

The Sociology of Population

BENOY KUMAR SARKAR

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THE SOCIOLOGY OF POPULATION

with special reference to
Optimum, Standard of Living and Progress

A STUDY IN SOCIETAL RELATIVITIES

BY

BENOY KUMAR SARKAR

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Unnati* (Economic Progress).

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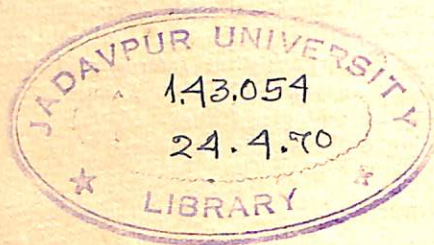
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Publishers' Preface

This publication contains in part Professor Benoy Kumar Sarkar's presidential address at the Sociological Section of the First Indian Population Conference (Lucknow, 3-4 February, 1936) which was entitled *Open Questions and Reconstructions in the Sociology of Population*. The address has been subsequently enlarged by the author with new material.

While issuing this study in the present form we beg leave to add that it is substantially different from the author's "Comparative Birth, Death and Growth Rates: A Study of the Nine Indian Provinces in the Background of Eur-American and Japanese Vital Statistics" (*Journal of the Indian Medical Association*, Calcutta, 1932) and "The Trend of Indian Birth Rates in the Perspective of Comparative Demography" (*Indian Journal of Economics*, Allahabad, 1934), for both of which inquiries are being received from far and near. It is not yet possible to get these two papers, extensive as they are, in a handy form.

The present publication contains some of the materials used by the author in the following papers:

(1) *I Quozienti di Natalità, di Mortalità, e di Aumento Naturale nell'India Attuale nel Quadro della Demografia Comparata*, which was read before the Section on Demography of the International Congress on Population, Rome (1931), at which he was a President of the Section on Economics,

(2) *Les Races, les classes et les forces transformatrices au point de vue du métabolisme social* for the International Congress of Sociology, Brussels, 1935, and

(3) *Neue Orientierungen im Optimum und wirtschaftliche Leistungsfähigkeit mit besonderer Berücksichtigung der indischen Bevölkerungs- und Gesundheitsstatistik*, presented to the International Congress on Population (Berlin 1935), at which he was one of the Vice-Presidents.

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Calcutta, 9th March, 1936.

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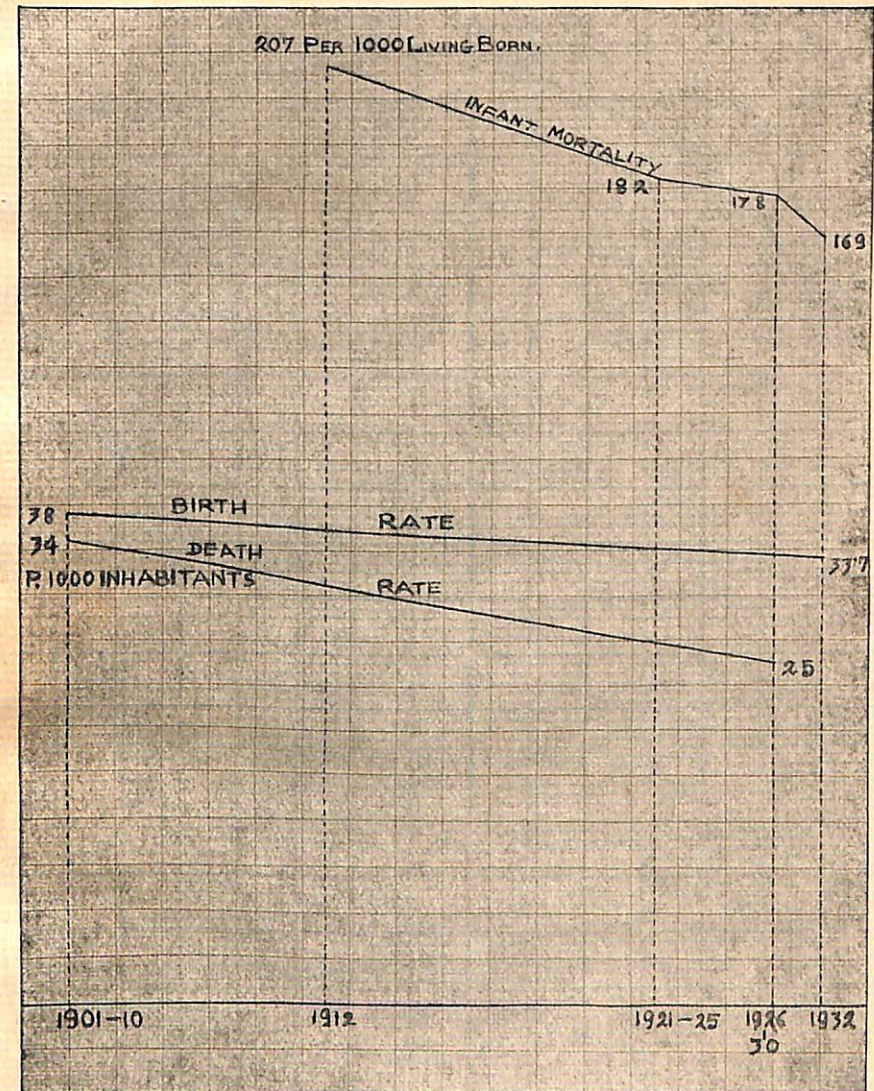
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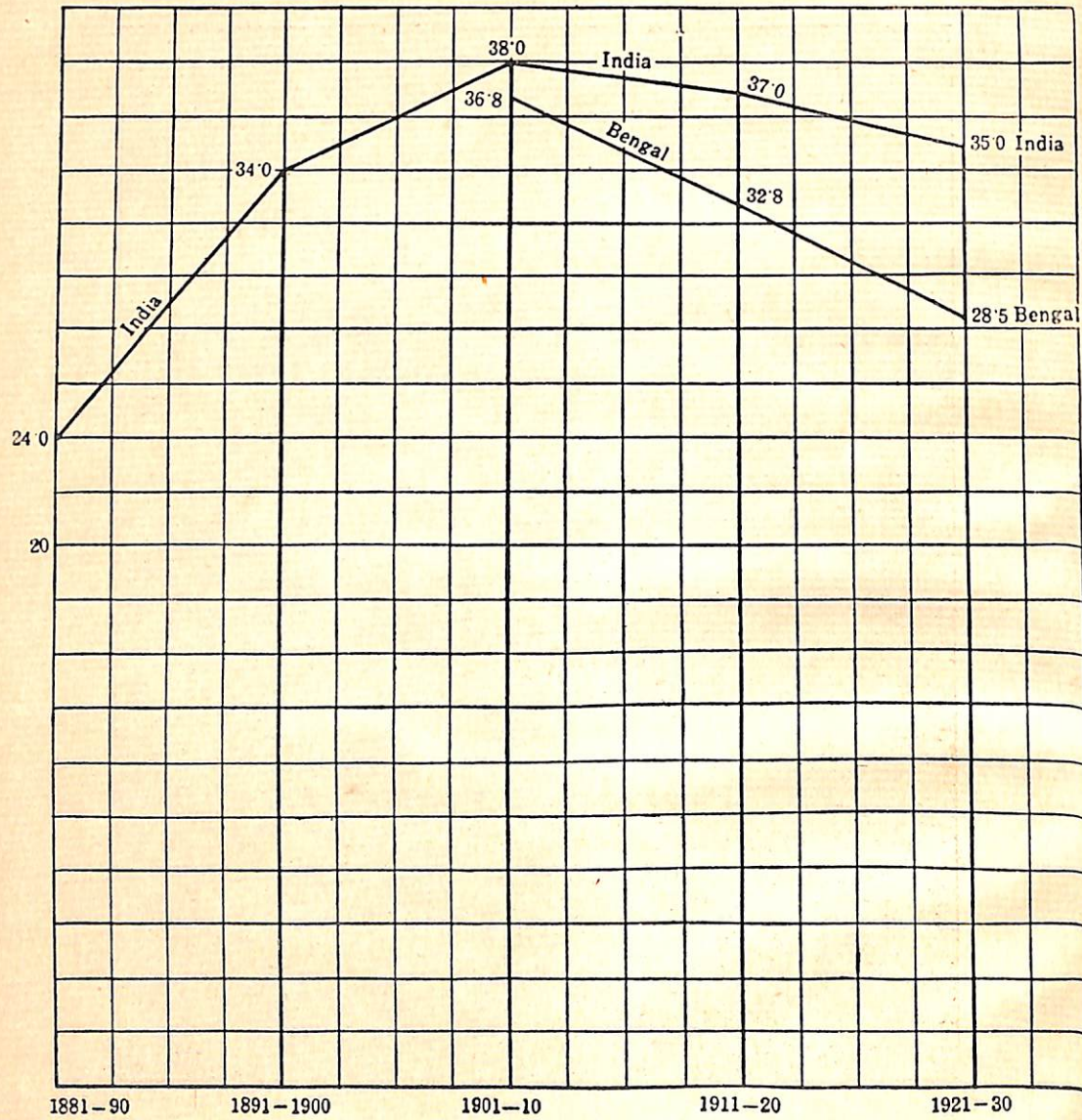
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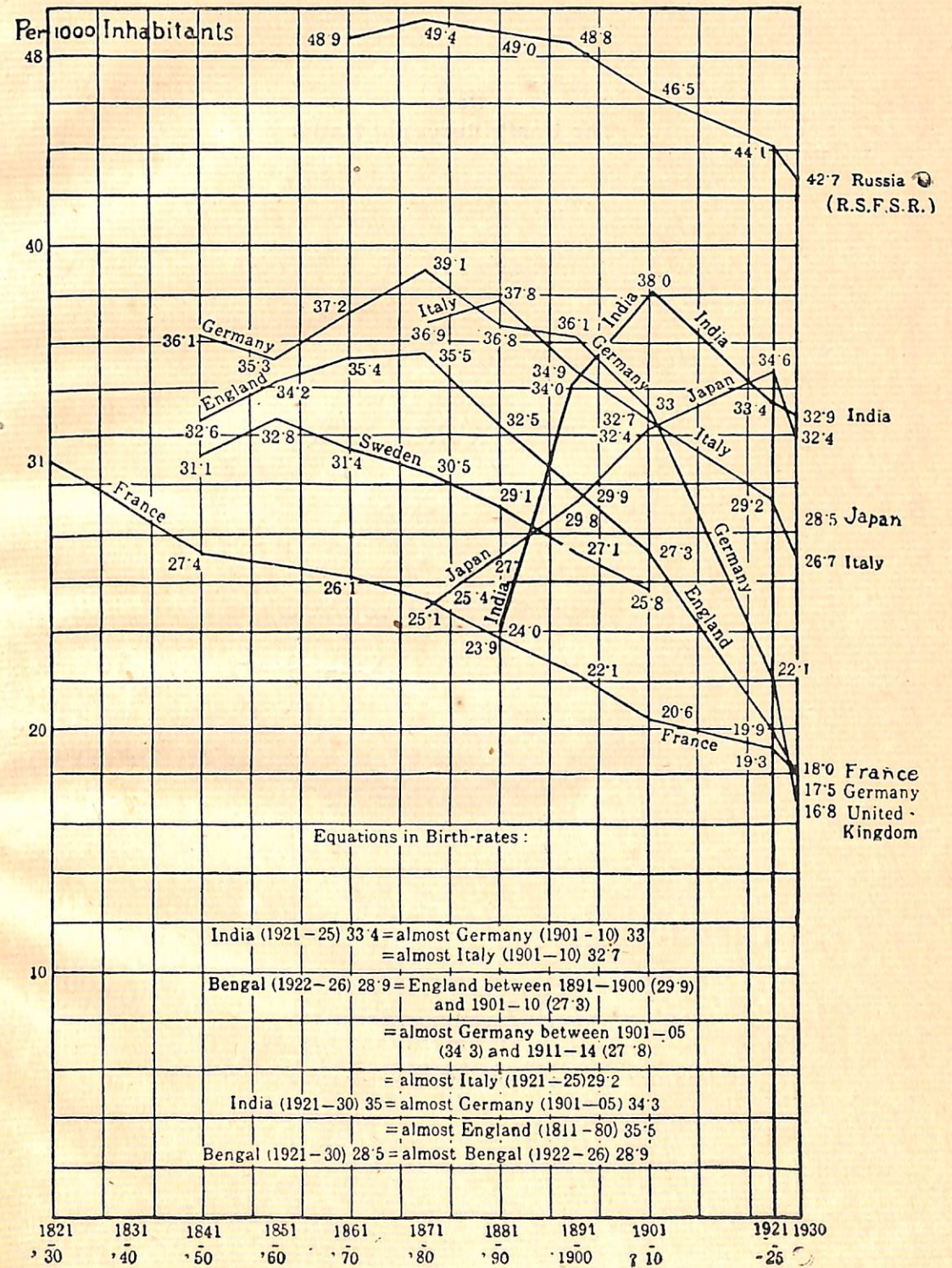


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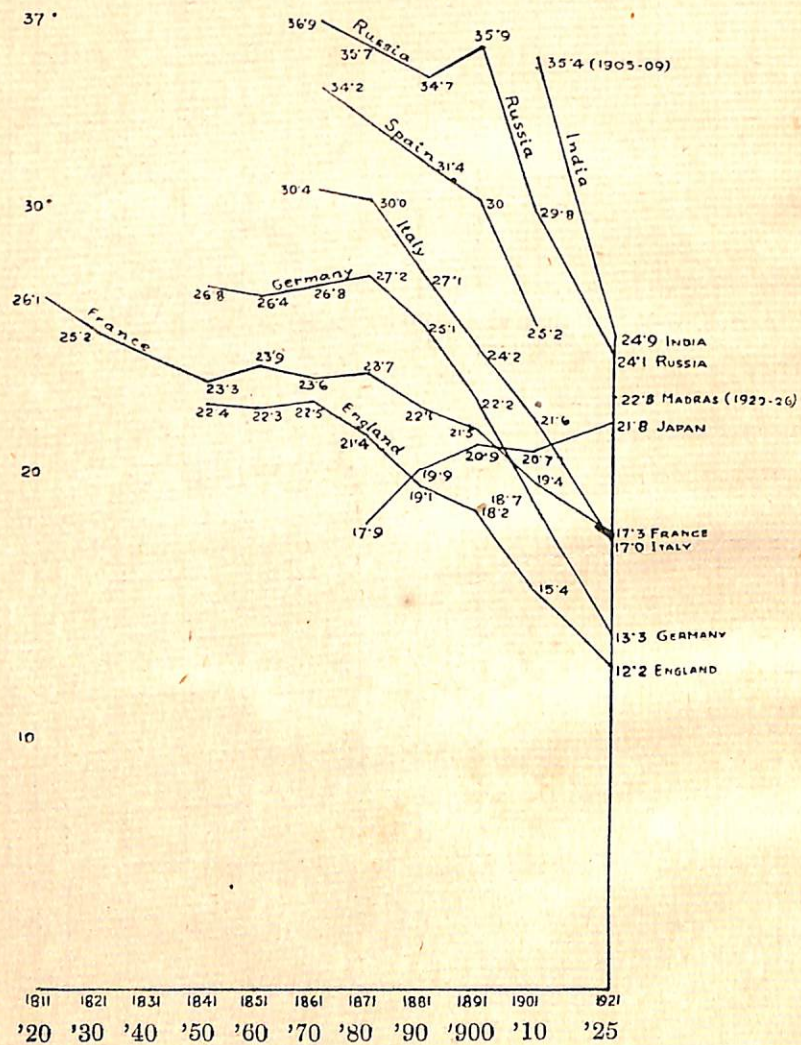


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The Birth-Curves of Nations



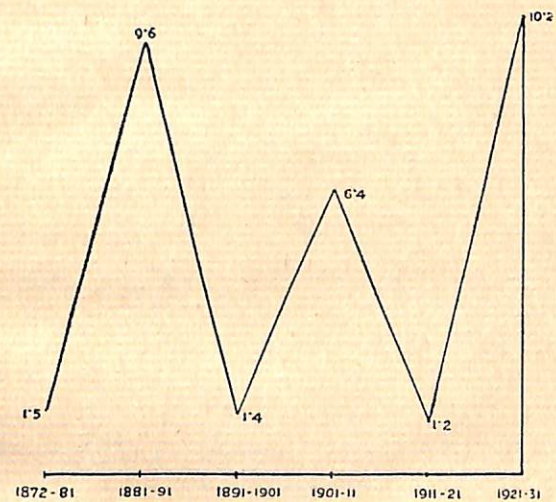
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The Death-Curves of Nations

Per 1000 Inhabitants



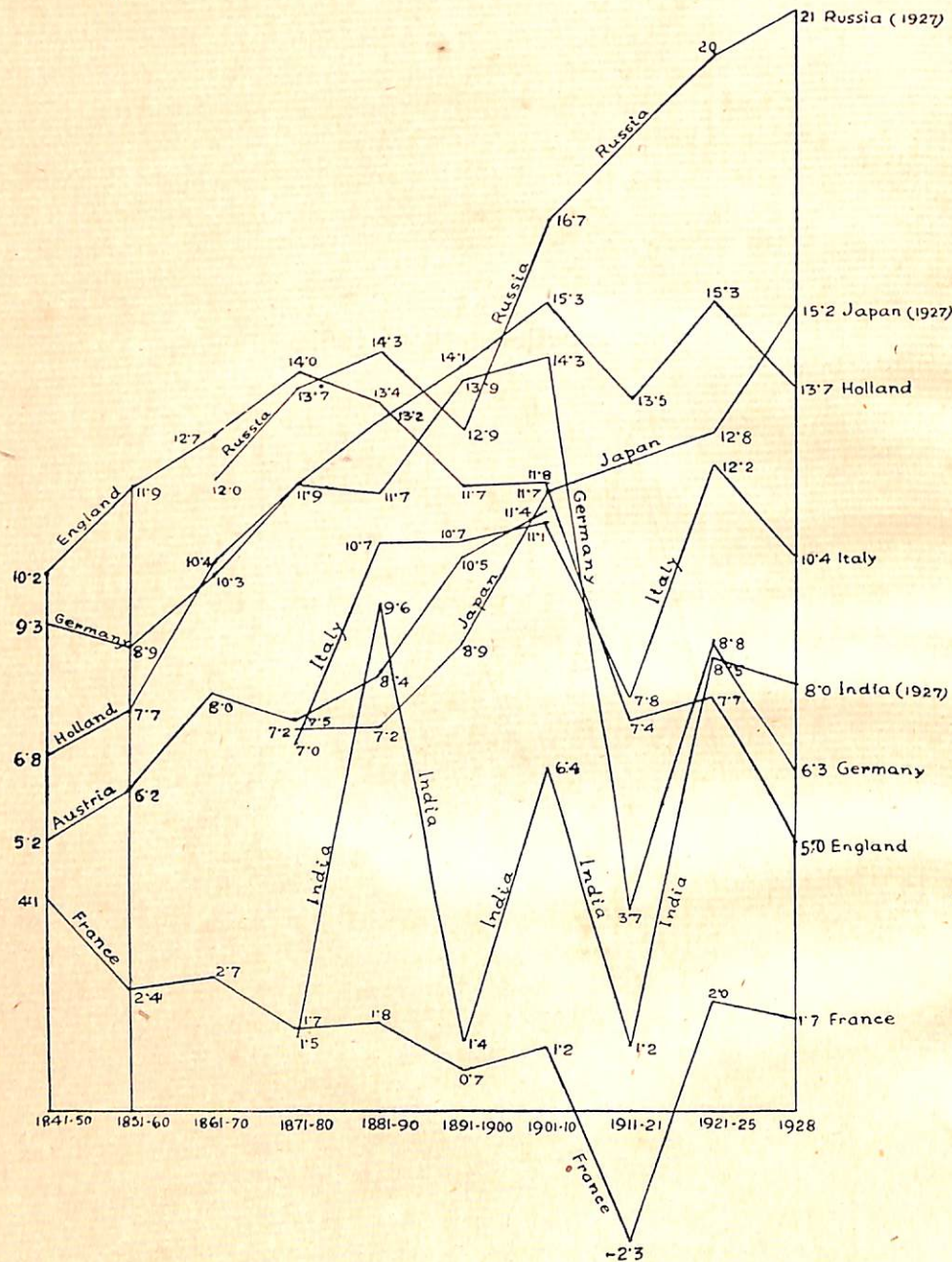
No 5.
The Growth-Curve of India

Per 1000 Inhabitants



The Growth-Curves of Nations

Per 1000 Inhabitants



N. B. The lines of Russia and Japan are incomplete at 1911-21.

THE SOCIOLOGY OF POPULATION

From Comte to Durkheim under Challenge

India's output in the sciences of sociology and population as developed in modern times is very modest. And it so happens that Indian scholars have commenced to take interest in sociological and demographic questions at a time when in Eur-America the two sciences are finding themselves in the melting-point. In neither field is it possible for any body to make a *début* today on the foundation of settled facts and universally accepted generalizations. The situation is on the contrary rather that of powerful controversies. One may speak of a virtual crisis in both these disciplines. Never was the necessity for avoiding any unstinted and unthinking alliance with one or other of the warring schools or systems of sociology and demographic thought more profound than today. At the threshold of the First Indian Population Conference which happens practically to be the First Indian Sociological Conference it should be reasonable for us to maintain a thoroughly objective and critical attitude in regard to the prevailing "isms" and policies.¹

A specimen of the reconstruction that is on in sociological categories is furnished by the doctrine of "intelligence" as manifest in social phenomena. Three large "mental stages" characterize, according to Comte, as is well known, the "functional" evolution of mankind. The first is the "theological" stage represented by fetishism, polytheism, monotheism, etc. The second stage is known to be "metaphysical". The third is the "positive stage" and is the "age" of speciality and of generality. The theological stage is described as being dominated by "warriors", the metaphysical by legists and "jurisconsults", while the "scholars" lord it over, so to say, in the *état positif*. The reign of "imagination" is supposed to be the characteristic of the theological stage, that of "reason" of the metaphysical, and finally, the *état positif* is marked by the reign of "experience". In Comte's judgment humanity has been marching towards a stage in which positive knowledge or scientific experience is dominant.

It is simply the association of scholarly brains, exact knowledge, experience or experiment, generalization, specialization, science as anti-

1 L. L. Bernard (editor): *Fields and Methods of Sociology* (New York 1934); M. Ginsberg: *Studies in Sociology* (London 1932); S. Nasu: "Can Japan Solve Her Population Problem?" in *Population* (Chicago 1930); T. H. Morgan: *The Scientific Basis of Evolution* (New York 1933); A. M. Carr-Saunders: *Eugenics* (London 1926); the present author's Bengali *Ekaler Dhanu-Daulat O Artha-Shastra* (The Wealth and Economics of Our Own Times), Vol. I. (1930), pp. 106-121 (international population movements), Vol. II. (1935), pp. 70-102 (demography and eugenics in economic thought).

thesis of religion etc., with positivism that it may be reasonable to accept in a general manner. But Comte's analysis of the "mental stages" in evolution or the "ages" of the human mind is hardly tenable. It cannot be accepted as an objective exhibition of the dynamics of culture-history. It is not possible to demonstrate any stage in which reason rules to the exclusion of imagination or experience, imagination to the exclusion of experience or reason, and experience to the exclusion of the other two. Nor is it demonstrable anthropologically or psychologically that imagination belongs to the primitive mind and precedes ratiocination or concrete experience.

According to René Worms the "intellectual" or "scientific" interpretation of history, as presented by Comte, is as fallacious as the "economic" interpretation of Marx. Further, it is to be observed that primitive mind instead of being imaginative is strictly speaking very concrete and realistic. Brunschvigg in *Les Ages de l'Intelligence* comes to the same view as that of Worms. In his analysis the primitive is, like the child, a "realist without reserve" and adheres with entire faith to an object which occupies his mind. But this objectivity or realism is not to be understood in the modern sense, as Lévy-Bruhl makes it clear in *La Mentalité Primitive*. It is said to be devoid of discrimination, judgment and criticism. The realism of the primitive mind is, in one word, "pre-critical" or "pre-logical." This analysis of the ages of intelligence should serve to establish the ideological interval or distance in "social space" that lies between Comte and the Indian interest in sociological investigations. Today we have to begin with the proposition that it is not warrantable to swear by Comte in the science of sociology.²

Nay, Durkheim, who has dominated sociological discipline in France as elsewhere for a whole generation is also under challenge. His Society-cult, absolutist as it is like Hegel's State-cult, is found³ to be too *contraignant*, tyrannical and despotic for the Bergsonian *élan vital*. Durkheim's system was for the first time vigorously contested by Gaston Richard in *Sociologie et Métaphysique* (1911) and *La Sociologie générale*

2 Worms: *La Sociologie* (Paris 1926), pp. 80-81, 117-118; *Brunschvigg: Les Ages de l'Intelligence* (Paris 1934), pp. 18, 23. The doctrine of "pre-religion" also is developed by L. Lévy-Bruhl in *La Mythologie Primitive* (Paris 1935). See the discussion by A. Ouy in the *Revue Internationale de Sociologie* (Paris), May-June 1935, pp. 317-318.

