contrôle des tensions sur lequel nous reviendrons dans un instant.

Pour le moment, il est nécessaire de nous arrêter sur le problème suivant: dans la mesure où la planification sociale se propose d'accélérer la croissance, elle doit aboutir à l'élévation du taux de formation des ressources nouvelles c'est à dire, notamment, du taux d'accumulation; elle doit donc rapprocher le plus possible le surplus effectif du surplus potentiel et assurer une utilisation du surplus économique conforme aux exigences d'un développement rapide et planifié.

(*b*) *Rapports sociaux de production et forme sociale du surplus.*

Nous devons aborder ici un problème d'une importance fondamentale: celui des liens qui unissent les rapports sociaux de production et la forme sociale du surplus, car cette forme détermine, à son tour, la dimension du surplus et son mode d'utilisation.

Faute de place, il me faudra malheureusement traiter ce problème de façon quelque peu schématique sans pouvoir entrer dans la discussion technique des différentes notions auxquelles je serai appelé à avoir recours.

On sait que dans une société dominée par des rapports de type féodal, le surplus économique prend principalement la forme de la rente foncière, que dans la société capitaliste le surplus prend principalement la forme du profit et que dans la société socialiste (où domine la propriété sociale des moyens de production) le surplus prend principalement la forme d'un fonds social.

On sait aussi que la rente foncière n'est utilisée qu'en infime partie à des fins d'accumulation productive tandis que l'utilisation du profit à des fins d'accumulation est déterminé par un ensemble de facteurs qu'il serait trop long d'examiner ici mais dont il convient de noter la grande instabilité ainsi que la faible efficience dans les conditions qui caractérisent aujourd'hui l'économie des pays dits sous-développés.

Contrairement à une opinion fréquemment répandue, le surplus économique ne représente pas une faible fraction de la valeur de la production dans la plupart des pays sous-développés; en fait, cette fraction équivaut bien souvent à environ 20% du revenu national.   Si le taux d'accumulation dans ces pays est néanmoins trés faible, c'est que dans les conditions sociales qui y prévalent la plus grande partie du surplus est consommée par les classes sociales qui se l'approprient (propriétaires fonciers, usuriers et marchands) et non pas utilisée comme fonds d'accumulation et de développement économique.

Cette situation explique la grande difficulté dans laquelle les pays sous-développés se trouvent, faute de moyens complémentaires pour mettre en valeur leurs ressources naturelles.   Du point de vue qui nous intéresse, cette situation fait surgir la question des conditions dans lesquelles il est possible, d'une part, de *modifier l'utilisation qui est spontanement faite du surplus* et, d'autre part, *d'accroître progressivement le volume de celui-ci et sa contribution au développement futur de la production.*

(c) *La mobilisation du surplus et les rapports sociaux de production.*

Aux remarques qui précèdent on peut d'ailleurs ajouter encore la remarque suivante: même lorsqu'une partie relativement importante du surplus économique se trouve spontanément accumulée par ceux qui le contrôlent, il est fort possible que la forme sous laquelle cette accumulation s'effectue ne corresponde pas aux exigences de la planification sociale et d'une croissance économique rapide.   Cette dernière, en effet, suppose souvent—surtout dans les conditions de la techniqoe moderne—une utilisation du surplus concentrée sur quelques objectifs qui peuvent n'avoir qu'une " rentabilité " médiocre du point de vue de l'entreprise privée mais qui, du point de vue social, peuvent être d'une importance décisive, car leur réalisation est seule susceptible de donner une base solide au développement économique et social ultérieur.

Ceci signifie qu'il est alors nécessaire de substituer une accumulation sociale et centralisée à l'accumulation individuelle et décentralisée.   La

seule centralisation de l'accumulation est parfois susceptible de multiplier considérablement son efficacité : celle-ci qui peut être pratiquement nulle lorsqu'il ne s'agit que de petites " doses " d'accumulation peut devenir gigantesque au-delà d'une certaine " masse critique ". C'est en cela, notamment, que la mobilisation du surplus grâce à la planification sociale peut réellement faire surgir des forces nouvelles.

Par sa nature même, tout effort en vue de modifier de façon décisive *l'utilisation* du surplus fait naître des problèmes sociaux extrêmement complexes.

Un des problèmes qui se posent ici est le suivant : une telle modification est-elle possible uniquement par des moyens qui ne bouleversent pas les rapports de production, très explicitement par des moyens fiscaux ou financiers (emprunts) ou suppose-t-elle le bouleversement des rapports de production et donc, pratiquement, l'élimination totale ou partielle de certaines formes de propriété (telle que la propriété foncière et la propriété capitaliste) et donc des classes sociales dont l'existence, en tant que classes, repose sur ces formes de propriété?

La planification soviétique, on le sait, s'est effectuée à partir d'un bouleversement révolutionnaire des rapports de production. La planification indienne a tenté de s'édifier sans bouleversement de cette nature, bien qu'elle pose le principe, mais sous simple forme d'une recommandation, d'une réforme agraire. Quant à la planification chinoise, dont il est nécessaire de dire ici un mot, dans une première phase, (1949-1956), elle s'est développée à partir d'un bouleversement révolutionnaire des rapports de production dans les campagnes (réforme agraire) et en s'appuyant sur un vaste secteur public industriel, tout en laissant subsister des rapports de production capitalistes dans l'industrie, le commerce, les transports et même partiellement dans l'agriculture, tandis que dans une seconde phase de nouveaux bouleversements sont intervenus dans les rapports de production, par l'expansion du système coopératif et la conversion des entreprises capitalistes en entreprises d'Etat ou mixtes.

Le problème du bouleversement des rapports de production est évidemment lié à celui des rapports de force entre les différentes classes sociales et, finalement, à la nature de classe de l'Etat, (c'est à dire à la nature des classes sociales qui contrôlent l'appareil d'Etat). Ces problèmes ne concernant pas exclusivement la planification sociale, je ne me propose pas d'en pousser ici l'analyse, mais il est néanmoins indispensable de ne pas oublier qu'ils dominent la problématique de la planification sociale.

(d) La croissance du surplus économique.

Ainsi que je le rappelais il y a un instant, l'accélération de la croissance économique par la planification sociale soulève non seulement le problème de l'utilisation du surplus mais aussi celui de sa croissance

progressive: ce n'est que dans la mesure où la société dispose de plus en plus de ressources accumulables que peut s'accélérer le rythme de croissance de la production et de la consommation.

La croissance du surplus, une fois éliminées les consommations considérées comme socialement inutiles et qui peuvent l'être sans tension sociale excessive, dépend essentiellement de deux facteurs: l'utilisation progressive à une échelle élargie des ressources existantes et l'élévation de l'efficience avec laquelle ces ressources sont utilisées. Le plus généralement, cet accroissement d'efficience est lié à une élévation de la productivité du travail, soit du travail directement appliqué à une production, soit du travail antérieurement dépensé, grâce à une utilisation plus économique des moyens de production.

L'augmentation de la productivité du travail, si elle est réelle, c'est à dire si elle a pour base un progrès technique effectif, et non une intensification de l'effort, permet d'accroître le surplus disponible pour assurer le développement ultérieur de l'économie. Il en est ainsi parce que l'accroissement de la productivité crée, en général, la possibilité de faire croître plus lentement la consommation que la production, ce qui est, précisément, la condition de l'augmentation du surplus.

(e) *Les conditions sociales de l'augmentation de la productivité du travail et du progrès technique.*

Contrairement à une opinion assez répandue, l'augmentation de la productivité du travail et l'utilisation plus efficiente des ressources existantes ne posent pas exclusivement des problèmes techniques. Les problèmes posés ici sont aussi, et surtout dans les premières phases du développement, des problèmes sociaux.

En effet, dès qu'il ne s'agit pas seulement de construire une usine d'avant-garde ou une ferme modèle, le progrès de la productivité du travail suppose que soient créées les conditions sociales favorables à ce progrès. Ceci implique le développement général de l'éducation, et l'amélioration de la santé publique car, bien souvent, l'esprit routinier et le manque d'initiative, s'expliquent par le poids de préjugés non combattus par un minimum d'éducation scientifique et par un état de déficience physique qui poussent à la répétition des mêmes actes de production et font obstacle à l'effort qu' exige tout changement dans les méthodes de production. C'est pourquoi la planification sociale doit nécessairement s'attaquer aux problèmes de l'éducation et de la lutte contre les maladies, le manque d'hygiène, les endémies et la malnutrition.

Cependant, les obstacles sociaux au progrès de la productivité sont souvent encore plus sérieux que ceux liés à l'insuffisance de l'éducation de caractère scientifique et aux mauvaises conditions sanitaires. Ces obstacles peuvent résider dans le système social lui-même, dans les rapports de production qui le caractérisent et dans les attitudes et les comportements qu'il engendre.

Il y a là un complexe de problèmes auxquels la planification sociale doit nécessairement faire face, ou avec lequel elle doit nécessairement compter. Ce complexe de problèmes comprend lui-même trop d'aspects pour qu'il soit possible ici de faire autre chose que de mentionner ceux d'entre eux qui semblent présenter le plus d'importance ou qui sont le plus susceptible d'appeler une action efficace pour les éliminer.

A cet égard, le régime agraire présente une importance décisive. Il peut faire obstacle de multiples façons au progrès des techniques de production, soit qu'il condamne l'immense majorité des producteurs paysans à une existence misérable qui leur interdit d'entreprendre la moindre amélioration dans leurs techniques de production, soit encore que l'insécurité des tenures soit telle que toute amélioration apportée aux cultures risque de se traduire pour le cultivateur par une augmentation des fermages ou par l'eviction. De même, l'insécurité économique qui résulte d'exploitations trop petites peut interdire aux producteurs de courir les risques qu' impliquent des changements dans les techniques de production.

Ces problèmes sont d'une importance décisive et la planification sociale ne peut pas se permettre de les ignorer.

De façon similaire, dans une économie monétarisée, l'insécurité qui naît d'amples fluctuations des prix, fluctuations favorisées par le capital commercial et usuraire, peut détourner la quasi-totalité des producteurs d'un effort d'augmentation de la productivité qui exigerait l'immobilisation immédiate de ressources dont ils ne sont nullement assurés de retrouver la valeur lors de la vente de leurs produits.

Les problèmes que je viens d'évoquer sont de nature essentiellement économique mais il y en a d'autres, également importants, tels ceux suscités par l'hostilité à laquelle peut se heurter, dans des conditions sociales données, celui qui s'écarte de la tradition et qui innove, alors que dans d'autres conditions sociales celui qui agit de cette façon est l'objet de l'estime générale et apparait comme une sorte de héros dont les initiatives sont glorifiées.

Les différentes structures sociales n'engendrent pas les mêmes jugements de valeur à l'égard de l'initiative, de l'innovation et du progrès technique. Certaines structures sociales opposent une extraordinaire résistance au changement, d'autres sont caractérisées à un haut degré par ce que le Professeur Perroux a appelé des effets de " propagation ". Ce sont là, auusi, des faits que la planification sociale ne peut pas ignorer.

(3) *L'harmonisation de la croissance et le contrôle des tensions.*

Tout changement économique et social rapide est susceptible, s'il ne se déroule pas de façon harmonieuse et en conformité avec les aspirations de la grande majorité de la population, de susciter des

tensions et des résistances, Ces tensions et ces résistances sociales peuvent soit freiner sérieusement le développement ultérieur, en conduisant à de graves crises, soit obliger les dirigeants politiques désireux de réaliser les objectifs antérieurement prévus, à mettre en oeuvre des mesures de contrainte plus ou moins brutales.

On conçoit qu'en principe la planification sociale est susceptible d'initier des changements économiques et sociaux rapides mais suffisamment harmonisés et suffisamment conformes aux aspirations de la population (aspirations qui sont elles-mêmes partiellement modifiables par l'éducation et la propagande) pour que les tensions et les résistances qui pourraient naître de ces changements n'atteignent pas un point d'éclatement et soient donc elles-mêmes soumises à un contrôle social.

En fait, les problèmes qui surgissent ici sont d'une extraordinaire complexité et ils débordent assez largement les limites de ce qu'on considère généralement comme les problèmes de la planification sociale. D'ailleurs l'ensemble de l'appareil d'Etat et, dans des pays comme l'Union Soviétique ou la Chine, l'ensemble des organisations du Parti communiste, qui joue un rôle dirigeant, participent à la solution de ces problèmes.

Je me propose, dans le cadre du présent rapport, de me limiter à l'examen de quelques-uns des problèmes que soulèvent l'harmonisation de la croissance et le contrôle des tensions; il ne sera malheureusement pas possible de me livrer à beaucoup plus qu'à un examen rapide. Toutefois, à propos des techniques de planification, je reparlerai de certaines des questions soulevées dans les paragraphes qui suivent, dans la mesure où ces questions intéressent ce qu'on considère généralement comme relevant des techniques de la planification sociale.

(a) L'accentuation de la lutte des classes.

La principale source de tension, qui surgit généralement dans la phase initiale d'un développement économique rapide, est liée à l'accentuation de la lutte des classes. Aussi, un effort de planification sociale qui prétend ignorer ce problème risquera fort d'être condamné à l'échec.

L'aggravation des contradictions de classes, lorsque le développement économique est accéléré par la planification, s'explique par le jeu de nombreux facteurs.

Ainsi, les classes sociales qui bénéficient de l'essentiel du surplus économique (propriétaires fonciers, usuriers, " koulaks ", etc.) et de la structure sociale qui leur permet de percevoir ce surplus opposeront généralement une résistance acharnée aux changements qui les priveront de leur position sociale antérieure. Si cette résistance n'est pas prévue et ne se heurte pas à l'opposition organisée des autres classes sociales qui ont avantage au changement, celui-ci ne pourra générale-

ment pas s'effectuer. Ceci est particulièrement important dans le cas des réformes agraires qui ne peuvent être le résultat des seules mesures législatives et administratives.

La résistance au changement peut naître également du capital commercial, surtout lorsque celui-ci réalise des bénéfices considérables sur l'importation de produits finis dont la production nationale doit se développer grâce à la planification. Une résistance de même ordre peut être opposée par les secteurs monopolistes du capital industriel dont les profits sont susceptibles d'être menacés par un accroissement rapide de la production. C'est en partie à des problèmes de cet ordre que s'est heurtée la réalisation du 2ème P.Q. indien dont certains objectifs ont été réduits, ce qui correspondait aux désirs exprimés par les représentants du grand capital (Tata et Birla, notamment).

Cette dernière observation ne signifie évidemment pas que ce soit sur l'injonction directe du grand capital qu'ait été prise la décision de réduire certains des objectifs du 2ème P.Q., mais cela signifie que le comportement des capitalistes indiens, ainsi que l'influence qu'ils ont pu exercer sur l'opinion publique du pays, ont rendu cette décision inévitable, en l'absence d'une riposte suffisamment rapide des partisans de la réalisation des objectifs initiaux du plan (en supposant que ces objectifs aient été, comme je le pense, techniquement et économiquement réalisables).

Ce dernier exemple soulève d'ailleurs la question de la possibilité d'une planification sociale effective lorsque subsiste, pour l'essentiel, la propriété privée des grands moyens de production. Si l'exemple de la Chine, dans la première phase de son économie planifiée indique que des plans de développement de grande envergure ont pu être mis en route alors que l'exploitation privée dominait encore dans les campagnes (en avril 1955, les coopératives ne groupaient encore que 13% des exploitations paysannes) et que la quasi-totalité de l'artisanat et une partie non négligeable de l'industrie légère et du commerce étaient aux mains du capital privé, ce même exemple de la Chine et, par oppostion, l'exemple de l'Inde, semblent bien indiquer qu'il n'est pas possible de dominer les résistances des classes sociales opposées à un développement économique rapide et planifié si l'Etat ne s'appuie pas sur les classes sociales qui ont le plus d'intérêt au développement économique et s'il ne contrôle déjà une fraction suffisamment large de la production industrielle, en particulier la production d'energie, de matières premières et d'equipement. Ceci nous ramène au problème déjà évoqué de la nature de classe de l'Etat.

On peut d'ailleurs ajouter que les contradictions de classes, qui généralement s'exaspèrent lorsque le taux d'accumulation tend à s'élever sur la base de la propriété capitaliste, peuvent également freiner d'une autre façon le développement économique entrepris à partir d'un effort de planification: en effet, l'élévation des profits des

capitalistes qui a lieu dans ces conditions peut alors engendrer un mouvement revendicatif et des grèves, d'autant plus amples et brutales que les travailleurs se rendent compte que les profits capitalistes ne sont pas utilisés de la façon la plus conforme aux exigences du développement économique et social. C'est ainsi qu'en Inde le mouvement revendicatif s'est développé avec une ampleur particulière en 1958 et que des grèves ont eu lieu dans les entreprises de Tata à Jamshedpur, entreprises dans lesquelles le mouvement syndicaliste n'avait pas réussi à s'implanter jusque là.

(b) *Les contradictions " au sein du peuple "*.

Cependant, la nationalisation des principaux moyens de production ne fait pas disparaître toutes les sources de tension et de contradictions, Mao Tse Tung a justement insisté sur cette idée en parlant des contradictions " au sein du peuple ". Même après la disparition des classes possédantes, il peut encore y avoir contradiction entre la facilité de la routine et l'effort qu'exige le changement, entre les habitudes, les structures mentales et les exigences de l'innovation, entre l'intérêt immédiat du producteur, qui est d'obtenir le plus d'objets de consommation possible, en rémunération de son effort productif, et son intérêt futur qui est de renoncer à une partie de ce qu'il pourrait consommer immédiatement pour permettre une croissance économique plus rapide qui assurera dans les années à venir un niveau de vie beaucoup plus élevé.

De même, en dépit de la socialisation des moyens de production, il peut y avoir contradiction entre l'intérêt des paysans qui est de vendre leurs produits le plus cher possible et celui des travailleurs urbains qui est d'obtenir un approvisionnement à bon marché, etc. . . .

Dès lors que l'on ne laisse plus le soin à des mécanismes impersonnels (à l'arrière plan desquels se trouvent d'ailleurs des forces sociales précises) de déterminer les taux d'investissement, les rémunérations, le rythme des innovations, les revenus relatifs, etc. mais que cette détermination s'effectue à travers la planification sociale (quelles que soient d'ailleurs les techniques utilisées par elle), il est indispensable que celle-ci tienne compte de ces contradictions.

Il faut, sans doute, qu'elle en tienne compte non pour réduire au minimum les tensions sociales résultant de ces contradictions, car ce minimum serait parfois obtenu au prix de l'absence de croissance économique, mais pour les maintenir dans des limites telles que le développement actuel de ces tensions ne nuise pas àl a croissance économique future et soit, au contraire, conciliable avec la croissance économique à long terme la plus élevée possible.

Il y a là une sorte de recherche d'un optimum, qu'il est probablement difficile de quantifier, mais qui fait partie de ce qu'on pourrait appeler a stratégie de la planification sociale et qui implique un certain nom-

bre d'options fondamentales de caractère politique. Je reviendrai sur
le rôle de ces options fondamentales dans la deuxième partie de ce
rapport.

(c) *Proportionnalité et tensions économiques.*

Au niveau des phénomènes que l'on considère en général, comme
étant " strictement économiques ", d'autres problèmes encore se po-
sent, et qui sont justiciables de certaines des techniques de la planifi-
cation sociale dont nous parlerons dans un instant. Ces problèmes
concernent, notamment, dans une économie monétaire, l'ajustement
correct des plans monétaires et financiers et des plans matériels. Faute
d'ajustement correct, c'est-à-dire d'harmonisation des flux, des tensions
risquent de se produire qui lorsqu'elles dépassent certaines limites,
peuvent bouleverser toutes les prévisions du plan.

La tension économique qui se développe le plus facilement lorsqu'on
cherche à accélérer le taux de croissance est celle qui se manifeste au
niveau des prix si les revenus monétaires de la population croissent
plus vite que le volume de production qui peut être mis à sa disposition.
En Union Soviétique, au cours du 1er P.Q., une telle tension s'est
manifestée (en partie comme résultat de la lutte de classes qui s'était
développée dans les campagnes et des formes qu'elle avait revêtues) et
elle a entraîné la nécessité du rationnement qui n'a pu être aboli qu'au
début du 2éme P.Q., après une certaine hausse des prix.

En Inde, dans des conditions sociales fondamentalement différentes
le début du 2ème P.Q. a été marqué par des phénomènes inflation-
nistes dus en partie à la spéculation et au stockage auxquels se sont
livrés les paysans riches et les marchands.

En Chine, grâce à une progression relativement rapide de la pro-
duction agricole, ce type de tensions a été réduit au minimum, mais
le rationnement de certains produits d'usage courant n'a pas pu être
évité.

En fait, par delà l'harmonisation des flux monétaires et des flux
matériels, c'est le problème de l'harmonisation des croissances des
différentes branches de l'économie qui se trouve posé, c'est-à-dire de
la fixation de justes proportions entre la croissance de l'industrie et
celle de l'agriculture, entre la croissance du Département I de l'écono-
mie (qui fournit les moyens de production) et le Département II (qui
fournit les objets de consommation) entre les augmentations de la
productivité et de la consommation, etc. . . .

Il est évident qu'il ne suffit pas de prévoir une juste proportionnalité
entre les différentes productions, mais qu'il faut aussi en assurer la
réalisation pratique à l'echelle sociale. Ici se pose le problème des
ajustements du plan en cours d'exécution et de la nécessité éventuelle
de son remaniement lorsque, dans des secteurs fondamentaux les pré-
visions initiales ou bien ne sont pas réalisées ou bien sont dépassées.

A une échelle plus réduite, le problème de l'harmonisation des différentes productions est, évidemment, un problème que la planification sociale doit résoudre de façon correcte, afin que la croissance de la production d'une branche ne soit pas ralentie par l'insuffisance de la production d'une autre branche ou que des capacités de production ne restent pas inemployées.

Sur le plan humain, cela signifie que l'on doit s'assurer aussi qu'au fur et à mesure que sont créées de nouvelles capacités physiques de production, les hommes nécessaires à l'utilisation de ces capacités de production seront à pied d'oeuvre et convenablement préparés pour mettre en mouvement les équipements nouveaux. Ici surgissent les problèmes complexes de la mobilité de la main d'oeuvre et ceux de l'enseignement général, de l'enseignement professionnel et de l'enseignement technique, etc. . . . dont les plans de développement doivent être harmonisés avec ceux de l'économie.

De même, la création de nouveaux centres de production ne signifie pas seulement la construction de nouvelles entreprises mais aussi, dans les conditions, de la planification, sociale, la construction de logements, d'écoles, d'hôpitaux, etc. On sait que la réalisation des différents plans quinquennaux soviétiques s'est accompagnée de la construction de centaines de villes nouvelles. L'harmonisation de ces efforts de construction constitue un problème spécifique de la planification sociale.

Enfin, pour en terminer avec l'examen des problèmes de la planification sociale, je rappellerai encore que celle-ci doit résoudre d'une façon satisfaisante le problème de l'équilibre des échanges extérieurs, ce qui est un problème particulièrement délicat dans une économie dont le taux de croissance est rapidement modifié et qui doit faire face assez brutalement à un fort accroissement de ses besoins d'importations d'équipement tandis que ses exportations traditionnelles ne peuvent généralement pas se développer aussi vite. On sait que l'Union Soviétique a connu dans ce domaine de sérieuses difficultés au cours de son 1er P.Q. (dont le début a pratiquement coincidé avec celui de la grande crise économique mondiale de l'entre-deux guerres) et que la raison invoquée pour la réduction des objectifs du 2ème P.Q. indien a été l'épuisement rapide des réserves de change du pays.

Tels sont, très rapidement énumérés, les principaux problèmes que fait surgir ou que rencontre la planification sociale. Il nous faut examiner maintenant, tout au moins dans leurs grandes lignes, les principales techniques de planification.

II
LES TECHNIQUES DE LA PLANIFICATION SOCIALE

Dans la suite de ce rapport, je limiterai en règle générale mon examen aux techniques proprement dites de planification, à l'exclusion des méthodes d'action politique qui peuvent intervenir au niveau de la stratégie de la planification sociale, car à ce niveau il ne s'agit plus de

N

" techniques " au sens strict du mot mais de science et d'art politiques.

Les techniques auxquelles recourt la planification sociale ne sont généralement pas utilisées exclusivement par elle. La plupart de ces techniques interviennent également dans l'analyse de la conjoncture économique, dans la préparation des budgets économiques, dans la programmation, etc. mais elles prennent une autre signification dans le cadre de la planification, aussi méritent-elles d'être examinées ici.

Pour la commodité de l'exposé, je diviserai les techniques de planification en cinq groupes, ceci en distinguant les techniques d'organisation, les techniques de connaissance, les techniques de prévision, les techniques de choix et les techniques d'action.

(1) Les techniques d'organisation.

La première question technique que pose la planification sociale est celle de l'organisation ou des organisations qui seront chargées de la préparation, de l'exécution et du contrôle de la réalisation du plan.

On pourrait discuter longuement pour savoir quelle formule d'organisation est théoriquement la plus satisfaisante. Cette discussion m'éloignerait de l'objet propre de mon rapport et, par conséquent, je me bornerai à indiquer que le principe admis, aussi bien en Inde qu'en Union Soviétique ou en Chine est qu'un organisme spécifique est chargé de la préparation du plan (cet organisme est la Planning Commission en Inde et le Gosplan de l'Union en U.R.S.S.).

En U.R.S.S. il a existé, pendant une courte période, deux organismes planificateurs, l'un chargé de la planification à long terme (y compris la planification quinquennale), le Gosplan, l'autre de la planification annuelle, la Commission Economique. En 1957, on est revenu à l'unité d'organisation.

Un autre principe, qui est accepté aussi bien en Inde qu'en U.R.S.S. est que l'organisme chargé de la préparation du plan n'est pas responsable de son exécution: celle-ci relève de la compétence d'organes administratifs (Ministères ou autres) spécialisés par secteur d'activité économique ou sociale. En U.R.S.S., depuis le début de 1957, la responsabilité de l'exécution du plan industriel a cessé en partie de reposer sur des Ministères centraux mais a été transférée aux Gouvernements des Républiques Fédérées et à des Conseils Economiques ayant une compétence géographique limitée.

En Inde, l'organe planificateur n'a aucune responsabilité dans l'exécution du plan et dispose de faibles pouvoirs de contrôle; en U.R.S.S. par contre, le Gosplan a des pouvoirs de contrôle étendus et certaines de ses décisions peuvent avoir une action directe sur l'exécution du plan.

La démultiplication des organes de planification constitue aussi une question de grande importance. En Indè, il existe seulement un

organisme central de planification auprès duquel travaillent des spé-
cialistes des questions économiques et sociales, tandis qu'au niveau des
Etats et des districts les organismes de planification existants (State
Planning Board, State Planning Committee, District Planning Officer
et District Planning Committee) ne disposent que de moyens extrê-
mement limités.   En U.R.S.S., par contre, il existe un véritable ap-
pareil de planification constitué par des organes spécialisés (et, en
liaison directe avec le Gosplan central) fonctionnant auprès des diffé-
rents Ministères, des gouvernements des Républiques, des Soviets
régionaux, etc. . . . et jusqu'auprès de la direction des différentes
entreprises.

Enfin, ce qu'on pourrait appeler l'équipement humain, institutionnel
et matériel des organes de planification a une action décisive sur les
techniques de préparation et d'exécution du plan.   A ce point de vue,
aussi, la situation est très différente en Inde et en U.R.S.S.

En Inde, la Commission du Plan ne dispose que de quelques dizaines
de collaborateurs spécialisés et elle n'a pas d'autorité particulière sur
des Instituts de recherches scientifiques et techniques.

En U.R.S.S., le Gosplan central dispose de centaines de collaborateurs
et de machines électroniques puissantes.   Compte tenu des organismes
de planification subordonnés, ce sont des milliers de spécialistes qui
collaborent au travail de planification.   De plus, l'ensemble des or-
ganismes de planification a sous sa direction, en 1958, 323 Instituts
scientifiques comptant environ 19.000 collaborateurs.   De plus, en cas
de nécessité, le Gosplan peut faire appel à tout Institut scientifique
placé sous l'autorité de l'Académie des Sciences de l'U.R.S.S. ou des
Républiques.   Ces organismes dirigent le travail de centaines d'In-
stituts scientifiques.

Les techniques d'organisation déterminent, à leur tour, sinon les
techniques de connaissance, du moins la quantité et la qualité des
connaissances mises en oeuvre.

(2) *Les techniques de connaissance.*

Les techniques de connaissance sont les moins spécifiques.   Il s'agit
essentiellement des techniques auxquelles peuvent recourir le sociologue,
l'économiste ou le géographe qui veulent connaître les ressources d'un
pays et les relations structurelles qui le caractérisent.

Schématiquement, l'on peut dire que les connaissances requises
doivent être puisées à cinq sources: les recensements, les sondages
statistiques, les comptabilités, les monographies (études concrètes) et
les projets techniques.

(a) *Les recensements.*

Les recensements sont ceux de la population avec ses subdivisions
classiques en population active et non active, en groupes profession-

nels, en classes sociales, en groupements géographiquement localisés, etc. . . . Ce sont également ceux des naissances, des décès, etc. . . . dont on tire les renseignements relatifs à la croissance probable de la population, si possible selon les types d'activité, les catégories sociales, les niveaux du revenu, etc. . . . Il n'y a là rien de très original.

De même, la planification sociale doit s'appuyer sur un recensement des ressources naturelles. Ce recensement est en général très insuffisant dans les pays économiquement peu développés, aussi le lancement rapide d'opérations de prospection et de recherches géologiques à une grande échelle a-t-il une importance décisive.

Sur le plan technique, une des faiblesses de la planification indienne est de s'appuyer sur une connaissance insuffisante des ressources naturelles dont les indices géologiques laissent supposer qu'elles sont beaucoup plus considérables que ce qui en est actuellement connu et qui est déjà loin d'être négligeable en ce qui concerne le minerai de fer, le charbon, le manganèse et le potentiel d'énergie hydraulique.

La planification sociale doit s'appuyer sur un recensement des principales productions et des capacités physiques de production ainsi que sur l'ensemble des données statistiques concernant les échanges, les stocks, les consommations et les flux monétaires et financiers.

Le recensement des principales institutions sociales (écoles, centres de recherches, hôpitaux, etc. . . .) et de leurs possibilités d'action et de développement immédiat ainsi que de leur distribution géographique fait également partie des recensements nécessaires à la planification sociale.

Les données ainsi réunies doivent autant que possible porter sur plusieurs années, consécutives ou non, afin de pouvoir dégager les principales tendances qui caractérisent le développement spontané de la société considérée.

(b) Les sondages statistiques.