3 E. Lasbax: *La Cité Humaine* (Paris 1927), Vol. I. pp. 265-276, Vol. II. pp. 9-10, 25-28; W. E. Hocking: *Man and the State* (New Haven, 1926), pp. 124-125, 130-134.

et les lois sociologiques (1912). Its social determinism is as the poles asunder also to the *initiatives du vouloir* (initiatives of the will), the ideal, the *impulsion vitale* and the *action spontanée et creatrice* of Espinas.

Pluralism in the Concepts of Sociology

At the very outset, indeed, there is a rather curious logical difficulty to be encountered. Today it is even possible to doubt as to whether the science of sociology can deal with population as a subject matter or whether the science of population can have a sociological branch. The sciences of law, constitution, politics and economics are very lucky in regard to the questions bearing on scope and methodology. There is no dispute about the categories and contents of these disciplines. But in the unfortunate science of sociology nobody has yet been able to establish once for all its province or boundaries. At the present moment we have virtually as many sociologies or "types" of sociology as there are sociologists. It is an intensely pluralistic world that we witness in the domain of sociological literature.

In *Qu'est-ce que l'esprit français* Bouglé and Gastinel have tried to define the spirit of France. They have offered twenty-five different definitions as furnished by French thinkers from Montesquieu, Mme. de Stael and Michelet to Croiset, Boutroux and Bergson. Perhaps it is possible to offer more. Anybody who tries to define *Hindutva*, the Hindu spirit or Hinduism will not come forward with numerically fewer and contentually less varied definitions.

The diversity of definitions has marked in recent years likewise the concept of *Mahārāṣṭra-dharma bārhawā* (Propagate the *dharma* of Maharashtra) as inculcated by Ramdas to Sambhaji towards the end of the seventeenth century.⁴ In philosophical and metaphysical fields may be mentioned the doctrine of Buddhist *Nirvana* as a category that is the theme of varied interpretations in modern scholarship.⁵

But perhaps nowhere do we find a greater multiplicity than in the

4 See the present author's "Political Philosophy of Ramdas the Guru of Shivaji the Great" in the *Calcutta Review* for October 1935; G. S. Sardesai: *The Main Currents of Maratha History* (Bombay 1933), pp. 12, 65.

5 L. de la Vallée Poussin: *Nirvana* (Paris 1926); H. von Glasenapp: *Brahma und Buddha* (Berlin 1926); T. Stcherbatsky: *The Conception of Buddhist Nirvana* (Leningrad 1927); N. Dutt: *Mahayana Buddhism in relation to Hinayana* (London 1930); P. Masson-Oursel: *L'Inde antique et la Civilisation indienne* (Paris 1933).

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definitions of sociology.⁶ The province as well as the boundaries of sociology have shifted with everybody who has called himself or has been described by others as sociologist. In the interest of clarification of ideas a radical and extremist attitude has appeared in the post-war years, especially in the writings of Leopold von Wiese.

Sociology is of course much too popular a category in present-day world-culture. And certainly it is perhaps the oldest human science, theoretical and applied. Its origins are to be traced back to the beginnings of human life. All the eponymous heroes of mankind, the "Manus" of all races, the inventors of the arts and techniques, the pioneers of emigration, colonization and race-fusion, the initiators of sibs, totems, marriage customs etc. in pre-historic ages were constructive or applied sociologists by all means, nay, contributors to the theories of social progress and racial or eugenic improvement as well. But it is very interesting that the category was unknown until 1842 when Comte used it in his *Cours de Philosophie Positive*, Vol. IV. Up till then he had been using in stead the category, "*physique sociale*" (social physics). But in view of the fact that the Belgian statistician Quetelet employed it to describe the researches in anthropology and demography Comte considered it prudent to replace it by a new word, "sociology".

But since Comte's days the subject matter of sociology has changed so much and so often with researchers that today it is almost impossible to describe what this discipline is and what this is not. For instance, the "classical sociologists", Comte, Spencer and Schäffle, three of the founders of this science, however much they differ in methods and messages, belong to what the Italian sociologist Carli in *Le Teorie Sociologiche* calls the historico-encyclopaedic school. They seek to explain history, point out the processes of evolution, and suggest the future lines of advance.

On the other hand, the founders of "new sociology", Tönnies, Tarde, Durkheim and Simmel, for example, among the continentals are interested in the analysis of forces, processes, groups and relations. The American and British sociologists like Small, Giddings, Ross, Wallas, McDougall,

6 F. Hankins: Chapter on Sociology in the *History and Prospects of the Social Sciences* (New York 1925), edited by H. Barnes: Bonar: *Philosophy and Political Economy* (London 1893); Flint: *History of the Philosophy of History* (London 1893); Merz: *History of European Thought in the Nineteenth Century*, Vol. IV. (London 1910); H. Barnes: *Sociology and Political Theory* (New York 1924), *The New History and Social Studies* (New York 1925), *History and Social Intelligence* (New York 1926); E. Eubank: *Contrasting Phases of Sociology in Europe and the United States* (International Congress of Sociology, Brussels 1935); W. E. Hocking: *Types of Philosophy* (New York, 1929).

Cooley, Ellwood, etc. belong to this class which is generally known as the school of "analytical" or "formal" sociology.⁷ The first or the classical type may also be aptly described as culture-sociology.

To understand a bit of this diversity in the concepts of sociology let us take Tönnies, whom von Wiese calls the pioneer of contemporary German sociology. In 1887 Tönnies published his *Gemeinschaft und Gesellschaft* (Community and Society, eighth edition, 1935).⁸ A student of classical, encyclopaedic, historical or cultural sociology would perhaps hardly recognize any sociology in Tönnies's work. Here we are introduced to an examination of all those human connections or relations which are cementing forces and to the conclusion that they fall inevitably into two groups. First, they are derived from the "natural", "instinctive" and allied activities of man. In contrast with such activities can be discovered, secondly, those which are due to the "artificial" attempts to pursue or serve some ends although the natural feelings may be opposed to such activities. The "community" is based on the natural, the "society" on the artificial cementing bonds. There is privacy, personal intimacy in the community. In the society, on the other hand, the predominant atmosphere is that of business, law, public life.⁹ This distinction between natural and artificial group-persons, between feeling and intellect among social forces, is but one of the many new topics with which this science has been enriched in recent years. But, on the other hand, the encyclopaedic, historical, evolutionary or cultural sociology has not all disappeared. Tönnies himself in his latest work, *Einführung in die Soziologie* (1931, pp. 315-327), finds a place for this type, comprising as it does "sociography", in his system.

Sociology vis-a-vis Population

Let us analyze the present crisis in sociology in a realistic manner. It may be said that if you study the origins of society, family, group, caste etc. you become an historian of primitive conditions and later developments in institutions. You will perhaps be described as an anthropologist.

Should you study the ends, objects, and "values" of diverse social institutions, domestic, economic, religious, political etc. either

7 L. von Wiese: *Soziologie* (Berlin 1931), pp. 45-49, 109.

8 In French social thought also the two concepts are analyzed, although somewhat differently, by G. Richard: *La Sociologie Générale* (Paris 1912), pp. 21-32.

9 Rumpf: "Von rein-formaler zu typologisch-empirischer Soziologie" in *Schmollers Jahrbuch*, Leipzig, 1924.

individually or in relation to one another you will be functioning as a researcher into the destiny of man. People will call you a philosopher, perhaps a social philosopher, or a student of psychology, ethics and metaphysics.

In case you take interest in the social facts of today with reference to their usefulness for tomorrow and try to devise plans and methods for action, reform, reconstruction in the fields of marriage, poverty, crime, health, education and other institutions you become virtually an economist or rather a lawyer and a politician. May be, you will be labelled as a student of applied politics or economic statesmanship.

The problem in contemporary social science is to discover a province in which sociology does not have to compete or get mixed up and become virtually identical with (1) culture-history or cultural anthropology, (2) philosophy, ethics, metaphysics or psychology, and (3) economics, law and politics.

The kind of new sociology that is being sought is called by von Wiese, the leading exponent, as *die Lehre von den sozialen Beziehungen und den sozialen Gebilden*, i.e., the science of social relations or processes (competition, boycott, exploitation etc.) and social "forms" (such as the group, mass, state, people, nation, class and so forth). It is sometimes shortly named the *Beziehungslehre* or science of relationships. And the special feature of this science of relationships consists in the fact that it deals not with historical or time-conditioned categories but with the categories such as are "above" or indifferent to time (*überzeitlich*) and somewhat eternal (*quasi-ewig*). These categories relate to such relations or processes of "to" and "away from" (*Zu-und Auseinander*) as prevailed, are prevailing and will prevail as long as there are human beings.

The manner in which the topics of population are generally discussed by students of biology, eugenics, demography, public health, anthropology, statistics, economics and law (*cf.* the papers in the different volumes of the *Proceedings* of the International Congress of Population, Rome, 1931) can hardly have a place in sociology, as defined in this the latest manner. This is a most perplexing and paradoxical situation, namely, that population can have no sociology or that sociology can have nothing to do with population as such.

But there is a safety-valve even in the crisis created by the new concept in sociology's functions. Population is the complex that engenders legion of *soziale Beziehungen* and *soziale Gebilde*. Population movements, whether natural (i.e., births, deaths, and growths) or artificial (e.g. emigration, immigration etc.), are social relations or social processes. Urbanization and colonization can therefore have a place in the study of *soziale Beziehungen*. Villages, cities, states, etc. can likewise be studied

in the science of *soziale Gebilde*. And so on. Population's place in sociology can thus be assured even under the most "formal" interpretations.

As against von Wiese's much too analytical position in regard to sociology's functions there is Spann's attitude which goes back to Fichte, whose idea of man in *Die Grundlage des Naturrechts* (1796) is as follows: "*Sollen überhaupt Menschen sein, so müssen mehrere sein* (In order that there may at all be men there must be several men). The concept of man is not at all the concept of a solitary individual but of a *Gattung* (genus, species or class)."¹⁰

Never, according to Spann¹¹ in *Vorrang und Gestaltwandel in der Ausgliederungsordnung der Gesellschaft*, can a whole be constructed out of its parts, neither a house out of bricks and stones nor a society out of men,—unless the *geistige Ganze* (spiritual whole) is already present as an immaterial substance. Spann, is, therefore, a believer in the study of the synthetic and whole view of the society as contrasted with the purely analytical and formal investigations. An opposition to the von Wiese school comes from the Russian-American sociologist Sorokin also, who is careful enough, however, to mark sociology's position out from that of other social sciences.

Sociology is described by Sorokin¹² as being not an encyclopaedia of all social sciences or "a synthetic hodge-podge", interested perhaps in vague philosophising. It is a specialized science addressing itself to "those traits which are common to all social phenomena." Further, there are the "special" sociologies which deal with the "interstitial" problems. Among interstitial phenomena may be mentioned the relations between heredity and genius, race and invention, geography and economic activity, climate and civilization, religion and economic organization, population and progress, economic conditions and criminality, business cycles and vital processes, and so forth. In such a liberal interpretation of sociology no special pleading is evidently required in behalf of the sociology of population.

A comprehensive statement which comprises von Wiese's position

10 *Sämtliche Werke*, Vol. III. p. 39, in W. Andreae: "Das Werk Othmar Spanns" in *Weltwirtschaftliches Archiv* (Jena), April 1928; Spann: *Gesellschaftslehre* (Leipzig 1930), p. 47.

11 W. Andreae; "Das Werk Spanns" in *Weltwirtschaftliches Archiv* (Jena), April 1928.

12 "Sociology as a Science" (*Social Forces*, Chapel Hill, N.C., U.S.A., October 1931). See also Sorokin and Zimmerman: *Principles of Rural-Urban Sociology* (New York 1929), pp. 4-8.

but goes beyond it is furnished by Walther,¹³ in whose treatment sociology is a *vier-stufig* or four-staged structure. As such, it deals with (1) the social attitudes (*Sozialhaltungen*) of the individual, (2) the social relations and processes, i.e., those bearing on the interactions of individuals among themselves, (3) the "groups", i.e., collective systems of persons (*Personen-zusammenhänge*) and (4) other *Zusammenhänge* (collective systems), e.g., (a) of psychological dispositions (for instance, public opinion, national mind), (b) of modes of living (custom, *mores*, folkways), (c) of activities (plays, rites), (d) of achievements (press, economic life), (e) of organizations (political and religious institutions), (f) of culture (philosophy, art), (g) of norms and ideals (ethics, law) and (h) of material transactions as instruments of social life (city, library, railway).

For our part, we believe, somewhat like Duprat, in accepting sociology as the study of any and every phenomenon that may be described as social or has bearing on social relationships. To us, therefore, no study can be more legitimate for sociology than that of population, the source as it is of all sorts of social processes and forms; and indeed no science is more characteristic about population than sociology. The following scheme will describe our orientations to sociology:

I. Theoretical Sociology:

1. Institutional Sociology (family, property, state, myth, arts and crafts, sciences, *mores*, languages).
 - (a) Anthropology and history as well as sociography,
 - (b) Social philosophy and philosophical history.
2. Psychological Sociology, Sociology Proper in the narrow sense.
 - (a) Social Psychology,
 - (b) Social Processes and Social Forms.

II. Applied Sociology: Study in the attempts at the remaking of man, societal planning and the transformation of the world by promoting "social metabolism" along diverse fronts.

The contributions of the psychological school as represented by Tönnies, Gumpowicz, Tarde, Ratzehofer, Durkheim, Le Bon, Simmel, Pareto, Small, Binet, Freud, Wallas, Ross, Bogardus, McDougall, Saleilles, Wundt, Ellis, and Stanley Hall and culminating in von Wiese are to be treated by all means as fundamental in the enrichment of sociology. But on the other hand, the lines of thought exhibited by the Chinese Chouli,

¹³ "Gesellschaftliche Gruppen nach Art und Grad der Verbundenheit" (*Archiv für Sozialwissenschaft und Sozialpolitik*, Tübingen, December 1932); G. L. Duprat: "Esquisse d'un Traité de Sociologie" (*Revue Internationale de Sociologie*, Paris, September-October 1935).

the code of Hamurabi, the Egyptian *Book of the Dead*, the Vedic *Aitareya-Brāhmaṇa*, Plato, the *Manu-Samhitā*, Seneca, St. Paul, *Nārada-Smṛiti*, Al Farabi, Aquinas, Hemādri's *Chaturvarga-chintāmani*, Ibn Khaldun, Francis Bacon, Macchiavelli, *Shukra-nīti* and Abul Fazl among the "ancients", and Vico, Montesquieu, Herder, Godwin, Malthus, Rammohun, Beccaria, Comte, Marx, Engels, Spencer, Dayananda, Syed Ahmad, Maine, Bhudev Mookerji, Sumner, Kohler, Vivekananda, Ranade, Boas, Hobhouse, Loria, Max Weber, Ramendra Trivedi, Dewey, Sombart, Westermarck, Lévy-Bruhl, Aschaffenburg, Croce, Ginsberg, Spengler, Gini, Pound, Thurnwald, Parmelee, Richard, Goldenweiser, Mazzarella, Bonger and others cannot be ignored in sociology in spite of the fact that very many of them are predominantly anthropological, historical, philosophical or political. On this point we are reminded of Richard's observations in *Sociologie et Métaphysique* that Kant and Renouvier were also sociologists although in their days what is described as sociology today used to be called politics, philosophy of history or even political economy as understood by Rousseau.

We proceed, therefore, on the convictions (1) that population touches sociology at every point and in every branch and (2) that sociology is interested in every aspect of the population question from the biological and the eugenic to the criminological, the sanitary, the pedagogic, the economic and the political. To us anthropology (history) is the key or the foundation, politics the goal, and psychology the very being, of sociology.

Controversies in Population Sociology

For the purposes of the present paper, however, we shall in general pass by such topics as are likely to be discussed in other sections, e.g., those on biology, eugenics, physiology, hygiene, anthropology, and so forth. But we should not fight shy of the observation that in almost every one of these fields very many of the "last words" are really nothing but "open questions."¹⁴ To mention one or two fields, as we can glean from

¹⁴ See the sections on culture-contact, race-mixture, caste-fusion, military history, emigration and immigration, Americanization, etc. in the present author's *Chinese Religion Through Hindu Eyes* (Shanghai, 1916), *The Folk-Element in Hindu Culture* (London, 1917), *The Futurism of Young Asia* (Berlin, 1922), and *Les Races, les Classes et les Forces formatrices au point de vue du Métabolisme social* (International Congress of Sociology, Brussels, 1935); R. K. Mukerjee: *Migrant Asia* (Rome, 1936); B. N. Datta: "Das indische Kastensystem" (*Anthropos*, Vienna, 1927), "Races of India" (*Journal of the Department of Letters*, Calcutta University, 1935); H. D. Palit: articles on the transformation

Niceforo's *Antropologia delle Classi Povere*, some of the postulates about the eugenic treatment of class and caste problems, which happen to be very popular among certain social reformers, are not to be treated as uncontested truths. In the second place, the scare of alleged race-degeneration through the mingling with the undeveloped races or classes cannot be taken as established on sound scientific analysis. The problem of immigration likewise should not be appraised as having been solved in the United States of America and in the British Dominions in a rigidly scientific manner. The doctrines of ultra-racialism as embodied in the Aryan cult, Gobineau's theory of race-inequality, the Teutonism of Chamberlain, and Nordicism etc., have been challenged by Hankins in the *Racial Basis of Civilisation*, as indeed they can be, with substantial arguments.

Attention may be drawn to the conflict of views in another field.¹⁵ Many writers have urged that biological causes are involved in "differential fertility." But existing data do not warrant any final conclusions. It is well known, again, that the proportion of the Alpines has been increasing more rapidly in East and South Germany and throughout France rather than the other racial elements. The racial composition of Europe, as also of India, has been undergoing a transformation. Certain investigators are inclined to believe that these racial or national substitutions are bad. But such views come as a rule from persons having preference for a particular national or cultural tradition. No "objective criteria" can, however, be found for arriving at a "hierarchy of races or cultures." Hence one should be prepared to leave open the questions about the desirability or undesirability of such differential reproductivity.

of castes in North and West Bengal (*Arthik Unnati* or "Economic Progress", Calcutta, for 1926-28 and 1934-35); P. Sorokin: *Social Mobility* (New York 1927), pp. 485-488; Elliot Smith's presidential address at the Anatomy and Physical Anthropology Section of the First International Congress on Anthropology and Ethnology (London 1934); Ford (editor): *Social Problems and Social Policy* (New York 1923), sections on heredity, eugenics etc.; Conklin: *The Direction of Human Evolution* (New York 1921), *Heredity and Environment* (1922); G. L. Duprat: "Les Elites et le Prestige" (*Revue Internationale de Sociologie*, Paris, January-February 1935).

¹⁵ J. Rumney: "The Problem of Differential fertility" (*Population*, London, November 1935). See also "The Problems of Differential Fertility" in the present author's "Trend of Indian Birth Rates" (*Indian Journal of Economics*, August, 1934).

Sociologically, one is not entitled to believe that economic considerations constitute the exclusive forces in the formation or transformation of castes. "Social metabolism," as embodied in the structural changes of groups, i.e., their horizontal movements from occupation to occupation or vertical trends up or down, has been "independently" engendered in India through the ages on account of innumerable political or dynastic revolutions. Then, again, the profession of arms, i.e., military occupation is enough to generate, even without economic considerations, these caste or race mobilities of all sorts. And finally, law-making as the function of the state is another momentous agency in the transformation of social orders. It is law that abolished serfdom as well as the gild in Europe. It is likewise law that often made and unmade castes in ancient and medieval India and has been partially making and unmaking them in modern times. The caste problem of today cannot therefore be left for solution to economic determinism alone.

In the sociology of values we have to submit very often to the verdict of factual history which demonstrates that races and castes may come and that races and castes may go but that civilization goes on for ever. The rôle of culture-contacts and race-mixtures in the making of social progress can never be over-stated. The facts of culture-contact, hybridization, caste-uplifts in India, ancient, medieval and modern, find themselves in general agreement with the doctrines of the Italian sociologist Pareto in *Les Systèmes Socialistes* and *Trattato di Sociologia Generale*.

No society has ever existed without dominant classes, the *élites*," says he. The distinction between the upper and the lower socio-economic orders furnishes the fundamental basis of all societal organizations. But the *élites*, according to Pareto, have a tendency to degenerate, decay and disappear. The dissolution of the upper classes is not only moral but physical as well. They are ultimately replaced by new dominant classes such as emerge out of the people. It is said to be impossible to detect the democratic government of societies in history. The course is declared to be from aristocracy to aristocracy. Only, the aristocracies rise, have their day, cease to be, and give place to new aristocracies.

In this doctrine of the "circulation of the elites" there is much that Indian history as the history of other countries can offer corroborative data. We cannot, however, afford to be extremists and admit that the *élites* of one generation or culture-stage are *entirely* replaced by those of the next. The emergence of new elements from the lower orders is a reality. These new elements have, because of military, political, economic, sexual and other circumstances, many chances of getting admitted into and fused or mixed up with the already existing dominant classes. A new "metabolism" is all the time in action giving rise to

a new *Gestalt* (form) in social relationship. It is the fusions and intermixtures that enable the transition from generation to generation of *élites* to appear not as an abrupt breach with the past or a total replacement of the old social physiognomy by the new, but as a generally steady although often revolutionary process of societal transformation. Thus considered, the historical movements, the social mobilities and the dynamic processes ought really to be described as the continuous "democratizations" of world-culture through the rise of the lower and their absorption into the *élites* rather than as marches from aristocracy to aristocracy.

It is necessary also to beware of the "monistic" interpretations in social phenomena such as have given rise to obstinate controversies. The "religious interpretation" of culture as propagated by Fustel de Coulanges in *La Cité antique* or by Max Weber in *Gesammelte Aufsätze zur Religionssoziologie* is found to be too speculative and unsatisfactory by Sorokin (*Contemporary Sociological Theories*). Against the economic interpretation of history as established by Marx, Engels and Loria there are the arguments of Spann (*Der wahre Staat*), Michels (*Corso di Sociologia Politica*), Hobhouse, Wheeler and Ginsberg (*The Material Culture and Social Institutions of the Simpler Peoples*), Carr-Saunders (*The Population Problem*), Mazarella (*Studi di Etnologia Giuridica*) and others. The exaggerations of geographical determinists like Buckle, Ratzel and Huntington have been exposed, among others, by Bruhnes (*La Géographie humaine*), Vallaux (*Le Sol et l'Etat*), Cunningham, Todd and others.

Finally, among the many postulates that are being challenged is also to be mentioned the one (cf. Max Müller, Séart, Max Weber and others) which asserts that the culture created by the people of India is essentially speculative, pessimistic and mystical. Creative India's rôle in the evolution of social energism and secular enterprises is being recognised more and more in the East and the West.¹⁶

A great fetish in the social thought of the contemporary world is furnished by the doctrine of internationalism. But in spite of its tremendous popularity it has not succeeded in averting attacks from diverse quarters of

16 See the present author's *Positive Background of Hindu Sociology*, Vol. I. (Allahabad 1914), *The Political Institutions and Theories of the Hindus* (Leipzig 1922), "Aspects Politiques et Economiques de la Civilisation Hindoue" (*Revue de Synthèse Historique*, Paris, June 1930), "Sociological Approaches to Vedic Culture" (*Prabuddha Bharata*, Calcutta, September-November 1935) and *I Dati Secolari et Sociologici nella Letteratura Buddhistica Pali* (International Congress of Orientalists, Rome 1935) for an examination of the monistic geographical, religio-mystical and racial interpretations of culture; cf. C. Formichi: *Salus Populi* (Turin 1908), A. Hillebrandt: *Altindische Politik* (Jena 1923).

sociology. We may single out the critical onslaughts on the cult of internationalism from the exponents of a new science, *Geopolitik*, grouped as they are round their leader, Karl Haushofer. In the symposistic book of essays, *Raumüberwindende Mächte* (1934), edited by him one of the contributors, Wüst, observes that a world-view such as can actually transcend the limitations of space is impossible both as a concept and as a fact. The so-called "higher unit" which is alleged to be established by the break-up of a previous world-view of a different character through assimilation, absorption, transformation etc. is very questionable and in the long run is liable to disruption. "It is impossible to emancipate the world-view from its space-limitations. The attempts to establish artificial world-languages, e.g., Esperanto, Ido, Novial, Volapuek, have not been able to advance beyond their crude beginnings. Coudenove-Kalergi's Pan-Europa movement is like the League of Nations idea a stillborn phenomenon. The abolition of the Caliphate by Kemal Pasha is but the last item in an inevitable development, namely, the disappearance of an unnatural Pan-Islam." By enunciating the doctrine that every world-view is by nature nothing but national or territorial although it can to a certain extent transform the space and even transcend it Wüst has exposed the philosophical bankruptcy of internationalism as a cult. It is demonstrated by other writers that neither religion nor art, nor language, nor technocracy, nor economic development, nor colonialism nor imperialism can in the last analysis lead to the genuine transcending of space or region. All the so-called international or internationalizing endeavours are appraised to be essentially *raumgebunden* (space-conditioned).

There is no mysticism or metaphysics in Haushofer's social philosophy. In the midst of all internationalizing ideologies his geopolitics teaches the world to remain awake to the one great reality of life, namely, that it is nothing but nationalism that rules mankind and that the eternal problem of today is, as our *Mahābhārata* has taught for all ages, to study the science and art of *Macht*, i.e., *shakti* or power. In geopolitics the student of Hindu social theories will thus come across such dicta of Somadeva's *Nītwākyāmrīta* as *na hi kṣulagatā kṣyāpi bhūmih* (nobody's territory is derived from his family) and *vīrabhogyā vasundharā* (It is by the powerful that the earth can be enjoyed).

An adequate orientation to the existence of conflicting currents in the population sociology of a "general" order is an urgent necessity for us in India, bent as we are on embarking upon practically new investigations. It should not be reasonable to ignore the other side of the shields while getting interested in apparently most axiomatic dogmas.

Birth Control A Vague Category

We shall now take up some of the more "special" sociologies of population and examine in detail a few categories bearing on Indian demography. The controversies in these fields will be found to be no less acute than in the others. No settled facts can be postulated in the sociologies of overpopulation, optimum density, poverty, birth, death and growth rates, vital index, family limitation, caste and religious questions in vital statistics, social mobility, urbanization, colonization, standard of living, dietary, efficiency, progress and so forth. It is possible to open the questions and attempt reconstructions in each one of these spheres.¹⁷

To begin with, it is necessary to call attention to the unscientific and inexpressive character of the category, "birth control". This expression cannot, humanly speaking, mean anything more than the control over births which is tantamount to birth planning. A planning of birth may involve, however, either an increase of birth or a restriction. It does not automatically imply family limitation or "birth strike".

Grotjahn¹⁸ is correct when he points out that "birth control (*Geburtenregelung*) cannot be scientifically taken to be identical with the "limitation" of births, as it usually is. It should imply rather the establishment of a rule (*Regel*) or policy. But, as is well propagated, what the exponents of birth control really want is not this planning in the ambiguous although scientific sense but rather a restriction of births.

There is a further complication associated with this category of birth control. Let us take it to be identical with the restriction or diminution of births as really intended by the exponents. But the limitation of "births" is not necessarily equivalent to the limitation of "growths". Even with birth limitation the growths may remain as before or may even increase; because in the mean time death rate may diminish too and much faster than birth rate.

It cannot therefore be argued that, say, the problem of poverty can be solved by the limitation of births. Those who argue that India's poverty is due to the presence of comparatively more mouths in relation to food

17 The present author's *Neue Orientierungen in Optimum und wirtschaftlicher Leistungsfähigkeit mit besonderer Bezugnahme auf die indische Bevölkerungs- und Gesundheitsstatistik* (International Congress of Population, Berlin, 1935), reported in *Der Oeffentliche Gesundheitsdienst*, Leipzig, 5 December 1935, pp. 675-680.

18 "Die Sozialversicherung als Mittel zur Bekämpfung des Geburtenrückganges" (*Proceedings of the International Congress for Studies on Population*, Vol. VIII. Rome 1933).

supply can therefore find no help from the limitation of births. It is only when the birth rate diminishes much faster than the death rate that the real purpose of the exponents of birth control can be effectively served. The objective of the protagonists of birth control ought, then, to be not birth control but "limitation of growths". It is an arithmetical ratio between the birth and the death rates that should be the aim of birth control sociologists or politicians.

We then get the following equation :

Birth control = Restriction of growths.

The exponents attach of course an extraordinary importance to this factor. Here, indeed, we encounter an instance of sociological monism in the field of demography. It is possible, however, to point to students of population with whom such monistic demographic "interpretations" of culture-history are of no worth.

Those who maintain that the amelioration of the destiny of humanity depends on the uninterrupted increment of population *sont aussi loin de l'evidence* (are as far from evidence), says Bouthoul,¹⁹ as those who see in the restriction the essential remedy to all difficulties, past or present. For instance, the power of states cannot be exactly related to an absolute figure of the population.

The Italian demographer Savorgnan²⁰ compares the growth rates of the Scandinavian regions (low birth and low death rates) with those of what has often been called the "Balkan complex" (high birth and high death rates) by the present author. From the standpoint of costs engendered because of birth and the loss of capital caused by death the former type is described by Savorgnan as "economic" and the latter as "anti-economic". According to Mombert in *Grundriss der Socialökonomik* (1923) the economic type is regarded as the ideal, as the result of the "rationalization" of births and deaths. But Savorgnan quotes Ratzel's *Anthropogeographie* (1891) to indicate that the economic type is attended with the *pericolo di una scarsa natalità* (the danger of low birth rate). In his judgment the economic type is marked by decadence and senescence while the anti-economic type is furnished with superior vitality and capacity for expansion.

Indian Demographic Evolution in Comparative Vital Statistics

Let us now visualize the rate of growth in India during the fifty years from 1881 to 1931.

19 *La Population dans le Monde* (Paris 1935), p. 235.

20 "Economicità ed antieconomicità nell'aumento naturale della popolazione" (*Volume Commemorativo in onore del Prof. Giuseppe Prato*, Turin 1929).

The growth in Indian population during fifty years (1881-1931) is tabled below:²¹

Year				Censused Population
1881	...	...	...	253,896,330
1891	...	...	...	287,314,671
1901	...	...	...	294,361,056
1911	...	...	...	315,156,396
1921	...	...	...	318,942,480
1931	...	...	...	352,837,778

During this period of fifty years there was a total increase of 98,941,448. But the period was marked by an increase in area to the extent of 426,055 sq. miles which was responsible for the population increase of 10,301,035. For the same area, then, the actual increase was measured by 88,640,413.

The rate of increase in half a century is to be seen as follows :

Year	Absolute Increase	Increase for the Same Area
1881	... 100	100
1931	... 139	135

At 1931 the increase in reference to 1881 was then 35 or 39 per cent.

The evolution of population in the different provinces during the fifty years (1881-1931) is exhibited below in percentage of 1881:²²

India	... 39.0 (35.0)	Burma	... .. 292.5
Assam	... 79.2	Central Provinces	... .. 29.8
Bengal	... 37.9	Madras	... .. 51.6
Bihar & Orissa	21.6	Punjab	... .. 39.2
Bombay	... 32.8	United Provinces	... .. 10.6

The variations from Province to Province were considerable. The percentages of the Indian Provinces are being placed in the perspective of some Eur-American and Japanese percentages during the same period (1880-1930) as follows:²³

²¹ *Census of India 1931*, Vol. I. *India*, Part I. *Report* (Delhi 1933), p. 5.

²² *Census of India 1931*, Vol. I. Part I. p. 35.

²³ *Statistique Générale de la France: Annuaire Statistique* (Paris 1932), pp. 12*, 202*-203*; *Compendio Statistico Italiano* (Rome 1930), p. 11; *Statistical Abstract for the United Kingdom* (London 1933), pp. 4-5.

I. Above 50 per cent.

Burma	...	...	...	...	292.5
U. S. A.	...	...	...	...	186.0
Assam	...	...	...	...	79.2
Japan	...	...	...	...	74.1
Great Britain	...	...	...	...	54.1
Madras	...	...	...	...	51.6

II. Between 30 and 50 per cent.

Italy	...	...	...	...	46.8
Switzerland	...	...	...	...	43.5
Germany	...	...	...	...	42.2
Punjab	...	...	...	...	39.2
India	...	...	...	...	39.0
Bengal	...	...	...	...	37.9
Spain	...	...	...	...	36.8
Bombay	...	...	...	...	32.8
Czechoslovakia	...	...	...	...	32.8

III. Below 30 per cent.

Central Provinces	...	...	...	...	29.8
Bihar-Orissa	...	...	...	...	21.6
France	...	...	...	...	11.3
United Provinces	...	...	...	...	10.6

The rates of growth in India were then not abnormal or exceptional. In every group we find the Indian Provinces in the company of extra-Indian regions.

In the course of a paper²⁴ read at the International Congress for Studies on Population held at Rome in September 1931 the present author exhibited several charts of comparative demography on the strength of which it was possible to observe certain trends in Indian population rates such as went contrary to the generally held notion among the statisticians and economists. It was found, for instance,

- (1) that the decline of birth rate was a fact of Indian demography, and
- (2) that the death rate also was on the decline in India.

Naturally, therefore, in so far as the "logistic law" of population-growth may be said to represent a mechanical mode of expressing an

²⁴ "I Quozienti di Natalità, di Mortalità e di Aumento Naturale nell'India attuale nel Quadro della Demografia Comparata" in the *Proceedings of the International Congress for Studies on Population*, Vol. VI. (Rome 1934); "Comparative Birth, Death and Growth Rates" in the *Journal of the Indian Medical Association*, Calcutta (May, 1932).

empirical fact, India was repeating the same logistic curve in the population-cycle as most of the countries in Eur-America.

Subsequently the subject was dealt with by the author²⁵ with special reference to agricultural, industrial and other economic factors. It was possible to observe

(1) that the rising birth-curve in India was more or less parallel to the rising birth-curve in Europe but was chronologically distant from it by a few decades, and

(2) that the declining birth-curve likewise exhibited not only the parallelity to the declining birth-curve in Europe but also the chronological distance of a few decades.

This parallelism with a chronological distance is exhibited below with dates :

I. Birth-rate rising :

(a) 1841-80. West-European Economy.

(b) 1881-1910. Indian Economy.

II. Birth-rate falling :

(a) 1881-1930. West-European Economy.

(b) 1911-1930. Indian Economy.

In so far as the population-rates have already changed several times in Indian demographic evolution one would be but stating an objective fact if one were to admit with Karl Marx and to a certain extent with his opponent Leroy-Beaulieu that the law of population is not universal, eternal or uniform but varies with the epochs of development.²⁶

The same relativity of the law of population is admitted by Mombert, Diehl, Gonnard and others among the contemporary researchers.²⁷

The Health Movement and Urbanization

In the studies bearing on Indian population we encounter, therefore, the well-known tendencies of demographic evolution such as are manifest in other parts of the world. And we have to observe, further, that among

²⁵ "The Trend of Indian Birth Rates in the Perspective of Comparative Demography" in the *Indian Journal of Economics* (Allahabad), April and July 1934. In connection with the increase of population as caused by technical progress see Bouthoul: "Population et Progrès Technique" in the *Revue Internationale de Sociologie*, Paris, March-April 1925, pp. 193-196.

²⁶ *Handwörterbuch der Staatswissenschaften* Band II. (Jena 1924), pp. 776, 798, 802.

²⁷ Gonnard: *Histoire des Doctrines de la Population* (Paris 1923), pp. 316-317,

the forces operating on the population growth and structure of India in recent years none is more important than the sanitary developments.

Even in India to-day there is such a thing as the health movement. It is being promoted as much by the Government as by the people. School hygiene is already an item on the official agenda and plasmochin experiments are bidding fair to be popular in the campaign against malaria. Institutes for Physical Culture, although of modest dimensions, are becoming popular and attention has for some time been focussed on better babies, especially through the medium of health and other exhibitions. Swimming, cycling, excursions, not to speak of general sports and athletics as well as group-dances and boy scout activities, have been growing into important features of daily life. Girls' schools are also reacting to manly games and exercises in an enthusiastic manner. Altogether, the desire to live and flourish as robust animals has conquered the Indian mind to a certain extent. It has now become an integral part in the larger scheme of the remaking of Indian manhood and the societal reconstruction of India.

In all these attempts one will perhaps have to see the family likeness, although on quite an humble scale, of the Sokol organization of the Czechs, Fascist Italy's efforts at sanitary rejuvenation, and the "youth movement" of post-war Germany. India has thus been touched by the world-wide endeavours of today directed as they are towards race-betterment and conscious "planning" of physical manhood.

It is worth while at this stage to survey some of the Indian data of public health and vital statistics and examine them in their demographic and social bearings. The questions relating to town *vs.* country, man *vs.* woman, or Hindu *vs.* Mussalman deserve analysis in this regard. Then there are the problems of optimum, over-population, birth-control etc. on which light may be thrown from the angle of this planning of physical manhood as embodied in the health movement. It is not too much to say that in the course of the next few years the health movement is going to be the central subject of Indian demography and social economics.

Neither as regards curative nor as regards preventive measures is India anything like well-equipped as yet. In 1932 there were 6,631 hospitals and dispensaries²⁸ at work in all India serving a population of over 271 millions. On an average there was thus one dispensary available for every 40,859 persons. The differences between the Provinces were of course immense. In the United Provinces there was one for every 74,000 while Bengal had one for 40,382 and Madras one for every 35,000. The

²⁸ *Annual Report of the Public Health Commissioner with the Government of India* 1932, Vol. I, (Delhi 1934), pp. 257-258.

number of beds available in all India was 69,835. There was thus one bed for 3,880 persons as contrasted with one for 174 in Germany in 1926.

It is in cities, towns and what are generally described as urban areas that sanitary arrangements on modern lines are naturally localized. The progress of scientific sanitation as well as the "health movement" in India is therefore more or less an index to and perhaps a result of the progress of urbanization.

We have to visualize a huge subcontinent of villages and rural folk. For entire India the situation in 1931 was as follows:²⁹

1. Urban Population	...	...	...	38,985,427
2. Rural Population	...	...	...	313,852,351
				Total 352,837,778

Nearly 11 per cent of the total population was urban. The growth in urbanism during forty years may be indicated below:

CENSUS YEAR	PER CENT. OF TOTAL POPULATION			
1891	9.5
1901	9.9
1911	9.4
1921	10.2
1931	11.0

The most urbanized of the major provinces was Bombay with 22.4 followed by Madras with 13.5, the Punjab with 13.0, the U.P. with 11.2, the C.P. with 10.8 and Bengal with 7.3.

Decline in Mortality Independent of Sex and Religion

It is in the perspective of social and economic conditions like the ones described above that the health and diseases of the Indian people can be properly understood.

During the decade 1901-1910 the average annual death rate for all India was registered at 43 per thousand inhabitants.³⁰ For the quinquennium 1926-30 the rate was 25.

The decline in the course of a generation is palpable. In Bengal also the death rate has been declining from decade to decade. In 1930 the death rate for Bengal was 21.8. This was the rate for Italy between 1901 and 1910 and for France and Germany between 1891 and 1900.

In Bengal the death rate for the male was 30.6 in 1921. It came steadily down to 21 in 1930. In 1921 the death rate for the Bengali female was 29.7. By 1930 it declined to 21.2.

²⁹ *Census of India 1931, Vol. I. India, Part I. Report* (Delhi 1933) pp. 46, 60.

³⁰ The present author's paper (*Proceedings of the International Congress for Studies on Population, Rome, September 1931, Rome 1934, Vol. VI.*)

The death rates differ of course with the districts. For instance, in North Bengal the rate was invariably the highest during the last decade whereas in East Bengal it was the lowest.

For males the death rate was higher among Muslims than among Hindus. But the rate for females was higher among Hindus than among Muslims. For all practical purposes, however, the general death rate is identical for the two chief communities in Bengal. In 1929 the rate was 23.1 for Hindus and 23.6 for Mussalmans and in 1930 both the rates declined to the same figure 22.3.

Town and Country Uniform in Death Rate

In towns the death rate during 1930 was 21.8 (1932, 18.2) but in villages it was 22.5 (1932, 20.5). Both in towns and villages there was a decline by a few points. But so far as mortality is considered, it is hardly possible to make a distinction between rural and urban areas. In Bengal the conditions of life should appear to be uniformly good or bad from the sanitary standpoint, no matter whether the population centres be villages or towns.³¹ On an intensive analysis, however, certain distinctions of a profound character have to be observed.

Let us analyze the causes of death for the year 1930. They may be tabulated in the three following groups:

A. Group in which the death rate is higher in towns than in villages.

CAUSE OF DEATH	TOWN	VILLAGE
1. Respiratory Diseases	5.1	0.9
2. Dysentery and Diarrhoea	2.5	0.7
3. Small Pox	1.0	0.2
4. Injuries	0.5	0.4
5. Other causes	6.9	3.1

B. Group in which the death rate is higher in villages than in towns.

CAUSE OF DEATH	TOWN	VILLAGE
1. Fever	4.5	15.9

C. Group in which the death rate is the same in villages as in towns.

CAUSE OF DEATH	TOWN	VILLAGE
1. Cholera	1.2	1.2

It is obvious that of the seven categories of causes of death only one is more fatal in villages than in towns. The rural areas of Bengal are, relatively speaking, more immune to the general run of diseases than towns and cities. This immunity, however, has not succeeded in rendering

³¹ *Ann. Rep. Health Com.* (Delhi 1934), pp. 348-349; See also the *Annual Report of the Public Health Administration in Bengal* (Calcutta 1930).

village life as such more prophylactic and insured against death than urban life. The onslaughts from one group of diseases alone, namely, fevers are so heavy as to turn the scale against rural in favour of urban centres. For all practical purposes, therefore, the public health and sanitary problem of Bengal reduces itself fundamentally to the problem of combating and controlling fevers.

As is well known among medical experts, the term "fever" is very elastic and comprehensive. It is a general name covering many varieties of diseases. The rural death rate of 15.9 per thousand inhabitants as mentioned above may be analyzed into several factors as follows:

1. Malaria	...	...	...	...	7.68
2. Enteric fever	...	...	...	...	0.23
3. Measles	...	...	...	...	0.06
4. Relapsing fever	...	...	...	...	0.11
5. Kala-azar	...	...	...	...	0.23
6. Other fevers	...	...	...	...	7.59
Total					15.90

The proportional distribution of diseases as the more important causes of death in Bengal may be seen in the following annual averages for the decade 1921-30. For thousand deaths the causes were as follows for males and females:

DISEASES AS CAUSES		MALE	FEMALE
1. Small Pox	...	15.7	15.9
2. Dysentery and Diarrhoea	...	24.0	23.2
3. Respiratory Diseases	...	35.5	24.0
4. Cholera	...	59.9	59.9
5. Fever	...	712.5	718.5

It is clear that in Bengal dysentery, diarrhoea and respiratory diseases exact proportionately higher toll from men than from women. In cholera and small-pox the mortality is almost identical for the two sexes. Fever affected the female sex somewhat more severely than the male. We do not fail to observe that nearly three fourths of all deaths in Bengal are caused by fever.

The deaths from fever in Bengal have declined both absolutely as well as relatively during the decade. In 1920 there were 1,144,421 deaths from fever in a total of 1,481,612 deaths, thus yielding 25.2 in the general death rate of 32.7 per thousand inhabitants. In 1930 deaths from fever were 705,066 in a total of 1,044,255 registering a co-efficient of 15.10 in the general death rate of 21.81. There is thus but a slight improvement to record so far as fever as a cause of the deaths comes into consideration. While in 1920 fever accounted for 77 per cent. of deaths in Bengal it was not responsible for more than 69 per cent in 1930.

Infant Mortality Declining

It is possible to observe a distinction between rural and urban areas in regard to infant mortality also. Thus for 1930 in Bengal we have the following figures:

RURAL	186.5
URBAN	202.4

The rate was higher for the urban areas by quite a few points.

For all India the infant mortality in 1930 was 180.83 (1932: 169) per thousand living-born within the first year of life. In Germany the rate was 195.0 for 1896-1905 and in Italy 202.0 for 1876-85. There has been considerable progress in India during the last twenty years. In 1912 the rate was as high as 207.65. But it has been steadily coming down since then. The quinquennial average for 1921-25 was 182. It came down to 178 during 1926-30.³²

The decline in infant mortality which is a general feature of all Indian vital statistics can be marked in Bengal also. In 1914 the rate was 221.25. It came down to 196.79 in 1926, 187.3 in 1930, and 179 in 1932. The Bengal rate for 1932 was much lower than that of Rumania (196) during 1926-30 and of Hungary during the quinquennium 1921-25. The All-India average for 1926-30, namely, 178 was a little higher than that of Mexico (173) but much lower than that of Chile (229).

In any case, the infant mortality conditions in India, bad as they are, happen to have some analogues in other parts of the world. The hopeful feature is that like the general mortality the infant mortality rate also is on the downward curve.

Expectation of Life Improving

The changes in the "expectation of life"³³ at various ages of Indian males are shown below from 1901 to 1931:

AGE	YEAR	YEAR
—	1901	1931
0	23.63	26.91
10	34.73	36.38
20	28.59	29.57
30	22.90	23.60
40	17.91	18.60
50	13.59	14.31
60	9.53	10.25
70	5.80	6.35
80	3.07	3.13
90	1.23	1.12

³² *Ann. Rep. Health Com.* (Delhi 1934) pp. 21-22. See also the India Volume of the Census Reports for 1931, Part I. p. 92.

³³ *Census of India 1931*, Vol. I. Part I. (Delhi 1933), p. 165.

The expectation of life is found to be quite low. But an improvement is to be noted in the course of thirty years. In regard to females also a slight improvement can be detected, although not for all ages. Besides, there are differences between the provinces so far as improvements or rather rates of change are concerned.

What with scientific research and what with health propaganda, both official and voluntary, the death rate and infant mortality rate are likely to go down more and more. But the decline in death rate is, strangely enough, perhaps not an unmixed good! In spite of what the medical men and health officers may say, the economists consider it to be a "danger signal", involving as it does a "rising" growth-rate unless the birth rate diminishes correspondingly. But to what extent a danger signal can be magnified into an "economic scare" deserves careful and intensive investigation, as also the problem as to the desirable doses of birth limitation, if any, and the classes of people such as ought to practise it.³⁴

Low Growth Rates in India

It is interesting, therefore, to note that the birth rate in India is not too high. The annual average birth rate in Bengal during the decade 1921-30 was 28.5 (1932: 26.4).³⁵ This was identical with that of Spain and Lithuania but lower than that of Bulgaria (32.7), Poland, Rumania (35.2) and several other European countries during the quinquennium 1926-30. The Italian rate for the same quinquennium was identical with the Bengal rate for 1930. We understand that the Indian birth-rate is not an exceptional phenomenon alleged to be peculiar to the tropics.

Moreover, the rate has begun to fall in India also as in other parts of the world. There is as yet perhaps no talk of a "birth strike," but the decline is already visible, as we have indicated at the beginning.

34 For some of the general considerations on birth policy see A. Molinari: *Un'Indagine sulle Motivazioni della Diminuzione delle Nascite*, M. Pugliese: *Politica Finanziaria e Demografia*, and F. Marsal: *L'Influence de la Legislation sur le Développement de la Population* (International Congress of Population, Rome 1931).

35 The present author's "Trend of Indian Birth Rates" in the *Indian Journal of Economics* (Allahabad), April and July 1934. For regional diversities in demographic Italy and comparison with Sweden during periods previous to and after the introduction of birth control see G. Mortara: "Nuovi Dati sulla Natalità in Italia" (*Giornale degli Economisti e Rivista di Statistica*, Città di Castello, March 1935).

The birth-rate for all India was 38.0 during 1901-10. During 1921-30 it was 35.0 (1932: 33.7). There was thus a decline of a few points. In Bengal also the birth-rate declined from 30.0 in 1920 to 26.4 in 1932. Whether this decline is to be further accelerated by birth control propaganda will depend, among other things, on an individual's or a group's income, social position and political affiliations for the time being.