Les sondages statistiques constituent le complément indispensable des recensements. Dans de nombreux cas, les sondages statistiques, à condition d'être scientifiquement conçus, peuvent même être avantageusement substitués aux recensements. Ils ont l'avantage d'exiger un temps de dépouillement beaucoup moins long que les énumérations complètes et d'être infiniment moins onéreux. De plus, contrairement à un préjugé très répandu, ils peuvent parfois fournir des données plus exactes que les recensements car, par le fait qu'ils exigent un beaucoup plus petit nombre d'enquêteurs, il peut être possible pour des enquêtes par sondage de recourir à des enquêteurs qualifiés alors que pour la même enquête menée par voie d'énumération complète (ou supposée telle) on devrait recourir à des enquêteurs moins qualifiés (le personnel qualifié n'étant généralement pas assez nombreux) ce qui multiplie les risques d'erreurs.

On peut ajouter que dans de nombreux domaines, le recensement complet serait pratiquement impossible et dénué d'intérêt. C'est le cas pour l'étude des prix, de la consommation privée, des conditions de fonctionnement des exploitations paysannes et artisanales ainsi que du petit commerce et de la petite industrie. Une étude bien faite des travaux, des productions, des revenus, des consommations, etc. . . . d'un nombre convenable de familles, d'exploitations, etc. . . . choisies selon des règles appropriées et convenablement stratifiées fournira la plupart des renseignements dont on peut avoir besoin pour la préparation d'un plan économique et social.

A cet égard, l'Inde grâce à l'organisation du *National Sample Survey* possède, en dépit de certaines faiblesses de cette organisation, une base d'informations sans équivalent dans d'autres pays économiquement peu développés. Il semble que l'expérience indienne ait récemment inspiré un effort chinois dans le même sens.

(*c*) *Les comptabilités.*

Une source de connaissance extrêmement précieuse et presqu'irremplaçable pour la planification sociale est constituée par les données qui peuvent être tirées de la comptabilité des entreprises et des exploitations.

Une des difficultés majeures auxquelles s'est heurtée la planification indienne dès le stade de l'élaboration du plan a été l'absence pratiquement totale de renseignements de cette nature: le caractère secret de la comptabilité des entreprises capitalistes et le désir de celles-ci de dissimuler des données essentielles concernant leur activité, leurs prix de revient et leurs profits ont privé les organismes chargés de la préparation du 2ème P.Q. d'informations pratiquement indispensables et auxquelles on a du substituer des estimations fort approximatives.

La situation est évidemment tout autre dans des pays comme la Chine ou l'U.R.S.S. En Union Soviétique, notamment, on dispose à l'heure actuelle de données comptables extrêmement détaillées, même en ce qui concerne le fonctionnement des exploitations agricoles (Kolkhoz et Sovkhoz), leurs prix de revient et leurs profits; une partie de ces données est d'ailleurs publiée dans les revues spécialisées. Certes, toute comptabilité peut contenir des inexactitudes, mais l'abondance même des données permet de les déceler et, en tout cas, il est préférable d'avoir des informations contenant un certain pourcentage d'inexactitudes que d'en être complètement démuni.

(*d*) *Les monographies et les études concrètes.*

Quelle que soit l'abondance de la documentation chiffrée d'origine statistique et comptable, celle-ci ne dispense pas d'une connaissance plus directe de la réalité sociale, car cette connaissance doit porter aussi sur de nombreux phénomènes qu'il est impossible de quantifier, du moins dans l'etat actuel des techniques d'information; il en est ainsi

notamment, des phénomènes de tension ou des contradictions sociales dont nous avons parlé plus haut. En outre, une observation directe de la réalité sociale peut mettre à jour des liaisons et des rapports qu'il aurait été pratiquement impossible de dégager de données statistiques et comptables.

Ceci rend irremplaçable, pour le moment du moins, des études portant sur des groupes sociaux limités: classes sociales, catégories professionnelles ou socio-professionnelles, localités, etc. . . .; en particulier, dans le but de dégager de quelle façon ces groupes sociaux réagissent à des changements d'une certaine nature et d'une certaine ampleur, quelles sont les aspirations de ces groupes sociaux, comment celles-ci se modifient dans certaines conditions ou grâce à l'action de la presse, de la radio, etc. . . .

Il faut bien dire que ce type d'informations est celui qui—en dépit de son importance—fait pratiquement le plus défaut. En Inde, sous l'impulsion notamment de la Planning Commission, un certain nombre d'enquêtes entreprises avec des préoccupations analogues à celles que je viens d'énoncer, ont été effectuées, le plus souvent sous la responsabilité des Universitiés. Les résultats de ces enquêtes sont certainement loin d'être démunis d'interêts, mais la possibilité d'en tirer parti pour des fins pratiques est encore très limitée.

Bien que m'intéressant depuis de nombreuses années aux questions soviétiques, je suis assez mal informé sur ce qui a pu être fait d'analogue en U.R.S.S. Mon impression est que rien de systématique dans ce sens n'a été entrepris, mais je pense qu'aussi bien en Union Soviétique qu'en Chine, l'information directe sur les tensions, les aspirations, etc. . . . est, en principe, essentiellement assurée par les organisations de base du Parti dirigeant.

(e) *Les projets techniques.*

Enfin, la planification sociale, qui suppose un choix conscient entre diverses possibilités de développement, implique que ces possibilités aient été concrètement dégagées, dans leurs grandes lignes, par les savants et les techniciens compétents.

Ainsi, il ne suffit pas de connaitre le potentiel hydro-électrique d'un pays, mais il faut savoir quel serait le coût de la mise en valeur de ce potentiel dans telle ou telle vallée ou sur tel ou tel fleuve; il faut savoir aussi quel sera le prix de revient du courant électrique dans diverses hypothèses techniques. Cela signifie que les décisions qui seront à prendre doivent s'appuyer sur des projets techniques plus ou moins élaborés. Cette remarque s'applique aussi bien aux possibilités de développement de différentes industries que de différentes régions ou aux possibilités de développement du système d'education, de l'organisation de la santé publique, etc. . . .

De même, les organes de planification doivent pouvoir disposer de

toutes les informations requises sur les perspectives ouvertes par les développements les plus récents de la science et de la technique.

Sur ces différents points la planification indienne n'a pas pu s'appuyer sur une documentation suffisamment ample et solide. Ceci explique, notamment, que le coût en devises étrangères de certains des projets industriels inclus dans le 2ème P.Q. ait été sensiblement sous-évalué.

L'ensemble des connaissances réunies par les organismes de planification doit servir à dégager des prévisions et à opérer des choix. Prévisions et choix sont évidemment liés de façon très étroite; néanmoins, la clarté de l'exposé exige que l'on traite séparément des techniques de prévisions et des techniques de choix.

(3) *Les techniques de prévisions.*

Les techniques de prévisions sont extrêmement variées, aussi est il impossible ici de tenter autre chose qu'une énumération des techniques les plus caractéristiques.

La plus simple consiste à poser d'abord un certain nombre d'objectifs économiques et sociaux dont la réalisation au cours d'une certaine période est considérée comme souhaitable et possible: par exemple une augmentation donnée des principales productions et consommations, un progrès donné dans l'équipement social, des changements donnés dans les rapports de production (nationalisation, " coopératisation ", etc.), puis, une fois ces objectifs posés, on effectue les calculs nécessaires pour voir s'ils sont cohérents entre eux (équilibre entre les différentes productions et les différentes consommations, entre les différents flux matériels et les flux monétaires qui leur correspondent, etc. . . .) et s'ils sont réalisables avec les moyens humains et matériels dont on disposera au cours de la période, compte tenu de l'incidence sur ces moyens des mesures qui seront prises dès le début de la période considérée et des effets que l'on peut escompter de ces mesures.

Au cours des calculs qui se développent alors, on est conduit à élaborer des bilans prévisionnels de production et de consommation produit par produit ou groupe de produits par groupe de produits. Jusqu'en 1957, le Gosplan a opéré sur plusieurs milliers de rubriques, le nombre de ces rubriques a été réduit à 1640 en 1957 et à 1042 en 1958, l'expérience ayant montré qu'il n'était pas désirable de chercher à effectuer des prévisions trop détaillées.

On est conduit également à élaborer des bilans prévisionnels concernant les besoins financiers, les besoins de main d'oeuvre de différentes qualifications, etc. . . . De ces dernières prévisions se dégageront des conclusions quant à la demande finale d'objets de consommation résultant de la réalisation des objetifs donnés et d'une politique donnée des salaires.

Les calculs à effecteur supposent la mise en oeuvre d'un grand nombre de coefficients techniques (nombres proportionnels), de coefficients d'investissements (montant de l'investissement nécessaire pour la création d'une certaine capacité de production) et de données empruntées aux projets techniques. Les calculs supposent aussi connues les élasticités de consommation des différents groupes de consommateurs, etc. . . .

C'est seulement à la fin d'un premier cycle de calculs que l'on voit si les objectifs initialement posés étaient bien cohérents et réalisables et sous quelles conditions. Dans le cas probable de manque de cohérence, ou de conditions de réalisation inacceptables, on revise les objectifs initiaux dans le sens suggéré par les résultats déjà obtenus, et on procède à des révisions de cette sorte jusqu'à ce qu'on parvienne à un ensemble d'objectifs cohérents et réalisables sous des conditions considérées comme acceptables (en particulier du point de vue des tensions économiques et sociales qui peuvent en résulter).

Une autre technique est celle des tables d'entrants et de sortants et des tableaux de relations inter-industrielles. Dans la technique la plus souvent proposée, on part d'une matrice représentant les échanges inter-industriels actuels et, en utilisant les coefficients techniques calculés à partir de ces tables ou des coefficients techniques nouveaux, on évalue ce que doivent être les productions des différentes industries pour que soient réalisés un certain nombre d'objectifs également fixés *a priori*. La méthode évite, en principe, la nécessité d'approximations successives, mais si les coefficients techniques sont seulement ceux qui caractérisent l'économie actuelle, on ne peut guère admettre qu'ils seront encore significatifs après quelques années, lorsque doivent intervenir des changements économiques et sociaux considérables. Dans ces conditions, on peut mettre en oeuvre des coefficients techniques estimés en fonction du type des changements envisagés.

De toute façon, cette technique ne résout pas tous les problèmes de prévisions et elle n'exclut pas le recours à des bilans prévisionnels dans différents domaines.

Comme on le voit, d'ailleurs, les deux techniques supposent que l'on pose au départ un certain nombre d'objectifs *a priori*.

Pour réduire au minimum l'arbitraire que l'on introduit ainsi initialement, et sur lequel je reviendrai—car c'est précisément lui qui laisse la porte ouverte à des choix—, on peut faire un certain nombre d'hypothèses raisonnables de développement.

On admettre, par exemple, avec le 2ème P.Q. indien que, pour un taux d'investissement initial de 7% du revenu national et qui croît régulièrement pour atteindre 11% en fin de période, le revenu national est susceptible d'augmenter de 25%. On en déduira que, compte tenu des changements intervenus dans d'autres pays pour un certain nombre

de productions importantes, lorsque le revenu global croît au taux qui vient d'être indiqué pour atteindre le niveau qui sera après cette croissance celui du revenu indien, il est légitime de prévoir pour les productions nationales correspondantes certains objectifs provisoires. Comme nous l'avons vu, ces objectifs seront progressivement révisés à la lumière des calculs ultérieurs.

D'autres techniques sont encore possibles, mais les deux techniques que je viens de décrire brièvement sont les plus couramment proposées et, pratiquement, la première est celle qui est réellement employée.

En Inde en élaborant une table d'input-output, on a tenté de mettre en oeuvre également la seconde de ces deux techniques, mais les données disponibles n'étaient pas assez nombreuses pour permettre d'aboutir à des résultats significatifs.

En Union Soviétique, la mise en oeuvre de méthodes faisant appel à l'algèbre des matrices n'était pas vue avec faveur jusqu'à ces derniers temps.   Depuis 1958, une attitude différente a été adoptée et le Gosplan d'une part, et l'Institut de Statistique et d'Economie de la flilale de Novosibirsk de l'Académie des Sciences de l'U.R.S.S., d'autre part, se sont engagés dans des recherches pour l'utilisation de cette technique. Il semble que la réserve montrée jusqu'ici par les spécialistes soviétiques ait tenu, en partie, au fait qu'on ne possédait pas auparavant les machines électroniques rapides capables d'effectuer les calculs très nombreux que cette technique exige, dès lors qu'on la fait porter, comme le veulent les spécialistes soviétiques, sur des tableaux très détaillés.

On aura noté que ce que je viens de dire concerne uniquement les techniques de prévisions centralisées; à celles-ci peuvent venir s'ajouter des prévisions décentralisées.

En Inde, en dehors de la consultation de différents Etats ou de représentants de l'industrie, les techniques de prévision décentralisées n'ont pas été mises en oeuvre, en raison notamment de l'absence d'un appareil de planification décentralisée (absence qui est la contre-partie de la prédominance du secteur privé et capitaliste).

En U.R.S.S., au contraire, et de plus en plus, les prévisions décentralisées viennent compléter et modifier les prévisions centrales grâce à la mise en route de flux réguliers, ascendants et descendants, d'informations et de prévisions.   Par cette technique, chaque entreprise est appelée à préparer son plan dans le cadre du plan d'ensemble.   Au niveau de l'entreprise, les travailleurs sont, en principe, appelés à formuler leurs suggestions et leurs critiques.   Il semble bien que cette participation des producteurs à la préparation du plan, qui était restée longtemps très formelle, en ce sens qu'elle ne correspondait pas à une participation effective des travailleurs, soit en train de devenir une réalité.

(4) *Les techniques de choix.*

Il n'est dans l'objet de ce rapport ni de rechercher quel type de développement peut être ou est considéré comme supérieur aux autres, dans un contexte social donné, ni de rechercher les facteurs économiques, sociaux ou idéologiques qui déterminent ce qu'on peut appeler les " options fondamentales " entre plusieurs lignes de développement possibles.

Ces options fondamentales s'effectuent en deça de la planification sociale, elles sont liées à une stratégie politique d'ensemble dans laquelle les considérations de la politique internationale, les facteurs militaires, etc. . . ., jouent un très grand rôle. La question que je me propose d'examiner ici est donc simplement la suivante: les options fondamentales étant données, de quelle façon, par quelles techniques, au niveau de la planification sociale, est-il possible de se conformer au maximum à ces options fondamentales? C'est ici que se pose la problème des techniques de choix.

Les techniques de choix devraient constituer une des parties essentielles de la planification sociale, puisque ce qui caractérise celle-ci c'est, précisément, qu'elle effectue un choix entre plusieurs lignes de développement possibles dont une est considérée comme supérieure à toutes les autres.

En fait, il faut reconnaitre que les techniques de choix, qui sont probablement appelées à jouer un rôle de plus en plus grand, en sont encore à un stade embryonnaire, en raison même de la complexité des problèmes posés.

Certes, le schéma théorique d'une technique de choix cohérente est aujourd'hui à peu près au point, ceci notamment grâce aux travaux du Professeur Ragnar Frisch.

Pour l'essentiel, cette technique repose sur l'élaboration d'un modèle économétrique qui représente, sous la forme d'un ensemble d'équations simultanées, les développements possibles. Ces différentes équations, qui s'insèrent dans une matrice de programmation, expriment les relations unissant entre elles les diverses variables du système.

Les variables sont constituées par des grandeurs telles que les différentes productions, les consommations, les investissements, l'emploi, la productivité du travail, les prix, etc. . . . Certaines de ces variables constituent, en fait, des données: on part d'un situation déterminée de la production, de l'emploi, etc. . . .d'autres constituent les inconnues du système.

Les relations sont, notamment, du type " fonctions de production ", " fonctions de consommation ", " fonctions d'investissement ", etc. . . .

Dans une économie où les décisions d'investissement ne résultent

pas du jeu de forces économiques spontanées (dont l'action pourrait être représentée par des " fonctions de comportement ") mais peuvent être prises en vue de réaliser certains objetifs fondamentaux, le nombre des équations est nécessairement inférieur au nombre des inconnues, d'ou l'apparition d'un certain nombre de " degrés de liberté ".

C'est précisément en raison de l'existence de ces degrés de liberté que divers objectifs peuvent être choisis (ce qui serait évidemment impossible si le système était entièrement déterminé).   Pour que ce choix puisse être un choix optimum (par rapport aux options fondamentales), on représentera ces options par des " fonctions de préférence " et on résoudra le système d'équations de facon à maximer la grandeur des variables qui correspondent à ces préférences.

La méthode qui vient d'être décrite constitue une application à l'échelle sociale des techniques de programmation dont on sait qu'elles sont appliquées avec succès à la gestion des entreprises et à la solution optimale de problèmes économiques partiels.   Ces techniques sont même utilisées en U.R.S.S. pour assurer la gestion optimale de branches entières d'industrie (industrie électrique, d'un part, industrie du pétrole et du gaz naturel, d'autre part).

Cependant, si de nombreuses tentatives ont été faites et continuent d'être faites pour appliquer pratiquement ces techniques à la planification sociale, ces tentatives n'ont pas abouti jusqu'à maintenant à des résultats pratiques.

Il n'est pas possible d'examiner en détail ici les raisons de ces échecs- Parmi les raisons les plus importantes il faut mentionner les difficultés que rencontre l'effort de " quantification " de certains des facteurs ou de certaines des caractéristiques du développement social, la faiblesse de nos connaissances concernant certaines relations fonctionnelles et enfin, et peut-être surtout, l'extrême complexité du système de relations qu'il conviendrait de mettre au point si l'on voulait construire non pas un modèle grossièrement approximatif mais, au contraire suffisamment réaliste.   Je ne crois pas, cependant, qu'il faille considérer que les efforts actuellement tentés dans ce sens soient nécessairement condamnés à l'échec.

En attendant, la technique de choix effectivement mise en oeuvre est beaucoup plus empirique.   Elle consiste, pratiquement, à partir non pas d'une seule constellation d'objectifs provisoires mais de plusieurs, puis 'à choisir celle des constellations d'objectifs, révisés après calculs, qui permet de réaliser le type de développement le plus proche de celui que l'on veut voir réaliser, en vertu des options fondamentales.

La principale critique que l'on peut adresser à cette méthode c'est qu'elle ne garantit pas que, si d'autres constellations d'objectifs avaient été choisies (et le nombre des constellations possibles est infini) on ne serait pas parvenu à un développement encore plus proche de celui

que l'on pourrait considérer comme optimum. Par contre, le caractère plus concret de cette technique permet de tenir compte plus facilement des aspects non quantifiés des développements envisagés, en particulier des tensions sociales qui pourraient naître de telle ou telle décision.

Les techniques de choix qui viennent d'être rapidement décrites concernent ce qu'on peut appeler les " choix centraux ", dont le nombre peut être plus ou moins grand selon le degré de centralisation de la planification, mais, quel que soit ce degré, il reste toujours, dans la pratique, à prendre un nombre immense de décisions courantes, d'où la nécessité de " choix opérationnels décentralisés ".

Selon la nature et l'importance des choix à effecteur, le degré de décentralisation peut être plus ou moins grand ou, encore, la ratification du choix par une instance centrale peut apparaître ou non comme nécessaire.

En fait, la planification soviétique connaît la centralisation au niveau des projets concrets d'investissement les plus importants et une certaine décentralisation au niveau des investissements les moins importants et de la gestion courante, sous réserve de diverses règles et de divers contrôles destinés à assurer la cohérence de ces décisions.

En Inde, le domaine des choix décentralisés est beaucoup plus large qu'en Union Soviétique mais, surtout, les règles et les contrôles destinés à assurer la cohérence de ces choix ne peuvent pas jouer dans les mêmes conditions qu'en Union Soviétique (en raison de la structure sociale) d'où les très grandes difficultés rencontrées dans la réalisation du 2ème P.Q.

Il faut dire, d'ailleurs, que le problème de la cohérence des choix décentralisés et des choix centralisés est lié à celui des critères de la rationalité économique au niveau des différentes unités de décision.

La nature de cette rationalité est évidemment sous la dépendance des options fondamentales: seules peuvent être considérées comme rationnelles les décisions décentralisées qui concourent à la réalisation optimale du développement social recherché. La difficulté est que, très souvent, on ne peut percevoir directement si une décision donnée, prise au niveau d'une unité de production, va effectivement ou non dans le sens de la réalisation de l'optimum, car il faudrait tenir compte de l'ensemble des répercussions de cette décision, c'est à dire revenir à un calcul centralisé, que l'on veut précisément éviter. C'est pourquoi il est nécessaire de mettre au point des critères qui, au niveau de l'unité de production, soient susceptibles d'indiquer si une décision déterminée est ou non " rationnelle ", au sens que nous venons de donner à ce mot.

En pratique, c'est cette question qui est discutée par les économistes soviétiques lorsqu'ils analysent les problèmes de l'efficience des inves-

tissements et du rôle de la rentabilité économique dans la gestion des entreprises.   Le fait que ces questions soient actuellement discutées montre qu'une solution entièrement satisfaisante du point de vue théorique n'a pas encore été trouvée.   Pour ma part, je pense que cette solution est liée à la mise au point d'un système des prix qui permette, au moins approximativement, d'évaluer, à partir d'un nombre très faible de données, les conséquences globales probables des différents choix décentralisés.

(5) *Les techniques d'action.*

Les techniques d'action déterminent la façon dont un plan de développement cessera d'être un simple projet pour devenir une réalité.

L'extrême diversité des techniques d'action m'obligera à me limiter à une énumération rapide des principales d'entre elles.

Je crois que l'on peut distinguer essentiellement quatre techniques d'action, qui doivent généralement être toutes mises en oeuvre de façon plus ou moins simultanée.   Ces techniques sont celles de l'action législative, de l'action administrative, de l'action d'impulsion et de l'action monétaire et financière.

(*a*) *L'action législative* est essentiellement celle qui détruit et crée de nouveaux rapports de propriété, qui institue de nouveaux sujets de droit, qui supprime et crée certains droits et certaines obligations, sans déterminer nommément les individus qui bénéficieront de ces droits ou qui auront à remplir ces obligations.

Cette action législative revêt une importance fondamentale aux premiers stades de la planification sociale.   Elle permet de mettre en place une partie de la structure sociale qui assurera la réalisation effective du plan, c'est elle, en particulier, qui créera les conditions économiques et sociales propices à cette mobilisation du surplus économique à travers laquelle la planification sociale peut réaliser ses objectifs.

(*b*) *L'action administrative* procèdera par voie d'ordres et de réquisitions adressés à des personnes physiques ou juridiques nommément désignées; elle créera, éventuellement, des personnes juridiques chargées de l'accomplissement de tâches déterminées.

Pratiquement, en Union Soviétique, l'obligation incombant aux entreprises du secteur d'Etat de réaliser le plan repose non seulement sur la loi mais sur des actes administratifs qui précisent à chaque entreprise les tâches qu'elle a à réaliser; comme pour toutes les obligations administratives, celles-ci sont assorties de sanctions économiques administratives ou, dans les cas graves, pénales, au cas ou elles ne seraient pas satisfaites.

L'impôt et la réquisition des biens et des personnes font évidemment

partie des formes possibles de l'action administrative, mais la réquisition des personnes ne peut intervenir que de façon exceptionnelle, la coopération volontaire étant seule vraiment efficace.

En Inde, la réalisation du plan par voie d'ordre administratif est assez limitée en raison de l'étroitesse du secteur d'Etat. Cette technique s'applique cependant à la réalisation de la quasi-totalité des grands travaux, à la construction des nouvelles entreprises industrielles du secteur public et à l'ensemble des services publics.

L'action administrative prend, enfin, la forme de mesures de contrôle et d'autorisation. Dans un pays comme l'Inde, ces mesures, combinées à l'action monétaire et financière, constituent les principaux moyens mis au service de la planification, par exemple sous forme de contrôle de la répartition de certains moyens de construction, de la délivrance de licences d'importations, des autorisations nécessaires aux émissions de valeurs mobilières, etc. . . .

(c) *L'action d'impulsion* peut prendre des formes extrêmement diverses, telles que les campagnes pour la lutte contre l'analphabétique, pour la propreté des rues, pour les économies, pour les innovations pour l'augmentation de la productivité, etc. . . .telles encore, les campagnes pour l'organisation coopérative des exploitations paysannes et artisanales ou pour la transformation volontaire d'entreprises capitalistes en entreprises mixtes ou en entreprises d'Etat.

Les centres d'impulsion peuvent être tantôt les organes administratifs, tantôt des organisations qui s'assignent également pour but la réalisation du plan, en premier lieu le parti dirigeant et les organisations syndicales.

Tandis qu'en Inde les actions d'impulsion en faveur de la réalisation du plan n'ont qu'une portée assez limitée, elles jouent, on le sait, un rôle extrêmement important en U.R.S.S. et en Chine.

En Chine, en particulier, ces actions d'impulsion revêtent une importance pratique considérable. Elles ont permis la réalisation d'immenses travaux d'irrigation et elles sont en train de susciter un développement industriel local, appuyé sur les coopératives agricoles et les administrations locales et régionales qui représente une base de croissance extraordinairement puissante et qui semble de nature à modifier, dans le sens d'une augmentation considérable, certains des objetifs du 2ème P.Q. chinois.

Le propre de ces actions d'impulsion est, en effet, de déclencher des forces sur les conséquences quantitatives desquelles il est extrêmement difficile de faire des prévisions, même si ces forces sont orientées vers les objectifs du plan. Aussi la question s'est-elle posée: lorsque les résultats obtenus dépassent largement les prévisions et, tout en étant en eux-mêmes positifs, risquent d'entraîner le déséquilibre dans la réalisation du plan, convient-il ou non de freiner le mouvement qui

a pris une ampleur inattendue? Cette question s'est surtout posée en Chine, et la réponse donnée a été négative: il a été décidé de réviser les autres parties du plan plutôt que d'arrêter des mouvements en plein essor.

(d) *L'action monetaire et financière*, enfin, est indispensable à la réalisation du plan et elle peut prendre les formes les plus diverses: achats et ventes de produits par les organismes d'Etat, politique des prix, politique du crédit, répartition des investissements, politique des salaires, octroi de bourses d'études, extension des services gratuits (c'est à dire dont le coût est pris en charge par l'Etat, etc. . . .).

Ce n'est pas seulement lorsque le secteur d'Etat est de peu d'importance, comme en Inde, que l'on est appelé à se servir de moyens monétaires et financiers, mais aussi lorsqu'il occupe une place prépondérante comme en U.R.S.S.   Dans ce cas, ces techniques monétaires et financières assurent la liaison entre les secteurs d'Etat et les particuliers (travailleurs ou consommateurs), liaison non autoritaire mais économique; d'autre part, elles assurent la liaison entre le secteur d'Etat et le secteur privé, coopératif ou mixte et, enfin, elles assurent la liaison entre les différentes parties du secteur d'Etat qui sont dotées de la personnalité juridique.

A ce dernier point de vue, il importe de remarquer que ces techniques monétaires et financières doivent remplir deux fonctions distinctes mais complémentaires: elles servent de base à certains choix décentralisés et elles assurent la réalisation des objetifs fixés centralement.

Les formes institutionnelles à travers lesquelles cette dernière fonction est assurée peuvent être fort diverses; elles sont constituées, notamment, par la création d'organismes bancaires, tels que les différentes banques soviétiques chargées de la répartition de crédits à long terme ou à court terme en conformité avec le plan.   Le budget de l'Etat joue également un rôle décisif, surtout pour assurer le développement en conformité avec le plan de toutes les organisations ne fonctionnant pas sur une base de rentabilité telles que les écoles, les hôpitaux, les centres de recherches, les laboratoires, etc. . . .   Le rôle de la mobilisation du surplus, en vue de son utilisation planifiée apparait ici en pleine lumière.

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Tels sont quelques-uns des développements que m'a suggéré le thème " problèmes et techniques de la planification sociale ". Ces développements ne couvrent certainement qu'une partie de ce vaste sujet.   J'espère, toutefois, qu'ils auront montré la grande diversité des questions que soulève la planification sociale, leur liaison intime avec les problèmes économiques et sociaux les plus importants, l'état encore imparfait de certaines des techniques de planification et qu'ils pourront servir de base à une discussion fructueuse.

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Social Conditions and Consequences of Social Planning

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I

PLANNING ACTIVITY IN SOCIAL LIFE

Meaning of the terms

We are dealing in this paper with two different applications of the term " planning " or, perhaps it is better to say, with two types of planning. Let us call them: " efficiency planning " and " economic planning ". By *efficiency planning* we mean the planning of the realization of selected aims: the construction of a house or an industrial centre, the defeat of the enemy in a battle, the conquest of Mount Everest or the South Pole. The second type of planning concerns the utilization of some limited means we have at our disposal. *Economic planning* in such a broad sense of the term, may be connected with any kind of means: raw material, money, land, urban area, human forces and even a period of time. Thus this kind of planning also includes the state budget or the plans for distribution of paper for printing in a socialist country, as well as the plans for division of labour in a factory or in an army, or the plans for the use of our time during a limited stay in a city.

The two types of planning are interrelated. When we are setting a goal and planning the way to its attainment we must take into account the scarcity of means, even if the aim has to be reached at any price. On the other hand, our economic planning depends on the goals which are intended and on the means which have to be applied.

When one speaks of *social planning*, as opposed to individual planning, it can mean: (a) that the planning is undertaken not by an individual but by a group or by representatives of a social group, (b) that the subject of the planning is social property, (c) or that actions which are planned are collective actions: actions of many people which

have to be co-ordinated in some way. It is assumed that each of these conditions involves aims which are socially important.

We are concerned in this paper with all these questions but the third condition will be involved each time we speak about social planning.

Determinants in the selection of goals: values and expectations

The selection of goals in any framework of economic planning as in any reasonable decision making, is determined on the one hand, by a scale of values avowed by the planning body, and on the other hand, by the degree of probability of achievement as estimated by the same body. Both of these are psychological factors, of course.

Any selection of goals in the framework of economic planning, irrespective of the probability of achievement, is to be accomplished at the cost of some other values, according to our use of the term " economic ".

In the Tatra mountains and in some parts of the Beskid mountains in Poland there are many mountain dwellers' farms which have caused great trouble to some of our economists. They have been very unproductive. The soil is bad, the terrain is very hilly, not suited to the use of the modern agricultural machines and, in addition, particular farms are made up of several tracts of land separated from each other sometimes by many kilometres. A great deal of work has been needed for meagre results. The farmers have had to go five or ten kilometres from their homes to take care of their sheep and sometimes no less in another direction to mow their oats.

This has been an economic absurdity from the point of view of rational production, with regard to what pays and what does not pay. But this traditional kind of husbandry has had for the people some attractions which could not be measured in terms of output. They enjoyed climbing to the meadows on a hill or in an upland valley, singing at the top, lighting a fire, unfolding a sheet on the grass for a supper. It was fun to go some miles for a harvest, to meet friends, to have evening parties with them.

In 1952 plans were prepared in Warsaw to remove about 60% of these farmers from that region and to give them better and more integrated farms somewhere in the lowland where their labour would be much more fruitful. The mountain dwellers were startled and depressed; they looked for help. Some of them tried to become members of the Communist Party in the hope that it could help them to avoid the opportunity of getting a better farm. The scale of values of the planning body was not identical with the scale of values of the people who were to be affected by that planning[1].