The birth and the death rates being what they are, the natural growth rate of India is rather low. In case, however, the death rate continues to go down on account of health movements, and in case the birth-rate does not go down in the same proportion, the growth rate is likely to be high. But between 1872 and 1931 the growth rate varied in the following manner: 1.5, 0.6, 1.4, 6.4, 1.2, and 10.2 per thousand per year. The latest is the highest on record in Indian vital statistics. But it is much lower than that of Italy, New Zealand, Rumania, Australia, Portugal, Bulgaria, Holland, Canada, Poland, Japan, Chile, Argentina, Egypt, and Russia. Indeed, some 500 million men and women living in non-Indian regions are likely to double themselves in much less time than all the races of India combined. In regard to the world's over-population, if it is ever to come, the fear for the present is less from India than from other quarters. This aspect of the question has as a rule been ignored by the world's demographers, including the statisticians of the Indian Census.³⁶

But there is another question. Although other parts of the world are likely perhaps to contribute to an eventual over-population in the world, one may still inquire if within the bounds of India herself there may be seen signs of over-population. It is here that we touch the question of optimum not as an universal item having reference to all mankind, but as a category relative to the race, the region, or the class.

Density and Income Per Capita in International Demography

In the analysis of the optimum number which is tantamount to an investigation into the standard of living *per capita* it is as a rule the practice to refer to the density of population. This practice is eminently open to question.

The optimum represents a theoretical or rather an hypothetical

36 The present author's "Comparative Birth, Death and Growth Rates" in the *Journal of the Indian Medical Association* (Calcutta, May, 1932). See the India Volume of *Census Reports 1931 Part I*, pp. 29-52. See also the discussion on population questions in Cannan: *Economic Scarcities* (London 1932).

number of men and women per square mile, i.e., a theoretical or hypothetical density at which the optimum or highest income (and therefore standard of living) is available to everybody in the area *per capita*.³⁷ If the number is more, i.e., exceeds the optimum density leading thereby to overpopulation the income *per capita* becomes less. On the other hand, if the number is less, i.e., falls below the optimum density leading thereby to underpopulation the income *per capita* becomes less also.

Density by itself cannot be taken to be an index to overpopulation or underpopulation. It cannot be regarded as an economic category of substantial importance. It is a mere mathematical or rather arithmetical ratio showing in a crude manner the number of men and women per territorial unit. But overpopulation or underpopulation as well as poverty or deviation from optimum income and standard *per capita* are economic phenomena based on the total earnings of the people. We encounter here a good deal of much complicated socio-economic problems.

The densities of nine Indian provinces and several Eur-American countries as well as China and Japan are exhibited below in five groups classified in two broad divisions (in terms of the number of inhabitants per square kilometer):³⁸

I. High Density Group.			
A. Very High.		C. High.	
Belgium (1930) ...	266	Germany (1925) ...	134
Bengal (India) ...	252	Italy (1931) ...	133
Holland (1930) ...	232	Madras (India) ...	128
		Czechoslovakia ...	105
		China (1930) ...	100
B. Relatively High.			
Great Britain (1931) ...	197		
United Provinces (India)	177		
Bihar-Orissa (India) ...	177		
Japan (1930) ...	169		

³⁷ Cannan: *Wealth* (London 1914), p. 68; Carr-Saunders: *The Population Problem* (Oxford 1922), pp. 200-203, 213.

³⁸ *Annuaire Statistique* (Paris 1932) p. 201*, *Jahrbuch des Statistischen Reichsamts* (Berlin 1928), pp. 1*, 2*, *Census of India 1931*, Vol. I. Part I. *Report* (Delhi 1933), p. 35, *Deutsche Wirtschaftskunde* (Berlin 1930), p. 6, *Statistical Year Book of the League of Nations* (Geneva 1932), p. 22. See also Burgdörfer: "Bevölkerungs-statistik" in *Handwörterbuch der Staatswissenschaften, Ergänzungsband* (Jena 1929), p. 105. One Km = $\frac{1}{2}$ mile.

II. Low Density Group.			
A. Relatively Low.		B. Very Low.	
Hungary ...	93	Central Provinces (India)	60
Punjab (India) ...	92	Bulgaria ...	59
Poland ...	83	Europe minus	
Austria ...	80	Russia ...	56
India ...	76	Greece ...	49
France ...	76	Lithuania ...	43
Bombay (India) ...	69	Europe ...	42
Assam (India) ...	61	Russia ...	26
Rumania ...	61	Burma (India) ...	24
		U.S.A. ...	16

The figures for India and the Indian provinces are those derived from the census of 1931. The figures for other countries have been calculated for 1930-31.

Let us now place here the indices of national income *per capita* from diverse countries. As is well known, the methods by which national income has been ascertained for different regions are not uniform. From the standpoint of scientific statistics the comparability of these figures for the purpose of surveying the real standard of living or economic efficiency is open to question. Subject to these limitations the estimates are being presented with a view to helping the analysis in a somewhat concrete manner.

An estimate of national income *per capita* for pre-war conditions (c 1913-14) is furnished below (in £ sterling):³⁹

A.		C.	
1. U. S. A. ...	72	1. Italy ...	23
2. Australia ...	54	2. Austria ...	21
3. Great Britain		3. Spain ...	11
and Ireland ...	50		
B.		D.	
1. Canada ...	40	1. Japan ...	6
2. France ...	38	2. India ...	4
3. Germany ...	30		

In regard to the situation just after the war an American survey of national incomes *per capita* yields⁴⁰ the following result for 1922 (in dollars):

³⁹ Woytinsky: *Die Welt in Zahlen* (Berlin 1925), Band I., p. 161.

⁴⁰ Fisk: *Inter-Ally Debts* (New York 1924); the present author's *Comparative Pedagogics in Relation to Public Finance and National Wealth* (Calcutta 1929), pp. 86-91, and *The Theory of Wages in the Light of Social Insurance and Public Finance* (Indian Economic Conference, Dacca, January 1936).

A.		B.	
1. U. S. A.	... 282	1. Italy	... 85
2. Great Britain	... 213	2. Russia	... 42
3. France	... 179	3. Japan	... 35
4. Germany	... 114	4. India	... 14

The national income *per capita* of certain countries for more recent years is indicated below (in Reichsmarks):⁴¹

1. U. S. A. (1926)	... 3,230
2. Great Britain (1924-25)	... 1,620
3. Germany (1929)	... 1,095
4. France (1925)	... 980
5. Italy (1928)	... 460

It is now time to examine if there is any correlation between the indices of density and the indices of income.⁴²

In the Density-Group IA., the zone of "very high" densities, Bengal, which is known to have low national income *per capita* finds herself sandwiched between two high income countries, Belgium and Holland. Very high density cannot then be correlated with high or low income-scale.

A zone of "high" density is that furnished by the Density Group C, which comprises Germany, Italy, Madras, and China. And yet in point of income *per capita* neither Madras nor China is on the same level with Italy or Germany. Indeed even Italy is much below the German level.

Let us take a zone of "relatively low" density, say, the Density Group IIA. We find that Bombay and the Punjab have been thrown together with France in the same company. But it is well known that the national income of the French people *per capita* is much higher than that in the two Indian provinces. Indeed the average density of India is identical with that of France. Equality in density is not a function or correlate of equality in income.

Among the high density countries we have some of the highest income-levels, for instance, Belgium, England and Germany. High density cannot be taken as a correlate of poverty. On the other hand, low density also can be associated with high income. For instance, the U.S.A. with

41 *Deutsche Wirtschaftskunde* (Berlin), p. 330.

42 Compare for a result of a different character Shiomi: "Interrelation between the Wealth and the Density of Population in Japan" (*Proceedings of the International Congress for Studies on Population*, Rome, Vol. IX. (1933). On the subject of correlation in demography see Sorokin: *Contemporary Sociological Theories* (New York 1928).

the lowest density has the highest income. Similarly France with a relatively low density has a relatively high income.

Internal Colonization and Social Mobility

The question of populational density is integrally connected with population movements, both natural (as embodied in births and deaths) and artificial. The artificial population movements can manifest themselves in diverse ways. One of these consists in the export and import of human beings, emigration and immigration, and the positive or negative migration balance. Another is to be found in the percentage of foreign-born living in a region. This second is not necessarily to be confounded with the first and can be treated as a case of "social mobility" in a special sense, as we shall do in the present investigation.

The "balance of migration" in India, i.e., the excess of immigrants over emigrants in the nine Indian provinces at 1931⁴³ can be seen in the following table:

Province	Excess + or -	Population Pressure.
Assam	+ 1,241,011	Very Low
Bengal	+ 771,936	Low
Burma	+ 593,324	Low
Bombay	+ 596,707	Low
Central Provinces	+ 227,003	Rather Low
Punjab	- 67,792	Rather High
Madras	- 888,339	High
United Provinces ...	- 1,063,143	Very High
Bihar-Orissa	- 1,291,567	Very High

In the above table the exporting provinces have been described as regions with "high" population pressure. The "low" pressure regions are those which import the migrants.

Of the nine provinces five yielded positive figures and four negative in 1931. Inter-provincial migration, *innere Kolonisierung* or "internal colonising", used in a rather general sense, was a source of addition to the population strength in the first group only. The other group was marked by adverse balance.

It is not possible to establish any definite correlation between the "balance of migration" and the density. In the positive group we have Bengal with "very high" density (252), Burma (24) and C.P. (60) with "low" density as well as Assam (61) and Bombay (69) with "relatively low" density. Similarly the negative group comprises the U.P. (177) and Bihar

43 *Census of India 1931*, Vol. I. India. Part I. *Report* (Delhi 1933), p. 64. See also the corresponding volume for 1921, Part I, p. 84.

(177) with "high" density, Madras (128) with "relatively high" density and the Punjab (92) with "relatively low" density.

In 1921 the Punjab had been in the positive group. But otherwise the grouping of the Indian provinces in regard to the balance of migration was similar to the one in 1931. In each group there were changes in the relative position, however.

In other words, high density is not always to be taken as equivalent to "high population pressure" such as should inevitably lead a region to have itself relieved of surplus population. Similarly it should not be proper on the strength of statistics to establish an equation between low density and "low population pressure", i.e., the tendency to attract immigrants or colonists.

Or, rather, whether a region is to be characterized as one of high or low population pressure depends not so much on the mere quantitative fact, i.e., the arithmetical density or number of persons per square mile as on the absence or presence of "attractive" features possessed by it in reference to the existing or prospective inhabitants.

It is not entirely correct to state, as Elster does, that the size or number of the population does not play any part in the overpopulation problem. It is clear, however, that a thinly peopled region can be over-populated whereas, on the contrary, a region with a specially high density but possessing command over rich resources may not be over-populated.⁴⁴

An aspect of "social mobility" is, as we have referred to above, embodied in the structure of population as regards the birth place. The presence of persons born elsewhere than in the regions where censused is an index to the import of inhabitants.

The number per 10,000 inhabitants of persons "born elsewhere" than the regions where enumerated is given below for 1931:⁴⁵

Province	Index	Social Mobility
Madras ...	21	Very low
U. P. ...	57	Very low
Bihar-Orissa ...	113	Relatively low
Punjab ...	237	Relatively low
Bengal ...	363	Relatively high
C. P. ...	364	Relatively high
Bombay ...	475	High
Burma ...	530	High
Assam ...	1,523	Very high

It is possible to establish to some extent an inverse correlation between this aspect of "social mobility" and the density. Thus Assam, Burma,

44 Elster: "Das Bevölkerungsproblem" in *Handwörterbuch der Staatswissenschaften*, Band II. (Jena 1924), p. 815.

45 *Census Report 1931*, Vol. I. (Delhi 1933), p. 62.

and Bombay with "high" indices of social mobility as thus defined are three provinces which belong to the "low density" groups. The correlation, however, is not perfect, because the order of increasing or decreasing density is not marked in the order of this aspect of social mobility.

But, on the other hand, Bengal with "very high" density (252) and the C. P. with "very low" density (60), both possess equally a "relatively high" social mobility (363-364). In other words, "relatively high" social mobility can coexist with "low", "very low" and "very high" densities.

Then the "very low" indices of social mobility, namely, 21 and 57 are possessed by Madras and the U.P. respectively, the provinces which belong to the "high" density groups. Here also we have instances of inverse correlation. Bihar-Orissa may be said to belong to the same category, although not in the same measure as the U. P.

But the case of the Punjab is interesting. This province possesses a "relatively low" density as well as "relatively low" social mobility at the same time.

A somewhat tentative generalization may then be drawn for practical purposes. Excluding Bengal, the C. P. and the Punjab and without trying to be quantitative, low mobility can be associated with high density and high mobility with low density.

Migration and Economic Resources

The problem of mobility (in the wider sense) *vis-à-vis* density is not simple. But migration may be correlated, among other things, with economic resources, opportunities or attractions. These resources etc. need not, however, all be industrial or capitalistic.

The number of companies in British India together with the amount of capital per company is indicated in the following table for the year 1926-27:⁴⁶

PROVINCE	NUMBER OF COMPANIES	AVERAGE CAPITAL PER COMPANY (in Rs. '000)
1. Bombay ...	812	1,249
2. Burma ...	283	938
3. United Prov. ...	215	600
4. Bengal ...	2,652	398
5. Central Prov. ...	49	209
6. Madras ...	662	189
7. Punjab ...	173	182
8. Bihar-Orissa ...	82	145
9. Assam ...	116	58

46 The present author's "Umfang und Kapitalkraft der industriellen Unternehmungen in Indien" in *Maschinenbau* (Berlin), 16 April 1931.

This schedule cannot entitle anybody to establish a correlation between capital or industrialism and density. The investments of capital and the size of the undertakings as measured by the average amount of investment have not followed the order of the provinces in density.

On the other hand, it is possible to detect some correlation between economic chances or the amount of capital invested and the migration balance, no matter what be the density.

The extraordinarily high positive balance of Assam is not due in any especial degree to the attraction offered by industrial capital invested in the tea-gardens. The chief factor is furnished by the abundance of "virgin" lands in Assam acting as a spur to the cultivating classes of the neighbouring Mymensingh district in Bengal.

In the cases of Bengal and Bombay the fundamental factor is the industrialization which serves as a perpetual incentive to "foreign-born" persons whether for investment of capital or for employment-seeking. It is not only by furnishing employment to the directly industrial population but also by creating demands for aids and accessories of all sorts to industry and industrial workers that industrialization acts as an incentive to immigration. New chances in agricultural work, opportunities for retail trade, as well as transport business and conveyance, fresh avenues for clerical work and so forth have almost invariably to be regarded as items in an industrialization-complex and hence as spurs to internal mobilization, or colonization.

The total paid-up capital of the 5535 joint stock companies in India in a pre-depression year (1926-27) amounted to Rs. 2,770,319,000. Of this sum Bombay alone absorbed Rs. 1,014,489,000 and Bengal Rs. 1,056,332,000.

It is thus possible for both Assam and Bombay each with "low" density to attract immigrants. On the other hand, Bengal, although she is a region of "very high" density, can still serve to entertain large colonies of immigrants. Thanks to the common touch of economic attractions, agricultural Assam, industrial Bombay as well as high density Bengal have been rendered kin in this respect. Each has demonstrated its capacity to support immigrants although under diverse conditions of density.⁴⁷

In the U. P. and Bihar-Orissa the amount of capital invested in modern industries was not large enough for the area or population. The wealth of land was not powerful enough to keep the people bound to the

⁴⁷ See the criticism of Gini (*I Fattori demografici dell'evoluzione delle nazioni*, Turin 1912) and Carr-Saunders (*The Population Problem*, London, 1922) in Sorokin: *Contemporary Sociological Theories* (New York 1928), p. 382 in regard to the two extreme views on correlation between migration and density.

soil. Indeed, in certain regions the soil was already on the verge of exhaustion. Hence these provinces could not afford to offer chances to immigrants in the same manner as Bengal. Rather, their behaviour was negative in migration-balance.

The demographic situation in Bihar and the U. P. may to a certain extent be compared to that of Northern and Southern Italy in pre-war years.⁴⁸ The relative absence of fertility, the fragmentation of holdings, the lack of industry etc. combined to provoke the emigration from Italian villages. The exodus was partially arrested in Northern Italy on account of the beginnings of industrialization during 1906-08. But in Southern Italy, on the other hand, where industry hardly existed the emigration continued but to keep up its enormous level.

Other circumstances remaining the same, a larger amount of capital invested is likely to stem the tide of emigration from Bihar-Orissa and the U. P., nay, convert the negative balance of migration into a positive one. In the course of a few years we should be able to analyse quantitatively the demographic values of the new sugar mills established in these provinces during 1930-35.

Urbanism Indifferent to Density

While discussing industrialization *vis-à-vis* internal migration it is necessary to call attention to another aspect of this latter movement, namely, urbanization or the growth of towns and cities. At 1931 the percentage of total population living in urban centres was as follows, province by province:⁴⁹

PROVINCE	PERCENTAGE	GRADE
1. Bombay ...	22.4	Very High
2. Madras ...	13.5	High
3. Punjab ...	13.0	"
4. U. P. ...	11.2	"
5. India ...	11.0	"
6. C. P. ...	10.8	"
7. Burma ...	10.3	"
8. Bengal ...	7.3	Relatively low
9. Bihar-Orissa ...	4.3	Very Low
10. Assam ...	2.3	"

⁴⁸ Kawan: "Les Exodes" in the *Proceedings of the International Congress for Studies on Population* (Rome), Vol. VII. (1934), p. 770.

⁴⁹ *Census of India* 1921, Vol. I. Part I. p. 64; 1931. Vol. II. Part I. p. 60. See *Supra*, footnote 29.

In 1921 the order of the Provinces was virtually the same, except that Burma and the C.P. changed places.

It is to be observed that urbanism has not made extraordinary progress. The rise of the index from 9.5 per cent in 1891 to 11 per cent in 1931 is indeed almost unmentionable.

But from the standpoint of optimum it is worth while to notice that urbanization cannot be correlated either with density or with industrialization. Bombay with "relatively low" density is the highest in urbanization, whereas Bengal with "very high" density is "relatively low" in the same regard. The U.P. and Bihar-Orissa are at par in density but in urbanization the former is "high" and the latter "very low". And so on. Again, in point of capitalism and industrialization Bombay and Bengal are almost at par, but the contrast between them in urbanism is immense.

Optimum an Elastic Category

Even without showing a high urbanization index Bengal happens to possess a high density as well as a high industrialization complex. One will have to be very careful in regard to the acceptance of any particular index as adequate for the investigation into prosperity, welfare or decent living.

Exactly what number of men, women and children should be considered to be the optimum for a district, region or province in India can not, then, be ascertained with even modest degrees of precision. Indeed, it cannot be ascertained for any country of the world. It is essentially a question of the standard of living and efficiency, which, as is well known, is very elastic everywhere on earth, and anything but positive. Every province in India, like every nook and corner of Europe and America, possesses a very large number of socio-economic groups, each with its own conception or rather tradition of material and moral well-being. Scientifically speaking, one would therefore be hazarding too much if one were to dogmatize arbitrarily about the optimum having been reached in a certain district, class, region or province. In other words, it should be too unreasonable to talk glibly of India as being over-populated at the present stage.

The conventional conceptions about optimum, demographic density, over-population, and standard of living etc, are essentially unscientific. This is why France, Fascist Italy, Nazi Germany, as well as Japan to a certain extent have embarked deliberately upon the "large family movement".⁵⁰ In India we should certainly have to organize measures for

⁵⁰ Boverat: "L'Encouragement national aux familles nombreuses" and Vieuille: "Primes à la natalité" (*Huitième Congrès National de la Natalité*

heightening the standard of living, class by class, i.e., in other words, to promote the economic development of the country by industrialization and otherwise. But these measures need not necessarily be associated with the restriction of family and inspired by the nightmare of over-population or with the object of combating over-population. They may indeed go hand in hand with *familles nombreuses*, *famiglie numerose* or *kinderreiche Familien*, i.e. large families. Like many other doctrines of social science the doctrine of over-population also is in the melting pot. While practising caution at every step in regard to the possibility of a relative decline in income *per capita* as well as in the standard of living and efficiency one should have to attack over-population as at any rate but an open question in applied sociology and constructive statesmanship.

The Rationale of the Large Family Movement

As long as most of the "great powers" are deliberately promoting the large family movement it should not be reasonable for science to maintain the following equation:

Large family = lower standard of living,
= intensification or expansion of poverty.

Nor can the following equation which is perhaps of greater practical significance be taken to be an axiomatic proposition:

Large family = lower industrial or social, political and military efficiency.

The large family movement is at present not to be identified with France, Italy, Germany and Japan in an exclusive manner.

Very high "growth" rates (birth *minus* death rates) are, as it has been pointed out in the paper entitled *Comparative Birth, Death and Growth Rates*, exhibited by the Slavic countries like Rumania, Lithuania, Bulgaria, Poland and Russia (21 per thousand).

Paris, September 1926); Benini: "Da Malthus a Mussolini" (*Educazione Fascista*, Rome, April, 1929); Serpieri: *La Legge sulla Bonifica Integrale* ((Rome 1931), pp. 12-16, Pietrà: "Il Costo dell Uomo" (*Proceedings of the International Congress for Studies on Population*, Rome, 1931); Zahn: *Wie die Familie so das Volk* (Munich 1930) and *Das Bevölkerungsproblem und die volkswirtschaftliche Kapitalbildung* (International Congress of Population, Berlin, 1935), summarized in *Der Oeffentliche Gesundheitsdienst* (Leipzig, 5 December 1935); Burgdörfer: *Volk ohne Jugend* (Berlin 1932). See also the arguments advanced in favour of Japan by Uyeda (Tokyo 1933) and by the writer of *Occupational Changes in Japan* (Tokyo, Liberty of Trading Bulletin No. 4, 1934).

Latin or "Romance" countries like Portugal, Chile and Argentina, belong to the same group. Nay, the semi-Teutonic or semi-Anglo-Saxon British Dominions, New Zealand, Australia and Canada are the demographic comrades of the Slavs and Latins in this regard. Finally, the high growth rate (13.7) is the feature of a Teutonic region also, namely, Holland.

The "active" population policy of France has for the last decade and a half been associated among other things with the *allocations familiales* movement. In Italy the Fascist dictum of *riscattare la terra, con la terra gli uomini e con gli uomini la razza* (redeem the land, with the land the people, and with the people the race), has got embodied in the law of *bonifica integrale* (comprehensive land-reclamation) in 1928. Since then demography and *mobilizzazione rurale* as well as the *battaglia del grano* (wheat campaign) have been proceeding as one complex in Italian public finance and economic planning.

Incidentally, it may be observed that for scientific purposes high birth rate is not necessarily a function or correlate of village life or of agricultural economy. It has become almost axiomatic in contemporary population science to assert a correlation between agricultural occupation and high birth rate as well as industrial occupation and low birth rate. But on an intensive analysis it is difficult always to be sure of this correlation.⁵¹

During 1914-24 Potsdam, Frankfort on the Oder, Hannover, Lüneberg, Stade, Upper Bavaria, Mecklenburg, Swabia and other districts with higher than the average German percentage of agricultural population exhibited extraordinarily low birth rates. On the other hand, highly industrialized districts like Cologne, Aachen, Arnsberg etc. were remarkable for high birth rates.

The difference between the town and the country in regard to the influence on the birth rate was more or less a demonstrable fact of pre-war times. But today that distinction has to a great extent disappeared, as von Zwiedineck maintains for Germany. The decline in the birth rate is as much a characteristic of the country as of the town,—of the agricultural classes as of the industrial.

⁵¹ von Zwiedineck-Südenhorst: *Wirtschaftsstruktur, Bevölkerung und Volkstum*, report at the Conference of Oeynhausen, February 1933, under the auspices of the Friedrich List Gesellschaft; F. Levasseur: *Questions Ouvrières et Industrielles en France sous la Troisième République* (Paris 1907), pp. 288-289; cf. Sorokin and Zimmerman: *Principles of Rural-Urban Sociology* (New York 1929), pp. 206-211, 215-216 (with special reference to "standardized" as distinguished from "crude" birth rates).

In Germany today the ideological contributions of Zahn, Burgdörfer and other demographers and statisticians have been lifted to a practical plane which bids fair even to transcend the Italian level. The latest piece of world's legislation in behalf of the *kinderreiche Familie* (the family rich in children or the large family) is embodied in the Nazi Income-Tax Act of 1934. According to its provisions a person having one child is privileged to pay tax not on the entire income but on 85 per cent only. At the same time, no matter what be his income, he gets from the Government a *Kinderzulage* (child allowance) of RM. 240 p.a. for one child. If he has two children his income will bear the tax on 65 per cent only. He will at the same time get from the Government the allowance of 540 RM. p.a. In case of three children the tax falls on 40 per cent only and the allowance is 960 RM. p.a. For four children the tax falls on 10 per cent only and the allowance is 1,440 RM. p.a. The family blessed with five children does not have to pay income tax at all. And it can get an allowance of 10,000 RM. p.a. in case his annual income is not more than 10,000 RM. In Indian terminology a person earning Rs. 10,000 per year will get from the Government an additional Rs. 10,000 p.a., should he happen to be the father of five children. The word "child" means, for the purposes of this Act, the young man or woman upto the 25th year, who is, besides, at school.

The following categories of income are entirely exempt from the income tax:

1.	RM.	100	p.m.	...	...	with one child.
2.	RM.	125	p.m.	...	...	with two children.
3.	RM.	175	p.m.	...	...	with three children.
4.	RM.	275	p.m.	...	...	with four children.
5.	RM.	850	p.m.	...	...	with five children.

Nazi taxation is well calculated to foster large families and counteract the German counterpart of the "international birth strike". In fact during the year 1934 the birth rate was almost double that of 1933.⁵² One cannot,

⁵² Burgdörfer in the *Deutsche Allgemeine Zeitung* (Berlin), 3 March 1935; *Bevölkerungsentwicklung im Dritten Reich* (Heidelberg, 1935), pp. 36, 55, 56. *Rassenpolitische Auslandskorrespondenz* (Berlin), No. 2. 1935; The present author's "Care for Children in the New Income Tax of Germany" (*Calcutta Review*, November 1934); P. K. Whelpton: "Why the large rise in the German Birth Rate?" (*American Journal of Sociology*, November 1935). For French measures somewhat similar to Nazi legislation see F. Boverat's paper (*La Péréquation des ressources aux charges des familles*) at the International Congress of Population, Berlin 1933, summarized in German as "Der Ausgleich der Familienlasten" (*Der Öffentliche Gesundheitsdienst*, Leipzig, 5 December 1935).

however, conclude anything definite on the data of a year or two, which, be it observed especially, are eminently exceptional.

The conditions in India or China are not identical with those in Germany, France, or even Italy, and Japan. Nor are these latter countries identical with one another. But the economic and other arguments behind Boverat's *L'Encouragement national aux familles nombreuses*, Korherr's *Geburtenrückgang*⁵³ and Mussolini's "*Il Numero come Forza*" are eminently calculated to evoke an unsettling of the settled questions, should there happen to be any, in optimum, standard of living, over-population etc.

Crop Planning in India

From the purely quantitative side, then, attempts to fix upon a desirable number of inhabitants for a region in India or elsewhere cannot be carried on in a strictly scientific manner.

From the economic side, on the other hand, positive evidences of improving conditions, higher general standards etc.—albeit in humbler dimensions,—within Indian areas are forthcoming. It will be found that there ought to be no ground for economic scares in the world of science with reference to Indian population.

In connection with the Crop Planning Conference held at Simla in June 1934 the position of rice in the Indian economy was described, province by province, as follows by the Imperial Council of Agricultural Research:⁵⁴

1. Madras consumed practically all the rice it produced and there were regular imports from Burma and therefore there was no case of overproduction.

2. Bombay had to supplement its production of rice by imports from Burma and therefore there was no question of surplus. In Sind the production was just equal to consumption.

⁵³ *Huitième Congrès National de la Natalité* (Paris 1926); *Süddeutsche Monatshefte* (Munich 1927), *Gerarchia* (Milan 1928); Gini in "Lo Stato Mussoliniano" (*Rassegna Italiana*, Rome 1930); Zingali: *I Provvedimenti Mussoliniani per lo Sviluppo quantitativo e qualitativo della Popolazione* (International Congress of Population, Rome 1931); Angelini's paper at the International Congress of Population, Berlin 1935,—"*Italienische Grundsätze und Verwirklichungen in Beziehungen zu den demographischen Problemen der ländlichen Bevölkerung*" (*Der Öffentliche Gesundheitsdienst*, Leipzig, 5 December 1935).

⁵⁴ *Proceedings of the Crop-Planning Conference* (Delhi 1934), pp. 7-8.

3. Bengal's production was short of its needs by 150,000 tons annually and that was supplemented from Burma.

4. The United Provinces were a deficit province in the matter of rice and had to supplement its production from the Central Provinces and Bengal.

5. Bihar and Orissa did not produce enough for its consumption and had to supplement its production from the Central Provinces and Bengal, the latter probably importing from Burma through Calcutta.

6. In the Central Provinces the production was normally just sufficient for internal consumption and might be depended on for export to the adjoining provinces in case of a rise in price.

7. The consumption was equal to production in Assam.

8. The Punjab was not a producer or consumer of rice in considerable quantities.

9. Burma could normally export 3,000,000 tons per year. The surplus was absorbed by India Proper, Ceylon, Malaya and the Far East. There was no question of over-production.

The general result was an absence of over-production of rice either in India as a whole or in any part of it. It was agreed, therefore, (1) that neither should any Provincial Government ordinarily offer any stimulus to an increase in the present area under rice, and (2) that nor should restriction in rice-acreage be recommended in any Province.

Another cereal, namely, wheat was likewise examined from the standpoint of output and requirements in all the Provinces. The results of the investigation were summarized as follows:⁵⁵

1. In the Punjab the production of wheat could not be termed excessive. The surpluses were easily exported to the adjoining Provinces and Calcutta. A real over-production might ensue when the maximum limit of 2,000,000 acres under wheat was reached in Sind.

2. The United Provinces had a surplus in wheat. But it was nothing serious on account of the increase in population and the exports to the neighbouring provinces.

3. The Central Provinces had an annual surplus of 50,000 tons. This was absorbed in the neighbouring provinces.

4. Bihar and Orissa was a deficit province in wheat and had to import its requirements from the surplus provinces.

5. Bombay had likewise to depend on import from other provinces.

Altogether, in the case of wheat as in that of rice there was no question of over-production. The present wheat requirements of all India were estimated to be 9,500,000 tons and the adequate acreage was generally

⁵⁵ *Proceedings of the Crop-Planning Conference* (Delhi 1934), pp. 9-10.

considered to be something like 33,000,000 acres. It was agreed that, as in the case of rice, in the case of wheat also there should be neither stimulus to cultivation nor restriction in acreage.

All these discussions pointed but to one thing. It was apparent that the avenues to the expansion of food output were considered to be available. Indeed the fear was not about the shortage in the sources of supply but about the surplus and over-production.

Over-population Absolute and Relative

In a long-period view the fundamental law of diminishing returns may be presumed ultimately to operate in India as elsewhere. This indeed is the only law of economics or rather of Nature which today as in the days of Malthus can be said to be eternal or universal.⁵⁶ But for the present the relation between mouths and food or human numbers and natural resources is not that embodied in the Malthusian dictum.

The "actual and potential resources" appear to be substantial for the time being. The "standard of living" of the Indian races being what it has been for centuries, it is to be understood that the "saturation point" of population *vis-à-vis* production, wealth or welfare is yet far off. On the contrary, one may rather have to reckon with the possibility of an increase in the "growth-rate" in India in the near future. And this eventual increase will but correspond to the increase in the growth rates of Europe during the nineteenth century.

It is worth while to observe in this context that the standard of living of a group, nay, of an individual cannot be raised simply by reducing the number of births or curtailing the size of the family to be maintained.

Exactly when and under what conditions the "long period" effects are going to make themselves felt so that the traditional folk-standard may be affected unfavourably it is not possible as yet to foresee without indulging in imagination. Kuczynski⁵⁷ has observed that, as matters stand, any prediction of the future population trend of non-Eur-American races would be mere guess.

The standard of living in India has, if anything, been improving,—no matter how slightly and how partially. The question of the Indian population approaching, and of course exceeding, the hypothetical optimum

⁵⁶ Diehl: *Theoretische Nationalökonomie* (Jena 1924), Vol. II, p. 72.

⁵⁷ Kuczynski: "Population History and Statistics" in the *Encyclopædia of the Social Sciences*, Vol. XII. (New York 1934); "The Decrease of Fertility" (*Economica*, London, May 1935); F. Boverat: *L'Avenir de la Population Européenne* (International Congress of Population, Rome, 1931).

number, which, be it observed again, is an unknown quantity, should appear to be too early.

Towards the beginning of the present century the pessimistic nervousness about the "absolute" over-population such as is feared by "prophetic Malthusianism" in some indefinite and extremely remote future and is alleged to arise from the disproportion between the mouths to feed and an *eventual* shortage in food supply was compared by Franz Oppenheimer to the panicky fears about the calamity to mankind such as might after millenniums arise from the cooling or freezing of the sun or the collision between two planets and so on.⁵⁸

For all practical purposes this is the attitude of Mombert⁵⁹ also as he does not consider the question of a general over-population in the near future to be a problem of practical importance. It should appear that the scares about an absolute over-population in India belong for the time being almost to the sphere of such millennial world-calamities.

On the other hand, a "relative" over-population, such as may arise from a temporary absence of balance between the present number of population and the food supply, e.g., from a disproportion caused by complications in the societal organization is not unthinkable and indeed deserves always a careful analysis at every step.

The category "over-population" can have a meaning only in so far as it is applied to a particular region with reference to its own food output as well as the food supply it can command from abroad through exchange with its products.⁶⁰ Over-population in this limited sense deserves especially to be studied in connection not only with single regions but with single classes also. For even now it is worth while to remember the remarks of Sismondi made a century and a quarter ago in his *Nouveaux Principes d'Economie Politique* (1810) to the effect that over-population is a problem especially of the working classes.

The category "over-populated" or "under-populated" has to be used not in regard to large areas like states, provinces etc. but in regard to smaller territorial jurisdictions or regions like districts or even parts of districts. That is, in one and the same country certain parts may be over-populated and other parts under-populated. For instance, in France the

⁵⁸ *Das Bevölkerungsgesetz des T. R. Malthus and der neueren Nationalökonomie* (Berlin 1901), p. 63.

⁵⁹ *Bevölkerungslehre* (Tübingen 1923) p. 112. About the difficulties connected with the doctrine of optimum see Mombert: "L'Optimum de Population" in the *Revue Economique Internationale*, June, 1935.

⁶⁰ Elster: "Das Bevölkerungsproblem" in *Handwörterbuch der Staatswissenschaften*, Band II. (Jena, 1924), p. 816.

South-West and the West appear to be under-populated while the North and the North-East have a large number of unemployed.⁶¹ It is, then, intensive analysis,—region by region and occupation by occupation,—that is required with regard to India as to other countries in order to detect the traces of local optimum or otherwise.

Indices of Industrialization in India

In the *milieu* of a study on the standard of living *vis-à-vis* population it would not be correct to describe India as a purely agricultural sub-continent or to forecast her future sustaining power exclusively on the strength of her mechanical and biological progress in agriculture. Slowly but steadily India has been growing into an industrial region also.⁶²

In 1913-14 the total production of cotton piece-goods in Indian mills was 1,164,300,000 yards. In 1933-34 it was 2,945,000,000 yards.⁶³ The increase was 153 per cent. in twenty years.

With 1928 as 100 the index of production in the cotton mills of India rose to 141 in October 1933. In the output of steel the index rose during the same period to 175.

In 1913-14 the export of manufactures from India constituted 23 per cent of her total exports. In 1928-29 it rose to 27 per cent.⁶⁴ At what may be described as the end of the depression period it continued to be almost the same, namely, 27.2 per cent. India's status as an industrial region is thus rising in world-economy.

In 1913-14 India imported iron and steel goods to the extent of 1,018,200 tons. The weight of these imports rose to 1,169,900 tons in 1928-29. The pre-war average of imports in the line of *Produktionsmittel* (instruments of production), i.e., machinery, mill-work etc. was valued at Rs. 56,114,000. In 1928-29 the value of this class of imports rose to Rs. 183,604,000. All these are evidences of expanding "technocracy", as understood in a general manner.

The increasing absorption of metals (excluding iron and steel), hard-

61 Zwiedineck-Südenhorst: *Wirtschaftsstruktur, Bevölkerung und Volkstum* a report at the Conference of Oeynhausen February 1933. For evidences of unequal distribution of population from the British side see Carr-Saunders and Jones: *The Social Structure of England and Wales* (London 1927), pp. 27-32.

62 The present author's "Die Industrialisierung Indiens" in the *V.D.I. Nachrichten* (Berlin), 19 November 1924.

63 *Review of the Trade of India 1933-34*, p. 98.

64 *Review of the Trade of India 1928-29* (Calcutta, 1929), pp. 150-151, 1933-34, p. 179.

ware and motor cars points likewise to the increasing trend in industrialization.⁶⁵

Almost the whole of the sugar that India used to import from Java is now being produced in Indian mills.

Marked developments have likewise been going on in Indian industries manufacturing a wide range of articles. They comprise the production of electric lamps and all kinds of electrical appliances, rubber tyres, water softening plant, cooking stoves, asbestos, cement products, paints, enamels etc. India has also commenced manufacturing railway rolling stock,⁶⁶ bridge work as well as heavy structures.

The spirit of Tata is abroad and Tataism has come to stay. The "tonic of machinery" has commenced functioning in no unmistakable manner. Today the Indian people is not only importing and consuming tools, implements, machineries, etc. as, say, previous to the war of 1914-18 but is actually manufacturing some of them at home. The production of the *Produktionsmittel* is a mentionable feature in the industrial economy and technocracy of creative India at the present moment.

Along with the expansion of technocracy has to be noted the growth of capital. The deposits in the postal savings banks as well as the postal cash-certificates bought by the people in India grew in the following manner from 1920 to 1932 (in Rs. '000,000):⁶⁷

YEAR	SAVINGS		TOTAL
	DEPOSITS	CASH CERTIFICATES	
1920	... 229	—	—
1923	... 248	84	332
1924	... 256	131	387
1925	... 272	210	482
1926	... 295	267	562
1927	... 327	307	634
1928	... 345	323	668
1929	... 371	350	721
1930	... 370	384	754
1931	... 382	—	—
1932	... 434	—	—

65 *Review 1928-29*, pp. 200-203. The figures of the depression period may be seen in the *Review for 1933-34*, pp. 228-231, for sugar see pp. 62-63.

66 *Budget for 1934-35* (Delhi, 1934), p. 39.

67 *Annuaire Statistique de la Société des Nations* (Geneva 1931-32) p. 288, *Budget for 1934-35* (Delhi, 1934), pp. 230-231.

The comparison between the growths in population and savings from 1921 to 1931 is as indicated below :

YEAR	POPULATION	INDEX	SAVING IN Rs.	INDEX
1921	... 318,942,480	100	228,633,942	100
1931	... 352,837,778	110.6	370,259,874	161.6

We notice that while the population increased 10.6 per cent the savings increased 61.6 per cent. The expansion of "capitalism", especially among the comparatively poorer and middle classes, is therefore as real a fact as the tendency to industrialization.

The average number of houses per square mile in all India grew in the following manner at different dates :⁶⁸

1891	: 33.9	|	1911	: 35.8	|	1931	: 39.3
1901	: 31.6	|	1921	: 36.1	|		

The increase in houses has not been very rapid or remarkable. But it is none the less a solid testimony to the people's improvement in the standard of living. In this as in other items, with regard to Indian conditions, it is clear that progress is very slow and that the rate of progress is extremely modest. Nay, congestion is an absolute reality that cannot be ignored. But the fact of relative progress is undoubted.

Diversities in the Meat-Ratio of European Dieteries

The standard of living in India, then, has been rising during the period under observation. It is now necessary to call attention to the very category, "standard of living", for a somewhat precise and scientific connotation. In the study of optimum or of density we come ultimately to the question of the standard of living which implies in the last analysis also the standard of efficiency.

The standard of living is not uniform in Europe. It is different in different countries. On an examination of the food-stuffs consumed by the working classes of five countries during 1922-30 the amount of meat per "consumption unit" (adult male) per year is found as follows (in Kilogrammes):⁶⁹

68 *Census of India 1931*, Vol. I. Part I. (Delhi 1933), pp. 37, 55, 59.

69 "Food Consumption of Working Class Families in Certain Countries" in the *International Labour Review* (Geneva) for December 1933, pp. 873-875.

The other items in this survey comprise white bread, rye bread, wheat flour, oat flour, rye flour, butter, margarine, lard, potatoes, sugar, coffee, tea, cocoa, cheese, milk, eggs, rice, dried peas, haricot beans and fish. It is interesting to observe that no fresh vegetables and fruits are included. Evidently the study is somewhat incomplete from this standpoint.

KIND OF MEAT	POLAND	CZECHO-SLOVAKIA	BULGARIA	GERMANY	BELGIUM
Beef	... 16.85	13.28	10.57	6.4	19.55
Mutton	... 0.37	0.59	12.85	0.6	0.11
Pork	... 7.98	10.44	6.88	7.8	7.81
Veal	... 0.62	2.47	*	1.5	2.54
Sausage	... 7.85	2.88	*	13.4	4.20
Ham	... 2.67	*	*	0.7	1.28
Bacon	... 7.90	0.95	*	3.0	7.16
TOTAL	... 44.24	30.61	30.30	33.4	32.65

The total for all the different kinds of meat in regard to eight other countries can also be quoted in the same context.

Besides, for England about 1932 the consumption of meat per head per year has been ascertained to be as follows :⁷⁰

Beef	... 27.03	lbs.
Mutton	... 17.02	„
Pork	... 1.89	„
Bacon	... 28.95	„
74.89		lbs. (=37.5 kg. approximately)

Altogether, we get the following schedule of kilogrammes per head per year covering as it does fourteen countries of Europe :

Austria	... 58.14	Germany	... 33.4
Latvia	... 48.6	Belgium	... 32.6
Poland	... 44.24	Estonia	... 32.3
England	... 37.5	Sweden	... 31.3
Denmark	... 35.59	Czechoslovakia	... 30.61
Switzerland	... 34.7	Bulgaria	... 30.30
Finland	... 33.9	Norway	... 28.30

The schedule is not to be used for any purpose of comparative economics with special reference to national efficiency. The figures are taken from diverse earning-groups of workingmen and employees. The sampling and averaging have therefore no comparability. As for England, the figure refers to the average for the entire nation. The schedule shows, however, simply that in regard to meat-diet we cannot afford to speak of a general European, or even Teutonic, or Slavic standard. Nay, a general

70 *Barclays Bank Monthly* (London), March 1934, p. 9.

working class standard also is unthinkable even for a single country. On the strength of a schedule like this one should not venture to establish a correlation between meat and climate or meat and national wealth or meat and efficiency.

The So-called Rice Standard of Asia

On the subject of the inevitable diversities in the standard of living with special reference to meat diet an evidence from Japan should throw some valuable light. Recently, the alleged "menace of Japanese competition" has been a popular theme of discussions in world-economy. In 1933 the Japanese standard of living was characterized as low by the Federation of British Industries. The Federation stated in plain words that unless rice was made equivalent to beef, the beef standard would cease to exist so far as many industries were concerned. A Japanese author discussing this British comment considers the implication that rice is lower than beef to be unsound and wrong.⁷¹ He analyzes the question of rice-standard *versus* beef-standard as follows:

"Prior to the influx of Western custom and under the influence of Buddhist ethics in Japan", says he, "it was considered to be improper to eat beef or any sort of meat for that matter. Meat was called 'four-legged stuff' which nourished savages. Today beef is not despised in Japan. But it does not follow that the standard of living has improved in proportion to the increase in beef-consumption. The Japanese eat rice because they like it, not because it is cheaper than beef."

This Japanese interpretation of the rice-standard *versus* beef-standard or, for that matter, meat standard would be found to be generally acceptable in Indian scientific and especially medical thought also. Neither the medical practitioners of the ancient Ayurvedic or Hakim system nor those of the European system can agree to the dictum that the Indian dietary, generally poor as it is in meat but relatively rich as it is in cereals, *dals* (pulses) and vegetables, is to be treated as a mark of low standard or of a standard that impairs efficiency.

In this connection it is interesting to observe that a representative of the International Labour Office remarked as follows about Japanese diet: "Western people," said he, "do not know how the Japanese workers live. It seems to me the cost of living is cheaper here, but I do not see any

⁷¹ Isoshi Asahi: *The Secret of Japan's Trade Expansion* (Tokyo 1934), pp. 105-106.

low standard of living."⁷² Be this as it may, the attempt to formulate a uniform or universal standard for the diverse nooks and corners of the world is the farthest removed from scientific objectivity. What is needed is "individualization" in regard to prescriptions and norms.

The amount of meat is relatively small in the so-called rice-standard of India as of Japan. But the high calorific value of rice is a good asset in the nutritive system of Southern and Eastern Asia. And the traditional and nation-wide dietaries⁷³ have sought to make up for the short-comings of starchy rice, such as they are, by the provision of the needed requirements in proteins, salts and vitamins. *Dals* (pulses) of a great variety, and diverse fishes such as are commonly found in these dietaries, especially of Bengal, Japan and China, furnish the proteins that may be lacking in rice. Proteins are furnished also by milk and eggs which are likewise consumed in large quantities. Meat, with the exception of the bovine species, is not a taboo in Hindu Bengal. Bengali Hindus eat goats, lamb, ducks, and fowl. The prejudice against chicken is disappearing. Among the Bengali Mussalmans no taboo is observed in the line of meat to the exclusion of pig.

In these dietaries fat is generally supplied by the presence of oils (vegetables, seeds, nuts, cocoanuts etc.) as well as ghee (clarified butter) and milk (which furnishes animal fats).

The provision of vitamins has likewise been assured in the East-Asian and South-Asian dietaries. The amount of green leaves and young vegetables that is consumed in raw, semi-cooked forms is large. Vitamine A comes from this source. *Dals* (pulses) which along with rice or wheat form the staple food throughout India are rich in vitamine B. A most popular sour or acid fruit in the dietary of India is the tamarind, and this is rich in vitamine C.

⁷² Maurette in the *Japan Advertiser* (Tokyo), April, 21, 1934.

⁷³ Nibaran Bhattacharya: "Nutrition of the Bengalee" in the *Amrita Bazar Patrika* (Calcutta), April 25, 1935.

See also his Bengali book *Bangalir Khadya O Pushti* (The Food and Nutrition of the Bengali), Calcutta, 1935, and I. B. Sen: *Bangalir Khadya* (The Food of the Bengali), Calcutta (1935). The divergences in the theories of nutrition with special reference to protein such as are prevalent among the food-physiologists of Eur-America deserve the careful attention of demographers, especially in India. See, for instance, McCollum and Simmonds: *The Newer Knowledge of Nutrition* (London 1929).

It must not be overlooked that wheat is also consumed in large quantities in India not only in the "wheat-belts" like the Punjab and the U.P. but also in rice-belts (e.g. Bengal).

This vitamine is furnished also by lemon which is likewise one of the most popular articles of daily consumption. Mangoes which may be regarded virtually as constituting half a day's meal in the villages of India during the "effective" season, say, for three or four weeks in the year are another source of vitamine C. Oranges in season, especially in the orange-regions, take the place of mangoes both in quantity as well as in vitamine C. This vitamine comes finally from berries, Indian apples, guavas, etc., whose name is legion, and which are consumed by the masses in considerable proportions.

The source of salts in Indian foods is to be found in the *dals*, greens, roots, vegetables and fruits referred to above. Altogether, a somewhat "well-balanced" food unit has factually been prevalent among the Indian people perhaps for ages. Those individuals or groups that are in a position to consume the different articles generally known to belong to the Indian dietaries may be taken for ordinary purposes to be provided with a physiologically substantial nutrition. Intensive statistical investigations, class by class and region by region, remain yet to be undertaken, however. Good results in this field are likely to be obtained in the near future from a systematic co-operation of economists with the Nutrition Research Laboratories established by the Indian Research Fund Association at Coonoor.

In the mean time one is not asked to believe that the Indian dietaries are perfect or that they are not in need of reconstruction from the standpoint of nutritive values. We understand only that simply because of the absence of certain items common in Eur-American dietaries the standard of living in India or in Japan does not have to be automatically postulated to be low, i.e., calculated to promote the absence of efficiency. The standard remaining the same, more population might be maintained in India, provided the development of economic resources that has commenced continues to keep its course.

International Comparisons in Standard and Efficiency

While discussing the century-old or millennium-old dietary of the masses in India, especially among the Hindus and Mussalmans of Bengal, it is not possible as yet to offer statistical surveys covering large numbers of families, or professional and income groups in the diverse economic regions. But it is necessary to observe as one of the most important economic data of semi-modernized and half-developed sub-continentals like India and China as well as Russia and the "Balkan complex" that a large part of the food stuffs is consumed by the growers, the village-folk and the masses "on the spot." This consideration is valid not only in regard to the

berries and other fruits and vegetables but also in regard to cereals, fish, milk, eggs, etc.