An ideology, however, can affect planning not only by establishing the priority of certain values with respect to others, as was the case when the plans for reconstruction of the royal castle in Warsaw, which was destroyed during the war, were postponed in favour of school buildings and dwellings.   Selection of goals in economic planning may not be determined only by economic considerations connected with the scarcity of means and the accepted scale of values.   It was not to save money for some higher or more useful ends that the American puritans did not build theatres in the 18th century, and it is not the scarcity of means which keeps communists from building churches.   The prohibition of the production of alcohol in the United States was not voted for because of certain rival plans for distribution of raw materials.   I do not know whether we shall live to see the formation of an international committee for planning the use of atomic energy on a world scale, but if it happens, such a committee will not be formed only in order to prevent the waste of this precious energy.

Besides all these axiological factors in the selection of goals in social planning, there is another kind of determining factor.   It is, as we have said, the degree of probability of achievement, the degree of expectation.

Planning is based upon valuation and expectation.   It is a subjective product of value and probability that determines a decision.   The matter may be very complicated since the achievement of the goal may bring about some unwanted accessory effects.   Some of these effects may be connected with the goal itself; others with the means applied to its achievement.   In the latter case a choice of other means, perhaps less simple or less effective, could possibly bring about the goal without those unwanted consequences.   Some other unintended effects would, however, appear instead.

Intended goal and accessory effects

Thus we are dealing not with the goal in the terms of attainment or non-attainment, but with the goal as an element of a situation, all accessory effects being additional elements.

If we abolish the system of rationing scarce commodities without increasing their production the resulting rise in prices would give privilege to the people with higher incomes and increase the social cleavage between them and the people with lower incomes; and the retention of low prices for scarce commodities without rationing them would produce queues, with unnecessary loss of time and energy of the people, and would probably also bring about black market activity with all its morally detrimental consequences.

As the probability of some accessory effects may be smaller than the probability of the goal, we have more than one alternative to consider,

even if we deal only with one sort of means. If we take into account the choice of means we face still new alternatives due to different degrees of probability and to the different situations of achievement.

Some reforms introduced by the new Polish government, which came to power in October 1956, were undertaken in order to make social relations in Poland more free. Gomulka and his friends also decided—as far as I know—to change at once the conditions in the mining industry; to abolish work by prisoners and certain forms of constraint, and to limit Sunday work. These reforms had to be carried out in such a way as not to bring about a decrease in coal production, which has been a vital matter for our economy. The principal measure applied at that time was a 40% wage increase for miners so as to recruit a sufficient number of new workers.

This rise in miners' wages had to be followed by wage rises—although not so high—in other branches of industry too. Since production did not increase at once, the rise in wages caused the government much difficulty in preventing a rise in the prices of consumption goods in such conditions of commodity shortages.

But these effects, although unwanted, were not unexpected. Gomulka and his advisers were conscious of the imminent difficulties. They thought, perhaps, that the goal might be attained at a lower price, but the matter of social change was so important for them that they did not want to take any chances. The question of probability of success was decisive in the choice of means.

It would not be difficult to point out some unintended and unexpected social effects of economic planning, especially in the virgin period of a sort of euphoria in planning activity which follows fundamental changes in the political and economic structure of a country. Since social planning deals with collective behaviour, unexpected accessory effects may be due to the neglect of some psychological causal relations or to the fact that the planned system is not an isolated one or to the lack of a serious knowledge of the social reality subject to planning. This last factor has become, I think, particularly significant in the countries where sociological surveys are considered useless, and have been replaced by the images suggested by wishful thinking.

Let us take an example of unexpected effects due to the manner of thinking in terms of the achievement or non-achievement of goals rather than in terms of situations. Some years ago the Polish Ministry of Education extended its planning to the number of pupils in secondary schools who were to receive certificates. This had to be stated for each year. The exact numbers required were communicated to the schools. As the planned percentage of certificates in each school was unusually high, it was expected that this would force teachers to put more energy and care into the training of their pupils. The planners did not fore-

see that the students would get news about this resolution and that many of them would cease to work at all since they were sure to get certificates without work.   This measure was abolished but not before it had contributed to lowering the quality of school teaching.

The evident rationality of certain reforms introduced by the authorities to improve the social life of the people, even against their wishes, sometimes prevents the planners from taking into account the possibility of some undesirable accessory effects.   Ralph Linton relates that the French authorities in Madagascar introduced punishment for killing witches as for any murder.   " At the same time they have not altered the native belief in witchcraft.   The consequence has been to give the wizards *carte blanche* for extortion and to raise them to a dominant position."[2]   Hundreds of similar instances from the history of the endeavours of colonial authorities to civilize the so-called primitive people could be quoted.

It would be interesting to learn in what measure the detrimental moral effects of prohibition in the United States were unexpected by the people who voted for it, impelled, as they were, by a moral motivation.

Social planning and planned society

It is difficult to doubt that socialization of the main means of production provides the most broad and effective basis for social planning. Nevertheless, the line dividing " socialist " and " capitalist " countries is not decisive with regard to the problems of central planning if we do not disregard the existence of some indirect forms of social control of the use of private property.

In a book which has been a textbook for thousands of American students we could read 12 years ago: " The direction of movement in recent decades in America is clearly further away from the extreme of atomistic individualism and in the direction of increased central planning of the economic life of the country ".[3]

We can now observe almost everywhere state central plans concerning some particular domains of social life: communication, health service, education, forestry.   I recently spent some months in California and there I was no less impressed by the immense investments for a carefully planned irrigation system with its social consequences equally planned or the ambitious twelve year plan of further development of the state University of California which is expected by 1970 to be educating 108,300 students in 11 campuses, than by the unplanned development of Los Angeles, a monstrous city of four million inhabitants which provokes dismay in any town planner's mind.   In any modern state there is, at least, one domain almost entirely subject to central planning and even partly excluded from public control.   It is defence, or,

speaking less euphemistically, all matters concerning the army and war.

We meet also in *laissez faire* societies planned enclaves, i.e., groups which are subject to central planning of their own, planning in their own domains, like some religious communities of the XIX century in the United States. Particular cities have their planning bodies which may be relatively independent of the state authorities. The Marx House Co-operative in Vienna, which existed until the defeat of 1934, had been carrying on a very broad planning activity. A similar big socialist co-operative, housing about 4,000 people, has existed in Zoliborz, a suburb of Warsaw, since 1923 and had developed before the war manifold town planning, economic and social activities which were carefully planned by the elected body and subject to the criticism of all members, and which included schools, artistic and discussion clubs, scientific lectures and experimental theatre. It had succeeded in creating certain forms of social life in which people, who were diverse in their social opinions, took part. It carried on its planned activity even during Nazi occupation in a clandestine way in spite of great personal losses among its members.

Sometimes in a society which is not directed by one central plan we may observe a conflict between two or more social plans aspiring to affect the social life of the whole country. The government may prepare plans concerning the whole society, and the church, if it is powerful enough, may develop its own plans which interfere with those of government. We could easily point out some examples in the past, more or less remote.

During the last war the Nazi authorities in Poland had worked out elaborate and, to a certain extent detailed plans concerning the future of this country. They included urban, industrial and agricultural development, demographic situation and ethnic relations, occupational structure of the population, communication and political organization. The Nazis had already begun to execute their plans during the war. At the same time, underground Polish planning committees existed in Poland and were preparing their own plans of development of post-war Poland. According to the Nazi plans, Warsaw was to be completely destroyed, its place and name were to be forgotten, and a new, much smaller town of quite another character was to be constructed on the bank of the Vistula some miles to the North of the present boundaries of Warsaw. The plans of post-war Warsaw prepared by an underground group of architects, town planners and sociologists could not, of course, hamper the Nazi plans of destruction of the city. However, they were partly utilized in the post-war reconstruction of Warsaw although they had to be adapted to the new situation created by the destruction of the city continued in accordance with their plan by the Nazi authorities after the defeat of the Warsaw insurrection of 1944.

II

COLLECTIVE BEHAVIOUR AND SOCIAL ORDER

Three types of collective behaviour

The social consequences of social planning depend on the type of collective behaviour expected in the process of executing the plans. Therefore, we must devote the second part of our paper to a topic of broader scope.

If we may make use of certain ideal types, we shall distinguish three basic types of collective behaviour with regard to the problems of social order and methods of prediction:

(1)   Behaviour determined by common internalized patterns.

(2)   Behaviour brought about by the interplay of independent actors, i.e., by the interaction of two or many foci of decision.

(3)   Behaviour directed by one focus of decision.

We meet the first type of collective actions where people's behaviour is conditioned in an unreflective way by traditional patterns, or by strongly rooted mores, or where we are dealing with a routine form of collective work.   Such a routine can be—but need not be—formed also by traditional patterns (e.g., the behaviour of a team of mowers and binders at harvesting in a conservative agricultural country).

The second type of collective behaviour includes instances of inter-action of decisions of individual actors as well as of interaction of centres of decision of particular groups (leaders or directing bodies). A perfect *laissez faire* society or a game of chess would be examples of the first kind of interaction; international politics or a battle between two well disciplined armies—of the second.

The third type excludes in principle any conflict of decisions.   People are expected to wait for a command and fulfill the orders.

Taking into account the fact that in any society there are some common patterns of behaviour as active forces, that we can look for individual decisions in any conscious social behaviour (even if they be decisions to obey the orders of a central power) and that in any organized group the behaviour of individuals can be affected by some decisions of the central authority, we may speak—in some cases, at least—as well of the three ideal types as of the three aspects of collective behaviour. We can, however, use this conceptual framework for the classification of concrete social actions.

Related conceptions of social order

Three simple conceptions of social order in the history of social thought are related to the three types of collective behaviour:

(1)   Order based on social conformism to traditional patterns.

    (2)   Unplanned order based on the observance of rules of the game and due to the " natural laws " of interaction.

    (3)   Order based on central decisions and on an organization supervising their execution.

The first type of social order corresponds to the popular notion of primitive society as a static, traditional community where changes are rare and slow. " Amongst the Australian aborigines—E. Mayo writes —their method of living involves almost perfect collaboration drilled into the members of the tribe . . . Each member knows his place and part although he cannot explain it ".[4] Durkheim's notion of " *solidarite mecanique* " is connected with this kind of order. The nineteenth century nationalist ideology, especially the nationalist ideology of the subjugated nations animated by the spirit of the " Spring of Nations " (1848) was also connected with the first conception of the social order: not the command of a leader but participation in the common national soul was to bring about harmony in collective behaviour. Populist ideology in some European peasant countries before the last war, in spite of its defence of private ownership of land, also emphasized common cultural patterns in their double function: as a means of social cohesion and as a factor of social order.

A society which would approach the second type of social order, a competitive free society, has been an ideal of the Western democracy, with its notorious illusion of equal freedom for everyone. The only functions of government, according to this ideal, were to enforce the rules of the game in the society (police function) and to secure the society against external dangers, i.e., to maintain the army. The army and police were to be, so to speak, metasocial bodies in the *laissez faire* society, as permitted enclaves of the third type of social order.

A well known philosophical basis of this type of social order has been the supposition of the wisdom of Nature, which provides men with those instincts which automatically create the best social order if no human central power meddles with it.[5] Mandeville's *The Fable of the Bees* was an early eloquent warning against any future attempt at social planning.

The third ideal type of social order is a monocentric order maintained by the strict execution of any decisions of the supreme planning and governing authority. Obedience is enforced by intimidation—the central power makes use of terror, if needed—or evoked by unlimited and uncritical confidence in the leaders, or by proper education and purposive inculcation of a system of conditioned reflexes in people's brains: a method described in a suggestive way in Huxley's *Brave New World*. We know what careful training in obedience was received by the members of the Jesuit militant order, where the notion of the " cadaver obedience " was invented in the 17th century, and one can

read in the memoirs of the chief of the Oswiecim Concentration Camp, Rudolf Hoess, (not to be confused with Rudolf Hess) a description of the ingenious methods of training in obedience in the Hitler S.S. organization.

Whereas in a traditionalist society the emphasis in education is put on the conformist attitude and fidelity to the traditional patterns, in any modern authoritarian society training in obedience to the leaders is accompanied by training in a certain plasticity of habits, since the leader's orders may change completely.

This plasticity, however, has to be reconciled with the orthodox spirit and unconditional adherence to each successive pattern and view. The ideal is: to be as attached to the present obligatory patterns and opinions as the most stubborn traditionalist (as if they were valid for ever) and yet to be able to change them at any time.   Owing to the supreme functions of leadership this type of social order can produce a synthesis of a traditionalist and a dynamic society.

A monocentric social order adapted to modern society can be represented by a perfect military or bureaucratic organization, where there is a hierarchy of centres of command and decision, and where any conflict of decisions is, in principle, totally excluded as a result of a system of strict onesided dependence.

The postulate of the elimination of interplay of decision in the army —especially in time of war—was accepted even by the most extreme liberals in capitalist society—in contrast to the attitude of the Soldiers' Councils at the beginning of the Russian Revolution of 1917 and in the Spanish Civil War.

Types of collective behaviour and social theory

Classical economics, sociology as a new 19th century discipline, and the Marxist theory of historical materialism, insofar as it deals with the contemporary world, are all—as a result of the same historical conditions—social theories which in fact identify " society ", with a polycentric, liberal, competitive society.   This view influences their general statements.   It is most evident in the laws of classical economics, valid only for one ideal type of collective behaviour.   But we often overlook the fact that the authors of the theory of historical materialism also share some basic suppositions concerning social life with the representatives of social theories of the enemy camp.   The sociological laws of Engels and Spencer, as well as the laws of social ecology in the first decades of this century are laws of interactions.   According to them, the resultant of the autonomous behaviour of thousands or millions of people, cannot be forecast and not desired by most of them, but may be predicted by an economist or sociologist.

However, in the generation following that of Engels and John Stuart Mill, new social theories appeared which took another type of social order, the first one in our scheme, as a model for general sociological statements. Such was Durkheim's theory with its "*representations collectives*" as driving forces, with its conception of internalized social coercion, its notion of religion and its emphasis on "social facts" produced neither by the interaction of individual opinions and decisions nor by the planned action of any central power.

This aspect of social life—common cultural patterns as dominating factors of human behaviour in particular societies—has become prevalent in social anthropology. It is not by accident that Durkheim points out as a methodological rule that social facts ought to be studied first of all in their most simple forms, i.e., in a primitive society.

It would be difficult to point to any general social theories which take as a model for generalizations monocentric society with a social order based on obedience. Hobbes proclaimed the monocentric social order to be the best form of society but his "sociological" considerations concern polycentric society and individual interaction.

But the idea of a planned monocentric society is not a new one. Before modern socialist states with their five or six year plan systems came into being, some of the evolutionists not connected with the socialist movement expected that it would be the ultimate form of future society. For Cournot in the middle of the 19th century and for Ellwood at the beginning of the 20th, this was the consequence of a belief that human society becomes more and more rational in the course of evolution. We can look for visions of a monocentric social order connected with central planning much earlier in some communist utopias. The most consequential and most elaborate is, perhaps, the fourth part of the *Code de la Nature* of Morelly (1753) where many institutions which have since been introduced into socialist societies of the 20th century were predicted—although Morelly's model concerned a society of rather small dimensions.

We may notice that the idea of a monocentric planned order transposed into the scale of the Universe has been connected with every developed monotheistic religion. There the idea of central planning has received its broadest scope. The rationality of such an order with a supreme clock-maker whose decisions have controlled the whole course of the world, has constituted probably the main argument on behalf of the superiority of the monotheism in comparison with any polytheistic religion, where interference from the decisions of different gods could take place. It is interesting that this argument appeals also to the defenders of a democratic, liberal, polycentric order on earth who are at the same time adherents of a religious belief. Discrepancy between the earthly and heavenly social ideas of the same people is not unusual at all and could constitute the subject of a psychological study.

Types of collective behaviour and methods of prediction

Expectation, as we have seen, is a codeterminant of any rational planning. Social planning concerns collective behaviour. The process of prediction of collective behaviour depends on the type of social order related to it.

The results of interaction in a polycentric society—e.g. the economic situation or ecological changes—may be predicted in two ways. They can be subjected to sociological prediction: (a) by the application of psychological laws to given conditions, including rules of the game, within a frame of statistical method, (b) or by inference from certain inductive global generalizations of the whole situation without looking for the psychological mechanism of individual acts.

Collective behaviour determined by common internalized cultural patterns is subject to another kind of prediction. Here we must know the patterns, proper to the group, and their strength, i.e., the degree of probability of deviant behaviour. If the patterned attitudes are to be considered universal, if there is no interference from individual opinions and wishes we are dealing with a type of prediction, based on anthropological data: we predict patterned collective reaction to certain external impulses.

Where the uniformity is not complete, where alternative patterns exist and any member of the group can choose between them, the interplay of individual decisions and mutual responses appears. Processes of deviation as well as those of acculturation are subject to sociological research, as the research of interaction.

Insofar as a society becomes similar to a perfect military organization, it ceases to be a subject of sociology: instead of the interaction of individuals or the interaction of social groups, we are dealing here with a sort of interaction of components of a mechanism. Sociology then turns into cybernetics. One expects an output related to the input instead of looking for inferences from the complicated laws of interaction.

In this case prediction is a conclusion of the following three suppositions: (a) whether the means were properly calculated, (b) whether the military mechanism is perfect, (c) to what degree it is an isolated system. It is like rail-road prediction of the arrival of trains in accord with a time-table. Cournot supposed a hundred years ago that in the future reasonable, dismal, planned society all predictions would be included in the announcements of an official journal.

To give examples of the three kinds of prediction, according to the three types of collective behaviour in the same field, we may call attention to the problems of human settlements and compare: (a) an Eskimo or Bantu settlement which arises without any deviation from traditional

patterns, (b) the unplanned development of a town or of a profit-making residential area of a city in a *laissez faire* world, (c) a city development which is the result of central urban planning by a fully efficient central power.

The proper domain of sociological prediction in the narrower sense, as opposed to that of " anthropology " and " cybernetics ", is a polycentric society. But insofar as the military organization of a society or a traditional system are not perfect—and they never are perfect—they are, of course, also subject to the sociological study of interactions.

Different possible kinds of collective behaviour in a polycentric social order

Many adherents of nineteenth century liberalism are inclined to connect any central planning system with a monocentric social order of a military type. If we take into account only the three basic forms of social order discussed above, central social planning can be related, of course, only to the third one. There the postulate of central planning is simply a demand of rationality in the monocentric order. On the other hand, the monocentric order provides the most simple conditions for planning and for its execution even if certain fictitious or real chances are given to the people to express their will.

Before attempting, however, to formulate some problems concerning the social consequences of social planning, we must consider the different kinds of collective behaviour which can be included in the category of social order which implies an interplay of decisions.

Theoretically we can distinguish three kinds of behaviour in this framework:

(1) Actors may behave independently of each other: they do not intend to influence the projects of other people, they do not intend either to help or to check them. Nevertheless, the effects of the behaviour of particular actors or groups interfere with the effects of behaviour of other actors. Independent decisions of many people to go to see a play in the theatre influence the decision of the theatre management as to further productions. Independent decisions of a number of prisoners to escape from a concentration camp influence the possibility of escaping for everyone.

(2) Another kind of interrelation consists in competition or struggle. It is with this kind that the theory of games is concerned. Here any act is a response to the acts of competitors, or is intended to influence the decisions of competitors in a certain way or to cross their plans. The resultant of competing behaviour or of a struggle may, however, be unintended and unforseen by any of the actors. The fall of the Russian, Austrian and German monarchies in the First World War may

be taken as an example.   The transformation of the Earth into a group of asteroids, if something like that should happen as an effect of a Third World War, would be another example.

(3) Co-operation is a third kind of interplay.   When we have to do with no common centre of decision any co-operating act is also a response to some acts of the others.   This is the case, e.g., when a group of volunteers co-operates without any command to put out a fire.

But durable co-operation tends to produce common patterns and common habits of action, or to bring forth a common focus of decision In the former case it approaches the first type of collective behaviour, in the latter case the third one.

In this case, however, although the collective behaviour is directed by one centre of decision, the decisions themselves are established by the interplay of opinions, as long as the organ of decision is not like the Hobbesian king endowed with an absolute power " by the common will ".   Thus in social actions planned in this way we are dealing with a mixed type of collective behaviour from the point of view of our classifications.

Competition in one respect does not exclude co-operation in another respect.   This is the situation of chess or tennis players or the situation of capitalist competitors in their relation with workers or in certain dealings in foreign trade.   Competition *in* co-operation is assumed to constitute the essence of the so-called " socialist competition ", which has played for a long time an important role in the life of the Soviet Republics.   Since it was included, however, in the central plans, it has constituted an area of *planned* competition.   It has had, therefore, a double aspect with regard to our problems.

If we take into account organized co-operation we can represent our types of social order in a diagram employing two criteria of division:

	ACTIONS CO-ORDINATED BY ONE CENTRE OF DECISION	ACTIONS UNCO-ORDINATED BY ANY ONE CENTRE
INTERPLAY OF MANY CENTRES OF THOUGHT AND DECISION	Organised co-operation: polycentric interference leading to monocentric decisions	Polycentric unco-ordinated behaviour. Free interactions in the framework of the rules of the game
NO INTERPLAY OF DECISIONS	Collective behaviour determined by decisions and command of a governing body	Collective behaviour determined by traditional patterns and conditioned reflexes. Institutional but not organizational co-operation. Mores, not decisions

III

PLANNING, CULTURE AND FREEDOM

Two kinds of social consequences of social planning

If we are interested in the consequences of social planning we must distinguish the effects brought about by the achievement of plans and the effects of the institution of planning itself: effects of the process of planning and implementing the plans. The effects of this second category depend, of course, on the type of social order connected with the planning, on the different possible systems of planning itself and on the methods of execution.

To this category of consequence belong most of the unintended effects of social planning which we spoke about in the first section of this paper. They are the most interesting for a sociologist as they are less conspicuous.

Consequences due to the attainments of the planned goals

The great possibilities of social and cultural changes brought about by social planning are connected with three main factors: (a) Planned co-ordination of social actions allows a much more effective use of means. (b) Central authorities in the system of central planning are supposed to be endowed with powerful tools, thanks to the socialization of the means of production and of other means of influence on social behaviour (means of communication, educational and cultural institutions) and/or to a substantial budget left at its disposal. (c) These resources are available for non-profitmaking activity.

Social changes on a large scale can be attempted directly or through the transformation of the economic structure of the country. As examples of direct social changes we can quote Kemal Pasha's reforms which caused such a quick transformation of the social and cultural life of modern Turkey or the large forced ethnic migrations purposefully applied by some rulers of the Assyrian and Babylonian empires and revived on a much greater scale in many areas of the world in the 20th century according to some general plans for settling complicated ethnic relations. The planned change of the social structure of the Roman Empire attempted by Diocletian's reform can also be quoted here although it was connected with essential economic restrictions.

However, speaking of the social consequences of social planning we have in mind, first of all, the consequences of the planned economy of countries subject to thorough social planning. The extent and the spread of industrialization and urbanization of the economically backward countries of Eastern Europe by their own forces would be unthinkable without central planning, and tremendous social changes have been involved in this economic development: changes in class

structure, changes in social mobility, in occupational composition of the population, in family life, in social cohesion. Many social consequences have followed planned concentration of certain economic functions in particular regions of the country.

We can easily point out some examples of social changes carried on deliberately by the execution of economic plans in the countries of free enterprise too. Social changes among the population of several states were undoubtedly intended by the Tennessee Valley Act of May 18th, 1933. The social character of that economic endeavour was emphasized, as it seems to me, by the article of the act which required that " all members of the board should be persons who profess a belief in the feasibility and wisdom of this Act ". Much less respectable endeavours of social change brought about by economic reforms are provided for us by the plans of the Indian Bureau in the United States at the end of last century, especially those which brought about the allotment acts (1887-1899), which were intended to break down the tribal cohesion of the Indians by forcing them to pass from their traditional collectivism to the private property system.

The problems arising from the social consequences of the economic achievements of central planning in the Soviet Union and in the postwar People's Republics are very complicated since central planning has included at the same time the cultural development of each country and, above all, the whole educational system. Besides, we face here the question: what is due to industrialization, urbanization and the introduction of modern techniques of production and communication, i.e., to the factors which influence the social life in the capitalist as well as in the socialist countries, and what is due to the social and political reforms which preceded or accompanied the economic transformation of the countries about which we are speaking. This would be a topic for a number of special concrete studies in particular areas.

Such investigations would provide material for an etiological explanation of some kinds of social change, especially if they were compared with analogous studies carried on in countries of another social and political system. At the same time, such studies would provide, perhaps, data for the general sociological or psychological problem of the adaptation of people to the rapid transformation of the economic and social structure of their country attempted by central planning authorities.

We are living in a world which seems to be one of extremely discordant scales. In some respects our behaviour and experience has not exceeded the scale of a walking man, the scale of life of our paleolithic forefathers. In some other respects we participate in processes peculiar to the atomic era. The speed of production or of communication has increased I don't know how many times during the life time

of my generation. Yet the process of pregnancy has not been accelerated. Nor has the speed of esthetic experience, or at any rate, the speed of some esthetic experience. The appeal of a modern poet to adapt the speed of our thinking to the speed of a jet-propelled airplane would have, probably, disastrous consequences for the development of thought if it were taken seriously.

Central planning reduces the extent of spontaneous changes in favour of deliberately planned ones: planned by people who often do not participate in them. It increases the speed of the transformation of attitudes and habits even in the fields which have not been directly affected by the development of modern technology. And we can investigate among the social consequences of central planning phenomena of maladjustment similar to those brought about by a sudden forcible introduction of a new civilization in non-European areas.

Ways of implementing social plans

We have distinguished two kinds of social consequences of social planning. The second category consists in the various kinds of collective behaviour connected with the methods of carrying out the plans as well as in the mental and emotional responses of the people to the existence of the institution of social planning itself. The methods of implementing social plans and the methods of ensuring that they are executed depend on the type of social order connected with the system of planning.

The most simple manner of carrying out social plans can be observed when the executive body is endowed with the power to direct the activity of the people by command. A much more complicated way is to fulfill the plans by influencing people's free decisions. In practice both methods are included in any social planning on a large scale, and particular social systems differ, in this respect only in the proportions in which command and various methods of influence are used—if we do not take into account an army of the old Prussian type or a modern concentration camp.

In a socialist country the executive body has at its disposal the nationalized means of production, a large part of the land, means of communication, banks, schools, hospitals, theatres, concert halls, radio, and a large part of the dwelling houses in towns; moreover, most of the urban working population is directly dependent on state authorities through their wages and salaries. Nevertheless, social planning in such a country also concerns free actions of the people and the use of private property by the free decisions of the owners. It takes into account the productive activity of millions of peasant farms and of private handicrafts in the towns. And one of the tasks of the planning body is to create inducements which will incline people to dispose of their

property and energy and to act in such a way that the plan can be carried out.

I have already spoken about the rise of wages in the mining industry in Poland at the end of 1956 as a means of increasing the number of people willing to work in mines.   This was not the only inducement applied by the new government.   Gomulka appealed at the same time to the civic feelings of the population—a method which has seemed to be effective in the period of enthusiasm following October 1956.   And at the same time the government tried to elevate the social position of the miner, to arouse his sense of dignity so as to make this hard vocation more attractive.

On the other hand, the government in the most representative capitalist country now has at its disposal an enormous budget and a well organized bureaucratic system which gives it a rather large degree of direct control over the behaviour of people.   Moreover, this degree of control is enlarged usually by the support of some powerful private trusts.   The disposal of an efficient mechanism of power can affect the interplay of " free decisions " to such an extent that it becomes rather a sham interplay.   The method of influence can then approach the method of direct command, both in the socialist and in the capitalist countries.

Robert Lynd depicted the American society in 1939 as the free interplay of an elephant and chickens dancing in the same courtyard.   The metaphor was not quite exact: there is more than one elephant in the American courtyard.   There are individual elephants and collective ones.   Beyond the " interplay " of an elephant and chickens there is a game of elephants too.   In a strictly monocentric order, where there is only one elephant among the chickens the interplay of decision does not matter very much, indeed.   Especially if the central power is endowed with a monopoly of information and with the control of all important social bonds.

Nevertheless, as we have already said, both ways of carrying out plans can coincide, of course, in a monocentric social order.   The same central power may make use of the means of direct coercion and apply other means of influence.   Or it may rule one segment of society by command and affect the behaviour of the other part by economic pressure and by means of propaganda.

An evaluation of the system of command supported by the means of coercion as a way to the fulfilment of social plans depends on the type of person it is intended to create.   It may be considered an evil, a necessary evil in certain conditions, or a desirable opportunity to train people in obedience, as has been explicitly stated sometimes by the admirers of militarized society.

In Nazi Germany, according to the Party policies, the whole nation had to be transformed into a kind of organization trained in obedience

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and ruled by command, and each citizen was to be subdued under the control of a party cell or of an individual party member.

In the socialist countries, where the sphere of central planning has been much larger, the ideological situation has been complicated because of the old democratic, liberal and even to some extent anarchist heritage of the communist movement. Lenin's *State and Revolution*, where this heritage is most conspicuous, did not lose its respectable place among the classical works of the communist literature even in the years 1948—1953 although it was rarely quoted.

The relation between the system of command and other kinds of influence has differed in these countries in different periods. The extent of the monopoly of value judgements as an attribute of the supreme authority, of the supreme centre of decision, has been changing too.[6]

Consequences due to the system of implementing social plans

The monocentric social order characterised by the system of command supported by the means of coercion, conspicuous or concealed, provides, as we have already said, the simplest way for the execution of social plans. Before the socialist régime came into being in Eastern Europe and in Asia, the European colonial capitalist states, which at home respected the most liberal principles of *laissez faire* policy had no objection to carrying out their economic plans by means of coercion and monopolistic decisions in their overseas colonies, where there was no need to take into account the wishes of the native population.

The military patterns of social order may be especially tempting in a society where methods of co-operation are less developed and where people are faced with the demand for great effort and strain for the achievement of urgent goals.

It is not only the question of efficiency but also that of justification of the plans which is involved here. We always have to deal in social life with the conflict of different incommensurable values: we have to choose between them, we have to compensate some values from one scale by some from another scale. As there is no common measure in different categories of values, a decision must be based on some ideological suppositions or on an individual estimation. There is no objective criterion by which to decide how many pairs of boots constitute the equivalent of a concert in a symphony hall or whether the manuscript of a novel is worth more or less than a motorcar or a cannon. We can, of course, construct an appropriate numerical scale of indicators like a scale of degree of intelligence or of social distance, applied by the social psychologists, but this does not resolve the question, as the choice of the scale of indicators must be made arbitrarily.