The "market-economy" does not affect the demand or supply of a substantial portion of these kinds of output. The questions of *bazar* price or the "cost of living" index as furnished by statistical bureaus cannot therefore very often influence the amount of consumption of these articles by the cultivators and other classes of rural population. In other words, the traditional and national dietary of Bengal or other parts of India is to a considerable extent indifferent to and independent of the wages or other earnings of the masses as calculated in Rupees-annas-pies. However low the income per family or *per capita* may appear to be in terms of money, the factual dietary of large numbers of the population can be, generally speaking, taken as more or less well-balanced.

Neither the statistics of total output in India, on the one hand, nor the figures of wholesale or retail prices and those of wages in agricultural areas, on the other, ought therefore to be taken as more than they are worth. That is, they are valuable enough so far as they go, but it should not be proper to depend upon them as conveying adequate and correct hints as to the *real* income or *real* standard of living or *real* consumption-schedule, or *real* food-unit of the Indian people. International studies in the comparative standard of living or efficiency of nations ought not to be obsessed by the statistics of the *bazar*-economy and price-economy such as they are at present available in Bengal or other parts of India. The place of "natural economy" and barter-economy is still important enough in the economic structure of India to vitiate all generalizations or guesses and hints based exclusively on formal statistics. This consideration should have important bearings also on the estimation and appraisal of national income *per capita*.

A more fundamental difficulty remains to be attacked. Even if the exact quantity of goods (limiting ourselves to food stuffs for the present) commanded *per capita* were ascertained, its bearings on vitality and physical efficiency would continue to be anything but precise. The reason is obvious. The amount of calories and kind of vitamins required for an individual's dietary⁷⁴ cannot be taken as standardized items of world-wide or nation-wide or caste-wide application. It is on the nature and amount of work done by an individual, no matter what be his income, class, caste,

74 The question of diversity in calories is discussed by the Italian demographer Gini in connection with the proceedings of the Inter-Allied Food Stuffs Commission. See his *Problemi Sociologici della Guerra* (Bologna, 1921), pp. 155-174 (Chapter sulli Influenza di alcuni fattori sopra il fabbisogno alimentare dell'uomo medio).

race, or other affiliations, on the climatic and seasonal conditions in which he has to normally live, on the occupational and housing status of his regular existence, etc. that the calories and vitamins required in his dietary would depend. The *real* standard of living and efficiency, and the physiological minimum in regard to calories etc., cannot therefore be dogmatized about in a universal, continental, sub-continental or racial manner, as is very often done. In other words, as in every other item of economics, in regard to dietary, health, demographic optimum, and social or occupational efficiency also we have to commence our investigations with the postulate of a diversity of standards.

The "large family movement" as embodied in the efforts of contemporary France, Italy and Germany should appear to acquire a fresh significance from the positive and pragmatic experience of industrial Japan. Wages and salaries in Japan⁷⁵ are considerably lower than in the "adult" industrial countries of Eur-America. The food, clothing, housing and entertainments, all those items that constitute the standard of living are also objectively much lower in Japan than, generally speaking, in the more prosperous regions of the Western world. And yet the Japanese are successfully competing with the most advanced of the Western nations in the marketing of their manufactured goods. This success in competition is not confined to Japanese transactions in the semi-developed countries, in the "colonies," protectorates, mandated areas, and dependencies etc., in Asia and Africa. It is already a fact even in the *bazars* of Eur-America, tariff notwithstanding. Japan has demonstrated that the highest efficiency can be combined with an alleged low standard of living and ostensibly low wages or salaries, thereby serving to inspire all low-standard and low-waged countries including India with self-confidence and hopefulness in regard to their economic future.

As long as Japanese efficiency is a solid fact of comparative industrialism the traditional conceptions of poverty, and the arbitrary standards of calories or vitamins will have to be modified in reference to the requirements of populational planning in the diverse areas of the world.

75 For the average daily wages of labourers see the *Financial and Economic Annual of Japan* (Tokyo 1935) p. 93. For comparative figures bearing on certain European countries see "Wages, Hours of Work etc. in October 1932" in the *International Labour Review* (Geneva) for June 1933. See also *Social Work in Japan* (Bureau of Home Affairs, Tokyo 1934).

For food conditions in Japan see Asahi: *The Secret of Japan's Trade Expansion* (Tokyo 1934), pp. 104-116. For international comparison although not on a uniform basis see "Food Consumption of Working Class Families in Certain Countries" in the *International Labour Review* for December 1933.

The world can afford to practise richly varied standards of optimum, efficiency, physiological nutritive minimum, and so forth adapted to the sun's rays and other gifts of nature in varied regions. Indian students of demography cannot afford to be obsessed by those types of nutrition economics or food physiology which ignore the traditional food of the Indian races, the sun and the air of the Indian *milieu* as well as the kind and amount of work that the Indian men and women are normally called upon to do from year's end to year's end.

Although the rates of wages and salaries are by certain Eur-American standards comparatively low in Japan, the Japanese factories are provided with up-to-date machineries, and workingmen with first class tools.⁷⁶ The amount of capital invested in Japanese enterprises per head of workingmen is high. Then the associations i.e., the trusts, cartels, syndicates etc.—organized by producers, merchants, shippers and other businessmen are almost perfect. Last but not least, even with modest living and lowly earnings, Japanese scientists and engineers have begun to invent improved implements. The rôle of Japanese inventors in world-economy can no longer be overlooked.⁷⁷

In the interest of societal planning in India with special reference to demographic optimum and economic efficiency we should, therefore, have to be on our guard against accepting the alleged universal standards of measuring these phenomena. On the other hand, within the boundaries of Indian economic zones, such as they happen to be, it ought to be our endeavour to promote by every possible means the amelioration of the conditions, class by class, profession by profession, or group by group. And in this endeavour the chief consideration ought to be to "do the duty that lies nearest thee," i.e., to organize measures such as are calculated to help forward the establishment of the "next higher stage" in our socio-economic life.⁷⁸

76 The present author's "Strength and Limitations of Economic Japan" and "Business Organization as an Aid to the Economic Expansion of Japan" in the *Calcutta Review* for November 1933 and January 1934.

77 See "Japanese Patent Activity (1885-1933)" in the *Oriental Economist* (Tokyo) for February 1935, pp. 55-56.

78 See "A Scheme of Economic Development for Young India" in the present author's *Economic Development* (Madras 1926), as well as his "Investments and Business Organization for Bengal Capitalists" in the *Journal of the Bengal National Chamber of Commerce* for March 1927, "Comparative Industrialism and the Equations of Applied Economics" in the same Journal for March 1928 and "Economic Planning for Bengal" in the *Insurance and Finance Review* (Calcutta) for March 1933.

Progress on the Plane of Poverty

While dealing with the diverse Indian indices of wealth, welfare, comfort or progress one should practise caution in regard to interpretations of the data. The limiting conditions of the indices must never be lost sight of. It is always important to observe that we are dealing with progress, in so far as it is statistically demonstrable, within the sphere of or on the plane of poverty.

In the first place, India is a sub-continent of low national income *per capita*. There are naturally differences between province and province, nay, between district and district, and region and region. But there is no doubt that in the main the national income per head of the population is low not only in comparison with that in richer countries of the world but also as an absolute fact of the world-economy.

Secondly, the "life span" or the "expectation of life" and the "vital index" are also low, both relatively as well as absolutely. Here, again, the variations between the regions and provinces are to be taken into account.

Altogether, the population in India moves on a very low level of life's requirements and satisfactions. In other words, India's wealth is normally one of poverty and privations and not of prosperity or opulence.

The changes that may be marked in the national income *per capita* or in the "expectation of life" from one date to another date point to rising curves or increments and improvements. But the indices of this rise or progress are very low. One is almost convinced that progress in India implies in most cases virtually nothing but a continuation of the same old conditions for a somewhat larger number of inhabitants. The indices do not often point to a formal or positive decline. And since the number of individuals exhibiting the same old index or rather just a bit higher index has increased statistically, one has to admit at the subsequent date the existence of improving or improved conditions in reference to the previous date.⁷⁹ Our remarks would apply as much to the housing index as to the urbanization index, industrialism index, sanitation index, mortality index, "vital index" and what not.

The per capita national income of India rose from Rs. 36 in 1914 to Rs. 42 in 1923, as calculated on the basis referred to in a previous con-

nection. The slight improvements in the expectation of life have also been indicated in another context.⁸⁰

Limitation of Growths Not Necessarily a Factor in Prosperity

The Indian standard of life is virtually the standard of penury or the barest subsistence, so to say, when one considers the average for large groups. But it is not possible to assert that the national income *per capita* would substantially increase simply on account of the reduction in the size of the group. Substantial or even modest increases in the income cannot take place unless along with a reduced number there is an increase in the production or unless the production continues to remain the same. But there is no logical and necessary connection between the reduced number and increased or unchanged output.

Similarly, in regard to the expectation of life the very fact of reduced numbers, birth control or diminished density cannot be taken automatically as possessing a biological value affecting the vital processes in a favourable manner. One cannot assume the possibility of raising the life span or the "vital index" by the simple process of curtailing the numbers.

The question of raising the Indian standard of living or of rendering the improved conditions, such as they are, genuinely satisfactory as indicative of real and substantial progress ought not therefore to be treated as a mere function of birth restriction or cessation or even of reduction in population growth. "Monism" is fallacious in demography as in other spheres.

Other circumstances remaining the same, it is not unlikely that a diminution in numbers would lead to a diminution in production and hence to the increase of poverty. On the other hand, and again, other circumstances remaining the same, even with the present numbers or increasing numbers the amount of production may continue to be the same or even increase, as it has factually increased in the past although at low rates. An invariable correlation between number and production (or wealth or income) cannot be depended upon as a solid basis for economic or demographic planning.

Indian statistical data lead us to the conclusion that, other circumstances remaining the same,

⁷⁹ This is the fundamental thesis developed in the present author's *Baḍtir Pathe Bangali* (Bengalis in Progress) Calcutta 1935: cf. A. Niceforo: *Les Indices Numériques de la Civilisation et du Progrès* Paris 1921).

⁸⁰ *Supra*, pp. 23, 28, 42; Fisk: *Inter-Ally Debts* (New York 1924); The present author's *Comparative Pedagogics in Relation to Public Finance and National Wealth* (Calcutta 1929), pp. 90-91.

(1) density is a mainly mechanical or formal and at any rate a superficial index in regard to the question of optimum, over-population, under-population, poverty etc.,

(2) density may be modified, as it has been modified in many regions, Indian as well as extra-Indian, by economic chances, opportunities and resources, both natural (rich lands) and human (capital),

(3) even a very high density as well as "high pressure" region may be made to support a still larger number of population without necessarily lowering the standard of living, i.e., leading to over-population and poverty, and

(4) the optimum number is relative even for one and the same region and its height may rise or fall according to circumstances.

At this point it is possible to find oneself in agreement with Ross's thesis in *Standing Room Only* (New York 1927), on the strength of which Mcmbert observes:⁸¹

"Man mag vielleicht aus anderen Gründen in einem Aufhören des Volkswachstums keine erfreuliche Erscheinung sehen, für den Fortgang der Wirtschaft werden daraus jedenfalls keine Gefahren erwachsen."

That is, on other grounds the cessation in population growth may not be a satisfactory fact, but no dangers are likely in any case to arise out of this in so far as the progress of economic life is concerned. In other words, a diminution in the number of population or fall in the "growth rate" is not necessarily a cause of the diminution of wealth.

Exactly the reverse has also to be admitted as the result of inductive-statistical analysis. That is, an increase in the number is not necessarily a cause of the diminution of wealth, income or welfare. This great historical reality is embodied in the increase of wealth and prosperity in virtually every part of the world since the first industrial revolution along with and in spite of the increase in the "growth rate."

Rationalization of Demographic Distribution

For a long time it has been the custom in India to think of density as essentially, nay, exclusively a function of rainfall or more generally of Nature's gifts. This economic ideology is primarily a reflex of the

81 "Volkswachstum und Wirtschaft" in *Population* (London, November 1934, pp. 123-124.). See C. Close's paper (*Population Tendencies in Great Britain*) at the International Congress of Population, Berlin, 1935, in which the present British demographic policy is described as that of restriction of population combined with qualitative improvement, promotion of individual longevity, and shortening of hours of work; German summary in *Der Oeffentliche Gesundheitsdienst*, Leipzig, 5 December 1935.

agrarian economy that India has represented for ages. But today India has issued somewhat out of the purely agrarian conditions. Modern transport, industrialization and capitalism of the younger types have already established themselves to some considerable extent in the Indian milieu. A veritable "industry-state" India is not yet. In technocratic and capitalistic transformations she has commenced exhibiting the *Gestalt* (form) of what may roughly be described as the "first industrial revolution" in contrast with the "second industrial revolution" in which England, Germany and a few other "industrial adults" find themselves. To use a convenient expression, India may be described perhaps as an "agrar-industrial" state, or a country of the "mixed economy," as Mussolini understands it.⁸² Under these conditions the economic ideology in regard to the population optimum ought to move away from the bondage of the rainfall as far as practicable and get used to the control of density as influenced by technique, supply of capital, provision of industrial skill, etc.

The conscious control of density does not imply solely the reconstruction of the country such as is possible by technocracy and the industrialization-complex. Land-reclamation, sanitary improvements, the training of rivers, construction of canals, agricultural transformations, road building, betterment of marketing facilities, all those items that in Italy⁸³ today go along with *bonifica integrale* are equally efficacious instruments in this attempt of man to remove density from the exclusive sway of Nature.

In the first place, in India as elsewhere the *increment* of density should be considered to be a matter of human will and intelligence in every region. The trend of this increment is in any case abundantly clear.

To use the categories of Jean Bruhnes in *La Géographie humaine*, we have to notice the predominance of human will (*la volonté humaine*) over the physical forces in the Indian geography. The *conditions naturelles* have been transformed and even abolished to some extent by *l'activité de l'esprit*. It is human energism that rules in the currents of "social metabolism" such as are in evidence in the reconstruction of India's topographic and anthropogeographic structure from epoch to epoch.

82 The present author's *Die Entwicklung und weltwirtschaftliche Bedeutung des modernen Indien* (Stuttgart 1931). About the "mixed economy" see Mussolini's speech of 13 November 1933 while explaining the resolution on the constitution of Corporations.

83 The present author's *Economic Development* (Madras 1926), chapter on Italy's War-budget against Malaria; Serpieri: *La Legge sulla Bonifica Integrale nel primo Anno di Applicazione* (Rome 1931).

The growth in density (persons per square mile) in the nine Indian provinces as well as in All-India can be seen below:⁸⁴

Territory	...	...	...	1911	1921	1931
India	...	...	...	174	176	195
Assam	...	...	...	120	136	157
Bengal	...	...	...	587	602	646
Bihar-Orissa	...	...	...	415	409	454
Bombay	...	...	...	159	156	177
Burma	...	...	...	53	57	63
Central Prov.	...	...	...	139	139	155
Madras	...	...	...	291	297	328
Punjab	...	...	...	197	209	238
U. P.	...	...	...	440	427	456

The trends might be made to improve in every instance in future.

In the second place, it is the part of human will and intelligence to direct and organize a more uniform *distribution* or rather redistribution of density not only between the different provinces but also between the different districts in the same province. Internal colonization and social mobility can thereby be made more "rational" by conscious geographic, or topographic planning.

The actual densities of India today as well as the trends of Indian density in the past indicate that there is a great diversity and absence of proportion. It is interesting to observe that, as Hsu points out in *Poverty and Population in China*,⁸⁵ the general density is not high but that the population is "very unevenly distributed".

The absence of balance in population density is no less a feature of Europe's demographic structures. There is the pressure of population on space (*Lebenspielraum*), i.e., shortage of land in Western and Middle-Western Europe. This is in contrast with the land-surplus, so to say, in Eastern Europe which is marked by a veritable shortage in population.⁸⁶ In small regions like France, for instance, there are the *régions de dépeuplement* (depopulation) as against those of *agglomération*.

⁸⁴ *Census of India 1931*, Vol. I. Part I., p. 35.

⁸⁵ *Proceedings of the International Congress for Studies on Population*, Rome, Vol. IX, (1933), pp. 249, 253.

⁸⁶ Burgdörfer: "Bevölkerungsstatistik" in *Handwörterbuch der Staatswissenschaften*, Ergänzungsband (Jena 1929), p. 105; E. Levasseur: *Questions Ouvrières et Industrielles en France sous la Troisième République* (Paris 1907), pp. 286-288; C. Fawcett: "Areas of Concentration of Population in the English-speaking countries" (*Population*, London, November 1934).

The diversities in the density of regions in Europe can be seen below in persons per square kilometre (1 km. = 5/8 mile):

Belgium (1930)	...	...	266	Austria (1930)	...	...	80
Holland (1930)	...	...	232	France (1930)	...	...	76
Great Britain (1931)	...	...	197	Rumania (1930)	...	...	61
Germany (1925)	...	...	134	Bulgaria (1930)	...	...	59
Italy (1931)	...	...	133	Greece (1930)	...	...	49
Czechoslovakia (1930)	...	...	105	Lithuania (1931)	...	...	43
Hungary (1930)	...	...	93.3	Russia (1930)	...	...	26
Poland (1931)	...	...	83				

For all practical purposes, as long as the political boundaries of Europe remain what they are, it is hardly possible for the human will and intelligence to consciously plan the future trends of density. A "rationalization" of population density as between region and region in Europe is out of the question on the present "geopolitical" map, to use an expression of Karl Haushofer, who in spite of diverse Pan-Europa propagandas is *Realpolitiker* enough to remain convinced that it is too early yet for Europe to conceive states as organisms capable of transcending the limitations of space.⁸⁷

But in the case of single countries this rationalization of density has been proceeding apace. The conscious planning of internal colonization and social mobility belongs as a matter of course to the *bonifica integrale* complex of Fascist Italy.⁸⁸ The entire scheme which has been planned out for fourteen years (1930) will mean for the state an expenditure of 4,354,000,000 liras.

Excluding from our view the measures of Frederick the Great in this field we know that Germany has for nearly two generations been attending to this question of *Innenkolonisation* in diverse ways.⁸⁹

⁸⁷ Haushofer: *Raumüberwindende Mächte* (Leipzig 1934), p. 74. For a suggestion relating to the unification of Europe with a view to establish a demographic balance between the diverse European states see Woytinsky: *Tatsachen und Zahlen Europas* (Vienna 1930), p. 82.

⁸⁸ Papi: "Migrazioni interne e bonifica integrale" in the *Proceedings of the International Congress for Studies on Population*, Rome, Vol. IX, (1933), pp. 406-410. For Mussolini's *ritorno alla terra* and *bisogna onorare la famiglia* see G. Pajano's paper at the International Congress of Population, Berlin, 1935 (*Der Oeffentliche Gesundheitsdienst*, Leipzig, 5 December 1935).

⁸⁹ Sering: *Die Innere Kolonisierung* (Leipzig, 1893), *Die Verteilung des Grundbesitzes und die Abwanderung vom Lande* (Berlin 1911); "Die ländliche

The Act of 1886 was intended especially for Posen-West Prussia. Down to 1924 altogether 550,000,000 M was budgeted from the public finance for this item. The colonising covered 459,000 hectares (1 hectare = 2 1/2 acres approximately) at 1054 M. per ha.

By the *Rentengut* (interest-land) Acts of 1890-91 altogether 21,535 small farms were created down to 1924. These were located mostly in the Eastern provinces, not more than 20 per cent being in the Western districts. The total area of these farms covered 233,448 ha.

At the end of the War a new colonisation Act was passed in 1919. Down to 1931 new colonies were created according to this Act to the extent of 48,942 farms on 503,643 ha and old smaller farms were enlarged to the extent of 217,000 covering 231,000 ha. Nearly three-fourths of this new area belonged to Eastern Germany.

In pre-war years the financing of the internal colonies was undertaken by the states. By 1926 the *Reich* began to co-operate. In 1930 the Deutsche Siedlungsbank (German Colonisation Bank) was established under the joint auspices of Prussia and the *Reich* with the object of specializing in the internal colonisation business. This institution is independent of the Deutsche Rentenbank-Kreditanstalt.⁹⁰

The importance of the *Bauernstand* or the farmer class has been emphasized by the Hitler regime in a special manner.⁹¹ In order to make agriculture as profitable as possible and in order to put a stop to or at any rate to reduce *Landflucht* (rural exodus) to a considerable extent the *Führer* has devoted attention to land reform as one of his first and foremost pieces of legislation (1933). All this has bearings on the policy of diverting the migrants from the cities to the villages and helping forward the colonisation of the country-side.

Reagrarization is as much a German as an Italian, nay, a British and French tactic in the larger economic and societal as well as demographic schemes.⁹² The problem of internal colonization will for some time to

Siedlung in Deutschland," report at the Conference of Oeynhausen in February 1933 convened under the auspices of the Friedrich List Gesellschaft. See also the present author's *Economic Development* (Madras 1926), ch. on economic legislation in the small holdings movement.

90 Masmann: "Zur Finanzierung der landwirtschaftlichen Siedlung", report at the Conference of Oeynhausen, February 1933.

91 The present author's "Hitler-State" in the *Insurance and Finance Review* (Calcutta), October and November 1933.

92 *Agricultural Tribunal of Investigation* (London 1924), pp. 90-91, 102, 104; Terrel: *Le Problème de la terre dans l'économie nationale* (Lyons, 1925). The institution of "family farm," the administration of Government "relief" for

come remain a major problem of economic planning in India in the interest of demographic rationalization. It should not be suspected that the agricultural and industrial processes involved in the conscious control of density is unknown in the Indian economy of today.⁹³ All that is required is a more comprehensive and systematic as well as a better financed and a more energetic carrying on of the already existing services and facilities with regard to rivers, roads, crops, capital, and fight against malaria. The grant of Rs. 10,000,000 by the Central Government during 1935 for rural reconstruction registers an important landmark in what may be called the Indian *bonifica integrale* movement.

One cannot foresee as yet if hindrances to internal colonizing may eventually arise from considerations of race, language or religion. As long as the political constitution of India happens to be based on the representation according to religions and the communities every province is likely to be the theatre of jealousy between races and races.⁹⁴ The problem of minorities growing or of majorities dwindling is likely to loom large in the consciousness of politicians and may perhaps play as great a rôle in the immigration policy of the Indian provinces as in that of the European states. But for the time being free mobilization may be taken to be assured by positive law.

A greater use of internal colonization in India is well calculated to lead, on the one hand, to a more rational distribution of the workers throughout the Indian subcontinent, nay, in single provinces. On the other hand, and this is a factor of profound value,—the new work centres or rather enlarged work centres are expected to commence functioning as new or enlarged sources of production as well as new or enlarged markets or nuclei of consumption.

nearly one-third to two-thirds of the families in the smaller farms, the localization of industries and their decentralization leading to the rise into prominence of rural and semi-rural areas are among the recent features of American demography described by O. E. Baker at the International Congress of Population Berlin, 1935 (*Der Oeffentliche Gesundheitsdienst*, Leipzig, 5 December 1935 pp. 650-653).

93 The present author's "Modernisierung der indischen Landwirtschaft" in *Berichte über Landwirtschaft* (Berlin), February 1932; "Strukturelle Erneuerung in der indischen Industrie und Wirtschaft" in the *Zeitschrift für Geopolitik* (Berlin), April, 1931.

94 Joint Committee on Indian Constitutional Reform, Vol. I., Part I., *Report* (London 1934), pp. 344-349.

Expansion of Settlement and Improvement of Standard

For the students of demographic futurism it is worth while to refer to the history of the peopling of the diverse regions of the world.⁹⁵ By the beginning of the Christian era "substantial maturity of settlement" was achieved in the Mediterranean region. It was not before the end of the sixteenth century that the same phenomenon could be credited to North-western Europe. So far as China and India are concerned, settlement was still immature and young until the first decades of the nineteenth century.

As far as can be reasonably foreseen from the equations of comparative vital statistics, the settlement of India is not yet complete and final. India continues to be still a somewhat young and virgin soil from the demographic standpoint. Whether India's ultimate demographic capacity or "saturation" limit is to be fixed at 400 millions, 450 millions or 500 millions it is as yet premature to declare. In the meantime it will be the function of demography, economics and sociology to ascertain the standard of living as prevalent about a century ago in the days of Rammohun Roy,⁹⁶ and examine the changes in the people's economic conditions since then in the background of the population growth.