In a free market society the conflict of individual scales of value brings about a common scale of prices which can serve as an objective scale of comparison and which provokes the illusion that it represents an " objective scale of utility ".   But in a central planning system there is no other means of establishing a scale of incomparable values than by arbitrary decision.   This is the case, e.g., in the application of the principle: " To everyone according to his merits " when merits are not measured by free market prices.   There would be no concensus as to the scale of different merits if there were no monopoly of authoritative estimation.

In these circumstances the *Roma locuta* system releases the planning body from the trouble of dealing with the conflict of different opinions and provides the supreme justification of the plans.   Whence the tendency towards the monopoly of value judgements in the monocentric social order.

There is no place in this paper to discuss the consequences of different systems of social planning and carrying out the plans through different kinds of collective behaviour.   I hope, it will be a topic for some sociological discussions in the future.   As for the monocentric system of command about which we have spoken, its influence on the character of social relations and on the emotional and mental attitudes of people are not unfamiliar to those who are interested both in the problems of social planning and in the problems of freedom.   Continuous growth of the system of control is related to a continuous reduction in social relations based on confidence, and sometimes a kind of game between the controller and the controlled takes the place of the game of free competition in a capitalist society.   The practice of waiting for an authoritative decision to come from above leads to the decay of a willingness to think for oneself and most often—with the exception of certain types of " good soldiers "—withers the feeling of personal responsibility.   Among those who remain internally obedient, the fidelity to leadership takes the place of fidelity to the cause.   It is one of the traits of the " authoritarian personality ".[7]   The atmosphere of coercion incites the growth of fictions which disguise the reality, the fiction of participation of the people in decision making, fiction of voluntary behaviour and, sometimes, fiction of full accomplishment of the plans as well.   One can observe the change in the semantic functions of words in such an atmosphere: they sometimes lose their truth-and-falsehood function—like the words spoken on the stage or like ritualized formulas.

We shall not dwell on these psychological phenomena.   They have often been the subject of rather loose sociological observations and more or less literary descriptions, and I do not dispose, as yet, of the results of any systematic investigations of them.   Sometimes they have been recklessly considered to be inherent in any social planning and

have veiled some other of its influences which, I think, would be appreciated as positive ones by most of us: the tendency to estimate social institutions and their effects from the point of view of social welfare and not of personal gain and the tendency to look for another type of security than that which is related to the private insurance.

Some problems of planning in the field of cultural values

Before we approach the conclusion of this paper, I should like to call attention to some special questions concerning social planning in a field where spontaneous activity has been usually considered, at least since the time of Schiller and Beethoven, to be the most precious and most promising type of activity.

According to some views, the aim of social planning is to adapt the planned activity to social needs and, as social needs change, to forecast future social needs. Charles Bettelheim in his work *Problemes theoriques et pratiques de la planification* writes: " On peut dire que le but de tout plan économique est, en définitive, de réaliser *une adaptation de la production . . . aux besoins sociaux* ou, plus largement et plus fréquemment, à la demande ".[8]

Such a notion of central planning can be considered as an attempt to reconcile a rational method of planification with the *laissez faire* system of selection of goods. But social plans can reach farther out and the relation between planning and prediction may be another one. The planners are generally more ambitious. Instead of simply guessing the future needs of the people they attempt to plan a development of these needs and try to shape new needs and new tastes.[9] We are here in the field of the cultural policy of social planning with all its lures and dangers, connected with the dissociation of the watchwords: " for the people " and " by the people ".

Social planning, especially in the field of the so-called cultural goods, i.e. books, works of art, scientific research, and musical, theatrical, film and radio performances, can be a powerful agent in the development of culture as much by inducing and influencing scientific and artistic creativeness as by determining, in some way, the means of mass education and the extent of its cultural experience. According to the style and method of social planning, the atmosphere of cultural life may be an atmosphere of rigid uniformity or one of variety and creative freedom.

Social planning, in this respect, is concerned with two objectives: (a) selection of cultural values or, practically speaking, selection of the goods which have to be produced, (b) regulation of accessibility to them on a mass scale.

In a society approaching the ideal type of *laissez faire* society, both questions would be solved by the free market activity: market prices

would regulate the accessibility to these goods and selection would be effected by demand on the market.   In a planned economy the automatic selection of the market is replaced by a purposive selection brought about by a conscious support given to certain kinds of works and certain types of activity.   Accessibility to the cultural goods is dealt with by regulation of prices, determined neither by the cost of production nor by supply and demand relations.   Regulation of prices, not only prices of " cultural goods ", affects the types of budget of the people and the type of budget is related to the style of life.

Poland is a devastated and poor country but people buy many more good books, both scientific and literary, than before the war.   If my information is accurate there are many times more volumes of poetry sold *per capita* in Poland than in the United States.   The translation of Hemingway's *For Whom the Bell Tolls*, published in Warsaw in 1958 in 30,000 copies, was out of print within a few days.   The Tatra mountains, the sea shore, the cities of historical and artistic interest have been made available to the people who before the war could not afford to participate in touristic activity although they probably had better shoes and clothes than now.   Theatres and concert halls have ceased to be a domain of well-to-do people.

Since there is now no society which would closely approach the ideal type of *laissez faire* capitalist society neither of the two forms of conscious and planned activity affecting the cultural life of a country is confined to the socialist societies.

In the countries where economic life is, as a rule, determined by market conditions, there are institutions promoting art and science and carrying on a non-profitmaking activity which enables works that do not pay to appear.   There are state funds destined for that purpose and there are private foundations.   In America some millionaires, who acquired money in accordance with the rules of the market, afterwards created with that money institutions which were to interfere with the market conditions and were to affect cultural life in a planned way, according to some postulate of a cultural policy.   We remember also some of Roosevelt's measures designed to counteract the economic pressure in art and science in a profit-oriented society and to promote some nonconformist talents.

But in a polycentric society we deal with the conflict between cultural policies of different centres and with the conflict between their planned activity and the market conditions.   In a society where an overwhelming majority of scientific, artistic and editorial institutions are state institutions or institutions directly supported by the state, and where even those which are not state-supported are dependent on state allotments of paper and other matters necessary for their tasks, planning in the field of culture may immensely affect its spread and content in manifold

ways and open quite new possibilities for its development. And at the same time we face here all the dangers of centralization.

If selection of the forms and content of artistic and scientific activity has to be carried on through conscious planning according to some scale of values, superior to that which governs market selection, a fundamental question arises which was already pointed out above: Who is the judge of values? And if we agree that there are some reliable experts for some kinds of values and if their opinions are granted by the planning body, who should compare the values which have no common measure? Whose subjective hierarchy of values should decide? Who would select the people who have to be maintained by society for creative work? Whose tastes are to have the privilege of shaping the mass culture? And then a number of practical questions follows: How to avoid one-sidedness and uniformity? How to guarantee the interplay of different tendencies and patterns? How to keep the way open for new values, perhaps of vital importance, which do not fit the prevailing patterns and are not in harmony with the modes of thinking of the planning body? And how to counteract the pressure of changing political interests in planning the production and expansion of goods which are thought to have a durable value? There is always reason to worry that even the most authoritative words about the hundred flowers which ought to bloom are likely to get lost in oblivion in the course of political troubles.

We had a very depressing experience with the effects of state control in art and science in my country before 1956, although even in that period the degree of tolerance was greater in Poland than one might expect, and nonconformists, if hampered in their public activity, were not deprived of the possibility of continuing their work privately.

We know that state control can bring about degradation and standardization of art, banishment of nonconformist works in some fields of science, especially in the humanities, suppression of trends which seem to the representatives of the state to be harmful or unnecessary. We know that the same nonconformist currents can be condemned in one country as " Kulturbolschevismus ", and in another as capitalist or imperialist degeneration of art.

But although conscious of all the possible ill-effects of central planning in the domain of culture, we are also aware of the detrimental effects of the commercialization of culture. We know that the pressure of the principle of maximum profit in the production of newspapers, films and popular books can have no less harmful educational effects than political pressure. We prefer radio programmes not interrupted by advertisements and we are glad that our cheap book editions do not need to appeal to the most vulgar tastes in their appearance.

And therefore we should like to avoid the alternative: central planning with state control—or commercialization of culture.   Culture, however, cannot be isolated from the effects of planning in the domains which are not included in the conventional denotation of " cultural goods ".   And therefore the sociologist is challenged in this regard with tasks of a broader scope.

In a book which I have quoted previously, Charles Bettelheim expresses his view that by social planning human freedom can be substituted for economic necessity.[10]   The problem is: how to get liberation from economic necessity without losing individual freedom and initiative and how to preserve in a planned society the charm of spontaneity and a place for unplanned events of unforseen value.   We have to look for some new methods of polycentric co-operation on the largest scale.

Of course, any theoretical solution may be frustrated.   We must not forget that centralization of the means of coercion preceded in the history of the modern state any socialization of the means of production. Those who govern in a world of tensions are generally more interested in planning for power than in planning for welfare.

The possibility of the influence of intellectuals in this respect is, however, not to be underestimated.   Its degree, I think, is related inversely to the frequency of instances of the " *trahison des clercs* " in a narrower sense than in Benda's book: I mean instances where the prestige of people due to the popular belief that they are devoted to the truth and to goals valid for all humanity becomes the subject of bargaining for security, for gain, for rank.   It is related directly to the extent of the solidarity of the people linked by their vocation to science and to cultural values, solidarity above all national frontiers and political curtains.

NOTES

[1] On this occasion, the mountain dwellers won a victory over rational planning: they were not moved.

[2] R. Linton (ed.): *Acculturation in Seven American Indian Tribes*.   New York, 1940, p. 507.

[3] M. J. Bowman and G. L. Bach: *Economic Analysis and Public Policy*, New York, Prentice Hall, 1946, p. 347.

[4] Elton Mayo: *The Human Problems of an Industrial Civilization*, New York 1933, p. 179-180.   Mayo himself estimates highly this type of " non-logical social action " from the point of view of human happiness.   Cf. C. Kerr and L. H. Fisher: " Plant Society " in *Common Frontiers of the Social Sciences*, ed. by Mirra Komarowsky, Glencoe, Free Press 1957, p. 289.

[5] " Instead of the visible hand of the elite, the invisible hand of the market assures the achievement of group welfare.   Organizations, particularly economic organizations, are viewed with considerable suspicion.   This is the open society to which the Western World has been dedicated for a century and a half.   It is a society of accommodated conflict rather than universal collaboration " C. Kerr and L. H., Fisher: " Plant Sociology ", *Op. cit.*

[6] I have used in this paper the term " socialist country " in accordance with its most commonly accepted present denotation, without discussing its fitness to the heritage of ideas connected with the terms " socialism " and " communism ". I am aware that these terms are far from being unambiguous and are strongly endowed with different emotional loads. In a survey concerning social attitudes among the student population in Warsaw in the Spring of 1958, different answers were collected to the question: " Which country, in your opinion, approaches most closely your conception of socialism "? Some students pointed to the U.S.S.R. and Czechoslovakia, some others to Poland, Yugoslavia, or India, some declared that it would be rather England or Sweden and a certain number of them replied that there is no such country, as yet, in the world.

[7] Cf. T. W. Adorno and others: *The Authoritarian Personality* New York 1950.

[8] Second ed.—Paris 1951; p. 14.

[9] Such an endeavour was undertaken before the war in the socialist dwelling co-operative of Zoliborz I have spoken about. In the field of aesthetics it included, e.g., some attempts to counteract the appeal of lower middle class patterns among the workers, the same patterns which later on became prevalent in the so-called socialist realism style.

[10] " La planification, au contraire, implique que l'économie cesse d'être dominée par les lois économiques, elle implique que l'économie est désormais dominée par la volonté des hommes. En bref, elle suppose que la liberté humaine se substitue à la nécessité économique ". *Op. cit.* p. 8.

PART THREE

Developments in Sociological Methods

Methodological Problems in Empirical Social Research

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Introduction

Every sphere of life requires its own rhythm of activity and con-
templation. If we do things continuously without assessing to what
extent we are reaching our goal, our activities are likely to deteriorate
into pointless routines. On the other hand, if we spend all our time
worrying what the best possible decision might be, nothing will ever
get done. This is also true for scientific work, be it seen as individual
efforts or from the point of view of the science as a whole. Explora-
tions of the world of facts guided by intuition and curiosity have to
alternate with reflections on the procedures used and the lessons to be
learned for future moves. It has occasionally been said that creative
people do substantive research while the less competent write about
methodology. The biographies of scientists, as well as the history of
science, belie this dictum.

It is true, however, that at different times the balance between
substantive work and methodological analysis is bound to vary. Fifty
years ago the halls of social scientists resounded with methodological
discussions. Felix Kaufmann's famous book on the methods of the
social sciences, published in 1935 and reviewing the preceding three
decades, devotes two-thirds of its pages to what the author calls " the
battle of methods " (*Methodenstreit*): What is the difference between
natural and social sciences? Is sociology different from psychology?
What is the role of values in the social sciences [13]? At that time,
little empirical work was available, and so the discussion concentrated
on issues which today would be considered out-dated by most of us.
We need no longer borrow prestige from the natural sciences, for we
know that all scientific work looks for general laws as well as for the
understanding of individual phenomena, and we consider it a matter
of fact—and obviously of changing fact—that different procedural
mixtures prevail at various times. We are confident today that there
are genuine sociological problems, and whether the answers we try to
find cut across the boundaries of organized disciplines seems to us
irrelevant. We have seen atomic physicists tormented as we are by the
value problems involved in the *consequences* of their work, and we

inversely have had enough empirical sociology to see that the problem of *factual* evidence about human affairs does not involve value judgments in any reasonable sense of the term.

This earlier phase of methodological discussion was followed, especially in the United States, by a technologically-oriented empiricism which at first completely neglected its own methodological problematics. It was delightful to develop measurements, to discover interesting facts by cleverly designed surveys, to see that one could do experiments with small groups of human beings. It was in this phase that historical and economic conditions brought about a split between Western Europe and the United States. The initial European reaction was a somewhat halting one. At the German Sociological Congress of 1930, Toennies was the chairman of a section on sociography, where he presented his well-known point of view that what we would call today empirical social research has a place, but a modest one, in sociological work. The minutes of the Congress contain 20 pages of discussion around this theme. It is very difficult to predict what the European trend would have been if political oppression, the ravages of war, and the poverty of the post-war period had not interfered. The facts are that relatively little empirical work was done in Western Europe during the last 20 years, and that empirical social research now appears there as an American importation, looked at with suspicion by some and enthusiastically received by others.

This brings us to the third and present phase. In the United States the avalanche of empirical studies has led to the need for careful methodological sifting. The methodological problems, as we shall see, are quite radically different from those prevailing 20 or 30 years ago. But many of our European colleagues are not aware of this fact. They want to do empirical studies but have a feeling that these should differ from what is going on in the United States. If I see the situation correctly, what they want to differ from is not the actual situation today but the earlier naive empiricism, where intelligence was what an intelligence test measured and where a Gallup poll was the best policy guide for a democracy.

Actually European sociologists could contribute to the current American trend toward greater sophistication if they knew what their American colleagues are really concerned with and did not stress pseudo-differences. I want, therefore, to divide my paper into two parts. In the second part, beginning with section 4, I shall give some examples of the methodological problems we are concerned with now in the United States. But in the first part I would like to dwell somewhat longer on the ambivalence of our European confrères as I can glean it from the literature and from occasional personal contacts. The problems involved actually require creative discussion in terms of the realities of modern research methods rather than dogmatic controversy. On close analysis they prove much less controversial

than they first appear, but if they are not explicitly brought up, they will linger in the background of our mind and obscure the discussion. The next few pages then are devoted to an exchange of arguments between two imaginary persons.   The one is a European empiricist who would like to use techniques he finds developed in American studies, but who feels uneasy about the spirit he imputes to them.   The other is an American who tries to represent the more recent and advanced trends in his country.   The discussion, I think, would boil down to three interconnected points.

1.   *The Significance of Problems*

First, our times are beset by burning social issues, but the American sociological journals are filled with insignificant little studies about the dating patterns of college students or the popularity of radio programmes. A sociologist of knowledge would point to the peculiar laissez-faire character of American society.   Michel Crozier has studied the malcontent of workers in a French tobacco factory.   He published his main findings under the title " Toward a Sociology of Public Administration."[4]   And everyone will agree that his careful and detailed study led to important conclusions for a major problem in France because there a considerable sector of the economy is run by the government. Now, in the United States there are many studies of factory morale, and some of them are as perceptive as Crozier's fine analysis.   But these studies are controversial even among American sociologists because many suspect that the results will be used by entrepreneurs to make more money and will sometimes even lead to greater exploitation of workers.   The reason, of course, is that there are no nationalized industries in the United States.   To generalize this example: in a country where almost all managerial decisions are left to private enterprise, it is very difficult to find concrete situations, the detailed study of which would contribute to general social policy.   One feels this difficulty most clearly if one comes to a country like Poland with its unique combination of planned economy and freedom of social research.   There practically anything a sociologist touches acquires social significance. Even the study of advertising, which in the United States is undoubtedly the most controversial type of applied social research, makes in Poland a contribution to the work of the economic planning agencies.

Now the question could be raised, aren't there urgent social problems in the United States?   The answer is, of course, yes.   But they are of such complexity that empirical social research as it exists today can hardly cope with them.   The influences of big business on politics, the role of the mass media in popular culture, the existence of powerful labour unions without any ideological ties, these are only some of the big problems which plague us.   They are being analysed by the traditional impressionistic tools of the political scientist; they are being discussed by essayists who vaguely use some of the concepts developed by

sociological theorists. But these major American social issues have no clearly allocated decision centres. And therefore we lack the stimulation which comes to the European, thanks to the fact that micro-sociological research can at least in principle lead to important changes in current social policy.

Let me insert here a matter of terminology. It is not very easy to get a good term for the kind of studies I have in mind when I compare empirical research on both sides of the Atlantic Ocean. I have just alluded to the distinction between micro-and macrosociology, suggested some time ago by Professor Gurvitch. I think the word microsociology is often used as a derogatory term. But like the rebels whom the Spanish princess called beggars and who thereafter proudly called themselves " geux," I am willing to accept the term if it is used in a broad enough spirit. I will understand by microsociology studies dealing with human behaviour in contemporary situations, using quantitative methods wherever possible, and trying to systematize qualitative procedures wherever they are needed. But I will also include under this term comparative studies and efforts to submit whole organizations to quantitative research, a point incidentally to which I will return in some detail later on. Macrosociology, on the other hand, covers efforts to discover general laws which govern past or future trends of societal developments. I don't wish to deny the importance of macrosociology in this sense, but I concede that it cannot be dealt with by the research procedures I shall discuss in this paper.

It is this distinction which I had in mind when I pointed out before that it is more difficult in the United States to do empirical social research of social significance. The American sociologist, much more than the European, has to make a choice between general reflection on the probable trends of a free-wheeling society and detailed studies of specific situations which are not likely to have any immediate social impact. It is not surprising, therefore, that those Americans who are especially conscious of the social problems of the times have been the most severe critics of contemporary empirical work, as witnessed, for instance, by Lynd's book called characteristically *Knowledge for What*?[18].

Unfortunately, as so often happens in such situations, the dilemma has led to regrettable neglect of the area between the two horns. It is always easier to do another survey or a small group experiment than to develop new procedural ideas appropriate for a more complex problem. As a matter of fact careful qualitative analysis of critical situations would probably in the long run contribute to progress in research techniques. Even in the United States it is not difficult to think of such situations: a local election where a better man won out over the more efficient political machine; a local community where a new idea in school administration was victorious; a factory where

genuine worker participation in the management of the enterprise was successful. But good studies of this kind require great intellectual ability, which is rare everywhere. And most of all, the procedures adequate for such careful studies have not been well developed. Here is a gap which worries many of us. It is technically easy to make a descriptive survey of housing conditions and thereby arouse the public to want to improve them. This is important but it is not what I have in mind here. What is very difficult is to find, through empirical research, answers to the social and economic obstacles to better housing, for example. These lie in a whole complex of social values and social institutions. Few tasks could be more urgent than to develop the methodology of problem oriented research.

2. *The Historical Dimension*

Now, let us turn to the second well-taken objection against much of current American empirical research: the lack of an historical dimension. This problem really has two sides. There are a large number of topics which are by their very nature historical and these are at last beginning to be studied by historical sociologists in America. One of my colleagues at Columbia, for instance, decided that the 13 American colonies would provide an excellent opportunity to study the relation between a social plan and its actual outcome.[5] He takes the documents available from the time prior to the settlement and compares them with what is known about what social organizations developed in North America two or three decades later. It is up to the ingenuity of the historical sociologist to find situations where one can study genuine sociological problems.

The other side to the issue of non-historism is more complicated, as can be exemplified through a report given by the Austrian sociologist Rosenmayr at a recent international congress.[24] He compared the sociographic characteristics and attitudes of housewives and working women in Vienna. Dr. Rosenmayr stressed that these contemporary sociographic data could not be properly interpreted without an understanding of historical developments in family relations. Indeed, he introduced his paper with interesting remarks on the family in antiquity, the Middle Ages, etc. I was, however, unable to find any link between his historical remarks and the very interesting facts on the contemporary scene he had collected. I am not surprised about this gap because it is not easy to say whereof these connections would consist.

For another example, we can refer to a discussion among the students of Canada concerning cultural differences and economic development. There is agreement that the French Canadians in the Eastern part of the country are economically less advanced than the British sections in the Middle and Far West. It seems also true that the French Canadians hold markedly more traditionalistic values. One

group of sociologists feels that these two facts are functionally inter-related. But another group points out that a hundred years ago the situation was quite different: the French sections, like New England just across the U.S. border, were economically dominant, while the English sections like the American Middle West were in an undeveloped pioneer stage. This shift of economic dominance from one section to another is, of course, of considerable interest in itself. But I am not convinced that the historical dimension greatly clarifies the equally interesting problem of contemporary interrelations between values and economic growth.

The implications of this brief argument are two-fold. For one, it should show our European colleagues that increasing attention is being paid in the United States to historical research within a sociological framework. But if one is interested in contemporary material, with emphasis on microsociological relations, then the role of historical data pertinent to the specific situation of the study presents in itself a yet unsettled methodological problem. It very much deserves thought and work, but the problem is not solved just by adding some historical information or pointing out that the microsociologists usually don't provide it.

3. *The Problem of Depth in Conceptualization*

The problem of significance is one of choice, and it is hard to see how one can give any general prescription. The problem of the historical dimension has a slight element of piety. Everyone is against sin and for virtue; but I have not found one European example where the proponents of virtue have succeeded in adding depth to contemporary social research by historical information. When it comes to the third point, depth of interpretation, I am on the side of the imaginary European partner of the debate, but even here I feel that much work still has to be done before the issue is clarified. I may be permitted to develop the idea through a personal reminiscence.

In the 1920's, when I was still in Austria, I was especially interested in psychological differences between working class and middle class adolescents. It was a time when the Scandinavian biologist Uexkull had developed the notion of cognitive biological space. He drew pictures as to how the same objective street scene would appear on the retina of a dog, a horse, and other species. It is from his work that many of us derived the notion of psychological space. Most of the then available data on adolescents could be interpreted through such a term: the psychological space of the working class adolescent was narrower than that of his middle class age peer. He not only had less opportunities objectively; he didn't even see all of those he had. Using in retrospect a term which Kurt Lewin developed a few years later, the depressed objective situation in which a working class adolescent grew

up kept his level of aspiration low and so perpetuated his socio-economic difficulties.

A few years later we studied in Austria the effect of long-lasting unemployment. We were able to show that it didn't revolutionize the unemployed, but rather had a paralyzing effect, restricting still further the psychological space of the working man. The word " space " could almost be applied literally. The unemployed still successfully took care of their immediate environment and their small children. But they abandoned their activities in the larger village community, had no control over their older children, and lost all interest in public affairs. The term " level of aspiration " would be too specific to summarize all these findings. We needed a word which included the three classical units of cognition, volition and emotion. A German term which would literally be translated as " psychological reach " (*Reichweite*) seemed appropriate. (When I migrated to the U.S.A. during the Great Depression, many data on American unemployed fitted this picture. As a matter of fact, the phenomenon itself seemed well recognized by social work practitioners. In this context it came to be known as apathy. To avoid it, the Relief Administration concentrated on work relief and not on the European policy of a dole).

Later I turned to studies of leadership. In American communities we found two types of leaders, which my colleague Merton called locals and cosmopolitans. The latter brought, so to say, the ideas of the outside world into the community in which they were influential. The former mainly concentrated on local problems and issues. In the meantime American sociologists became increasingly interested in the study of organizations. It was noticed that professionals working for large bureaucracies in business or government were of two types. Some found their reference groups among their professional peers all over the country; for others the specific organizations for which they worked were more important.[23] This is, of course, again the distinction between cosmopolitans and locals. But it also reflects a variation on " *Reichweite* " mentioned before.

In the course of studying social scientists teaching at American colleges, the distinction became relevant again.[16] These professors could be ranked along a series of dimensions which were very highly correlated. Teachers who were more liberal in their political point of view were also more interested in a broader range of scientific topics, more likely to combine teaching with consultation for business and government, more active in their professional organizations, and so on. In other words, they were more cosmopolitan, they had a higher level of aspiration and moved in a broader psychological space. In order to stress the generality of the phenomenon I proposed that one should characterize people according to the *effective scope* of the world in which they lived.

A notion like " effective scope " is less than a theory, but more than a label for just one or two measurements. It is difficult to say clearly what is done by subsuming a large number of data under one inter- pretative or if you please phenomenological concept. Other examples are possible. John Dollard listed all the mistaken opinions Southern whites in the U.S. have about Negroes and created the notion of " defensive beliefs," prejudices with the implicit function of justifying discrimination. The concept goes beyond the data—it partly explains them and partly points to further research, raising for instance the questions whether one could predict the defensive beliefs which would develop between various groups under specified social circumstances. I carefully watch European empirical studies to learn whether their authors have developed or preserved a special sensitivity to such formulation. The group around Georges Friedmann provided me with a good example.[7] In classifying leisure-time activities they distinguished those which are really freely chosen from those which still reflected coercion—deriving not now from the work world but from social or familial obligation. This distinction again has considerable practical implications; it raises the question, for instance, of how much the decrease of the working week will really increase the realm of individual freedom. I wish I could bring out better why this impressed me. But in any case I feel that American empiricists have a tendency to leave their findings relatively unconnected and that on this point the European criticism is justified. The classic example of the con- ceptualization of empirical data is of course Durkheim's extension of variations in suicide rates into the concept of social integration. Let me only add one warning: the solution of the problem of lack of depth of interpretation is not to spin out concepts without ever seeing whether they have any empirical counterpart. Something like a combination of a conventional American test builder and a spiritual descendant of, say, Max Scheler, is called for. So here the controversy, if I see it correctly, points again to the need for methodological clarification.

So much for the general atmosphere within which methodological discussions are likely to proceed at an international conference. For the rest of my paper I want to be more specific. I will presume that the non-American members know in general the type of empirical research work going on in the United States and are therefore willing to examine some of the principles along which we are trying to organize its operation.

4. *The Nature of Modern Methodology*

The sociologist is supposed to convert the vast and ever-shifting web of social relations into an understandable system of knowledge. To discover and appraise the way in which this is being done is the object of methodological analysis. Sociologists study man in society; methodologists study the sociologist at work. In the world of the natural sciences this is a major activity which at certain turning points,

for instance, the years preceding Einstein's theory of relativity, has had a major influence on the course of science itself. For comparison's sake it is worthwhile to recall for a moment what is usually done by the philosophers of science. Their activities centre around the notion of *explication*. Hempel, a leading German representative of this group who now works in the United States, has described this idea as follows:

> Explication aims at reducing the limitations, ambiguities, and inconsistencies of ordinary usage of language by propounding a reinterpretation intended *to enhance the clarity and precision of their meanings* as well as their ability to function in the processes and theories with explanatory and predictive force.[11]

When we transfer terms like " personality " or " law " or " cause " from everyday language into scientific usage, we must always make decisions for which we ourselves take the responsibility. We give up certain connotations of these terms in order to make the remainder more precise and more easily amenable to verification and proof. In this sense, as Hempel points out, an explication cannot be qualified simply as true or false; but it may be judged as more or less adequate according to the extent to which it attains its objectives.

Social scientists who are interested in methodology can easily find occasion for such explication, applied both to the older speculative writings on social phenomena and to bodies of contemporary empirical studies. It is instructive to examine the work of a classical writer, say, in the field of public opinion research, and to see how his statements might be translated into the language of modern research procedures.[14] It will be found, on the one hand, that such writings contain a great richness of ideas which could profitably be infused into current empirical work; on the other hand, it will be found that such a writer tolerates great ambiguity of expression. By proper explication, we can bring out the more precise meanings which might be imputed to him. As social scientists we would be especially interested to see which of his statements permit verification. The task of such explication is not to criticize the work, but rather to bridge a gap, in this case between an older humanistic tradition and a newer one which is more empirically oriented. Our French colleagues will recognize that this is an application of " *explication des textes* " to sociological writings and to empirical social research.

As a matter of fact, the need for such explication is particularly urgent in the social sciences. When the natural scientist makes a discovery, it usually turns out to be so different from everyday experiences that the very nature of the phenomenon forces him to develop precise and sharp terminology; the extreme example of this, of course, is mathematics. But in speaking about human affairs we are accustomed to common sense, to everyday language, and we cannot avoid transferring these colloquialisms to the classroom and to the debating halls

where we discuss social matters. Everyday language is notoriously vague, however, and therefore clarification and purification of discourse are very important for the social scientist. We must make deliberate efforts toward semantic analysis.

Another and related line of intellectual activity has been called the " *critique of theory.*" The word critique has been taken over from German philosophy, and can be easily misunderstood. When Kant wrote his *Critique of Pure Reason*, he obviously did not mean to be critical of rational thinking; by " critique " he meant an analysis of the conditions under which such thinking is possible. The same meaning is found also in the field of literary and artistic criticism; here, too, the idea is not that the critic necessarily disapproves of a piece of art, but that he analyzes its structure. In the same way, criticism of theoretical systems implies only that their foundations and tacit assumptions are clearly brought to light.

The main American representative of critical analysis is Bridgman, and a short essay of his provides what is perhaps the best introduction to critiques of this kind. In his introductory statement, Bridgman puts the task quite clearly:

> The attempt to understand why it is that certain types of theory work and others do not is *the concern of the physicist as critic, as contrasted with the physicist as theorist.* The material for the physicist as critic is the body of physical theory, just as the material of the physicist as theorist is the body of empirical knowledge.[3]

The distinction between " theory " and " critique " is important. The critic deals with empirical material—but once removed. By bringing out clearly what the theorist (or analyst) does with his primary data he contributes in his way to the progress of research. In the introduction and conclusion of his essay, Bridgman brings to the American reader an understanding of the general intellectual influences which emanated, at the turn of the century, from writers like Poincaré in France and Mach in Germany. If one were to write the intellectual history of the generation of European students who grew up during the first decades of the twentieth century, one would probably rank this kind of critique, along with psycho-analysis and Marxism, as the main intellectual influences which shaped the climate of thinking in the period.

It is interesting that Bridgman places great emphasis on the educational value of such critiques. He points out that the difficulty of assimilating the creative ideas of others has been greatly underrated in modern education. And he feels that if more stress were put on the development of critical faculties, the creativeness and inventiveness of the young natural scientist would be considerably enhanced.

There is some good reason to talk of methodology rather than philosophy of science in our field. From the quotation I have just given, it can be seen that in the natural sciences the emphasis is on the explication of theories. We do not yet have really developed theories in our field. What is called social theory are either systems of concepts, as exemplified by the work of von Wiese or of Parsons, or they are directives pointing out the aspects of social phenomena to which we should pay special attention, an intellectual activity best exemplified by Merton's explication of functional analysis.[21] Rather than talking about a " philosophy of the social sciences," I prefer to talk about its methodology, a term which is more modest and which corresponds better to the present state of affairs. It implies that concrete studies are being scrutinized as to the procedures they use, the underlying assumptions they make, the modes of explanation they consider as satisfactory. Methodological analysis in this sense provides the elements from which a future philosophy of the social sciences may be built. If my linguistic feeling is adequate, the term should convey a sense of tentativeness; the methodologist codifies ongoing research practices to bring out what is consistent about them and deserves to be taken into account the next time.

Methodology and the related activities of explication and critical analysis have developed as a bent of mind rather than as a system of organized principles and procedures. The methodologist is a scholar who is above all *analytical* in his approach to his subject matter, whether his own or other people's research work. He tells other scholars what they have done, or might do, rather than what they should do. He tells them what order of finding has emerged from their research, not what kind of result is or is not preferable. This kind of analytical interest requires self-awareness, on the one hand, and tolerance, on the other. The methodologist knows that the same goal can be reached by alternative roads, and he realizes that instruments should be adapted to their function, and not be uselessly sharp.

A reminder is perhaps needed on the ways in which methodology is *not* defined here. For example, it is probably less rigorous than formal logic; on the other hand, it has less substantive content and is more formal than what has been called the psychology or sociology of knowledge. Likewise, the methodologist is not a technical advisor; he does not tell research workers the specific procedures of sampling or measuring which they should follow in the conduct of an investigation. Neither is it his task to indicate what problems should be selected for study. But once the topic for investigation has been chosen, he might suggest the general types of procedures which, in the light of the stated objectives, seem more appropriate. I want to give you two examples of the kind of methodological efforts which I think has proved clarifying, and as I proceed I shall simultaneously bring out the points which still need further elucidation.

5. *The Flow from Concepts to Measurement Procedures*

My first example deals with the relation between concepts and their representation by empirical research operations. I shall restrict myself to classificatory concepts like the cohesion of a group or the ambition of a person which are essentially developed in order to classify groups and people by their degree of cohesion or ambition, respectively. The attribution of such properties is interchangeably called description, classification, or measurement. The ultimate purpose is to develop propositions to the effect, for instance, that cohesive groups of workers are more productive or that ambitious persons are more likely to lack warm human relations with other people. We will call the indices or tests by which such classifications are achieved " variates;" it is a term which reminds one properly of the better-known mathematical term of a variable, but includes ranking and other qualitative attributions. The process by which concepts are translated into variates, as they are used in empirical study, consists in general of four steps: an initial imagery of the concept, the specification of dimensions, the selection of observable indicators, and the combination of indicators into indices.

(a) *Imagery.* The flow of thought and analysis which ends up with a measuring instrument usually begins with something which might be called imagery. Out of the analyst's immersion in all the detail of a theoretical problem, he creates a rather vague image or construct. The creative act may begin with the perception of many disparate phenomena as having some underlying characteristic in common. Or the investigator may have observed certain regularities and is trying to account for them. In any case, the concept, when first created, is some vaguely conceived entity that makes the observed relations meaningful.

Suppose we want to study industrial firms. We naturally want to measure the management of the firm. What do we mean by management? The notion probably arose when someone noticed that, under the same conditions, a factory is sometimes well run and sometimes not well run. Something was being done to make men and materials more productive. This " something " was called management, and ever since students of industrial organization have tried to make this notion more concrete and precise. The same process takes place in other fields. By now the development of intelligence tests has become a large industry. But the beginning of the idea of intelligence was that, if you watch little boys, some strike you as being alert and interesting and others as dull and uninteresting. This kind of originating observation starts the wheels rolling for a measurement problem.

(b) *Concept specification.* The next step is to take this original imagery and divide it into components. The concept is specified by an elaborate discussion of the phenomena out of which it emerged. We develop " aspects," " components," " dimensions," or similar

specifications. They are sometimes derived logically from the over-all concept, or one aspect is deduced from another, or from empirically observed correlations. The concept is shown to consist of a complex combination of phenomena, rather than a simple and directly observable item.

Suppose you want to know if a production team is efficient. You have a beginning notion of efficiency. Somebody comes and says, " What do you really mean? Who are more efficient—those who work quickly and make a lot of mistakes, so that you have many rejections, or those who work slowly but make very few rejects?" You might answer, depending on the product, " Come to think of it, I really mean those who work slowly and make few mistakes." But do you want them to work so slowly that there are no rejects in ten years? That would not be good either. In the end you divide the notion of efficiency into components such as speed, precision, continuity, etc., and suddenly you have what measurement theory calls a set of dimensions.

(c) *Selection of indicators.* After we have decided on these dimensions, there comes the third step: finding indicators for the dimensions. Here we run into a number of problems. First of all, how does one " think up " indicators? The problem is an old one.

William James has written in *The Meaning of Truth:*

> . . . Suppose, e.g., that we say a man is prudent. Concretely, that means that he takes out insurance, hedges in betting, looks before he leaps . . . As a constant habit in him, a permanent tone of character, it is convenient to call him prudent in abstraction from any one of his acts . . . There are peculiarities in his psychophysical system that make him act prudently . . .

Here James proceeds from an image to a series of indicators suggested directly by common experience. Today we would be rather more specific about the relation of these indicators to the underlying quality. We would not expect a prudent man always to hedge in betting, or to take out insurance on all possible risks; instead we would talk about the probability that he will perform any specific act as compared with a less prudent individual. And we would know that the indicators might vary considerably, depending on the social setting of the individual. Among students in a Protestant denominational college, for instance, we might find little betting and rare occasions for taking out insurance. Still a measure of prudence could be devised which was relevant to the setting. We might use as indicators whether a student always makes a note before he lends a book, whether he never leaves his dormitory room unlocked, etc.

The fact that each indicator does not have an absolute but only a probabilistic relation to our underlying concept requires us to consider a great many possible indicators. The case of intelligence tests furnishes

an example. First intelligence is divided into dimensions of manual intelligence, verbal intelligence, imaginativeness and so on. But even then there is not just one indicator by which imaginativeness can be measured. We must use many indicators to get at it.

There is hardly any observation which has not at one time or another been used as an indicator of something we want to measure. We use a man's salary as one indicator of his ability; but we do not rely on it exclusively, or we would have to consider most businessmen more able than even top-ranking university professors. We take the number of patients a doctor has cured as another indicator of ability in that setting; but we know that a good surgeon is more likely to lose a patient than a good dermatologist. We take the number of books in a public library as an indicator of the cultural level of the community; but we know that quality of books matters as much as quantity.

(d) *Formation of indices.* The fourth step is to put Humpty Dumpty together again. After the efficiency of a team or intelligence of a boy has been divided into six dimensions, and ten indicators have been selected for each dimension, we have to put them all together, because we cannot operate with all those dimensions and indicators separately.

For some situations we have to make one over-all index out of them. If I have six students and only one fellowship to give, then I must make an over-all rating of the six. To do this I must in some way combine all the information I have about each student into an index. At another time we must be more interested in how each of several dimensions is related to outside variables. But, even so, we must find a way of combining the indicators, since by their nature the indicators are many, and their relations to outside variables are usually both weaker and more unstable than the underlying characteristic which we would like to measure.

To put it in more formal language, each individual indicator has only a probabilistic relation to what we really want to know. A man might maintain his basic position, but by chance shift on an individual indicator; or he might change his basic position, but by chance remain stable on a specific indicator. But if we have many such indicators in an index, it is highly unlikely that a large number of them will all change in one direction by chance, when the man we are studying has in fact not changed his basic position.

To put the matter in another way, we need a lot of probings if we want to know what a man can really do or where he really stands. This, however, creates great difficulties in the fourth step of the measurement sequence which we described above. If we have many indicators and not all of them move in the same direction, how do we put them together in one index? Only recently have we raised the question: can we develop a theory to put a variety of indicators to-

gether? The subject is a large one, and it is impossible to go into details here. The aim always is to study how these indicators are interrelated with each other, and to derive from these interrelations some general mathematical ideas of what one might call the power of one indicator, as compared with another, to contribute to the specific measurement one wants to make. In the formation of indices of broad social and psychological concepts, we typically select a relatively small number of items from a large number of possible ones suggested by the concept and its attendant imagery. Louis Guttman speaks aptly of a universe of possible indicators and a sample of them which is actually used.[10]

6. *Some Unsolved Problems in the Relation of Concepts and Indices*

What are some of the problems involved in this flow from concepts to index formation? To begin with it is not easy to be precise in the distinction between classificatory and other types of concepts. A definition of the concept of " role " or " frame of reference " probably cannot be subsumed under the explication just proposed. They are of a more abstract nature, preceding any incorporation into an empirical proposition. Nevertheless, some explication is needed and possible.

Until quite recently, for instance, role behaviour was defined as the expectation society has in regard to the occupants of certain positions. But when it came to studying empirically what kind of expectation " society " has about the role of, say, a school superintendent, it turned out that one had to distinguish between very different members of what came to be called the role set.[20] The member of the school board had expectations about the school superintendent which were different from those of the teachers.[9] Not only is the role player, here the school superintendent, forced to find a compromise between these different expectations, but the various members of the role set have to work out their relations to each other.

A frame of reference was usually defined as those social and biographical experiences which affect the way a person perceives or judges a specific situation. When empirical studies on frames of reference were made, it turned out that the concept really covered two quite different meanings. Sometimes it referred to the fact that a single object was perceived differently according to what comparisons were implicitly made: the same sum of money is a lot for a poor man and little for a rich man. This is the notion of an anchorage point on a single dimension. But in other contexts a frame of reference meant the choice of one dimension among several. A forest is a multi-dimensional object characterized by its colours as well as by the animals who live in it. But the painter uses only the one and the hunter the other dimension.

These, however, are rather random examples. The relation of non-classificatory concepts to empirical data is by no means clear. As a

matter of fact the problem itself is not easily formulated, as we shall see when we later come to talk about the notion of structure.

The next difficulty comes at the second phase, when we specify the dimensions of a concept. When do we want to deal with a rather complex notion as a whole, and when do we want to divide it into separate variates? Durkheim's concept of cohesion, for instance, contains at least two dimensions; one has to do with frequency and closeness of contact between people, the other with agreement among their values. We could either look at contacts and value integration as two sets of indicators for the same concept; or we could propose that two different notions, say, social cohesion and value cohesion, should be distinguished. Again, no general ideas have been developed to guide one on this point, or to explicate the consequences of different choices.

The same problem appears in reverse when it comes to the listing of indicators. There is a famous American study which shows that people who have an authoritarian personality are more likely to discriminate against ethnic minorities like Jews and Negroes. The indicators for the authoritarian personality are of great diversity: mistrust, inability to tolerate ambiguity, superstition, etc. The question, however, could be raised whether discrimination against ethnic minorities is not a part of the universe of indicators by which the concept of authoritarianism is operationally represented. To put it in the more general terms: it is not easy to say what should be the indicators and what should be the correlates of a concept. Probably only in the course of time will one be able to know how broad or how specific concepts should be.

The nature of the indicators themselves requires further clarification. Compare the two following cases: in the one we want to know whether a businessman who is widely travelled has more liberal economic views than one who never left his home. How would we characterize a widely travelled businessman? By the number of trips he took, the length of time he travelled, the number of countries he visited? By present practice we would probably combine all those indicators into one index. For the other case take one of the projective tests by which anxiety is being measured. We show a person a vague picture of a moving man which can be interpreted either as a man in flight or a man taking his exercise. In practice there will, of course, be several such unstructured pictures. People can be classified according to how often they interpret the situation as one of danger or stress.

This pair of examples suggests some possible distinctions among sets of indicators. Interpreting the repsonses to projective tests implies, for example, many more psychological assumptions than we make when we develop an index of " wide-travelledness." The indicators of wide-travelledness are directly related to their concept, while projective measures are indirect and depend for their interpretation on much

prior substantive knowledge. In the physical sciences with their highly developed theory, indirect measurements are of course most common—for example, the use of light spectrograms to measure temperature or velocity. Another distinction might be that the concept of wide-travelledness has a conventional quality—its indicators are put together because the researcher thinks they are experiences which may have similar effects on a criterion variable, political attitudes. The different indicators are not assumed to hang together in the real world, or to reflect an underlying trait. The concept of anxiety on the other hand has a realistic quality; it is not so much created as discovered by the researcher and may be thought of as representing some underlying attribute of a person. In a more or less explicit way the investigator has a theory relating the indicators to this attribute. All these are merely suggestions; so far we have no good classification of the major types of indicators. Probably a whole theory of signs will be needed before order is brought into this field.

For the time being we can take refuge in a rule of thumb which has been called the interchangeability of indices. If we have a universe of reasonable indicators for a concept it seems to make little difference which subset we choose for the formation of a final index. In the study of social scientists mentioned before we found that the more eminent professors were likely to be politically more progressive.[16] We measured eminence in a variety of ways, e.g., once by using a man's publications as indicators, and once using the honours which has been bestowed upon him. While the two indices were not highly correlated with each other they were interchangeable in the sense that they showed the same correlation with an index of progressiveness. At the same time we could show that progressiveness itself could be measured in a variety of ways without the main empirical proposition being affected. But even here a problem lurks. What is a universe of reasonable indicators? Obviously we could pick unreasonable ones which would violate the rule of interchangeability. It is not clear whether we shall be able to answer the question beyond referring to the good judgement of the investigator.

We are probably best off with the fourth step, the combination of indicators into one overall instrument, an index or scale. Quite explicit mathematical models are available for such procedures, but space forbids discussing this point further.

One might ask, how are we helped by the initial analysis of the flow from concept to index when each step represents as yet unsolved problems? The answer, I think, is a two-fold one. The problems themselves could not be precisely formulated without the initial analysis. And second, the explication, even it if is not complete, will save us from vague, general and acrimonious discussion as to whether it is possible to use measurements in the social sciences. Comparisons between

the natural and social sciences are not likely to be useful, but one who feels compelled to engage in them will also find that a precise analysis of what we do in the social sciences will locate the points of similarity and difference between the various fields.

7. *The Measurement of Collective Properties*

The preceding analysis of measurement applies to characteristics of collectives as well as to those of individuals. It is true that until lately the largest amount of research concerned individual properties. But in recent years increasing efforts have been made to describe collectives —small groups, larger organizations, communities, etc.—along quantitative dimensions. We shall call such variates " collective properties " just to avoid the clumsy term " properties of collectives." Examples are easily given: Educational sociologists have measured the quality of schools by using as indicators a list of practices which are considered as desirables; others have developed quality indices by combining the training of the teachers, the size of the school library, the budget available per student, and so on. Some industrial sociologists have classified factories according to the power the unions have in their management. The procedure was to select a list of decision areas in which the unions might or might not participate: wage setting, grievances, safety devices, promotions, etc. Others have worked on a classification of patterns of supervision. An inventory was made of the kind of decisions which foremen took in the course of a day's work. The decisions were rated as either more oriented towards the needs of the workers or more oriented towards the technical productivity of the plant. The separate items were combined into an index which corresponds to a broad characteristic of supervision, going from " worker orientation " on the one end to " efficiency orientation " on the other end.

It is not surprising that the most frequent efforts at measuring collective properties are made around organizations where many comparable units exist and where data are relatively easily available. But there is a rapidly increasing trend to measure collective properties of a variety of other organizations like church parishes, local party organizations, and housing projects. As more funds for this relatively expensive type of work become available, we can count on an ever-increasing experience with this kind of measurement. The importance of this development for sociological analysis is very great and leads to the second example of methodology I want to present.

8. *Contextual Propositions*

All through our theoretical literature one can find the desire to bring out the specific nature of sociological thinking. It comes up in a variety of ways. Durkheim insisted on the special nature of sociological facts. Modern critics of microsociological work complain that it leaves out the specifically sociological attributes of social institutions.

More philosophically-oriented colleagues always yearn for a discussion and definition of the term " structure " which seems to symbolize the essence of truly sociological units of analysis.   All these efforts are undoubtedly justified, but it is doubtful whether their merits will come to light if the discussion is pursued on a general and merely verbal level. I shall propose one possible formulation which is very concrete and derived from empirical research experience.   I do not claim that it satisfies the full concern of those who struggle in the service of truly sociological and structural thinking.   But I submit that carving out one specific type of structural thinking will help everyone concerned to express better his own concern, even if it is only by explicit opposition to the paradigm I am proposing.

Let me give you the following definition of a contextual proposition:

    (a)   It contains at least three variates.

    (b)   At least one of them is a collective property—that is, a characterization of individuals by the types of collective to which they belong.

    (c)   The interrelation between two of the variates is itself affected by the variation of the collective property.

In order not to be too abstract, I shall first give a concrete example. I have earlier referred to a recent study of American social scientists. The professors studied were teaching in 165 colleges.[16]   The colleges were classified according to how progressive their social scientists were on the average.   (There is no need here to go into the details of this measurement).   We thus dealt with a collective property: the colleges were divided according to whether they were conservative, progressive, or somewhere in between.   We also knew, of course, the progressiveness of each individual teacher, which was measured on a scale ranging from 0 to 6.

Now, it has been known for a long time that, in the American population at large, older people were more conservative than younger people.   But the interpretation of this general finding was not clear. It might mean that growing older made for a loss of vitality and hence led to a decline in seeking social change; or it might be that the phenomenon was a purely social one—that growing up in an essentially conservative society necessarily leads to increasing conformity.   Maybe in a communist society people become more pro-communist, that is more orthodox in terms of the communist regime, as they grow older.

Our data permitted a preliminary test of these interpretations, in that we know what the immediate social context is in which the professors are passing their lives; we know whether their colleagues at their college are progressive or conservative.   If the increased conservatism of the older people was an adjustment to the prevailing national climate of opinion, then the decline of progressivism with age should be smallest

in progressive colleges where the local climate counteracts the national, and largest in conservative ones where both climates work together. The following table shows what we found:

The Average Level of Progressiveness According to Age in Three Groups of Colleges

College " Climate "			Age of Professors		
			Up to 40	41–50	51 or older
Progressive	..	..	3.13	2.98	2.76
Medium..	..	..	2.81	2.49	2.13
Conservative	..	..	1.90	1.54	1.46

Comparing the first two columns, we find that the decline in the progressive colleges is 15 points on our measuring scale; in the medium colleges, 32 points; and the conservative ones, 36 points. Thus, indeed, the decline in progressiveness is markedly smaller in liberal colleges and greatest in conservative ones. Comparing the second and third columns, we find that the tendency continues also after the age of 50, with the seeming exception of the most conservative colleges. This, however. is probably due to the fact that our scale did not permit a low enough range to measure fully the conservativism in the very conservative institutions. What we then find here is that the correlation between age and progressivism depends upon the context in which these teachers work.

Recent literature provides an increasing number of examples for such contextual propositions. Especially outstanding is a study of my colleague Lipset, who compared the attitude of printers in 80 different shops.[17] The collective property which appears in his propositions is the size of the shop. The larger the shop, for example, the more active in and the better informed about union politics are the printers. But the effect of size is more marked upon the chairmen of the local union unit than upon the rank and file. The increase of union activity with shop size is also more pronounced for printers whose primary friendship groups are mainly composed of fellow printers than for those whose social relations are away from their place of work. In an unpublished study, H. Zeisel found that the greater the average wealth of a county, the larger are the awards juries make in accident cases; but within counties the richer jurors vote for smaller awards than the poorer jurors, perhaps because they identify more closely with the insurance companies while the poorer jurors identify with the injured parties. The interpretation points to an interplay between collective norms and individual frames of reference. In the same class of results belongs Stouffer's famous finding that within military units, morale is higher among soldiers who have been promoted; but, between units, morale decreases with the overall number of promotions, presumably because the nonpromoted soldiers feel especially deprived when a general expectation is frustrated for them individually.[25]

It seems to me that such empirical findings go very far toward catching what social theorists have in mind when they urge that one take total situations into account or emphasize the importance of structures as opposed to the atomistic approach of empirical studies. The essence of a contextual proposition is that it proceeds simultaneously on two levels. It interrelates individual properties, and at the same time takes into account variation in the characteristics of a higher level collective in which the individuals are located. It is, of course, not always possible to design studies so that enough collectives are available to create variates on both the individual and the collective level. Sometimes we can only compare two situations, which we have to select skillfully to represent extreme cases of the contextual situation. Sometimes, when we cannot carry our study beyond one context, we have to be satisfied with an imaginative interpretation of its probable role. Many of you, I am sure, know of the experiments of Professor Solomon Asch showing that students are willing to misstate the length of physical objects if enough people in their surroundings insist that the facts are contrary to the perceptions of the experimental subjects.[1] It has been claimed that this is not a general psychological phenomenon, but is characteristic for American students, who grow up in a conformist culture. It is justified to raise this contextual objection, but whether it is true or not will have to be decided by repeating the Asch experiments in another culture.

By carving out the notion of a contextual proposition the work of the methodologist has only begun. It would now be necessary to turn to writings of a more theoretical or philosophical nature and to study line by line the statements made by these authors. Which of them can be reproduced by the formulation here proposed? In cases where this is not possible, it would be necessary to look for further clarification. It might be, for instance, that not every characteristic of a collective is to be considered a structural property. They might, it could be experience the degree of hierarchy in social relations in a college or a printing shop as structural properties, but not the size of these collectives or the attitude distribution (opinion climate) within them. The purpose of my example is not to claim that it brings full clarity into a confused discussion, but that it shows the way by which such clarity could be increased.

9. *Outlook*

Let me end up with a few brief references to other methodological developments. Some of them will probably come up in the special sessions of this division of our congress. If not I will at least have given bibliographical suggestions to those participants who are interested in pursuing my topic in more detail. I bypass the role of mathematical models because few sociologists today have the training to use and appraise them. But there are very simple formalisms hardly deserving the name of mathematics which have proved very useful. One is the

use of simple combinations of attributes to test and develop descriptive typologies.[27] Another is the presentation of data in matrix form. Without the use of any matrix algebra, just being aware of rows and columns and averages within them, quite a number of sociological concepts can be clarified, for example those involving social mobility, or relationships among individuals within a group.[30] The notion of transition probabilities is also a very simple one. If applied to repeated observations, e.g., of attitudes or social behaviour, they render to the discussion of social processes the same service as the notion of contextual propositions renders to the notion of structures.[15]

Another area which has been greatly clarified by recent discussions is the whole complex of causal analysis. How can we distinguish between a spurious correlation and one which corresponds to a causal sequence? Quite simple techniques of classifying people simultaneously on several variates can help to illuminate the relationships between them [31] What is the relation between the explanation of a single case and the application of a statistical regularity?[26] If one wants to get a feeling for the progress introduced by the careful explication of social research procedure, one might look at the recent discussion between two philosophers of history, Dray and Gardiner. [6, 8] The two philosophers disagree on many things but they agree that intentions are not subject to empirical analysis. Neither of them has heard of the careful empirical studies done to discover the factors which are related to people's carrying out or failing to carry out various intentions, for instance, to vote, to work in certain occupations, to make capital investments.[29] One is a little bit reminded of Hegel's proof that only seven planets can exist, just before the eighth one was discovered.

I just mentioned studies which predict people's behaviour from their intentions. This would not make sense if we want to predict success in marriage or in an occupation.[28] There everyone wants to succeed and therefore the chances of success have to be inferred from correlates like length of engagement in the first case or kind of training in the second case. The logic of these various prediction studies has been greatly clarified by recent methodological analysis.[12] It is more difficult to compare statistical predictions with those made in individual cases by clinical psychologists or occupational counsellors. Paul Meehl has collected the available evidence, which does not seem to give either of the two procedures a clear advantage.[19] His monograph also raises the question whether the individual prediction really uses hidden statistical knowledge or whether it applies qualitative procedures in their own right. The matter is still controversial, as is the role of qualitative methods in empirical research altogether. Dr. Barton and I reviewed a large number of qualitative studies and came to the conclusion that here is an area where explication is especially lacking and needed.[2]

I mentioned before that in my opinion no social theory in the strict sense of the term yet exists.   Still, efforts at theorizing are being made and they deserve and need explication.   My colleague Robert Merton has set down a careful analysis of the work done by functional analysts [21].   His essay has been translated into French and so I assume that it is known by many Europeans.   It may not be known that an American philosopher Ernest Nagel carried Merton's achievement a step further.[22]   He translated Merton's formulation into mathematical language and thereby was able to show its similarity to systems analysis as it is carried out by biologists.   Another aspect of theory formation was studied by Hans Zetterberg.[32]   He took fourteen empirical findings from small group studies and showed that they could be derived from only four of them.   His emphasis is on the fact that various combinations of four of the findings could form the axiomatic basis for all the others.

It might well be that some of these hurried references sound more interesting than the two examples I developed in more detail.   The discussion of this paper should provide an opportunity for further elaboration.   Whatever the emphasis I should not conceal from our European colleagues that my whole approach is not without opponents in the United States.   Quite a number of my American colleagues feel that concern with methodology thwarts the ability for substantive investigations.   No one, of course, knows the answer, but I try to defend myself by referring to an old saying that poetry is emotion recollected in tranquility.   I consider methodology creative work recollected in the same mood.   I do not see any reason why one cannot shuttle back and forth between creative substantive work and reflections on the procedures by which it is best guided.

Another objection is the futility of methodological efforts: it is said that social scientists are either gifted or not, and that you cannot teach creativity.   Here I usually counter with a parallel from the world of sports.   It is sometimes hard to understand how it happens that sports records, like those of the Olympic Games, are continually bettered—runners run faster miles, pole vaulters clear greater heights, and so on. It is unlikely that, over the last fifty years, the capacities of *homo athleticus* have improved in any Darwinian sense.   But training techniques, styles of running, and athletic equipment have steadily been refined.   Great athletic stars are born; but good coaches can so raise the average level of technique that when a star appears he starts from a higher level than the star of a generation ago.   He therefore is able to reach greater peaks of achievement, even though his individual capacities need not be superior to those of his predecessors.   In the same sense, methodology, self-awareness of the field, provides a better starting background for the individual creative scholar.

I have at one occasion used a parable with which I might end this paper.   There is a well-known story about the centipede who lost his

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ability to walk when he was asked in which order he moved his feet. But other details of the story are buried in conspiratorial silence. First of all, there is no mention of the fact that the inquiry came from a methodologist who wanted to improve the walking efficiency of the centipede community. Then, little attention is paid to the other centipedes who participated in the investigation. Not all of them reacted with such disastrous effects. Some were able to give rather reasonable answers; from these the investigator worked diligently to arrive at general principles of walking behaviour.

When the methodologist finally published his findings, there was a general outcry that he had only reported facts which everyone already knew. Nevertheless, by formulating this knowledge clearly, and by adding hitherto unobserved facts at various points, he eventually enabled the average centipede in the community to walk better. After a generation or so, this knowledge was incorporated into textbooks, and so filtered down to students on a lower level of scholarship. In retrospect this was the outstanding result. Of course, the great centipede ballet dancer and other creative walking artists continued to require hereditary endowments, and could not be produced by the school system. But the general level of walking, characteristic of the centipede in the street, was improved. And because of this those few individuals endowed with great personal gifts started out at a higher level, and achieved creative performances unparalleled in the past.

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Les Progrès Méthodologiques Récents en Sociologie

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Le présent rapport* est consacré à l'analyse du développement des rapports entre l'organisation de la recherche, les méthodes et les techniques utilisées en sociologie.

En premier lieu, l'organisation des recherches est un problème relativement nouveau, apparu principalement au cours de ces vingt-cinq dernières années. Son apparition est corrélative à l'acroissement des recherches empiriques et à une certaine application des résultats. L'importance des moyens mis en oeuvre et la nécessité d'un appareil administratif ont soulevé la question du financement des recherches. Ce fait nouveau soulève à son tour deux problèmes: d'une part celui du lien entre le mode de financement et les différents aspects de la recherche—principalement sa problématique—et d'autre part celui de la représentation que se fait la société de la recherche sociologique. Enfin la spécialisation des recherches, cause et effet de cette évolution, pose à son tour un problème de communication entre les chercheurs et le public.

En deuxième lieu, les relations entre théorie et observation ou expérience—relations qui définissent l'objet de la méthodologie—évoluent vers la réalisation d'un programme scientifique plus strict. On peut remarquer notamment le passage d'une sociologie *systematique* à une sociologie *empirique* et de celle-ci à une élaboration *theorique* qui répond à certaines exigences épistémologiques: construction de modèles ou corps d'hypothèses, vérification empirique, délimitation opérationnelle des domaines de recherche. Certains indices permettent de parler d'une évolution historique, qui prend des formes variées dans les différents pays.

En troisième lieu, l'attention doit se porter sur les instruments de la recherche sociologique. Ceux-ci, très divers et très nombreux, ont connu depuis ces dernières décennies de profonds renouvellements. Dans les premiers temps de la recherche empirique, les chercheurs placèrent un accent souvent exclusif sur ces techniques. Ultérieurement on s'est attaché plus particulièrement à discerner les relations entre les hypothèses mises à l'épreuve et les instruments utilisés. C'est dans la perspective d'une adéquation croissante des techniques de recherche aux problèmes étudiés et de leur utilisation plus raisonnée et moins

aveugle que l'on peut mieux comprendre les innovations que présentent ces techniques.

1. ORGANISATION ET PROBLEMATIQUE DES RECHERCHES SOCIOLOGIQUES

Dans les nombreux " bilans et perspectives " parus ces dernières années,[1] un aspect de la recherche sociologique, celui de son organisation et de ses moyens d'existence, est passé sous silence. Le développement de la sociologie conduit à y réfléchir en termes de " division du travail " analyse qui trouverait ses premiers modèles dans l'oeuvre de Durkheim.[2] On peut constater cette division du travail à trois niveaux: celui des thèmes de recherche, celui des méthodes et celui des outils ou des techniques. Les grands domaines théoriques de l'organisation sociale, de la psychologie des peuples, des désordres sociaux, de la communauté ont été découpés et partagés en champs de recherches plus concrets. Ainsi sont apparues la sociologie rurale, la sociologie urbaine, la sociologie industrielle, la sociologie criminelle, etc. Et lorsque des dénominations théoriques antérieures sont réapparues elles avaient une étendue plus limitée, telles l'étude des petits groupes, la stratification sociale, la dynamique de groupes, l'étude des communautés. Ces dénominations définissaient en réalité, des sujets dans ces champs concrets. Ainsi le sujet de recherche se définissait-il tantôt en référence à une grande théorie d'allure plutôt philosophique, tantôt par le domaine étudié, tantôt par le biais méthodologique. A ces trois approches correspondaient l'influence d'une sociologie enseignée, celle d'une sociologie appliquée et finalement celle d'une sociologie conçue principalement en termes de recherche scientifique.