In the course of his evidences to the Select Committee of the House of Commons (1831) Rammohun gave the following statement about the rates of wages: "In Calcutta, said he, "artizans, such as blacksmiths and carpenters, if good workmen, get (if my memory be correct), from ten to twelve Rupees a month (that is, about 20 to 24 shillings); common workmen who do inferior plain work, 5 to 6 Rupees (that is, about 10 to 14 shillings) a month, common labourers about 3 1/2 and some 4 Rupees; gardeners or cultivators of land about 4 Rupees a month, and palanquin-bearers the

95 A. P. Usher: "The History of Population and Settlement in Eur-Asia" (*Geographical Review*, January, 1930). For the expansion of settlement in Bengal since the end of the eighteenth century see *Census of India 1921*, the volume on Bengal, p. 20.

96 *The English Works of Raja Rammohun Roy* (Panini Office, Allahabad, 1906) pp. 297-298.

For some of the recent wage-rates see *Census of India 1931*, Vol. V. Bengal and Sikkim, Part I (Calcutta 1933), pp. 11-13, 292-293; *Annual Report on the Administration of the Indian Factories Act in Bengal 1933* (Calcutta 1934), pp. 4, 57, 89-90, 99, 111; *Labour Gazette* (Bombay), July 1934, pp. 825-829; *Indian Tea Statistics* (Delhi 1932), pp. 11, 35; *Report of the Chief Inspector of Mines in India* (Delhi 1934), p. 6; *Report on Wages and Hours in Cotton Industry in 1923* (Bombay 1925), p. 11.

same. In small towns, the rates are something below, in the country places still lower."

In reply to the query about the food of the people Rammohun said as follows: "In Bengal they live most commonly on rice with a few vegetables, salt, hot spices and fish. I have, however, often observed the poorer living on rice and salt only. In the Upper Provinces they use wheaten flour instead of rice, and the poorer classes frequently use *bajra* (millet) etc. The Mohammedans in all parts who can afford it add fowl and other animal food. A full grown person in Bengal consumes about 1 lb to 1 1/2 lb of rice a day; in the Upper Provinces a larger quantity of wheaten flour, even though so much more nourishing. The Vaishyas (persons of the third class) and the Brahmans of the Deccan never eat flesh under any circumstances."

The houses were described in the following manner: "In higher Bengal and the Upper and Western Provinces they occupy mud huts; in the lower and Eastern parts of Bengal generally hovels composed of straw, mats and sticks; the higher classes only having houses built of brick and lime".

The "poorer classes of labourers" were described by Rammohun as "having merely a small strip of cloth girt round their loins for the sake of decency". But "in other respects" they were, in his words, "quite naked".

It is evident that the Rammohun standard of living is not one of opulence. No student of economics, sociology and demography can afford to forget that standard while following the variations in economic and social life since then.

One does not of course know the statistical data on the strength of which these observations were made. But this account of India, as furnished by Rammohun, reminds us of almost a parallel report about British conditions as prevalent in the early years of the nineteenth century.

"In 1800 the average wages of artisans", says Thorold Rogers,⁹⁷ "were 18s. a week in London. * * In the country they were about one-third less. * * The factory hand was even worse off than the labourer. * * * The hand-loom weaver was worst of all. * * * The hand-loom weaver was undoubtedly impoverished, but I do not find that the machine weaver bettered his position. His wages remained low, his means were even straitened, and the misery of the manufacturing districts was even greater than that of the agricultural. * * * I may add that Young argued in 1813 that the wages of the agricultural labourer were

97 *Six Centuries of Work and Wages* (London 1903), pp. 494-497, 510-513.

below his necessary food, omitting all estimates as to house rent, fuel, clothing and extras".

That the British economic life was governed by the "standard of wretchedness" was, as is well known, the verdict of Malthus. "In the closing years of the eighteenth century", says Keynes, "the misery of the labouring classes presented itself to Malthus as chiefly consisting in their low standard of life. In the years after Waterloo and the end of the war it presented itself to him as chiefly a problem of unemployment".⁹⁸ Altogether, the England of Malthus was a poor country.

In the course of the last three or four generations the British standard, nay, the standard of Eur-America has improved in many respects, as can be demonstrated by the methods discussed in Niceforo's *Les Indices numériques de la civilisation et du progrès*.⁹⁹ According to Bonar, England has not had a worse but a better experience since Malthus's time "Like Macaulay, we have heard of nothing but decay," says he, "and seen nothing but progress. Nowhere more evidently than in public health."

In so far as statistics are available and it is possible to employ the quantitative method, the objective student of Indian economics also should be justified in holding that during the nineteenth century and after, i.e., during the period of the growth of population and increase of settlement the Indian masses have not been compelled to go below the Rammohun standard, to put it mildly. Indeed, the evidences of higher standards, at any rate, in certain classes, lie on the surface.¹⁰⁰ For the present, however, we need not go into the question of instituting comparisons between India and England in regard to the *rates of improvement* or progress in the two regions during the period in discussion.

Vis-à-vis the fresh expansion of settlement and population that is expected during the coming generations it is desirable for the student of demography, economics and sociology to cultivate objectivity and the avoidance of scares. The orientations of the hour will have to be fortified by the employment of intensive comparative statistics and the proper inter-

⁹⁸ J. Bonar, C. R. Fay and J. M. Keynes: "The Commemoration of Thomas Robert Malthus" (*Economic Journal*, London, June 1935).

⁹⁹ See also Niceforo: *Profili Grafici della Situazione e del Progresso in alcuni Regioni del Mezzogiorno d'Italia* (Naples 1935); Cf. L. T. Hobhouse: *Morals in Evolution* (London 1906); R. E. Park and E. W. Burgess: *Introduction to the Science of Sociology* (Chicago 1921), Ch. XIV. (Progress); A. J. Todd: *Theories of Social Progress* (New York 1924); and Sorokin: *Social Mobility* (New York, 1927).

¹⁰⁰ *Supra*, pp. 42, 52. See also the present author's *Baqtir Pathe Bangali* (Bengalis in Progress), Calcutta 1934; Cf. *Second Family Budget Report* (1932-33) in the *Labour Gazette* (Bombay) for November 1935.

pretations of the data. As for schemes of economic development, they are to be directed towards improving the Indian standard of living within reasonable dimensions. The reasonable manner does not lie in talking glibly of the impossibly high ideas and wide-flung ideals of the American-British-German peoples of today, as registered in their monumental budgets for economic planning, unemployment and other social insurance, etc. Prudent statesmanship and economic or societal planning, as adapted to the Indian conditions of economic reality, would attempt to raise to just the "next higher stage" the modest and moderate items of food, clothing, shelter, recreation and culture to which the Indian masses have been traditionally used since perhaps the Vedic, nay, Mohenjo Daro days, especially during the last few decades.

As in other spheres of comparative economics, in regard to the improvements in the standard of living also the Indian masses can but attempt establishing equality with their socio-economic comrades such as find themselves somewhere in the stages of the "first industrial revolution." It is, for instance, in the "Balkan complex",¹⁰¹ Eastern Europe and Russia, the Iberian Peninsula, and Latin America, and not in the regions of the "second industrial revolution", i.e., the territories of the industrial pioneers and adults that India's equations are to be sought.

For quite a long time the expansion of settlement may then perhaps be found to be marching hand in hand with the improvement of the standard of living, however low and slow it be. No causal or "functional" nexus need, however, be postulated at once in this field. A regime of doses in the "social" and "artificial" restriction of births, family limitation or growth curtailment can and ought by all means to belong to this scheme of demographic futurism for India, because the "public health" measures and sanitary improvements, i.e., death control policies bid fair to check the general and infant mortality in considerable proportions.

Family Limitation Through Social Progress

The abolition of early marriage by the Sarda Act (1929) is in the course of the present decade well calculated to bring the birth rate down to some

¹⁰¹ O. Lodge: "Socio-Biological Studies in the Balkans" (*Population*, London, November 1934, November 1935). For the "Balkan Complex" and the distinctions between the first and the second industrial revolutions see the present author's *Economic Development of Young Asia* (Berlin 1922), *Economic Development* (Madras 1926) and *Applied Economics* Vol. I. (Calcutta 1932); Cf. P. Descamps: "Institutions Actuelles du Portugal" (*Revue Internationale de Sociologie*, Paris, May-June

extent. The increase in the number of girls in schools and colleges is likely by all means to work in the same direction. Further, the entry of "middle class" or "bhadralok" women into the employment market, in other words, their "economic emancipation" such as has been growing in dimensions, is also one of the social factors automatically promoting late marriage, lifelong maidenhood and family limitation.

Even without artificial and conscious birth control (contraception), then, there are certain agencies which tend to restrict the size of the family by working on the age of marriage and sometimes even the inclination to marriage. These belong to what may be described as cultural, developmental or social institutions.

Several other items may be mentioned in this connection. With the progress of technocracy, capitalism, *swaraj* movement, labour politics etc. the ambition of the individual has been growing from more to more. The spirit of adventure such as enables a person to devote time, energy and idealism to the pursuit of science, freedom and other intellectual and moral values is likely to be distributed among larger sections of men and women in future. Such ambitions and adventures may be expected to make their appearance in the diverse strata of the community, including the undeveloped and semi-developed aboriginals, primitives or tribals as well as the Harijans and the alleged depressed classes. The demographic values of all this "social" progress may be taken to work from different angles towards the curtailment of numbers in families on account of late marriages and celibacy. A further consideration is to be found in the desire to command a relatively more comfortable living and enjoy a higher material and cultural standard of life and efficiency.

All these social and economic influences are to be considered independently of and in addition to the "biological" factors, such as may perhaps be eventually contributed to the complex on account of the Spencerian doctrine of the alleged weakening of sex impulse under conditions of intellectuality and civilization. The impact of ambitions and adventures of all sorts on the marriage-age has to be duly appraised in all schemes of demographic planning. Protagonists of artificial birth control or Neo-Malthusianism have too long overlooked the great reality that the "moral restraints" of Malthus have not remained merely idealistic "pious wishes" but have become part and parcel of industrial civilization in so far as it

1935). See the papers by S. Szule (Poland), Michailoff (Bulgaria), Z. Kuziela (Ukraine), Kovacs (Hungary), and L. Ros Jimeno (Spain) at the International Congress of Population, Berlin, 1935 (*Der Oeffentliche Gesundheitsdienst*, Leipzig, 5 December 1935).

has inevitably prompted the postponement of marriage in almost every region and race. Family limitation of the social and somewhat unconscious type has been no less a factor in modern demographic history than that of the artificial and conscious type.

The demographic trends of the "pioneering" peoples or "industrial adults" as prevalent in the previous stages are thus tending to repeat themselves in India. The expansion of population along with or rather in spite of growth restriction (misnamed birth control) may then be pronounced to be a universal phase in mankind's population development and policy. The currents in demographic India today are contributing but fresh feeders to the stream which connects her in diverse ways with the main channels of modern world-progress.

Pragmatism in Demographic Planning

In regard to Indian demography as in regard to other sociologies it should be still possible to maintain with Herder¹⁰² that the stream of civilization indicates the progress and development of mankind, an eternal striving, a series of continuous strivings. It is to be understood in terms of *Gang Gottes über die Nationen*, i.e., the march of God through all nations. But every nation and epoch has its own moment or stage of *Untergang* (decline). The shortcomings and errors of man contain within them, however, the *Nebel der Wahrheit* (i.e. the mist of truth). "All the passions of his breast are the wild impulses of power which does not yet know itself but yet according to its very nature can function only to achieve something better." In spite of all apparent disorders the world is heading towards progress, and men will not rest until he has made the Earth his own (*Ihm ist die Erde gegeben und er wird nicht nachlassen, bis sie wenigstens dem verstanden und dem Nutzen nach, ganz sein sei*). "At the present moment however, all the upto-date achievements of the human spirit are nothing but the means to the more profound establishment and wider expansion of the humanity and culture of our generation."

Once the "reasonable dimensions" of possible improvement are grasped and the limits of "perfectibility" and progress recognized, region by

102 *Ideen zur Philosophie der Geschichte der Menschheit* (Leipzig, Verlag Meinen), pp. 103, 104, 160, 169. See also F. Tönnies: *Einführung in die Soziologie* (Stuttgart 1931) p. 318. See "The Origins of the Theory of Progress," "Declining confidence in the Doctrine of Progress," and "Cultural Lag and the Human Outlook" in H. E. Barnes: *The History of Western Civilization*, vol. II, (New York 1935), pp. 191-200, 1054-1055, and 1101-1109.

region, or group by group,—the sociology of population can continue to cherish this Herderian optimism as a constructive driving force in India as elsewhere. One may recall also Condorcet's *Tableau historique des progrès de l'esprit humain* for the purpose of general guidance. For, while never neglecting to give the alarm-signal of Malthus its due the level-headed demographers of the world can point to the objective fact that the progress or perfection cult of his contemporaries, Herder and Condorcet, has in spite of breaks and pitfalls as stressed, for instance, by Dean Inge in the *Idea of Progress*, been actually realized or verified to some extent in the positive history of societal evolution.

In population questions as in other interests of human life it is after all reasonable to agree with what Haushofer¹⁰³ in the manner of Hindu Upanishadists observes in another context, namely, that at bottom it is neither *Raum* (space) nor the *Menschenzahl* (number of men) but the *unwägbar Werte* (imponderable values) like the *seelische Kraft* (strength of the soul) and the will to honour, greatness, power, space and formidable number that assures the big the assertion of their status as "great powers" or the small the emergence from their smallness into the bigger and the wider. The conscious and deliberate demographic planning on which India along with the rest of the world is thinking of embarking at the present juncture is well calculated to guarantee mankind a fresh lease of progress through trials and failures adapted to the new conditions of technocracy and world-economy.

The pragmatic students of population are entitled to cultivate faith in man's creative energism because anthropology and history bear testimony to the solid fact that he has virtually always been an inveterate realist and no believer in molycoddle optimism. The eternal programme before the races of men in all regions and climes has comprised nothing but struggles "to build a human habitation in the midst of an alien universe"¹⁰⁴ and "unremitting efforts to expel by the aid of science whatever is evil" from their point of view. The great reality of societal development, namely, that man has expected "no good from the universe except what human beings can construct in the face of nature and except the universe itself" is to be appraised as the profoundest asset in demographic planning, such as may be attempted for today and tomorrow in keeping of course with the varied requirements of the diverse races and regions.

To the sociologist today the science of population can then present a world wide enough for all forms of creative idealism and "will to

103 *Jenseits der Grossmächte* (Leipzig 1932), p. 489.

104 W. E. Hocking: *Types of Philosophy* (New York 1929), p. 446.

power".¹⁰⁵ Anti-Malthus, who rejects the two progressions of Malthus or at any rate considers them to be unproven, to whom the optimum is as vague as the standard of living and efficiency, stands on positive foundations. Equally justified is Neo-Malthus with his realistic and instrumental methodology of reasonable domestic life for the hydra-headed multitude. Finally, old Malthus is not dead,—Malthus the moralist and social reformer, aye, Malthus the pessimist, but with his eyes directed towards the progress and happiness of the poor and the elevation of the life's tenor of the teeming millions.

The Issue between "Society" and "Race" in Population

The issue with Malthus is not the sole preoccupation of the sociologists in population, and demographic planning is not all quantitative. Independent of the considerations bearing on the case for or against Malthus and on the numerical strength or density of population there are the problems relating to the qualitative growth and improvement. The contributions to the culture or civilization of mankind, the increase in economic and military efficiency, the creation of spiritual values and so forth are not the functions of mere numbers. A numerically reduced population may in point of human values of all sorts happen to contribute as much as or even more to the wealth and welfare of the world than before. And on the other hand, there is nothing to demonstrate *prima facie* that the quality of population proceeds inversely as the quantity. Historically, indeed, it

¹⁰⁵ Some of the conflicts of views may be seen in L. I. Dublin (editor): *Population Problems in the U.S. and Canada* (New York, 1925), Dublin and Lotka's paper on the real growth-rate in the *Journal of the American Statistical Association* (September 1925), R. R. Kuczynski: *The Balance of Births and Deaths*, 2 vols. (Washington, 1928, 1931), and Gini's chapter in *Population* (Chicago, 1930) on the one side, and in M. Sanger: *The Pivot of Civilization* (New York, 1922), A. Meyer (editor): *Birth Control* (Baltimore 1925), papers by Pearl, East, Sanger and others, W. S. Thompson: *Population Problems* (New York 1935), and H. Fairchild: *General Sociology* (New York 1934) on the other. See also G. Pitt-Rivers (editor): *Problems of Population* (London, 1932), papers presented to the London Meeting of the Second General Assembly of the International Union for the Scientific Investigation of Population Problems (established in 1928 as a result of the first World Population Congress, Geneva 1927).

For the improvements in the technique of population-rates see *Fertility and Reproduction* (Washington, D.C. 1931); R. R. Kuczynski: *Methods of Measuring the Balance of Births and Deaths* (International Congress of Population, Rome, 1931).

is a positive fact that quality and quantity have not often militated against each other. On the contrary, civilization has, in general, advanced along with the numerical growth in population.

In India as elsewhere the sociology of population will have to devote attention to these qualitative considerations no less than to the quantitative. In this field, again, the questions are not more closed than in the other. There is the fundamental issue of the exponents of environment as the determinant in personality and human values with the champions of heredity as the formative force. We touch here the tug of war between "society" and "race". There are the projects of economic development, reconstructions in the law of property, constitutional and political transformations, public health or social hygiene programmes, penal reform movements, educational policies and so on. These are the agencies on which the environmentalist focusses his attention with a view to the qualitative betterment of the population. As against these "social" forces or agencies there are the considerations of blood, cranium, cephalic index, "stocks", "strains", pigmentation, etc., i.e., the physical, "somatic" or "race" characteristics, as well as "crossings", hybridizations, matings, marriages and so forth, on which the hereditarians depend. To them the qualitative improvement of population is embodied in the slogan of race-betterment by eugenic methods.

Modern India's contributions to these issues between "society" and "race", or "environment" and "heredity", or "sociology" and "biology" are yet in the non-age. Indian students of the sociology of population will have to bestow considerable researches on these aspects of demographic planning, which, be it observed, have had a continuous history from the days of our Vedic *Aitareya Brahmana* and *Manu-Samhita* down to Galton's *Hereditary Genius* (1869), Lapouge, Ammon, Mussolini and Hitler.¹⁰⁶

106 In regard to the qualitative (eugenic vs. social) considerations of the population question the conflict may be followed in Galton: *Inquiries into Human Faculty and its Development* (London 1883) and *Natural Inheritance* (London, 1889), V. de Lapouge: *Les Selections Sociales* (Paris 1896) and *Race et Milieu Social* (Paris 1909), O. Ammon: *Die Gesellschaftsordnung und ihre natürliche Grundlagen* (Jena 1900), and K. Pearson: *The Scope and Importance to the State of the Science of National Eugenics* (London 1909) and *The Function of Science in the Modern State* (Cambridge 1919) on the one side, and in A. Niceforo: *Les Classes Pauvres* (Paris 1905) and *Antropologia delle Classi Povere* (Milan 1908), F. Hankins: *The Racial Basis of Civilization* (New York 1924) and

Race-Extinction an Item in the Circulation of Elites

No other doctrine should appear to be more dominant in the social thinking and constructive statesmanship of today than that established by Lapouge in *Les Selections Sociales* (Paris 1896). It is in his messages to the effect that the annihilation of the Aryan is inevitable, that all the forms and processes of contemporary civilization are but cumulatively heading towards regression and decay, and that, finally, progress cannot be considered to be the rational conclusion from the data of world-history that contemporary philosophy, sociology and politics find a challenge as well as a problem.

In recent years the name of thinkers who preach the doctrine of mankind's decline or regress is legion. From Spengler's *Untergang des Abendlandes* people have got the formula that the West is now in for decay. Romain Rolland has popularized the notion that Western civilization is doomed. In the Italian demographer Gini's analysis of "the

"Biology and Society" (*The Scientific Monthly*, New York, October, 1934), P. Sorokin: *Social Mobility* (New York 1927), especially the chapters on heredity and racial composition, G. Schwesinger: *Heredity and Environment* (New York 1933), S. J. Holmes: *The Eugenic Predicament* (New York 1933), H. H. Newman: *Evolution Yesterday and Today* (New York 1933), M. Ginsberg: *Studies in Sociology* (London 1932), chs. on the "Inheritance of Mental Characters" and the "Claims of Eugenics", and C. Gini: "The Birth and Revival of Nations" in *Population* by Gini, Nasu, Baker and Kuczynski (Chicago 1930), on the other. See also H. E. Barnes: *The History of Western Civilization* (New York), Vol. II. (1935), sections on eugenics.

The controversies on larger anthropological issues may be seen in R. Dixon: *The Racial History of Man* (New York 1923), J. Deniker: *Les Races et les Peuples de la Terre* (Paris 1926); E. Fischer; *Human Heredity* (transl. from German, London, 1931), "Eugenik" and "Socialanthropologie" (*Handwörterbuch der Naturwissenschaften*, Jena), E. von Eickstedt: *Rassenkunde und Rassengeschichte der Menschheit* (Stuttgart, 1934), B. S. Guha: *The Racial Affinities of the Peoples of India in the Census Reports of India 1931*, Vol. I. Part III (Delhi 1935), and "Die rassenmässige Zusammensetzung der Indo-Arier und die Rassenmischung in Indien" (German transl. from the lecture in English) in *Mitteilungen der Deutschen Akademie* (Munich 1935), and B. N. Datta: "Races of India" (*Journal of the Department of Letters*, Calcutta University 1935).

On Mussolini see G. Zingali's paper, *supra* p. 38. and on Hitler, W. Frick's Presidential Address at the International Congress of Population, Berlin 1935 (*Der Oeffentliche Gesundheitsdienst*, Leipzig, 5 December 1935).

parabola of evolution" the European races are all exhibiting senescence with the solitary exception, perhaps, of the Italians. American sociologists are not immune to this decline-cult and some of them are anxiously discussing the question as to the decline in the natural fertility of the Eur-American population.¹⁰⁷

In all these decline-cults of today the student of sociology is being forced to grapple with the problem of social longevity, growth and expansion and along with them the question of social metabolism and transformation.¹⁰⁸ It is in and through social mobility, vertical or horizontal, that group metabolism manifests itself. An examination of this dynamics of life or of the forces that serve to transform and reconstruct the races, classes, castes, and other groups ought therefore to furnish the fundamental logic behind all discussions bearing on the nature of decline and progress.

All through the ages there has been a type of mentality that is interested in viewing the things of the world from what may be described in general terms as a pessimistic angle of vision. And the pessimism of Jeremiads appeals more or less to every man and woman. The reasons are obvious. First, there is no possibility of denying the fact that there is a certain amount or kind of misery and suffering always present, no matter how well-placed the individual or the group. And in the second place, every honest intellectual can find in the sceptical attitudes and warnings or rather the "divine discontent" of the pessimists undoubtedly some very powerful aids to self-criticism and social regeneration. Indeed, it is to pessimism that the world owes many of the energistic adventures in the "transvaluation of values" and upward trends in civilization. The value of pessimism as a constructive force cannot by any means be ignored.

In these discussions as in all others bearing on social life there is generally no difficulty about agreeing as to the fact of transformation going on around us, viz. the reality of race-extinctions in the "circulation of elites." But it is, as a rule, while appraising the *value* to be attached to the social metabolism that the diversity of schools arises, each with its own shibboleth based naturally somewhat on personal equations.

107 *Les Selections Sociales*, chapters XIII, XV; Gini: *I Fattori Demografici dell'Evoluzione delle Uomini* (Torino 1921), pp 25-30, 36-40 Hankins: "Civilisation and Fertility", a paper for the International Population Union, London, 1931.

108 Siredey: *Influence des facteurs biologiques sur la diminution des naissances*, a paper for the International Congress of Population, Rome 1931.