Les méthodes et les techniques se sont spécialisées elles aussi à partir des premiers essais méthodologiques dont le plus célèbre est sans doute " Les règles de la méthode sociologique " de Durkheim, paru en 1895. Vingt-cinq ans plus tard le titre d'un autre livre méthodologique indique bien le changement d'orientation qui s'est produit; il s'agit de: " Field work and social research " de Chapin, paru en 1920 ou le " Social research " de Lundberg de 1929. Les livres de ce genre vont se multiplier, manifestant l'intérêt grandissant pour la méthodologie. On observe aussi, dans les revues, l'importance croissante de discussions méthodologiques et techniques. Finalement certains chercheurs sont reconnus principalement comme méthodologistes et les discussions s'engagent non seulement sur le rôle et la fonction de la sociologie mais sur le rôle et la fonction de la méthodologie dans la sociologie elle-même. Lancée sur cette voie la sociologie allait rapidement rencontrer les préoccupations d'autres disciplines scientifiques et se mêler à la recherche d'un langage commun à toutes ces disciplines.

Si l'on essaye d'expliquer cette division du travail sociologique, on est amené à constater dès le début de cette science, une pluralité de tendances; c'est ainsi qu'en France par exemple Auguste Comte,

partisan d'une théorie générale coiffant toutes les disciplines scientifiques, s'oppose d'une part à Le Play partisan de la méthode des cas et de la recherche empirique, et d'autre part à Quetelet qui s'efforce de traiter selon des lois statistiques les phénomènes humains.   Il est intéressant de noter au passage que Comte et Le Play sont des polytechniciens et que Quetelet est mathématicien et météorologiste. D'après Halbwachs,[2] Quetelet est le premier à montrer en quoi l'étude des corrélations entre les faits économiques et sociaux éclaire le problème de la prospérité publique.   Halbwachs attribue cette conception synthétique à l'influence des mathématiciens et de leurs travaux portant sur les calculs des probabilités.

Ces trois hommes auxquels il faut ajouter Fourier et Proudhon, illustrent fort bien les différentes écoles entre lesquelles se répartiront les sociologues qui les suivront.   Les problèmes qu'ils se posaient expliquent aussi les différences d'approches méthodologiques, et ces problèmes et méthodes conditionneront d'autre part l'organisation des recherches aussi bien que le développement des techniques.   Comte, disciple d'un doctrinaire social et industriel—Saint-Simon—aboutit finalement à une sociologie dogmatique.   Le Play considère pour sa part que la description objective, l'accumulation et la comparaison des cas permettront de faire apparaître le réalité et imposeront en quelque sorte, par eux-mêmes, les solutions de problèmes sociaux.   Fourier se présente comme le premier expérimentateur social[4].   Pour Quetelet, comme pour la plupart des statisticiens de l'époque, il s'agit de déterminer les lois de répartition des probabilités afin de les appliquer aux problèmes démographiques et économiques.   Ce n'est sans doute pas par hasard que sa théorie de l'homme moyen (physique et moral) s'inscrit au début de l'ère industrielle et de la production standardisée.

Mais ce sont surtout les besoins nouveaux qui conditionnent profondément le développement de la sociologie: les poussées démographiques, l'industrialisation et les concentrations urbaines sont à l'origine des premières enquêtes sociales en Europe: celles de Quetelet[5] en Belgique, de Villermé[6] en France, d'Engels[7] et Booth[8] en Angleterre, par exemple.   Elles vont de pair avec les premières réformes à caractère socialiste du 19e siècle: celles de la règlementation de la durée du travail en France, celle sur les logements ouvriers en Angleterre, ou les assurances-maladie en Allemagne.   Ces transformations feront de plus en plus l'objet d'études dans la mesure où les nouveaux problèmes se posent en termes sociaux.   On ne peut plus lancer un programme d'urbanisation sans déterminer à l'avance un grand nombre des caractéristiques socio-culturelles ou socio-économiques de la population.   De même dans l'industrie, la spécialisation croissante de la production conduit à réduire de plus en plus la liberté d'appréciation et de décision de l'ouvrier, et à prévoir autant que possible son comportement, c'est-à-dire à connaître les normes de celui-ci

L'extension des champs théoriques et empiriques s'est déroulée à des rythmes inégaux dans les différents pays: les forces se sont concentrées tantôt sur les domaines théoriques ou tantôt sur le domaine empirique. Ceci, vraisemblablement, a tenu en grande partie aux structures des Universités, aux traditions en matière de relations avec le monde extra universitaire et finalement au statut de l'universitaire dans la société. On pourrait faire une sociologie différentielle de l'état de la sociologie dans les différents pays en partant de ce critère. Au point de vue où nous nous plaçons, on pourrait distinguer les recherches sociologiques selon quatre critères: toute recherche est individuelle ou collective, elle est artisanale ou standardisée, elle porte sur un problème théorique ou sur un problème pratique, enfin elle requiert l'utilisation d'une seule discipline ou elle est interdisciplinaire. L'analyse de la production sociologique dans un pays pourrait utiliser ces critères et les mettre en relation avec le statut et le rôle qui est assigné au sociologue et finalement à la représentation de la sociologie que se fait la Société.

Néanmoins dans la plupart des pays, avec certains décalages dans le temps, on a vu s'accroître l'importance des recherches collectives, standardisées, appliquées, et interdisciplinaires et dès lors la recherche sociologique allait devoir résoudre de nouveaux problèmes: ceux de son financement, de son administration et de son organisation. La façon dont on résoudra ces problèmes ne sera pas sans influencer l'orientation des recherches, le choix des sujets, voire la méthodologie elle-même.

Traitant de ce sujet, Charles Y. Glock écrit: " L'analyse organisationnelle des institutions sociales a conduit à la conclusion qu'une fois qu'une organisation est établie, sa perpétuation tend à être un but en soi. Ceci signifie, en effet, que la survie devient une fonction primordiale de l'organisation "[9]. Il énumère ensuite les caractéristiques des organismes de recherche en sciences sociales; ce sont: en premier lieu le besoin de soutien financier, ensuite la continuité, les contacts entre les membres de l'organisation, la flexibilité (possibilité de s'adapter aux conditions et exigences de la recherche), l'administration (c'est-à-dire la règlementation) enfin la hiérarchisation du personnel.

Parmi tous ces points le besoin de soutien financier est sans contredit celui dont l'influence peut être la plus grande sur l'orientation des recherches et leur méthodologie. Ce besoin tient au fait que jusqu'à présent l'Université a traité différemment les sciences sociales et les sciences physiques. Les laboratoires de science physique sont généralement pourvus d'un statut égal aux sections d'enseignement de l'Université.

A titre d'exemple, voici l'estimation qui est faite par Harry Alpert,[10] des sources de l'aide financière aux U.S.A. Cette auteur écrit:

" *Tableau I*—Source de l'aide financière apportée à l'étude des sciences sociales aux Etats-Unis.

Origine	Taux annuel	Pourcentage
Gouvernment Fédéral ..	$55.000.000	25,6
Fondations privées ..	15.000.000	7,0
Collèges et universités ..	5.000.000	2,3
Organismes industriels et commerciaux	137.000.000	63,7
Autres (Instituts indépendants, Etats et gouvernements locaux, etc. . . .)	3.000.000	1,4
	$215.000.000	100,0

La ventilation est quelque peu différente si l'on considère le coût de la recherche effectivement poursuivie par ces divers types d'organisations. On trouvera, au tableau II, des indications sommaires sur l'ampleur des dépenses annuelles entraînées par les études de sciences sociales faites par ces organismes.

Tableau II—Chiffre annuel des dépenses engagées pour l'étude des sciences sociales par divers types d'organisations aux Etats-Unis.

Organisation	Chiffre annuel	Pourcentage
Gouvernement Fédéral ..	$38.000.000	17,7
Fondations privées ..	2.000.000	0,9
Collèges et universités ..	35.000.000	16,3
Organismes industriels et commerciaux	137.000.000	63,7
Autres (instituts indépendants, etc.)	3.000.000	1,4
	$215.000.000	100,0

De la comparaison des estimations des Tableaux I et II, il ressort:

(1) que plus des trois-cinquièmes des activités nationales totales dans le domaine des sciences sociales sont financés et dirigés par l'industrie et le commerce:

(2) que le Gouvernement Fédéral fournit environ un quart des fonds disponibles pour l'étude des sciences sociales, mais ne réalise qu'un peu plus d'un sixième de l'ensemble dans ses organismes propres: propres:

(3) que les collèges et universités ne contribuent qu'à raison d'un peu plus de 2% au budget prévu par organisme pour la recherche sociale, mais qu'en fait ils dépensent un sixième du total pour des travaux qu'ils exécutent eux-mêmes:

(4) que les instituts culturels dépendent, pour le financement de leurs recherches, du Gouvernement Fédéral et des fondations privées, ainsi que, dans une moindre mesure, de l'industrie."

Une des conditions de la recherche scientifique c'est la persistance et la continuité. C'est-à-dire qu'il faut établir des programmes à longue échéance tant au point de vue théorique que méthodologique, il faut avoir des possibilités de tester des hypothèses issues d'une recherche. Il peut se trouver que des préoccupations théoriques rencontrent des préoccupations pratiques, il est non moins certain, par exemple, qu'on trouvera beaucoup plus d'études portant sur les relations industrielles ou sur le moral et la productivité des ouvriers que sur l'idéologie patronale ou la sociologie des religions. En fait la société comme toute organisation tend à favoriser la production de ce qui la perpétue.

Il en va différemment en ce qui concerne les techniques. Dans ce domaine, généralement, une liberté plus grande est laissée aux chercheurs par ceux qui leur procurent des fonds. En revanche, c'est sur le terrain que les difficultés aparaissent, soit que les responsables d'une situation locale redoutent l'effet de certaines techniques, soit que les enquêtés eux-mêmes résistent à toute intrusion dans leur vie privée, soit qu'ils craignent les manipulations des " persuadeurs " cachés ou apparents. A ce niveau, l'origine du financement d'une recherche est appelée à inspirer plus ou moins de confiance à la population étudiée, et à permettre l'utilisation de toutes les techniques que le chercheur estime nécessaires.

En réalité, depuis la dernière guerre principalement, l'extension du champ des enquêtes, la masse de documents statistiques utilisés, ont introduit dans les recherches l'usage de méthodes et de techniques très coûteuses. Il est incontestable que " The American Soldier," pour prendre un exemple célèbre, a nécéssité l'emploi et la formation d'une équipe de travail très nombreuse, et l'utilisation de moyens mécano-graphiques, et de machines comptables utilisées principalement par les sciences physiques. Un tel exemple a exercé une influence profonde sur la méthodologie et les techniques de la plupart des recherches qui suivirent. Les résultats spectaculaires dans la démobilisation de l'armée américaine—que " The American Soldier " devait faciliter—entraînèrent la recherche sociologique dans cette voie. Elle supposait des moyens techniques et financiers considérables. En temps de paix, il était invraisemblable qu'on les trouvat dans les ressources financières des universités; dès lors le recours à des aides extérieures s'imposait. Dans le même temps la sociologie quittait son empyrée théorique et se rapprochait du domaine des applications. En ceci, elle suivait la voie qu'ont suivie toutes les sciences et elle rejoignait les préoccupations qui étaient les siennes au départ. Mais plus la sociologie se rappro-chait de la vie sociale de tous les jours et plus elle rencontrait étroite-ment les valeurs et les normes de cette société. Un des traits domi-nants des sociétés industrielles est la standardisation; toute une partie

de la sociologie, devenant appliquée, a tendu à utiliser des procédures normalisées et à produire des modèles de comportement standardisés facilement applicables et assimilables. Ceci a comporté plusieurs avantages. En premier lieu, cette sociologie a perméabilisé l'opinion publique à l'étude des phénomènes sociaux, elle a d'autre part attiré vers les études sociologiques un nombre croissant d'étudiants et de chercheurs;[11] l'accroissement de ceux-ci a changé la place de la sociologie dans l'Université. En second lieu, elle a permis la répétition dans l'application des techniques; de la sorte, elle en a montré les forces et les faiblesses, et dans de nombreux cas a contribué au perfectionnement des outils. En troisième lieu la masse d'essais a apporté un matériel considérable qui était nécéssaire à la réflexion des théoriciens, des enseignants et qui permettait aux étudiants les exercices en chambre auxquels a toujours recours l'enseignement d'une discipline. Enfin il faut porter au crédit de ce genre de recherche les résultats qui ont été obtenus par son application même. Il est clair que ces résultats sont extrèmement critiquables et de nombreuses voix se sont élevées pour le faire[12] mais n'en serait-il pas de même si l'on voulait passer au crible idéal toutes les applications de la médecine, par exemple? Ceci étant dit, il ne faut pas moins souligner que cette standardisation et cette commercialisation de la production entraînaient de multiples désavantages, contre-partie des avantages cités plus haut. Une pauvreté théorique, méthodologique et technique a souvent caractérisé cette sociologie. Bien des études recouvraient l'illusion que la collecte d'une masse de documents constituait une étude sociologique—quoiqu'il soit vrai qu'un recensement bien fait peut éliminer par lui-même bien des sujets de controverse; il est vrai aussi qu'il peut en provoquer—, d'autres illusions entretenaient l'idée que les phénomènes humains peuvent se prêter à des traitements standardisés, " ready made." Nous trouvons les conséquences de cette situation dans la représentation que se fait le public de la sociologie. Alpert[13] a dressé la liste des thèmes qui apparaissent dans les objections faites aux sciences sociales par des savants, administrateurs, membres du Congrès au cours des débats et délibérations concernant la " National Science Foundation," les voici: le vague (vagueness), problèmes de controverse publique (controversy), questions mal délimitées (soft areas), attaque contre les bases de la dignité humaine (debasement of human dignity) (brain washing), théories partisanes (partisanship), recherches appliquées (applied research), ampleur (magnitude), ressources privées (private resources) . . .

Lundberg relatant les discussions du sénat en 1947 sur ce même problème remarquait, de son côté, que les sciences sociales étaient considérées comme une sorte de culte propagandiste, réformiste, évangélique.[14]

Les conséquences de cette représentation font, en effet, que les sciences sociales, dans presque tous les pays du monde, sont sous-

développées par rapport aux autres disciplines scientifiques. Les investissements dans ce domaine sont minces, les Universités et les centres nationaux de recherche ne reçoivent qu'une faible subvention par comparaison aux sciences physiques, chimiques ou autres. Bien entendu la comparaison avec les investissements dans les domaines de recherche non scientifique est plus écrasante encore. Lorsque Merton soulignait que les hommes avaient pendant des siècles négligé les problèmes de l'érosion du sol, parce qu'ils ignoraient que cette érosion constituait un problème important, et qu'ils négligeaient de même aujourd'hui l'érosion sociale que provoque l'introduction rapide d'un changement technologique, il indiquait à ce propos qu'on consacrait moins d'hommes et de capitaux à ces problèmes qu'on en consacre aux recherches de publicité d'un seul parfum ou d'une marque de tabac.[15]

L'histoire de la sociologie nous apparaît donc bien comme la division d'un travail, la spécialisation de ses problèmes de ses méthodes et de ses techniques. Ces méthodes et ces techniques, au contact des domaines d'application, ont requis des moyens financiers de plus en plus puissants. L'origine des fonds ainsi recueillis a provoqué une certaine sélection des thèmes de recherche; elle a d'autre part favorisé plus souvent la recherche appliquée que la recherche fondamentale. Celle-ci pourrait recevoir un nouvel essor, si ces fonds lui étaient attribués au moins à part égale. Mais ceci ne se fera que dans la mesure où les sciences sociales affirmeront leur aspect scientifique et développeront pour cela des théories opératoires. Au reste l'abondance des moyens n'est pas la seule condition du développement d'une science. Il importe par dessus tout que la méthodologie progresse et elle est tout autant le résultat d'un investissement de réflexions que d'un investissement de capitaux.

Il convient de noter que la pénurie de moyens financiers a poussé certains chercheurs à mettre au point des techniques et des méthodes requérant de moindres moyens financiers. Tel pourrait être le sens de l'observation participante, des recherches statistiques sur les petits nombres, ou encore de l'expérimentation restreinte. Dans un article récent R. Pagès[16] rappelait que Fourier et ses disciples considéraient que les réformes sociales doivent être expérimentées sur des microcosmes: " L'objectif de Fourier, écrit-il, c'est de rendre l'homme par voie d'anthropologie expérimentale active, inventeur—avant tout—de phénomènes humains." Pagès insiste sur " . . . ce principe d'action de l'être à petite échelle, catalyseur ou déclic ". De même d'ailleurs la nécessité des communications interdisciplinaires a favorisé le développement d'un langage symbolique permettant une plus grande précision et une économie de moyens. Le témoignage de Lewin à ce sujet est chargé de sens, il note[17] que les différentes écoles psychologiques se trouvent être presque unanimement d'accord pour peu que l'on oublie les différences de terminologie et que l'on ne cherche qu'à représenter

les inter-relations des faits—en d'autres termes—pour peu que l'on cherche à utiliser le langage mathématique.

Mais le développement des techniques, des méthodes et d'un langage symbolique conduit à une spécialisation telle que l'information du public devient de plus en plus difficile.   Le sociologue lui-même dans certains cas s'en remet aux spécialistes: le statisticien, par exemple, ou l'ingénieur qui dresse des " programmes " d'analyse de résultats.   A la limite on pourrait imaginer qu'un certain usage des machines comptables pourrait avoir une influence directe sur un ensemble de plans de recherche.   C'est à dire que, même pour le sociologue la spécialisation, la technicité de la science devient telle qu'il ne la maîtrisera plus que partiellement.

2.   TENDANCES METHODOLOGIQUES ACTUELLES

Le développement des principes et des préoccupations, au niveau de la méthode, est saisi, en sociologie, comme dans toute autre science, par le biais d'une analyse des *liens* entre la théorie et la démarche scientifique et non pas par l'examen de chacun des termes séparément. Les sciences sociales s'interrogent fréquemment sur la meilleure voie qu'elles ont à suivre pour être " scientifiques ".   Dans ce domaine tout se passe comme si un certain sentiment d'insécurité poussait à mettre en question ce qui est l'essentiel des aspirations à la fois les plus élevées et les plus immédiates.   L'attitude de la société à l'égard des travaux sociologiques ne fait qu'accroître cette propension à passer du " doute méthodique " au doute sceptique.   Le fait même qu'il n'y ait pas de normes propres à cette science et que tout un chacun puisse être sociologue parce qu'il s'occupe de cette chose si vague qu'est la société, quelle que soit la façon dont il s'y prenne, ne contribue pas à une appréciation juste des relations entre la connaissance théorique et la connaissance empirique.   De l'attitude fétichiste à celle de rejet total de toute règle concernant l'établissement des théories et des faits, toutes les nuances intermédiaires se retrouvent parmi nous.

Ces remarques pourraient être multipliées.   Nous voulions simplement noter que le domaine de la méthodologie n'est pas aisé à aborder parce qu'il polarise toute une série de problèmes assez éloignés de son objet propre, qui est, ainsi qu'on l'a rappelé plus haut, celui des rapports entre la théorie et l'observation ou l'expérimentation.

Pour examiner les transformations de cette structure sans abuser de références historiques on peut considérer comme acquis le fait que les débuts de la sociologie furent marqués par un esprit de " système." La disproportion entre la partie spéculative et la partie empirique y est évidente.   De plus, les premières constructions conceptuelles ne sont que des reformulations dans un langage différent de certaines thèses philosophiques dominantes.   Leur point de départ n'est pas toujours l'uniformité empirique mais un modèle fourni par la philosophie.   Si on regarde l'oeuvre si importante de Durkheim on peut

facilement y voir une ré-interprétation de la pensée Kantienne et néo-Kantienne répandue en France à la fin du 19ème siècle.

Certes la pensée des savants a souvent le même *contenu* que celle des philosophes, puisque ceux-ci, depuis le 17ème siècle, procèdent à l'instar de ceux-là, mais la science gardait l'autonomie de ses démarches et de son *contenu*. La *periode systematique* de la sociologie, celle de ses premiers pas, n'est pas caractérisée par une telle autonomie; on a même l'impression que l'on s'efforçait alors de rechercher de nouveaux soubassements à la philosophie.

La deuxième période du développement de la sociologie est la période *empirique*, dont il convient de souligner les aspects essentiels:

(a) les inférences que l'on peut tirer d'un fait ne doivent jamais aller au-delà de l'établissement de l'uniformité;

(b) l'observation est le fondement du savoir et on ne peut avoir confiance en ce qui lui échappe;

(c) l'objet de la science est l'établissement des faits;

(d) le modèle des procédés et de la structure des propositions scientifiques est fourni par la physique;

(e) les phénomènes sociaux ne sont pas de nature particulière;

(f) les dimensions " subjectives," " mentalistes " doivent pouvoir être traduites en des termes plus objectifs et manifestes.[18]

Bien entendu, ces orientations ont été plus ou moins générales et plus ou moins suivies. Elles définissaient néanmoins l'esprit de la recherche dominé par la soif du concret et de la saisie du fait social. Les essais de conceptualisation étaient aussi peu prisés que les constructions systématiques. Dès lors il n'est pas étonnant que, dépourvues d'une direction théorique, ces recherches se soient multipliées, sans devenir pour cela plus significatives pour le progrès de nos connaissances. L'instrument technique et le fait deviennent des buts en soi. De très nombreux articles vont avoir pour objet de décrire comment la même échelle de Likert ou les mêmes problèmes se définissent chez les étudiants d'Oklahoma ou de New York, chez les femmes ou les hommes, les jeunes ou les personnes agées, les ouvriers ou les noirs, sans qu'on s'intéresse à ce qui produit des similitudes ou des différences, c'est à dire aux processus sociaux proprement dits. La distinction entre ce qui est stratégique et ce qui ne l'est pas, dans la science, s'estompe. Naturellement, si le but est l'établissement des faits, il n'est pas interdit d'estimer que, la curiosité humaine étant insatiable, l'essentiel est d'en faire un inventaire aussi complet que possible. La nuance qu'il y a entre le recueil de l'information et l'élaboration scientifique de celle-ci est très malaisée à observer dans ce cadre. Les défenseurs de cette conception de la sociologie, d'inspiration néo-

positiviste et pragmatiste, n'ont pas manqué.[19]   Elle a soulevé aussi des critiques assez fondées[20].   Il n'en reste pas moins que cette période empirique a eu un certain nombre de conséquences favorables:

—premièrement, les données concernant notre société sont devenues très nombreuses, même si elles sont parfois redondantes.

—deuxièmement, nous voyons apparaître toute une série de techniques de recherche extrèmement précises qui ont soulevé de multiples problèmes quant aux possibilités d'analyse empirique des faits sociaux.

—troisièmement, il s'est posé d'une manière assez manifeste la question de l'intervention des sciences sociales non pas au niveau de la " Weltanschaung " mais à celui de la politique quotidienne d'une société.

Détachée de toute préoccupation épistémologique, nous devons reconnaître que c'est en devenant empiriste, baconnienne, que la sociologie s'est enracinée dans notre société.

Pendant cette *epoque cumulative de la sociologie*, l'unité de celle-ci a été assurée plutôt par l'uniformité des techniques que par la convergence des conceptualisations proposées.   L'importance accordée aux techniques entraine une double obligation pour-ceux qui en sont les promoteurs.   Ils doivent s'efforcer d'une part de les généraliser autant que possible, et d'autre part de suivre leur évolution dans toutes les branches du savoir.   Et c'est à notre avis, l'application conséquente de ce programme qui a rendu nécessaire l'appel croissant à la théorie. En effet, le recours à l'expérience, qui se multiplie avec l'apparition de la sociométrie est favorisé pendent la guerre, du moins dans le domaine des études sur les communications,[21] par l'existence d'audiences aussi stables et fermées que sont les troupes de l'armée.   Cependant il est évident que l'on ne peut pas faire une expérience ou une *serie* d'expériences, sans énoncer, par lá même occasion, des hypothèses et constituer des modèles d'inférence scientifique.[22]

L'entrée de l'expérience dans l'arsenal des procédés de recherche exigeait en même temps l'édification de théories qui rendissent possible sa fonction d'instrument d'analyse du réel.   Par ailleurs, le large emploi des algorthimes statistiques et algébriques pour la quantification, appelle une amélioration constante de ceux-ci et leur transformation en rapport même avec les progrès des mathématiques.   Or, non seulement celles-ci font jouer un rôle de plus en plus grand à la théorie des groupes, à l'algèbre matricielle, mais elles mettent en question les conceptions habituelles de la métrique.[23]   Il s'ensuit que, dans les sciences sociales, on assiste entre 1941 et 1950 à une transformation des démarches empiriques.   On pourrait considérer les raisons de ce changement des rapports entre théorie et expérimentation comme des raisons internes à cette dernière.   Néanmoins, l'accumulation des données et des régularités constatées ne peut se faire indéfiniment sans une réorganisation de leur champ et une interprétation de leurs rela-

tions. On peut citer en exemple le travail de G. W. Allport sur la nature des préjugés[24] etc. Pour utiliser une expression hégélienne, on serait en droit d'affirmer que l'empirisme a engendré lui-même sa contradiction, c'est à dire qu'il a rendu nécessaire l'élaboration théorique. Mais on n'insiste jamais assez sur ce point, cette période théorique diffère de la période systématique, par le fait qu'elle procéde de l'observation et d'un ensemble constitué d'informations factuelles. Ceci ne veut pas dire que nous sachions d'une manière précise quel sera le visage de la théorie sociologique, tant sont diverses les opinions à son propos. Tout ce que nous pouvons soutenir, c'est que son rôle prééminent est reconnu.

Les difficultés qui se dressent devant l'édification d'un ensemble d'hypothèses sociologiques et de leurs rapports avec l'expérimentation sont relativement nombreuses. Une analyse succinte de ces difficultés permettrait de dégager les lignes essentielles des efforts faits dans le domaine qui nous intéresse.

(a) le problème de la définition des concepts a été soulevé avec beaucoup de vigueur soit pour montrer leur peu de consistance,[25] soit pour montrer leur hétérogénéité, soit enfin pour exprimer une préférence pour tel ou tel type de concept. Sans vouloir être exhaustif, on peut dénombrer quatre tendances d'utilisation des concepts:

—la première emploie des concepts *systematiques* dont la signification ne se conçoit pas en dehors d'un système donné. Il en est ainsi de notions comme *l'action* chez Talcott Parsons,[26] ou des *paliers* chez G. Gurvitch.[27]

—la seconde tendance se propose de décrire la réalité sociale à l'aide de concepts *indicatifs*, dont le rôle est de désigner un phénomène particulier indépendamment de l'interprétation qu'il reçoit dans des théories différentes. Le terme de *stratification sociale* par exemple, se réfère à l'existence d'une hiérarchie dans une collectivité et aux groupes qui la composent, sans la rattacher à des visions d'ensemble de la société.

—très proches de ces concepts indicatifs sont les concepts *operationnels* qui cherchent à faciliter simplement la compréhension d'une série de faits et leur " manipulation " expérimentale. En réalité, tout concept peut être opérationnel à condition que l'on tienne compte de sa fonction médiatrice.[28]

—la quatrième tendance s'efforce de formuler des concepts *theoriques*, qui sont liés d'une manière spécifique à quelques hypothèses et sont susceptibles de vérification. Un exemple typique nous est fourni par la tentative qu'a fait Merton pour repenser la notion durkheimienne *d'anomie* et lui trouver des corrélations observables dans les travaux de Leo Srole.[29]

Même si nous pensons que cette dernière orientation est la plus assurée, force nous est de reconnaître qu'une discipline est amenée à s'intéresser à des concepts ayant des caractéristiques multiples.

(b)   Les théories actuelles ont pour objet l'explicitation d'un groupement défini de phénomènes et non pas la société dans son ensemble. En effet, on remarque que les auteurs s'intéressent plus particulièrement à tel secteur du réel, à la mobilité, à la stratification sociale, aux groupes restreints, au comportement politique, à la bureaucratisation et se proposent de rendre compte, conceptuellement, des processus et des mécanismes.   On doit cependant souligner l'existence de deux courants quant au mode de construction d'hypothèses: l'un à la suite d'une école historique allemande, veut surtout comprendre,[30] et l'autre, épousant une attitude plus naturaliste veut expliquer les phénomènes.

Dans un rapport comme celui-ci on n'est pas en mesure d'analyser tous les arguments qui militent en faveur du premier et du second choix. En se limitant strictement à des considérations méthodologiques, ayant trait aux liens de la théorie et de l'observation ou de l'expérience, il n'y a aucune raison de nier le rôle de la compréhension, prise au sens large, au niveau de la préparation des hypothèses et de l'interprétation des résultats.   Il serait cependant illusoire de croire que tout autre technique d'exploration, la méthode clinique exceptée, puisse se dispenser du modèle fonctionnel des relations entre les variables, que l'on qualifie d'explicatif ou de naturaliste.

(c)   Si l'on regarde de plus près les aspirations fondamentales des théoriciens on découvre chez certains une nette préférence pour l'élaboration de concepts et d'hypothèses mathématiques, tandis que d'autres repoussent d'une façon très vigoureuse toute tentative en ce sens.   Des réussites spectaculaires en linguistique et des modèles prometteurs en économie politique et en psychologie sociale ont montré qu'il y avait des " régions " où il était raisonnable d'espérer de la formalisation mathématique une systématisation rigoureuse des connaissances.   Ceci ne signifie pas, bien entendu, que l'ensemble des phénomènes sociaux ou le comportement social dans sa totalité puissent recevoir un tel traitement conceptuel.   L'idéal d'une sociologie mathématique existe indubitablement.   Les exemples que nous en connaissons[31] ne sont pas convaincants mais ils méritent d'attirer l'attention. Cependant même le principe de la recherche de tels moyens d'expression des hypothèses scientifiques a rencontré de vives oppositions parmi les sociologues, lesquels acceptent à l'occasion l'emploi de procédés de quantification statistique, mais excluent au niveau de la théorie tout recours à des schémas et à des modèles d'inspiration mathématique. L'important pour nous, si nous voulons limiter notre exposé au présent, c'est qu'il n'existe pas une attitude générale quant à *la forme* que la théorie sociologique doit prendre à l'avenir.   Sans vouloir préjuger de celui-ci on peut attirer l'attention des sociologues sur le fait que s'ils admettent et encouragent le développement de schémas empiriques, ils ne peuvent guère se prémunir contre la conversion de ceux-ci en source de modèles mathématiques.   Un exemple que l'on emprunte à la psychologie sociale est plein d'enseignement.   Les tests socio-

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métriques de Moréno, les sociogrammes qui décrivent la constellation des groupes, sont trop connus pour que l'on y insiste : les travaux et les intuitions de Lewin quant à l'application de la topologie aux sciences de l'homme nous sont également familiers. On sait aussi qu'il a donné une impulsion décisive à l'étude *experimentale* des groupes.

Les élèves de Lewin ont repris les sociogrammes de Moréno, outils purement descriptifs qui se bornent à fournir un constat, pour leur donner une transcription matricielle. Bavelas surtout a transformé ces constellations en des réseaux de communications que l'on peut faire varier expérimentalement. Enfin, des collaborateurs de Bavelas, en élargissant la théorie des graphes,[32] permettent l'usage géométrique et matriciel des anciens " sociogrammes," et nous nous trouvons là devant un langage complètement mathématique qui résulte de l'évolution d'un schéma originairement empirique. Le raccourci est trop bref et il mériterait d'être amendé, mais il s'agit de signaler simplement les voies possibles dans lesquelles une théorie est susceptible de s'engager. Le scepticisme de certains sociologues quant à l'imminence d'une conceptualisation de nature mathématique n'est pas sans fondements. Pourtant aux yeux de l'observateur objectif, une divergence quant au *langage* dans lequel peuvent s'exprimer les hypothèses et les modèles dans notre science est apparente. On assiste à une " régionalisation " des langages, puisqu'il semble bien que le langage mathématique soit déjà présent dans quelques secteurs des sciences sociales, tandis que le langage " logique," qualitatif, domine largement l'ensemble. A notre avis, cette situation, malgré son inconfort, est assurée d'une certaine perennité, dont il convient de saisir les avantages tout en assurant les amènagements intellectuels qui s'imposent à la plupart d'entre nous,[33] par un enseignement approprié.

(d) Le déplacement lent encore, mais assuré, du centre de gravité de la sociologie vers la recherche théorique pose toute une série de problèmes d'emboitement. Au premier chef celui de l'adaptation entre les principes larges et les intuitions importantes des bâtisseurs de systèmes avec les confirmations, les qualifications ou les modifications qu'une appréhension plus assurée du réel impose. Dans cette perspective, Merton avait proposé l'élaboration de théories " médiatrices " (Middle range theories) dont la fonction est d'établir un pont en treles suppositions et les uniformités suggérées par l'observation ou l'expérience et les ensembles conceptuels plus élevés.[34]

Conjointement, ces théories " médiatrices " doivent aider à ouvrir d'autres champs à l'exploration empirique. Par ailleurs les rapports entre celle-ci et la réflexion conceptuelle serait facilités par l'édification de typologies[35] qu'on peut souhaiter aussi " réelles " ou " idéales " que l'on veut à condition qu'elles soient fécondes. La plupart des techniques statistiques, dont il sera question plus loin (analyse hiérarchique, analyse des structures latentes) ont comme objectif la définition

de types dont la référence est à la fois expérimentale et hypothétique.[16] Naturellement ces efforts classificatoires ne sont que des étapes vers des modes d'intégration plus accomplis des matériaux concrets et de la réflexion scientifique. Des critiques peuvent être adressées à ces théories médiatrices de même qu'à une épistémologie qui fixerait comme but à la science la construction de systèmes typologiques. Ce qui est significatif, pour notre propos, c'est de voir s'esquisser à travers tous ces essais, les fondements d'une *theorie* sociologique, dans le sens strict du terme.

Parfois, des sociologues envisagent la prédominance actuelle de la théorie comme une revanche de la réflexion " systématique " sur la " manipulation " empirique. C'est qu'ils ne saisissent pas d'une manière suffisamment claire la distinction entre les deux formes—théorie et système—de conceptualisation. Si l'on analyse dans le détail les conséquences de cette orientation actuelle vers le conceptuel, on remarquera qu'elle nous a libéré d'un certain formalisme spécifique à une période où seul le caractère normalisé des démarches garantissait la valeur et la mise en rapport des données. Maintenant, le facteur unificateur, sur le plan méthodologique, ne se situe plus au niveau technique mais au niveau théorique. En regard de celui-ci les modes d'expérimentation ou d'observation peuvent être fort divers, à condition d'être rigoureux, car c'est le langage notionnel et non pas le langage instrumental qui en exprime la quintessence et assure les échanges entre les multiples secteurs d'exploration. Et, paradoxalement, la part de plus en plus grande de la pensée hypothético-déductive dans nos travaux nous impose une connaissance des plus amples et un raffinement croissant des outils mathématiques ou expérimentaux. Dans cette perspective on voit aussi que les système classiques n'ont pas eu de grandes exigences quant aux moyens nécessaires pour approfondir le réel—ces systèmes se suffisaient à eux mêmes—les tentatives actuelles destinées à fonder une *theorie scientifique* poussent au contraire à l'élargissement du champ d'action de ces moyens. Il n'est pas rare de voir des chercheurs dont les contributions théoriques sont significatives proposer des techniques appropriées à leurs objectifs. Nous mentionnerons ici, à titre d'exemple les travaux de Merton[17] sur l'entretien focalise et ceux de Lévi-Strauss sur l'analyse structurale des mythes.[18]

Assurément, les tendances que l'on vient de décrire ne sont pas générales. Il convient d'encourager toutes les orientations qui sont susceptibles de nous permettre de mieux connaître la réalité. Néanmoins cette connaissance suit certaines voies dont la signification nous est apparue précédemment. On examinera maintenant les modalités techniques qui la soutendent.

3. Les Techniques de Recherche et leur Evolution

L'ampleur de l'utilisation des techniques en sociologie fut d'abord solidaire de la tendance empiriste. Pour pouvoir procéder à des col-

lectes de faits aussi nourries que possible, les chercheurs se tournèrent vers d'autres sciences pour leur emprunter massivement des techniques, essentiellement des techniques de traitement statistique. La conception strictement empirique s'accompagnait de la croyance, communément répandue, que " les faits parlent d'eux-mêmes." La diversité, sinon la confusion, et la stérilité par rapport à la théorie des résultats obtenus vinrent dissiper une telle croyance et souligner qu'il n'existe pas de fait " pur," que tout fait est aussi une construction. On prend de plus en plus conscience que la part de cette construction doit être connue pour que l'investigateur ne s'abuse pas lui-même et qu'elle doit être intentionnelle et concertée pour que les données puissent se révéler fécondes.

L'observation, même celle qui se veut le plus résolument passive, est déjà un tri. Elle retient certains aspects, en écarte et en néglige d'autres. Elle peut, en certaines circonstances, réagir sur ce qui est observé et le modifier. Une conscience plus aigüe des risques d'amputation et d'altération involontaires du fait incita à l'abandon progressif des questionnaires à priori et à l'utilisation de questionnaires établis d'après les résultats de la pré-enquête. Celle-ci, pour des raisons de refus d'apriorisme, utilise fréquemment des types d'entretien non[20] ou peu dirigé, qui sont l'objet d'un emploi de plus en plus répandu.

Ce souci d'obtenir des données altérées au minimum a engendré de réels progrès dans les diverses méthodes de collecte des faits. Par exemple, dans la méthode des enquêtes par sondage s'est accentué depuis une vingtaine d'années un triple effort. En premier lieu, on s'est attaché à perfectionner les plans de sondage pour réduire l'erreur d'échantillonnage et obtenir le maximum d'information. En second lieu, on a développé les techniques de construction et de contrôle des questionnaires. Enfin, de nombreuses publications, même si elles se bornent fréquemment à l'énumération de conseils pratiques, ont cherché à établir les préceptes à suivre pour bien conduire une interview.

Cet effort pour réduire au maximum l'altération des faits, s'est accompagné du désir de ne pas s'attacher à des faits illusoires. Il n'a plus suffi de dénombrer; pour que l'on puisse conclure au caractère non fortuit et non fictif du fait, on a de plus en plus reconnu la nécessité de s'assurer de la très faible probabilité pour que ces nombres soient imputables au seul hasard. C'est à ce niveau qu'interviennent les épreuves statistiques dénommées " tests de signification " par les statisticiens. Les possibilités de vérification de l'existence d'un phénomène se sont accrues de deux manières. En premier lieu, par le développement récent et soudain des épreuves statistiques dites " non paramétriques " ou de " distribution libre." Ces dernières comportent un répertoire varié d'épreuves généralement plus aisées à effectuer que celles des tests paramétriques. En second lieu, la construction de modèles probabilistes permet d'apprécier le relief d'un phénomène en

confrontant ce que l'on observe et ce que l'on observerait si le hasard seul intervenait.   Ces modèles découlent du même principe que les épreuves de signification mais atteignent des niveaux de complexité plus élevés.   Ainsi en est-il des robots qu'imagine R. Tagiuri dans ses études sur la perception d'autrui.   L'écart entre l'observé et l'attendu est signe de la réalité du phénomène.

Obtenu et établi, le fait doit aussi être décrit.   Pour des données non standardisées comme celles qu'une pré-enquête procure ou comme celles que certaines études du contenu des communications ne peuvent standardiser, il est apparu nécessaire d'expliciter et de systématiser les règles d'une description correcte.   L'attention s'est portée sur des procédés de classification et de catégorisation susceptibles de rendre compte des données le plus fidèlement et le plus économiquement possible et qui permettent d'aboutir à une " description objective, systématique et quantitative du contenu manifeste ".[40]   L'analyse du contenu, concertée et réfléchie, permet d'effectuer une première description.   Elle assure l'extraction d'un système notionnel et une quantification qui autorise des calculs de fréquences et de leurs variations. Mais elle encourt le reproche de ne pas aboutir à des résultats dotés d'une signification suffisante.   Encore trop atomisante, elle ne peut déceler les articulations qui lient les divers aspects des phénomènes étudiés.   Elle se situe au niveau du manifeste, de l'apparent, de l'accessible qu'elle rend moins hétéroclite et qu'elle structure.

Mais l'accessible peut aussi être l'accessoire.   Aussi faut-il distinguer deux niveaux d'études des faits.   Le premier, parfois dénommés " phénotypique " est descriptif.   Il consiste dans l'énumération des diverses facettes du phénomène et dans le calcul de leur degré de parenté.   La technique statistique du calcul des corrélations permet de détecter des convergences, des divergences ou des indépendances et indique les aspects du fait qui sont solidaires et ceux qui sont antagonistes.   Le second niveau d'étude des faits est analytique.   C'est à ce stade que se situe l'effort de rendre compte de la diversité apparente, du foisonnement manifeste par le recours à des hypothèses sur la structure véritable du phénomène.   Il s'agit de déceler le " génotype " sous le " phénotype."   Des investigateurs ont voulu utiliser les techniques d'analyse factorielle, d'usage fort répandu en psychologie.   Ces techniques visent, par l'extraction d'un nombre restreint de facteurs, à dénouer l'écheveau des multiples interrelations entre les variables étudiées.   Elles ont connu un prolongement récent avec le " radex " de L. Guttmann.   Ces techniques se sont révélées être généralement d'une utilisation périlleuse.   En effet, elles exigent que les variables soient quantitatives et que leurs relations satisfassent aux conditions d'homocédasticité que requiert le modèle statistique.   Pour pallier ces inconvénients, de nouvelles techniques ont été développées, notamment par L. Guttmann et P. Lazarsfeld.[41]   Elles permettent d'analyser une série de variables qualitatives et de dégager des struc-

tures là où l'analyse factorielle n'aurait pu opérer. On aboutit donc à des structures ou à des facteurs latents, sous-jacents. L'imprécision et l'ambiguité de ces termes, la marge d'inapplicabilité du modèle acceptée à titre d' " erreur " et l'aspect actuellement sommaire de ces modèles imposent de rappeler le caractère nettement conjectural des structures que dégagent ces méthodes d'analyse.

Etabli, décrit, analysé, le fait doit aussi être mesuré pour pouvoir être soumis à un traitement statistique qui nous renseigne sur le caractère fortuit, le peu d'ampleur ou l'ampleur caractèrisée de ses variations. De nombreuses données ne sont pas directement mesurables. Par exemple les attitudes. Aussi, entre les deux guerres, apparurent de nombreux procédés destinés à la quantification de données qualitatives. Certains auteurs—Thurstone et Likert notamment—proposèrent des techniques de construction d'échelle, qui connurent une grande utilisation. La principale critique adressée à ces échelles porta sur leur ambigüité. Elles peuvent plaquer une fausse unité quantitative sur ce qui est qualitativement différent. Une valeur quantitative, un score peuvent recouvrir des différences qualitatives et les masquer. Pour surmonter cette insuffisance de sensibilité de la mesure, des auteurs, dont Guttmann et Lazarsfeld, développèrent des procédés d'analyse des échelles qui sont l'objet d'une faveur croissante.[42] Cet effort de quantification ne doit pas faire oublier que ces techniques ne sauraient s'appliquer à toutes les données et que, pour certaines de ces dernières, le problème de leur quantification reste entier.

Etabli, décrit, analysé et mesuré, le fait appelle une étude comparative. " La méthode comparative est l'instrument par excellence de la méthode sociologique."[43] En effet, elle s'attache aux variations des phénomènes dans des situations diverses et cherche à dégager la signification de ces variations. Aussi l'investigation se soucie-t-elle de plus en plus de pouvoir localiser ces oscillations et apprécier leur ampleur et leur direction. Ces études comparatives, encore trop fréquemment décidées après l'obtention des données, sont de plus en plus planifiées. L'investigateur projette son expérience de telle façon qu'il puisse procéder au plus grand nombre de comparaisons possibles entre les différentes " sources de variation " du phénomène et construit dans ce but un plan d'expérience. L'outil puissant et résolument comparatif, proposé par R. A. Fischer,[44] est de plus en plus utilisé. Connu sous le nom d' " analyse de la variance," il permet de déceler si les caractéristiques de situation exercent une certaine influence. De plus, il ne porte pas sur des caractéristiques isolées mais fait aussi ressortir les combinaisons qui exercent une action privilégiée. Un des avantages majeurs de cette technique et d'indiquer le niveau de complexité des variables retenues dans le plan factoriel auquel doit s'effectuer l'étude comparative. On dépasse ainsi la pauvreté et le schématisme des études unifactorielles pour se situer à un niveau plus compréhensif. Il convient de souligner que le pouvoir discriminatif d'un plan factoriel

est éprouvé par rapport aux autres variables susceptibles de faire osciller le phénomène.   La notion de " réplique " est essentielle à l'analyse de variance et elle confère une indiscutable validité aux résultats qu'elle dégage.   Mais l'exigence de " répliques " se heurte fréquemment à des difficultés pratiques; en effet, elle requiert de se livrer plusieurs fois à la même expérience.[46]   Avec l'utilisation de plans d'expérience sans " replication," l'étude devient moins sensible et ses résultats plus précaires.   Une autre limitation de l'emploi de cette technique réside dans la fréquente impossibilité de faire varier de façon concertée les caractéristiques de situation.

Ces caractéristiques sont aussi appelées variables indépendantes. Elles peuvent—c'est le cas le plus fréquent—être hors de l'emprise de l'investigateur.   La possibilité ou l'impossibilité du maniement de ces variables, l'activité ou la passivité du chercheur à leur égard permettent de classer les recherches expérimentales.   Si les enquêtes sont menées avec un souci d'extension et de représentativité des résultats alors que les études sur les terrain se veulent plus compréhensives et aboutissent à des monographies, néanmoins ces deux méthodes présentent un caractère commun: elles ne permettent pas d'agir à volonté sur les variables indépendantes.   Cependant ces variables et leurs combinaisons qui sont accessibles à l'investigation, ne sont pas forcément celles qui sont essentielles à la recherche expérimentale projetée. Cette constatation a incité à la construction d'expériences de laboratoire où l'on puisse agencer une série de variables de façon à rendre accessibles les variables retenues pour l'étude et à limiter au maximum les variables parasitaires.   Ainsi, avec l'expérience de laboratoire, l'accent est mis sur la manipulation de certaines variables et sur le contrôle de certaines autres.   La critique principale adressée à de telles expériences repose sur le caractère artificiel des situations qu'elles agencent, des comportements qu'elles déclenchent et par conséquent des résultats qu'elles élaborent.   L'inférence des résultats obtenus lors de situations de laboratoire à des situations de la vie réelle suscite de légitimes inquiétudes.   Pour dissiper ces dernières, deux méthodes ont été préconisées: la première recommande l'alternance des deux méthodes de recherches qui se prêteraient ainsi un renfort mutuel et dont les enseignements s'éclaireraient de façon réciproque; la seconde méthode, plus récente, réside dans l'organisation des expériences dans les cadres mêmes de la vie réelle.[46]   Cela ne peut être effectué que dans les cas peu fréquents où il est possible de manipuler les variables indépendantes dans le cadre de collectivités réelles et où la mise en oeuvre de cette manipulation peut s'opérer de telle façon qu'elle n'engendre pas trop d'artificialité, particulièrement en " désimpliquant " les membres de la population étudiée et en induisant chez eux un rôle de " sujet " de laboratoire.   Ces trois types de recherches sont toujours utilisés; ils répondent en effet à des besoins différents.   Mais dans la mesure où la recherche se veut plus compréhensive, elle tend à

passer de l'observation à l'expérimentation et à rendre cette dernière la plus significative possible. On doit souligner la nécessité d'expliciter la part d'intervention de l'investigateur et de procéder à d'incessantes et progressives confrontations des enseignements que fournit l'observation—qu'elle se fasse sous la forme d'enquête ou d'étude sur le terrain—et de ceux que procure l'expérimentation—qu'elle se déroule sur le terrain ou en laboratoire.

Le développement des techniques expérimentales va de pair avec le recours croissant aux mathématiques. Ce recours se situe à deux niveaux: celui des statistiques et celui de la formalisation.

Les techniques statistiques se sont sans cesse perfectionnées. Les modèles des épreuves tendent de plus en plus à être explicités et leurs conditions d'applicabilité à être définies. De plus, les tests mêmes de ces conditions d'applicab lité se sont multipliés. Une autre amélioration de l'utilisation des techniques statistiques réside dans le souci plus grand porté à la sensibilité des tests. On se préoccupe moins exclusivement de l'erreur constituée par le rejet de l'hypothèse nulle lorsqu'-elle est vraie; on considère aussi l'erreur provoquée par l'acceptation de l'hypothèse nulle lorsqu'elle est fausse; la notion de puissance d'un test est l'objet d'un intérêt croissant. Une telle préoccupation reflète bien la résolution de parvenir à mieux connaître les épreuves statistiques, à pouvoir les confronter et donc les choisir avec un plus grand discernement.

Ces techniques ont reçu aussi des apports originaux, constitués notamment par l'analyse de variance de R. A. Fischer, par les statistiques non-paramétriques et par l'analyse séquentielle. Une des difficultés majeures de l'utilisation des techniques statistiques dans les sciences sociales est soulevée par l'exigence de " normalité " des variables que présentent un nombre élevé d'épreuves. La " normalisation " forcée de ces variables n'est ni toujours possible ni toujours souhaitable. Cet obstacle a pu être surmonté lors de l'essor récent des tests de distribution libre qui sont venus s'ajouter aux rares épreuves non-paramétriques déjà existantes. On dit souvent que ces tests ne font appel à aucune hypothèse sur la forme de distribution et sont donc d'un emploi très étendu. Il ne faut point cependant se dissimuler que ces épreuves statistiques peuvent comporter encore des hypothèses relatives à la forme mathématique des distributions. Ainsi l'on doit encore postuler, pour la plupart d'entre elles, le caractère continu de la population. En outre, il convient de rappeler que si l'on dispose de techniques de confrontation entre des tests non-paramétriques de signification et les tests paramétriques correspondants, il n'en va plus de même en ce qui concerne les tests non-paramétriques d'estimation. Une autre innovation, dont l'on pressent aisément la fécondité, réside dans l'analyse séquentielle. Définissant statistiquement l'hypothèse à éprouver et les deux risques d'erreur encourus, elle indique à quel

moment arrêter l'investigation.   Perfectionnement et renouvellement des techniques statistiques, meilleure connaissance de l'applicabilité des épreuves et de la validité de leurs résultats, recherche d'épreuves d'emploi plus général, tout cela témoigne de l'essor continu de l'analyse statistique et de ses possibilités accrues d'une utilisation plus avertie.

A un second niveau, l'on a recouru à la mathématique pour formuler les hypothèses et non plus seulement pour les éprouver.   Cette dernière tendance s'est développée récemment sous la forme de construction de modèles.   Il convenit ici de distinguer trois sortes de modèles: d'une part les modèles statistiques; ils ne concernent pas l'énoncé d'hypothèses expérimentales.   D'autre part les modèles probabilistes; ils servent à établir les résultats que l'on obtiendrait si le hasard intervenait seul.   Dans ce type de modèle la déviation entre les résultats escomptés et les résultats obtenus est indicatrice de l'existence d'un phénomène et reçoit toute l'attention des investigateurs.   Par exemple le modèle des robots de Monte-Carlo imaginé par R. Tagiuri dans son étude de la perception d'autrui; ce sont les écarts des valeurs " attendues " avec les fréquences observées qui révèlent le dégré de connaissance d'autrui manifesté par les sujets.   Un troisième type est constitué par les modèles que l'on pourrait qualifier de " théoriques."   L'on fait des hypothèses sur les processus eux-mêmes.   Ici, l'ampleur de la déviation n'est plus constitutive de la réalité phénoménologique; elle en est négatrice.   Les modèles proposés par S. C. Dodd pour l'étude de la propagation des rumeurs, appartiennent à ce dernier type.   Actuellement, les constructeurs de modèles semblent puiser préférentiellement dans les trois domaines mathématiques suivants: théorie des graphes, calcul matriciel et calcul des relations.   Il serait prématuré de se prononcer sur la fécondité d'un tel recours aux mathématiques pour la formulation des hypothèses.   Néanmoins, il apparaît déjà qu'une telle méthode peut jouer un rôle unificateur en dévoilant des analogies parfois insoupçonnées entre des théories apparemment disparates.   Elle peut aussi préciser les différences et, en outre, dans un corps d'hypothèses dépister des incohérences.   C'est avec raison que Cl. Levi-Strauss[17] souligne un autre résultat heureux de cet appel aux mathématiques; ce recours ne peut se réduire à un emprunt de techniques mathématiques préexistantes mais exige des développements mathématiques inédits et plus aptes à être utilisés dans la recherche sociologique.

Statistiques descriptives, analyse statistique, formulation mathématique d'hypothèses et de théories, tels semblent être les aspects successifs de l'introduction des mathématiques en sociologie.

Ce compte-rendu de l'évolution des techniques, bien que ropt elliptique, permet néanmoins d'attirer l'attention sur quelques caractéristiques de cette évolution.   Chacun des moyens mis en oeuvre pour transformer les faits du sens commun en faits scientifiques tend à être de plus en plus explicité, élaboré et perfectionné.   La prescription

de l'empirisme de s'en tenir au seul observé n'est plus suivie. Des techniques résolument comparatives sont disponibles.

Les avantages et les limitations de chaque méthode d'investigation tendent à être précisées et éprouvées, en même temps qu'est affirmée a nécessité de l'aide mutuelle que ces méthodes doivent se prêter. De plus, les mathématiques effectuent un apport croissant et plus varié. Un autre trait, commun à l'évolution de l'ensemble des techniques et des plus importants, réside dans le refus progressivement plus affirmé de s'en tenir à une conception purement pragmatique des techniques et de considérer ces dernières uniquement à titre de procédés. Bien au contraire, l'on s'interroge de plus en plus sur leurs fondements rationnels. Il importe donc que le chercheur adopte une position critique à l'égard des instruments qu'il utilise et qu'il ne subisse point leur tyrannie. Le danger que comportent les instruments été bien décelé a par L. Brunschvieg.[48] Pour cet auteur, il importe de ne pas les laisser " se solidifier en une sorte de substance rigide qui s'imposerait au cours des choses comme un cadre défini en soi et préforme. Contre cette prétention, la nature a résisté, forçant l'hommes à assouplir et à adapter ses instruments, sinon sur la mesure, du moins pour la mesure des choses."

Il existe aussi un danger, bien plus préoccupant que les imperfections et les lacunes actuelles des techniques. L'essor de ces dernières entraîne une spécialisation accrue, tellement accentuée qu'elle a provoqué l'attribution d'activités essentiellement méthodologiques à certains chercheurs. D'une part on court le risque que ces chercheurs se livrent à des investigations qui, bien que méthodologiquement rigoureuses, se trouvent dénuées de portée théorique. D'autre part l'on peut aussi avoir à déplorer que des non-méthodologues s'adonnent à une utilisation aveugle, donc fréquemment inappropriée, des techniques de recherche. Une telle utilisation enleverait beaucoup de leur validité à des investigations pourtant mûrement réfléchies sous l'angle de leurs apports théoriques. La conscience d'un tel danger invite de façon pressante d'une part à veiller sur le plan personnel à ce que l'acquisition de nouvelles connaissances et les réflexions critiques ne retiennent pas ou ne rejettent pas les seuls aspects méthodologiques, d'autre part à faire se multiplier et même proliférer les échanges entre méthodologues et non-méthodologues et enfin à préconiser des recherches collectives.

Quelle que soit la complexité d'un situation particulière dans laquelle se trouve le spécialiste, il ne doit pas perdre de vue que techniques et méthodes ne sont que des produits et des moyens de la pensée scientifique.

NOTES

[1] Voir entre autres P. Lazarsfeld. " Problems in methodology " in *Sociology To-Day*, édité par R. K. Merton, New York 1959 et Festinger (L.), Katz (D.) *Research Methods in the Behavioral Sciences* New York 1953 et G. Gurvitch et W. E. Moore—*Twentieth Century Sociology*, New York 1945 et Barnes (H. E.), *An Introduction to the History of Sociology*, Chicago 1948.

[2] Voir à ce sujet l'introduction de l'ouvrage *De la division du travail social* de Durkheim et les remarques de G. Friedmann sur " La thèse de Durkheim et les formes contemporaines de la division du travail " dans *Le travail en miettes*, Paris 1956.

[3] M. Halbwachs. *La theorie de l'homme moyen. Essai sur Quetelet et la statistique morale.* Paris, 1912.

[4] Voir à ce sujet l'article de R. Pagès " Quelques sources, notamment fouriéristes de la sociologie expérimentale " in *Archives internationales de la sociologie de la Co-operation*, Paris, 1958. 404.

[5] A. Quetelet, *Sur l'homme* (1ère édition, Bruxelles, 1835) ou *Physique sociale, uo Essai sur le developpement des facultes de l'homme* (2ème édition 1869).

[6] Villermé, *Tableau de l'etat physique et moral des ouvriers employes dans les manufactures de coton, de laine et de soie*, Paris, 1840.

[7] Engels, *Die Lage der arbeitenden Klassen in England*, Leipzig, 1844.

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[15] R. K. Merton, *Social Theory and Social Structure*, Chap. 12.

[16] R. Pagès,

[17] Kurt Lewin " The Conceptual Representation and the Measurement of Psychological Forces " cité par E. R. Hilgard and D. Lerner, in *The Policy Sciences*, p. 35, Stanford 1951.

[18] Voir pour description plus approfondie le chapitre de John C. McKinney, " Methodology, Procedures and Techniques in Sociology " in H. Becker & A. Boskoff (Eds.), *Modern Sociological Theory*, New York 1957, p. 186-236.

[19] Abel, (Theodore) " The operation called Verstehen," *Amer. J. Soc.*, 1949 (54) 211-218. Dodd, Stuart C. *Dimensions of Society*, New York, The Macmillan Co. 1942.

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[41] P. Lazarsfeld, op. cit.

[42] W. Torgerson, *Theory and Methods of Scaling*, New York, 1958.

[43] Durkheim, " Sociologie et Sciences sociales " dans *La Methode dans les Sciences* tome I, p. 282.

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On Some Recent Developments in the Relation between Theory and Research

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I

In the following report I would like to communicate some feelings of uneasiness I have had during the last few years when looking at the development of some particular trends of post-war sociology, both in Germany and in France. Some traces of this development could also be found in the United States. These feelings of uneasiness are mainly concerned with the relation between theory and research. Although many advances have been made in German post-war sociology, and although many important research projects have been carried through successfully, one could not by any means claim that the condition either of research and theory on the one hand, or of their mutual relation on the other were satisfactory. It is not even felt that this relation needs, together with further clarification, a somewhat systematic elaboration in order to avoid the pitfalls of hollow theorizing, and of an overestimation and undue concentration on the technical devices used in field work as well.

In general, it seems to me that the demand for strengthening a conscious relation between theory and research has more or less given way to a rather haphazard relation on the one hand, whereas on the other hand there is a tendency to disregard everything that has already been accomplished in this field, and to replace it by something very different which I will attempt to develop in my report. I would like to emphasize from the very beginning that, in general, we shall not have to discuss the respective importance of sociological *theory or research* in the complex process of the development of sociology, but rather the relation of sociological *theory and research* on the one hand, and what I have proposed to call a *theory of society* on the other hand, which could, then, be more or less independent both from sociological research and from sociological theory.[1]

I really think that this is a new aspect which should be taken into consideration when evaluating contemporary German sociology and many published research reports in different fields. But I would like to mention at once that the situation seems to be rather similar in

France. In looking, for example at Georges Gurvitch's recent vehement attacks against empiricism in sociology, one becomes aware that his argumentation has changed in an interesting way during the last twenty years. In 1938,[2] he attacked the philosophical systems of sociology in arguing " that any theoretical classification of the forms of sociability should eliminate any kind of conscious or unconscious hierarchization of these forms " in order to comply with the requirements of a consequent " sociological pluralism ", and its " radical sociological empiricism ".[3] Now, however, he has considerably shifted away, and in a rather illuminating manner, from this fundamental statement. When, in 1950, he again published the essay quoted above, I found in it, besides many very valuable additions, a slightly remodelled version of his concept of empiricism, and this became in the following years the main source of my feelings of uneasiness as initially stated.

In fact, it now reads that a " consequent " sociological pluralism rises from a " hyper-empiricism " and a " super-relativism " in sociology.[4] We wonder whether this modification can be looked upon as being nothing but a change in language, or a change of a more substantial character. We are rather inclined to accept the second alternative given that, in general, a change in kind can be expected as soon as the superlative meaning of a statement is stressed by elevating the originally " radical " empiricism by a twofold gradation to a " super-relativistic hyper-empiricism ". We cannot refrain ourselves from confronting such an attitude with the ordinary conception of an interplay between theory and research, e.g. as discussed by Robert K. Merton. Actually, Gurvitch sees himself quite in opposition to the usual empirical approach in sociology and develops his hyper-empiricism and his super-relativism as new " antennae " to seize " the entire depth and the complete wealth of social life ".[5] Now, in some way Gurvitch himself tries to refer back to the classical forms of empiricism by invoking Marcel Mauss as a main witness in favour of this claim, together with his concepts of a " total man " and a " total society "[6] which, in the eyes of Mauss, called forth a notable improvement in our methodological devices by advocating both a multi-dimensional approach and an inter-disciplinary co-operation in social research. However, I strongly feel, and I have in mind to develop that in detail, that to Gurvitch, this reference, is nothing but an attempt at secondary self-interpretation of his new outlook in terms of an old Durkheimian empiricism. On the other hand, Gurvitch's real background is of a quite different origin and presents features of a highly philosophical, if not metaphysical, character. It can easily be traced back both to Hegel and Marx. Therefore, it may not seem accidental any more that the statement quoted above is to be found in an essay of Gurvitch's on the early writings of Karl Marx, first published in 1948, for the Centenary of the Communist Manifesto, in the French journal *Cahiers*

Internationaux de Sociologie, edited by Gurvitch himself,[7] and reprinted in *La vocation actuelle de la sociologie*. In the meantime, the essential change has been performed: in 1948 he still speaks of a " radical empiricism " and a " relativistic pluralism " as in 1938; in 1950 both expressions have been modified to their actual form of " hyper-empiricism " and " super-relativism ".[8]   I think that the assumption is near at hand to account for this change by reference to an influence of the early writings of Marx on Gurvitch.[9]   In fact, we are faced by two kinds of " depth sociology ", the first one being an amendment of Durkheimian empiricism by breaking down the traditional barriers between different disciplines (e.g. between sociology and psychology), the second one being of a purely philosophical character by re-introducing Hegelian dialectics in the method of sociology.

In comparison with these rather weighty arguments the recent attacks Pitirim A. Sorokin has developed in the United States against any kind of empiricism by advocating " the intuitional channel for cognition of the superrational supersensory phenomena-noumena in the psycho-social universe " seems rather poor, if not in the accumulation of superlatives, at least, with regard to the philosophical foundations of his cultural-social philosophy.   It may be worthwhile to note that he, too, strives for the cognition of the " total " psycho-social reality, however with rather inadequate means.[10]   Therefore, I will limit myself to the discussion of the former group of arguments together with related questions.   I strongly feel that a real and far-reaching problem is involved in these statements, and I will try to develop (1) the general constellation from which it originated, (2) its main arguments and (3) some implications which might help to a better understanding of its meaning.   I also hope that it might be possible, irrespective of the extremely controversial opinions involved, to reach some kind of an agreement concerning the general systematic and theoretical implications of this conflict and the rather ambiguous and somewhat gloomy perspectives disclosed by it.

II

In this paragraph, I would like to give at least some sketchy ideas about the constellation out of which this new argumentation developed.   This will clearly indicate that there are many serious reasons for criticizing the present state of sociological theory in many parts of the world without, however, concluding that the only way out of these difficulties could be the one developed either by Gurvitch in France, or, to take another example, by Theodor W. Adorno in Germany.   Even though it can be taken for granted that, in most instances, these writers are completely right in their reproaches and respective criticisms against the negligent way the relation of theory and research has been dealt with in some or even many cases, it seems a quite different thing to proceed from that to a radical rejection of a research

design with a sound interplay of theory and research in sociology and to replace it by a hyper-empiricism aiming to grasp the integral concept of reality growing out of the totality of life.

In order to show the legitimacy of these criticisms, I would like to give some rather puzzling examples. In their short preface to their Textbook of Sociology[11] both editors, Arnold Gehlen and Helmut Schelsky, raise the question how to deal with sociological theory in such a textbook. Flabbergasting as it may seem, they nevertheless explicitly state that they have in mind " to dispense with any kind of systematization or with what could be called a theory ". They only cared that the different contributions to their volume " advanced to more complete aspects or models where the materials available made that possible. A comprehensive theory cannot be offered for the time being. Such an attempt, if undertaken seriously, would have to point continuously to its own ambiguity, to the large blank spots in our anthropological conceptions, to the lack of first hand surveys which makes itself felt everywhere, to the obvious one-sidedness in most of the existing attempts at systematization which have been put forward from partial and rather often tendentious aspects, finally to the problematic applicability of many categories of Max Weber to the contemporary situation—and this is still the most comprehensive and systematic design ".

Now, when reading these sentences we can only agree with their wise scepticism. But I wonder whether we could reach a general agreement with regard to the actual meaning of the concept of " theory " as used in these sentences. On the one hand the authors speak about " more complete aspects or models where the materials available made that possible ". This seems to point in the direction of what Robert K. Merton would call a " middle range theory ". On the other hand, they seem to have in mind something different when raising general anthropological questions. The latter point becomes particularly clear when one thinks that, in German, the world " anthropology " has to be understood in the sense of " philosophical anthropology ". We would also like to draw attention to the fact that sociological theory and philosophical anthropology are discussed as if they were growing out from the same basis. Finally, they have again something different in mind when they complain about the lack of first hand surveys. This obviously means research.

Another interesting example is given by Erich Reigrotzki in his book on some social problems in Western Germany.[12] His ambition is to give relevant information about selected social problems by completely refraining from any kind of a theoretical conception.[13] He seems to believe that there is a chance of getting factual information first, and then proceeding, *post factum*, with a theoretical evaluation of the data.[14] Merton has dealt with this procedure and pointed to its " implicit

assumption . . . that a body of generalized propositions has been fully established and that it can be approximately applied to the data in hand ".[15]   In other words, here the observations gathered serve a *post factum* explanation and are not utilized " in order to derive fresh hypotheses to be confirmed by new observations ". If these explanations " are indeed consistent with the given set of observations ", then this kind of explanation may be rather useful.   Now, if we look back to Reigrotzki in order to find out whether he has this in mind, we will immediately find out that he is of the contrary opinion: given that there is no such consistent body of generalized propositions, he uses his gathering of data as a preliminary expedient until a systematic sociological theory arises.   This argument reminds me of the position quite common among the representatives of the early " historical " school in economics, that many empirical materials ought to be compiled before a consistent theory could be developed.   In fact, along this line a theory will never be developed; on the contrary, this procedure might cause rather deceptive prejudices as has rightly been stressed by Merton. Since in most of the cases no consistent body of theoretical propositions is available, the *post factum* hypotheses are nothing but *ad hoc* hypotheses " or, at the least, have but a slight degree of prior confirmation ". In this case " such ' precocious explanations ', as H. S. Sullivan called them, produce a spurious sense of adequacy at the expense of instigating further inquiry ".   And he concludes in the following striking way: " The logical fallacy underlying the *post factum* explanation rests in the fact that there is available a variety of crude hypotheses, each with some measure of confirmation but designed to account for quite contradictory sets of affairs ".[16]   Now, I would like to develop two points which may be used to clarify the situation and to understand its implications which have already been dealt with in the first paragraph.

(1) On one hand, it seems that there is both an open and a tacit agreement to the idea that e.g. sociology of the family, urban sociology, industrial sociology, etc., could be developed out of pure facts, without any theoretical framework.   Here, we have to face the most amazing fact that German sociology does not suffer from an excess of theory, as has so often been said, but on the contrary from a lack of theory. There is also a lack of understanding of the specific functions of theory in the research process.   As a matter of fact, when looking over many post-war productions in the field of research, we rather often meet with the implicit or even explicit proposition that a research design without any theoretical hypotheses could be possible.

I would like to add immediately to this first observation that in most cases the same conception is promoted by the enemies of an empirical approach in sociology when criticizing e.g. American sociology.   The general opinion seems to be that American sociology is bare of any theoretical ideas and trying to develop its concepts by heaping up more and more empirical data.   Even if this may have been perfectly true

in the past of some isolated cases, it surely cannot be found any more in contemporary American sociology which has become more and more aware of the far-reaching theoretical implications of any kind of research. It corresponds to this general misunderstanding when one reads that the " zero hypothesis " in research is nothing but a " tabula rasa," that the observer has to be completely unprejudiced and unbiased by any kind of theoretical pre-conceptions when he goes into field work. It can be said that many representatives of the so-called " sociographic " approach come very near to this attitude. The main danger it has to face is what could be called the unconscious normative radiation or inference of factual data on our judgment. The result of this naive realism can be foreseen rather easily. The research worker becomes an easy victim of bad mistakes with regard to the biased character of his findings.

(2) It is obvious that the primitive character of such an approach simply had to call forth protests from all the more theoretically minded sociologists. Now, this is the very point where most of the time two different meanings of the term " theory " are mixed up, which, in my view, should be carefully separated. On one hand, it seems quite obvious that no research will be possible without specific " models ", theoretical frameworks or hypotheses adapted to the situation or the facts under scrutiny. Thus, we need a general conception of the family if we want to analyse particular aspects of contemporary family life. Moreover, it is by no means enough to dispose of an overall general theory of the family, but we rather need a more or less articulated, systematized and inter-connected set of propositions concerning many distinct single aspects of family life. This is what we call a body of inter-connected theories out of which we develop new hypotheses.

Now, when we take a closer look at these propositions it is easy to show that they represent two different types of logical structure. On one hand we find statements like the following: the probability of divorce decreases to a certain extent with an increase of the number of the children because a larger family develops a higher degree of group cohesion, unless the development of stable family relations is prevented by some other external causes such as poor economic situation, disease, unemployment, etc. On the other hand, we find propositions of a different character: since a strong paternal authority is a prerequisite for family stability, and since there is proof of the steady declining of paternal authority, the family has a tendency to decay and divorce rates tend to rise at an increasing rate. The confusion between the two kinds of propositions is avoided when Merton differentiates his theories of the middle range from " all-embracing and grandiose " conceptions. The second example obviously belongs to the latter kind of theory, whereas the first one is of a more limited character and more modest in scope.

Even though the point is made that both approaches are different, they still remain connected in some way insofar as the assumption is made that the second alternative is nothing but a generalization of the first one.   Again we could speak of precocious explanations or hasty and too far-reaching inferences.   In fact, when Merton speaks about " theories intermediate to the minor working hypotheses evolved in abundance during the day-by-day routines of research, and the all-inclusive speculations comprising a master conceptual scheme from which it is hoped to derive a very large number of empirically observed uniformities of social behaviour ",[17] I feel rather inclined to assume that the word " intermediate " has more than a purely incidental meaning and points to the general assumption that we are dealing with different steps on the same line, though at different levels of abstraction.   I have now reached the central point of my argument.   Even though I have myself been of the same opinion for many years, I have now changed my mind completely, especially under the impact of theoretical developments such as those produced by Gurvitch and by others.   I really think that we are rather mistaken when dealing with this problem as if only the levels of abstraction were different.   In fact, both conceptions rather seem to belong to different dimensions of thought and also consequently derive from different systems of categories.   On one hand we have a sociological theory proper in the same sense as understood by Merton.   This theory has grown out from shrewd hypotheses and former research, and is continually being checked against new facts and new situations, either in order to corroborate the original hypothesis, or to modify it both in the sense of higher precision and a broader generalization, or to develop a new set of hypotheses.   On the other hand, we enter Gurvitch's " hyper-empiricism ", and we are as a consequence not any more concerned with specific theoretical aspects of a given phenomenon at a given moment under given circumstances, but rather " with the entire depth and the complete wealth of social life ".   Whereas all the propositions by which a sociological theory is developed are hypothetical and limited in range, even in an integrated theoretical system, the propositions of Gurvitch's " hyper-empiricism ", as seen with regard to their logical structure, are universal and apodictic.   This is not any more a difference in degree but rather a difference in kind.

However, we cannot abandon this point without some further explanation with regard to the question whether or not this " hyper-empiricism " means nothing but a flagrant reversion to the well known earlier sociological speculation with its monolithic theories.   Given that Gurvitch started by developing his theoretical " pluralism ", we have to concede that his " hyper-empiricism " is incomparable with the old-fashioned speculative dogmatism insofar as the theoretical model of the latter was of a monistic or monolithic kind.   On the other hand the intrinsic pluralism of Gurvitch's position does not prevent it from

becoming speculative in kind. For Mauss, pluralism was utterly un-speculative, just a concession that social life reaches through different layers of existence and calls, therefore, for a multi-dimensional treatment. For Gurvitch and many others, pluralism is in itself an element of metaphysical logic which, since Hegel, has been called dialectics. We come back to this point in a moment.

In summarizing this paragraph, I would like to say that this issue originated from an unfortunate constellation regarding the nature of research and the relation of research and theory. Instead of making it very clear that there is no meaningful research without a theory, and no good theory without research as well, it has been taken for granted that research can be carried through by simply heaping up data and " by counting noses ". At the end, it is hoped, a theory will emerge from this painstaking collection and classification of data. It is obvious that statements of this kind simply must call forth a strong reaction in the opposite direction. It is asserted that in working along these lines, we would never reach a theory, and that we would have to delay our answer indefinitely. Therefore, another approach is advocated, an approach whose conceptions are different in kind and not only in degree of abstraction from sociological theory properly speaking. In order to introduce a different term, I would like to say that sociological theory is opposed by a universal theory of society. This, however, should not be mistaken for the old sociological speculation with its monolithic character. It is rather pluralistic and dialectic and, therefore, calls itself hyper-empiricism and super-relativism which, with regard to its logical characteristics, could also be designated as hyper-metaphysics. Hyper-metaphysics is superior to the older kinds of metaphysics insofar as it avoids monistic dogmatism. But its intrinsic outlook is still essentially universalistic.

III

In order to make myself clearer, I would like to develop this term of theory of society in more detail. In a first move, I will use arguments as developed by Theodor W. Adorno in a recent publication.[18] Later on, I will try to separate this approach from its particular background and to project it against a more general pattern which should, then, be contrasted with its opposite term of sociological theory. This, however, cannot be done without " unmasking ", if I may say so, its logical structure and pointing out at least some of its implications. It is only then that the essential differences between such a theory of society and a sociological theory can be grasped.

In an essay of the above mentioned book with the promising title " Sociology and empirical research " we read the following sentences: " It cannot be asserted that the reason for the gap between the theory of society and empirical social research is to be found in the fact of

the relative youth of the latter. In fact, this gap will never be bridged in such a way that a theory would become superfluous even after a larger development and after a further accumulation of the available data which have anyway become immense. As compared with the central problems of social structure, upon which the life of man is dependent, empirical research is able to grasp only narrow sectors. The limitation to separated and strictly isolated objects—i.e. the tendency of research in sociology to approach the sciences which have developed from a need for exactness and to create laboratory conditions —not only temporarily but in principle prevents us from dealing with the totality of society. This often leads to the consequence that the findings of social research present a sterile and peripheral character, or appear as data for purely administrative purposes, unless they fit into relevant theoretical questions ".[19]

These statements raise many questions, and I will try to develop at least some of them. (1) First I would like to point to the fact that a picture is given of sociological research that is very different from what it is in practice. I just wonder what kind of research Adorno has in mind when developing his picture of social research. I would be quite prepared to concede that there exists an administrative and purely pragmatic research without any theoretical implications; but it is also understood that sociological research, in many cases, has contrasted itself with this kind of naive empiricism. (2) A second point I want to make is that here, too, we find occasionally an alternative use of the terms " theory of society " and " sociological theory." This creates the impression that both terms refer to the same thing. Therefore, the above quoted statement could be interpreted in the sense of being a critical claim stressing the " relevant theoretical questions " in research. (3) A third point I would like to raise is related to the statement that research materials have already become immense anyway. Here, I should admit from the very beginning that I feel quite unable to agree. On the contrary, I am entirely convinced that one of the most afflicting weaknesses of our science is still much more a considerable lack of really reliable and relevant materials than a plethora. (4) Finally, I would like to draw attention to a rather curious and illuminating coincidence between the theoretical question of social structure on one side, and the metaphysical question of the basis of human life. To be sure, there is no doubt that nothing would ever have been done in the field of social sciences if people had not been concerned with the condition of mankind. However, I strongly feel that this question has to be carefully separated from the other question of sociological theory formation. I would also like to draw attention to the related ambition to grasp " the totality of society ". There are many evidences in the book we mentioned above that a theory of society that has overcome the antinomy between theory and action is essentially centred around the category of totality. I would like to stress

that this is the very same development as the one we met before with Gurvitch. In both cases these ideas have been admittedly borrowed from the early writings of Marx as can easily be shown by the explanations of another Marxist philosopher, Georg Lukács, who developed all these ideas in the early twenties. In his book on " History and Class Consciousness " he explicitly states that the original meaning of Marx's philosophy is " the integration of the single facts of social life as elements of historical evolution into a totality ".[20] In another chapter of the same book we read: " the dominance of the category of totality is the carrier of the principle of revolution in science ".[21] Incidentally, the totality aspect of this new type of science is here, too, connected with the principle of dialectics.

In another essay on " The concept of sociology," Adorno gives some further explanations. Here, he affirms that a sociology stubbornly standing for " positive " research runs into the danger of losing any " critical consciousness ". For the representatives of research, he says, anything that is not mere accumulation and classification of data, that, on the contrary, " urges the need to ask for the justification of social life ", is suspicious.[22] This, obviously, means that critical consciousness as understood by Adorno ought to ask for the justification of social life in general. Now, I do not contest that it is an interesting philosophical question to meditate on the justification of social life, but I seriously doubt whether this consideration could give us any information whatsoever about any detail of a given society. The meaning of the fact that mankind is living in agglomerations of a social character, important as it may be in itself, is, however, entirely and by definition to be discriminated from the variety of real social life and its manifestations in time and in space. I would even dare to say that it is nothing but a tautology in so far as the term " mankind " as understood by the sciences of man always implies the general assumption of aggregation, given that not even the continuation of the biological species *homo sapiens* could be secured without the fact of social aggregation.

If we take into consideration the undoubtedly high intellectual level of our author, we cannot suppose that this poor argument is all that his " critical consciousness " has to put forward in favour of his thesis. As a matter of fact, we can find, on the next page already,[23] a much more illuminating argument which runs as follows: " Only a critical science could be more than a mere duplication of reality through the means of thought; to explain reality always implies breaking the charm of duplication. A criticism of this kind is, however, by no means subjectivism, but rather a confrontation of the object with its own concept ". We leave apart for the time being the last part of the argument and first turn towards the " charm of duplication ". This term, too, has been borrowed from Marx where it appears for the first time in his *Theses on Feuerbach* as the " duplication of the world by

religion " (Thesis IV) which, in the eyes of Marx, is nothing but a forerunner of philosophy in the unfolding of human thought. In criticizing this " duplication ", Marx finds the decisive introductory and fundamental statement of his own philosophy: " The philosophers have only interpreted the world in different ways; the point is to change it " (Thesis XI).[24] In this interpretation, any kind of scientific conceptualization means duplication; in contrast, action reaches into the dimension of the unforeseen and the unpredictable as soon as it is not perfunctory routine but subordinates itself under the category of totality. An action of this kind is a particular kind of action; it is " revolutionary action ". Again we have to face the same constellation of a theory of society, the totality of society and, as a new element, action with the meaning of a revolutionary action.

Beyond that, we only meet the puzzling statement that a " critical science " confronts its objects with their own concepts. The chapter we are discussing ends with the following most amazing words: " If we do not measure the things against what they themselves want to mean, we are not only superficial but we go astray ".[25] I think it would be unfair to stress too much this statement which has an intense smell of conceptual realism. But I also think that the other arguments are much more important and much more significant than this one, so that I prefer to take them up again and follow up at least some of their implications.

IV

In this paragraph I will try to show that only in following up these implications, can we hope to grasp the essential meaning of the former statements and their contrast to the concept of sociological theory proper. First, I would like to draw attention to the fact that the category of totality entirely dominates this complex argument. This is due to the influence of Marx as it has been testified long ago by Georg Lukács. This leads us to outline the general pattern of this approach. It is essentially what K. R. Popper would call " holistic " in kind. Popper himself was mainly concerned with the historical variant of holism which he called " historicism ", and he dealt a good deal with Marx in this regard.[26] But I think that there are other varieties of holistic thought in the social sciences of a less historical character. As one of the poorest examples I would like to mention here the holistic approach as represented by Othmar Spann and his " universalism ". But we should also add the more dynamic type of holism as represented by the dialectical approach, both of the right and the left wing of Neo-Hegelianism. Although all these different groups may be very different either in their background or in their political outlook, they are still representatives of one common pattern of thought. This is the pattern we met in Gurvitch's hyper-empiricism and in Adorno's philosophy as well, the main difference between them being the fact that Gurvitch's pluralism or super-relativism seems to be rather a safe-guard

against philosophical dogmatism, whereas Adorno is a partisan of a Hegelian-Marxian philosophy, his main safe-guard being psycho-analysis. Now, the crucial question arises as to the difference of this philosophical pattern both from sociological theory checked and con-trolled by research, and from mere speculation.

I think that it is rather easy to make this difference evident. On one hand, it is quite clear that speculation, too, has a reference to theory and research. The question is not the fact of such a relation in itself, but rather its special characteristics. In fact, speculation draws its far reaching conclusions from a few experiences taken up in a more or less haphazard way. Here, the main difference from sociological theory is given by the fact that speculation uses material data in an uncritical and an uncontrolled way and rushes in too hasty a way to its conclusions. Most of the time only materials corroborating the essential theses of the philosopher are taken up, counter-evidence is left aside. On the other hand, the philosophical pattern of social thought which I called a theory of society is concerned both with universal propositions, the most important function of which is stirring up for action, mainly in the sense of a revolutionary action, and with methodological research as well which is employed for the same pur-pose. Here, however, in contrast to a sociological theory, research has no meaning in itself, e.g. in order to corroborate or to reject a hypothesis, but is just used as a means for sustaining a revolutionary action, e.g. by " unmasking " ideologies. This point has been stressed by Adorno on several occasions during the last few years.[2]"

Now, it is interesting to remark that Adorno can by no means be looked upon as being a social thinker of a purely political character. He always remains a philosopher. Therefore, we meet here with a general theory of society that has in mind a fundamental reform of society without, however, calling forth to an actual revolution as a system of political action. He rather limits himself to what could be called a movement of " enlightenment " in the German sense of " Aufklärung " and to cultural criticism in general. Cultural criticism becomes a major issue for him, but criticism without any correspond-ing positive scope which could be translated either into a reform pro-gramme or into a set of theoretical propositions. Now, Adorno has done an extremely interesting research into the causes of social preju-dice, and has denounced the syndrome of the authoritarian personality as one of the main causes of anti-semitism. The main function of this study is to fight against prejudice by unmasking its causes, which are furthermore related to authoritarianism in the political field. Now, the difference between a sociological theory and a theory of society can easily be shown by a further discussion of this example.

For the representative of a theory of society, it may be quite enough to demonstrate that very often the causes of anti-semitism and preju-

dices in general are to be found in what Adorno has called an authoritarian personality, because this enlightenment stirs up the observer to an immediate (educational or political) action against authoritarianism of any kind. Sociological theory, however, cannot rest with this result. It is obvious that we can only fully agree with Adorno's practical objectives; the question is, however, to know whether or not we can be satisfied with his general attitude with regard to sociological theory. First of all we should ask whether any authoritarian personality is *per se* predisposed to be anti-semitic or prejudiced. If it is true that very often anti-semitism is caused by authoritarian features in a given personality, the converse should hold true as well. We do not need to go further: it is quite clear that this demonstration has not been given. It could also be that only in connection with the reactions of particular social classes together with their vested interests does the authoritarian character become anti-semitic. In other cases his reactions could still be quite different. But, in fact, Adorno is not at all interested in giving a sociological theory of anti-semitism but rather in calling forth immediate action in the sense of a cultural criticism trying to abolish anti-semitism by enlightenment and by unmasking some of its causes.

Further, I would also like to add that this cultural criticism is essentially totalitarian in the philosophical meaning of the word. In order to understand that, we must only keep in mind that there are two kinds of totalitarianism in social thought, one from the right and another one from the left. Although the intellectual level of leftist totalitarianism tends to be much higher than the level of the rightist totalitarianism, this thinking still remains totalitarian as a special philosophical pattern we have discussed earlier. In our case, we have to add that the main difficulty of appreciation and evaluation is due to the fact that this philosophical totalitarianism, although it could essentially dispense with any kind of research, still uses research materials as long as they can be used to destroy or to unmask traditional prejudices of any kind, ideologies, sentimental and stereotyped patterns, etc. Therefore, very often this kind of theory of society comes very near to sociological theory. We should, however, be very clear in separating both approaches. Whereas sociological theory is quite prepared to, and in most of the cases actually does, use research materials against itself, the totalitarian philosophical aspect does not accept this issue. As soon as research results begin to threaten the assumptions of this general theory of society, they are rejected as being of a merely " administrative " character or of an " atomic " kind or even as " meaningless ". It is clear that in so doing a very strong position is built up, at least subjectively. But on the other hand, it would be easy to show that the whole argument is rooted in a circular conclusion as explicitely stated by Hegel in his *Introduction to the Phenomenology of Mind*. This circular conclusion cannot be separated from dialectics.

Now, this is a purely philosophical argument that can become very illuminating, both in an ethical way and in a theoretical way. May I repeat that I feel in full agreement with all the practical conclusions of Adorno. Therefore, a theory of society actually does have a function in the process of social thought. It enlightens it, unmasks deeply rooted prejudices and ideologies, and brings it down to earth when it tries to escape into the dimension of pure speculation. On the other hand, it does not by any means either replace sociological theory or compensate for it. The first step of a critical consciousness is to free itself from what Bacon has called the *idola fori*; the next step, however, is to develop scientific evidence by the usual means of checking theoretical hypotheses against empirical data under varying circumstances.

In summarizing, I would like to return to my starting point. I stressed my feelings of uneasiness when approaching the contemporary situation in sociological research in Germany, and partly also in France. As a matter of fact, it is very often not clear at all what kind of research we have to deal with. Sometimes it is research in the sense of a sociological theory proper and is more or less connected with an appropriate body of theoretical propositions. But very often it is research in the service of a general theory of society that is only meant to be used and thought out as a means of polemics and without meaning of its own. Its main function is justification of a particular concept of society or rejection of an opposite theory of society. Therefore, if one tries to take this kind of research literally, one is told that it is nothing in itself but " dialectically " connected with a specific theory of society. We feel that it might be useful not to reject one of these different approaches or to prefer one to the other, but to separate them very carefully, both in our minds and in our immediate research work. When taken separately, sociological theory and theory of society may have their respective functions in the complex process of self-clarification in social thought. On the other hand, an immediate danger arises as soon as they are mixed up. And this danger becomes much more acute than the usual mixing up of sociological theory and speculation since speculation mostly uses research in no methodological way at all but just haphazardly, whereas a theory of society, as it is shown by many evidences, is quite able to deal with methodological research, only with the limitation we mentioned above. This might create the wrong impression that sociological theory and a theory of society are very similar approaches, having the same scope, whereas, as we have seen, a theory of society is under certain circumstances quite able to reject both theory and research alike. It does so in contending that the truth will never be found in any particular proposition but only by returning to a conceptual whole of society, in face of which sociological theory will always appear futile, by definition. In fact, sociological theory cannot achieve all at once. It necessarily remains enclosed in the narrow range of its realistic conceptualizations. This situation, how-

ever, may not be a reason for underestimating its intrinsic possibilities which, in the past, have brought about many remarkable achievements. They may be a pledge for the future.

NOTES

[1] Compare René König, " German Sociology ", in: J. Roucek, (Ed.), *Contemorary Sociology*. The Philosophical Library, New York 1958.
[2] Georges Gurvitch, *Essais de sociologie*. Librairie du Recueil Sirey, Paris 1938.
[3] *ibid.* p. 18.
[4] Georges Gurvitch, *La vocation actuelle de la sociologie*. Presses Universitaires de France, Paris 1950, p. 105. The same formula is to be found in G. Gurvitch, *La vocation actuelle de la sociologie*, 2nd ed. vol. I: *Sociologie differentielle*. Presses Universitaires de France, Paris 1957, p. 124.
[5] This formula is to be found, as will be explained later on in the text, at the end of an essay on the sociology of Marx which has been added to the first edition of *La vocation actuelle de la sociologie* (1950), p. 602.
[6] *ibid.* p. 583.
[7] *Cahiers Internationaux de Sociologie*, troisième année, vol. IV (1948), p. 8.
[8] Cf. *Cahiers . . .* IV (1948), p. 47; *Vocation* (1950), p. 602.
[9] This may very well be responsible also for a change of attitude of Armand Cuvillier in his book *Ou va la sociologie francaise*. Librairie Marcel Rivière et Co., Paris 1953. Here Cuvillier, from a former follower became a violent opponent of Gurvitch by pointing out his philosophical background.
[10] Pitirim A. Sorokin, *Fads and Foibles in Modern Sociology and Related Sciences*. Henry Regnery Co., Chicago 1956, p. 316-17.
[11] Arnold Gehlen und Helmut Schelsky, *Soziologie. Lehr-und Handbuch zur modernen Gesellschaftskunde*, 3rd ed. Eugen Diederichs Verlag, Düsseldorf 1957, first 1955, p. 9-10.
[12] Erich Reigrotzki, *Soziale Verflechtungen in der Bundesrepublik*, J. C. B. Mohr, Tübingen 1956.
[13] *ibid.* p. V-VI.
[14] *ibid.* p. 237 sqs.
[15] Robert K. Merton, *Social Theory and Social Structure*, 3rd ed. The Free Press, Glencoe, Ill. 1957, p. 93.
[16] *ibid.* p. 93-4.
[17] *ibid.* p. 5-6.
[18] Theodor W. Adorno and Walter Dirks, (Eds.), *Soziologische Exkurse*, Europäische Verlagsanstalt, Frankfurt 1956.
[19] *ibid.* p. 109.
[20] Georg Lukács, *Geschichte und Klassenbewusstsein*, Malik Verlag, Berlin 1923, p. 21-22.
[21] *ibid.* p. 39.
[22] Adorno and Dirks, p. 17.
[23] p. 18.
[24] I am indebted for this version to the very valuable and excellent English translation of a choice of the early writings of Marx by T. B. Bottomore, in: T. B. Bottomore and Maximilien Rubel, *Karl Marx: Selected Writings in Sociology and Social Philosophy*, London 1956.
[25] Adorno and Dirks, *op. cit.* p. 18.
[26] K. Popper, The *Open Society and its Enemies*, rev. ed. London 1952; *The Poverty of Historicism*. Routledge and Kegan Paul, London 1957.
[27] Besides the articles quoted above, we would like to mention the following publications wherein further specifications of the general approach as delineated in the text can be found. Theodor W. Adorno, " Soziologie und empirische Forschung," in: Klaus Ziegler, Editor, *Wesen und Wirklichkeit des Menschen*, Vandenhoek und Ruprecht, Göttingen 1957, p. 245-260. As a collective publication of Adorno's Research Institute in Frankfort see the article " Empirische Sozialforschung," in *Handworterbuch der Sozialwissenschaften*, Vandenhoek und Ruprecht, Göttingen 1954. See also Max Horkheimer und Th. W. Adorno *Dialektik der Aufklarung*, Amsterdam, Querido Verlag, 1947.