Spengler is convinced in his own way that the seventeenth and eighteenth centuries were more "creative" than the nineteenth and the twentieth; and there are many who ignore the beneficial influence of social assurance and other modern legislation on the standard of living and welfare of the masses.¹⁰⁹

But even those who admit that economic and cultural progress has been advancing from group to group and class to class fail very often to realize that a great deal of the transformations generally known as class or "social" revolutions are at bottom expressions of "racial" ups and downs. It is these replacements or absorptions of certain races by others that constitute the anatomical back-ground of world-culture. The eternal story of mankind is to be found in a nut-shell in the stone implements of the Palæolithic ages, when the Mousterians had to give way to the Aurignacians and these latter were in their turn replaced by the Magdalenians and others. Migrations and race-contacts often involving race-submergence or race-disappearance have in all ages furnished the framework of organized social existence.¹¹⁰

In historic times the subversion of the Roman Empire in Europe and that of the Hindu and other Empires in Asia, the circulation of *elites* in the East and the West,—have spelt likewise the ascendancy of certain "racial" elements at the cost of certain others. So far as modern Eur-Asia is concerned, all the different processes of social metabolism involved in race-mixture, race-submergence and race-uplift have been going on until we find that physico-anthropologically the modern Indian's affinities with the ancients of his land are perhaps as problematic as those of the modern European with the ancients of his continent.

Race and Caste Metabolism in Bengal

The world-process in group metabolism is visible under our very eyes in Bengal. In the social economy of Bengal there are some thirty tribes known as "aboriginals," constituting a diversified group of a million and a quarter, and representing some 3 per cent of the total population. The "big three" of these "primitives," namely, the Santals, the Oraons, and the Mundas, are statistically responsible for nearly two-thirds of this number. But while the "big three" higher "castes," the Kayasthas, Brahmans and Vaidyas, numbering something over three millions, have during the

109 The beneficial action of social assurance is admitted by Truchy in *Cours d'Economie Politique*, vol. II. (Paris 1934) pp. 418-419, 422, 473-478.

110 Quennell: *Everyday Life in the Old Stone Age* (London); Marshall: *Mohenjo Daro and the Indus Civilisation* (London 1931).

last forty years grown 137 per cent, the "aboriginals" have grown 319 per cent. The rate of growth is phenomenal, pointing as it does, to extraordinary "differential fertility."¹¹¹

This numerical growth, important in itself as it is, acquires a fresh significance when one observes that the "aboriginals" are today more "Hindu" than "tribal" or animistic in religion. Nearly sixty-six per cent of the "big three primitives" are Hindu. As a qualitative transformation the Hinduization of the "aboriginals" is further interesting in another regard. The Hinduized aboriginals form a part, nearly 12 per cent, of what are generally called the "depressed classes" of the Hindu society.¹¹² We understand, then, that the "aboriginals" of yesterday constitute to a certain extent the "depressed" classes of today. In other words, the social metabolism, which acts as a force in Hinduization hides the facts of, or prepares the way to, miscegenation, race-fusion and race-assimilation.

Nor does the "qualitative" aspect of social metabolism stop here. Among the "big three higher castes," the Kayasthas were during the last four decades just below the Brahmans in number. But they were rising until today they have outnumbered the latter. In forty years while the Brahman has grown 24 per cent., the Kayastha has grown 58 per cent.¹¹³ What is this growth of Kayasthas due to? Not all to "relative" fecundity or to "natural increment," i.e., surplus of births over deaths as embodied in "differential fertility." A great deal is to be accounted for by invasions from other castes whose upward trends have been manifest for some long time. The non-Kayastha, perhaps one of the "depressed" of yesterday, has grown into the high caste of today. And in this, again, we have to register not only a vertical social or class mobility but a racial transformation well. From the "aboriginal" to the "high caste" Hindu the gap may be great, but the bridges are sure, although slow, and quite solid. Social "stratification" is not rigid, as Ammon believes.¹¹⁴

Altogether, the Bengali people is expanding although it is undergoing a profound social metabolism, i.e., a radical change in "class" character and "racial" make-up. The transformations that have been going on in Eur-America today on account of the pressure of the Slavs upon the other races should appear to belong almost to the same category as those in India. As for the "quality" of "hybrids" or their

111 *Census of India 1931*, Vol. V. *Bengal and Sikkim*, Part I (1933) pp. 441, 444, 448, 454, 480-484.

112 *Ibid.*, pp. 480, 482, 485, 497, 498, 502.

113 *Ibid.*, pp. 454, 492.

114 *Die Gesellschaftsordnung und ihre natürliche Grundlagen* (1895).

capacity for carrying forward the torch of civilization eugenics is still discreetly inconclusive unless the exponent happens to have a conservative reform scheme on the anvil. But history announces that, notwithstanding the doctrine of Lapouge,¹¹⁵ the fall of the "historic" races has not involved the decay of civilization. Race-absolutism or race-monism is an historic unreality in the domain of "intelligence quotients" (I.Q.) and culture.

Neither in Bengal nor in other regions of India nor indeed elsewhere in the world can the rise of the alleged lower races or alleged lower classes be treated as tantamount to regress or qualitative decline in Lapouge's sense, or uneugenic, anti-eugenic or dysgenic as Galton, Pearson and the biometricians of today would take it. Historically speaking, the Brahmanocracy, i.e. the class responsible for the creation of Hindu culture, has virtually always been the result of somatic intermixture with non-Brahmans, non-"Hindus", non-Indians or extra-Indians and other alleged lower castes and tribes or races. The ascendancy in modern and contemporary times of certain castes and races which are conventionally known to belong to the lower orders is but continuing the millennium-long tradition of Indian culture-history, namely, miscegenation, blood-fusion, race-mixture, Hinduization of the non-Hindu, Indianization of the extra-Indian, and so forth. Should the eugenicist of today proceed to characterize the superior fertility of the poorer, depressed, "scheduled" and other alleged inferior castes or races, their rise into prominence through economic activity, education, political franchise and social reform, as well as their marital and sex contacts or eventual amalgamation, partial or complete, with the "historic" castes and races as tending to lower the quality of Indian civilization and promote race-degeneration or the degradation of values in culture it will be necessary to pronounce the same judgment on the entire course of demographic evolution in India commencing with the Vedic, nay, the Mohenjo Daro epochs. A position like this can but lead eugenics to the *impasse* of *reductio ad absurdum*. Unless the world of science is prepared to treat the whole history of mankind as tainted with the "original sin" in this new sense, i.e. as being but a development of "reversed selection", race-degeneration and evolution of cultural disvaluation and inferiority, consisting as it does in the eternal circulation of *elites* which involves almost automatically the mixture of the "inferior" blood-strains with the

115 *Les Selections Sociales*, pp. 65-70. 442-444. See the criticism of certain aspects of Lapouge's doctrine in A. Niceforo: *Les Classes Pauvres* (Paris 1905); F. Hankins: *The Racial Basis of Civilization* (New York 1925).

alleged superior ones, the objective student of Bengali as of entire Indian sociology may afford to treat the scares about the eventual regress or degeneration of Indian culture as unscientific and unfounded in historic probability.

"States" and "Nations" Independent of Races and Regions

Attention may now be called to another field of group metabolism and social transformation. The net result of the total evolution has succeeded in making out of Europe a continent of 470 millions. India possesses 352,8 millions, i.e. nearly three-fourths of the population strength of Europe. There is in contemplation the erection of a federal structure out of the different units of the Indian subcontinent. Naturally, one encounters difficulties from the standpoint of "geopolitics", i.e. of boundaries and group-contacts. There is nothing exclusively Indian, oriental or tropical in these problems. The political anthropology, or rather the "geopolitics" of Europe even after the reconstruction of Versailles does not exhibit less inconvenient situations.¹¹⁶

Europe possesses some thirty-two or thirty-three different states independent of one another, each endowed with sovereignty, in international law. The prospects of Briand's Pan-Europa seem to be as remote today as they ever were. By the European standard and according to European precedent India's natural constitution might be that of two dozen independent states. And that condition might not be condemned as a state of horrible disunion as long as the states system of Europe is guaranteed on the map by the League of Nations.¹¹⁷ The multiplicity of states is not necessarily a damper on progress.

The problem of "national" unity may be examined with reference to smaller areas. Let us take one of the "nation-states" such as owes its origin to Versailles, say, Poland. The number or percentage of the Polish people in Poland will throw light on the question of relative social metabolism. The Poles themselves just exceed half of the people, being nearly 53 per cent. The others are Ukrainians (21 per cent), Jews (11 per cent), White Russians (7 per cent), Germans (7 per cent), and so on. There are at least five different nationalities or language-groups in this new "nation-state". The social metabolism of Europe does not thus know unity even in small states. From the standpoints of Durkheim,

¹¹⁶ K. Haushofer: *Geopolitik der Pan-Ideen* (Berlin 1931).

¹¹⁷ Woytinsky: *Tatsachen und Zahlen Europas* (Vienna, Pan-Europa Verlag 1930).

von Wiese and other sociologists, such as interest themselves in *Beziehungslehre* or the "science or relations" and social "forms" it is necessary to observe that in Europe as in India racial unity is not the dominant fact of nationality.¹¹⁸ The doctrine of progress is not vitiated because of these multiracial complexes. The "nations" like the "states" are indifferent to and independent of racial or regional considerations.

Class Prejudice as a Universal Feature of Religions

Let us enter the domain of classes in "social" life and discuss some of the problems of "stratification". The nature of the remaking of man due to social metabolism and the reconstruction of the relations between groups will become clear from a new view-point. The fact that in England the Catholics had to be emancipated shows that in certain respects they constituted for ages the "depressed classes", as it were, of the British people. We may take the continental regions as they are today and examine the relations between Christians and non-Christians, say, the Jews in Eastern, Central, and South-Eastern Europe. The Minorities Section of the League of Nations knows quite what they are. The "social" position of the Jews in the U.S.A. is another common instance of Christian prejudice *vis à vis* non-Christians with which the student of social morphology is familiar in the Western world.

Then, again, among Christians a peculiar aspect of social mobility is seen in the relations between Catholics and non-Catholics. The ecclesiastical law of marriage until a few years ago did not leave much room for intimate *camaraderies* between the different denominations. And in spite of the secularization of marriage laws the unities have failed to make much progress in intimate domestic life. Besides, the narrow "communal" spirit, as understood and condemned now-a-days in India, is embodied in the political parties of some of the powers, great, medium and small. As long as parties could be freely established, in pre-Fascist Italy, for instance, the *Popolari* was Catholic. The German *Zentrum* was likewise a Catholic Party. There is a Jewish Party in Rumania and its antithesis too, namely, the anti-Semite Party.

In the religious anthropology of Christendom researchers are aware of the many sects that Protestants have and the numerous doctrinal and other differences that distinguish the social strata from one another. The Christian missionaries in China are everyday aware of the pragmatic

¹¹⁸ The present author's *Politics of Boundaries and Tendencies in International Relations* (Calcutta 1926).

consequence of their diversities while dealing with the Chinese converts. They are perpetually at a loss to answer satisfactorily such questions from the Chinese converts as the following: "Whom are we to follow, the Baptists or the Episcopalians, the Evangelists or the Presbyterians? Who is your Jesus? and who is their Jesus?" and so on.

It is clear that the last word of societal reconstruction in the socio-religious sphere has not been able to remove the bones of serious contention from the Christian world. India has no better show to make. Class prejudices are found to be the universal features of religions. It is not possible to establish their correlation with the diverse religious systems of the world. On the strength of inductive and statistical researches in social metabolism and transformation it is desirable to understand and to feel that there is something like identity, parallelism and similarity between the East and the West, or, say, between the Christians and the non-Christians. An adequate solution of "class questions" has remained a desideratum still with the most highly developed nations of today.

Health Improvements Not a Function of Climate, Race and Religion

A great instrument in the remaking of mankind in contemporary times has been, as we have observed above, the reduction in mortality both in Europe and India. On this point certain observations would be relevant. It is to be recalled that until 1905 Bavaria had an infant mortality rate of 248 per thousand living-born. The Bengal rate came down from 221 in 1914 to 179 in 1932. Today Bihar has 148.¹¹⁹ But this level was not attained by England and France until 1896-1905, by Italy until 1905-14 and by Germany until the post-war decade. At the present moment the Bihar rate is exceeded by Ukrainia, Bulgaria, Lithuania, Czechoslovakia, Egypt, Hungary, Rumania, Russia and Chile. High infant mortality is not the exclusive feature of Indian climate or race and Indian religion or social habits. We find here a very important contribution to the problem of social metabolism from the field of comparative vital statistics.¹²⁰

119 *Annual Report of the Public Health Commissioner with the Government of India 1932* Vol. I. (Delhi 1934), pp. 21-22; *Census of India 1931*, Vol. I. India, Part. I. (1933), p. 92.

120 The present author's *I Quozienti di Natalità, di Mortalità e di Aumento Naturale nell'India attuale nel Quadro della Demografia Comparata* (Proceedings of the International Congress of Population, Rome 1931, Vol. VI.)

It should be proper to envisage the cost of social rejuvenation as a function of improvements in public health. From 1831 to 1871 there were five invasions of cholera epidemics in England, and during that period cholera and small-pox were as European as Asian. Typhus and Typhoid are likewise not exclusively Oriental diseases.¹²¹ The processes involved in controlling these diseases in certain countries of Europe are well known. Down to 1848 there was no Public Health Act in England; and water supply and sanitary conditions, especially in industrial and urban areas, were notorious. In 1848 the first Public Health Act was passed but there was no organization to enforce the Act. It was not until 1875 that county councils were compelled to employ "medical officers of health" and inspectors of nuisance on a decent salary. About that time the *Reichsgesundheitsamt* was established in Germany.

Health is a tremendous financial burden. In England 22 per cent of the local rates is spent on health alone, the next item being education which absorbs 19 per cent. From the standpoint of social metabolism it is clear that it is neither the temperate climate, nor the Christian religion, nor the Nordic race, nor the general manners and customs of the people that has been able to stamp the diseases out. But in the first place, it is the law,—the fiat of the state,—that has controlled the diseases, revolutionized the sanitary habits, and transformed the character of the people. Secondly, it is the vast amount of expenditure lavishly bestowed upon the population that has succeeded in consummating the great remaking of society that has been accomplished today. The rôle of *étatisme* in class metabolism and race-metabolism is thus found to be immense.¹²² While improvement in the "vital index" or "expectation of life" is a modern reality it cannot be treated as the correlate of a particular race or region. Its relativity to extra-racial and extra-regional agencies is profound, and every race or region is found capable of health improvements under certain conditions.

In India we have no Public Health Act and we are notorious for our lack of funds in regard to development or reconstructive projects. But thanks to our great publicist, Chittaranjan Das, the scheme of health centres was accepted by the Government of Bengal in 1925. The system comprises some 600 circles and is being financed by the District Boards.

121 For the history of cholera, plague and pox in Europe see Woytinsky: *Die Welt in Zahlen* (Berlin), Vol. I. (1925), pp. 110, Vol. VII. pp. 220-221.

122 *Annuaire Sanitaire International 1928* (Geneva), England-Wales, p. 825, France pp. 413-30, Germany pp. 66-69, Italy p. 537, Japan p. 554. See also Truchy: *Cours*, II. pp. 418-22.

The Government's contribution is Rs. 2,000 per centre per annum. One can naturally expect that the chronological distance that one notices between Bengal or other Indian provinces and some of the advanced countries of the world in the field of health and sanitation is likely to be made up to a certain extent with a more energetic functioning of the state both in legislation and public finance.¹²³

Technocracy as an Agent in Social Metabolism

Finally, we should like to touch upon technocracy as a metabolistic agent in group life. The distinction between the East and the West, historically considered, is not a distinction in ideals or outlook on life but a difference in the grade or degree of the remaking of man. An objective measure is furnished by the achievements of technology. Down to the end of the Middle Ages there was hardly any distinction between the two wings of Eur-Asia in institutions or ideology, material and economic or cultural and social. The Renaissance in India and China and other parts of Asia, which was in certain cases the joint work of Hindus or Buddhists and Mussalmans, was more or less identical with that in Europe in so far as arts and crafts, literature, religious reform etc., are considered (*Supra*, p. 12).

The dynamics of social metabolism, in so far as they "historically" happen to be indifferent to religion, race or region or rather affect them in a more or less uniform manner, should to this extent call for a considerable modification of the laws of *Wirtschaftsethik* for ancient and medieval conditions as propounded by Max Weber. His viewpoints on Hinduism and Buddhism are conventional and one-sided and not based on the Indian data of "positive" sociology.¹²⁴

But Leibnitz, Descartes and Newton, representing as they did the beginnings of exact science, registered the parting of ways for the Western world. And yet the new sciences did not bring about any economic and social transformation until the steam engine revolutionized the cotton industry in 1785. For the first time the West became differentiated from the East, or rather the "modern" began to evolve out of the medieval or primitive.

For nearly two generations, however, Great Britain, the pioneer of industrial revolution, continued to tower above the rest of Eur-America

¹²³ *Indian Sanitary Policy* (Calcutta 1927): *Annual Report of the Public Health Commissioner with the Government of India* (Delhi); *Statistical Abstract for British India* (Delhi), annual, section on diseases.

¹²⁴ *Gesammelte Aufsätze zur Religionssoziologie* (Tübingen 1922-1923), Vol. II,

into solitary greatness in the new field ushered into existence by modern technology. It was not until the middle of the nineteenth century that Germany and France could claim a place in the scheme of this new societal morphology. By 1905 Germany had already caught up to the British achievements in technocracy, and the Anglo-German parity was established in industrialism.¹²⁵ In the science of social mobility it is not possible to think of a better illustration of "differential" group metabolism.

Not every European and American people has been able to march as fast as the Germans and the French. Many of the races in the "Balkan Complex", Eastern Europe, and Latin America happen to find themselves in the technological and socio-economic conditions of Germany or of France such as she was about half a century ago, i.e. in the earlier phases of the industrial revolution. The inequality of development is quite consistent with the facts of progress. It is more or less on the level of the "first industrial revolution" that India finds herself today. The profound transformations that are going on at present in the social structure of Germany, the U.S.A., and Great Britain under the impact of trusts, rationalization, "technocracy" of the "latest type", collectivization, public ownership, "social control" and "economic planning" are tantamount to nothing short of what may be called the "second revolution".

Youngsters vis a vis Adults in World-Economy

The distance in "social metabolism" between the second and the first industrial revolutions is a distance of some two generations at the utmost. But there is a profound economic and psychological nexus binding the two. The two metabolisms have need of each other. The regions of the first industrial revolution must import machineries, and part of technical skill as well as capital from those of the second industrial revolution for the normal functioning of their economic life. Incidentally, be it observed that although the representatives of the feudal aristocracy like the land-holders (*zamindars*) of Bengal have contributed their capital to the modernization of their countrymen in technique, industry, science, and culture, their combined financial resources cannot by any means

¹²⁵ The present author's *Economic Development* (Madras 1926), "Indiens Entwicklung in Vergleich zu Eur-Amerika" (*Deutsche Rundschau*, Berlin 1930), "Aspetti e Problemi della Moderna Economia Indiana" (*Annali di Economia*, Milan, 1930); *Die Entwicklung und weltwirtschaftliche Bedeutung des modernen Indien* (Stuttgart 1931).

be voluminous enough to promote an adequate industrialization of large areas inhabited as they are by millions of people. External finance must have to be imported. "Autarchy" is, therefore, being factually replaced by "interdependence",—nationalistic sentiments and protectionist tariffs notwithstanding.

The industrialization of the undeveloped regions in India as elsewhere involves, therefore, a transformation of technique and social order, such as is well calculated to furnish employment to the workingmen in the pioneering countries and thus help forward the elevation of these "industrial adults" to a higher standard of living. Durkheim's division of labour is operating once more to render the two metabolistic systems "interdependent" and usher into being a new and self-conscious international "solidarity."¹²⁶

The sinister aspect of the technocratic predominance as embodied in the second industrial revolution is, no doubt, unemployment on nation-wide scale, which looms so large in the economic crisis of the present day. But the first industrial revolution which is being consummated at the same time is well calculated to raise the purchasing power of the peasants in the undeveloped countries as well as the financial strength of their landowning and middle classes. It cannot fail to expand thereby the markets for articles, tools and implements, *Produktionsmittel*, i.e. "instruments of production", rail and road materials, "quality goods" etc.—such as are produced in the regions of the second industrial revolution.¹²⁷

The establishment of industries—cottage, small, medium or large,—in the undeveloped countries, can in the long run be but an agent in the expansion of economic power of the "adults". Paradoxically enough, in order to combat unemployment in the countries of the second industrial revolution their economic statesmen will have to work for the success of the "Swadeshi (indigenous industry) movements" in Eastern Europe, Russia, Asia and Latin America. So far as India is concerned, the Ottawa Imperial Preference is likely to be a help in this direction by safeguarding her markets in the United Kingdom as well as by facilitating the import of British capital. And as long as India is a part of

¹²⁶ C. Gide: *La Solidarité* (Paris 1932), pp. 162, 167.

¹²⁷ The present author's *Applied Economics*, Vol. I. (Calcutta 1932), *Indian Currency and Reserve Bank Problems* (Calcutta 1934), *Imperial Preference vis-à-vis World Economy* (Calcutta 1934); P. K. Mukerjee: *The Economic Services of Zamindars to the Peasants and the Public As Analyzed by Prof. Benoy Kumar Sarkar* (Calcutta, 1934).

the British Empire-Economy it is to the advantage of her peasants and middle classes that her currency be normally linked up with the British.

The evils associated with the second industrial revolution, namely, the phenomena of unemployment, should appear, therefore, to be practically counteracted to a considerable extent by the developments implied in the first industrial revolution. The prosperity of the "adults" is limited by and dependent on the increase in the wealth and purchasing power of the "youngsters", and *vice versa*. The two industrial revolutions of today thus constitute one economic complex, and social transformation is tending to bring the East and the West,—the youngsters and the adults,—together on to the solid foundations of international co-operation. The world-economic depression bids fair to be but an item in the transition of entire mankind to a somewhat more elevated plane of living and thinking.¹²⁸ It is on the eve of an epoch of rejuvenation that the peoples of the world find themselves at the present moment. The facts of social metabolism *vis-à-vis* social mobility may appear to be very complicated. But students of objective and statistical sociology are perhaps justified in having faith in the reality of progress accomplished in spite of pitfalls and in spite of unemployment.¹²⁹

The Relativity of Progress as a Social Reality

Our position in connection with the indifferentism of social metabolism to race, region, religion etc. can be well illustrated by the antimachinism and the hostility to technical progress¹³⁰ such as manifest themselves under certain conditions of economic development. Bouthoul has established an equation between the revolt against machines in France and England during the early nineteenth century and that in China and India today. The almost instinctive demand for a "*trêve des inventions*" (invention-truce) and the sentiments against technical progress and "rationalisation" that have seized mankind since the economic depression manifested itself in 1929 are almost universal.

¹²⁸ S. C. Dutt: *Conflicting Tendencies in Indian Economic Thought* (Calcutta 1934).

¹²⁹ E. Cannan: *A Review of Economic Theory* (London 1929), pp. 421-422; Prouglé: *Socialismes Français* (Paris 1932), p. 168; Hass: "Le Chomage et la transformation de l'éthique du travail" (*Revue Philosophique*, Paris, November-December 1934) pp. 387, 395.

¹³⁰ G. Bouthoul: "Population et Progrès Technique" in the *Revue Internationale de Sociologie* (Paris), March-April 1935, pp. 189-191.

Bouthoul's analysis should furnish a fresh stimulus to the objective study of social metabolism.

Like demographic optimum, economic efficiency, standard of living, nutritional norm and other categories of human life, civilization or progress is inevitably a "relative" phenomenon. It admits of degrees and forms. This short study forces upon students of social science the necessity of emancipating themselves from the dogma of civilization as being the "function" of a particular race. In the second place, they are called upon to conceive the social "strata", classes or groups in a community as fluid bodies incorporating diverse racial elements at every point of time. And finally, the metabolistic dynamics of group life, i.e., the factors or forces involved in social mobility and transformation are found to be diverse and pluralistic for every region, religion, race, and class or stratum. Progress has consequently always to be envisaged in terms of the upward trends of new regions, new races, new classes, and new forces. The eventual fall of the Aryan as suspected by Lapouge and Ammon does not and need not necessarily be taken as equivalent to a disaster to mankind and world-civilization. Culture is all the time being enriched or rejuvenated with new values. The doctrine of progress, therefore, has need to be adapted to these new facts and situations.¹³¹

The relativity of progress in its diverse forms becomes clear from a reference to the comparative position of the different provinces of India in relation to one another as to that of the different states of Europe *vis-à-vis* one another. And of course the comparison of the Indian provinces with the extra-Indian regions also will serve to bring into relief the nature of progress as a relative phenomenon. The same intensity or the same form of achievement cannot be predicated uniformly about the diverse races or regions of the world at any fixed point of time. What would be regarded as progress in one region may be appraised as but a trifle in the estimation of another region. It may, on the other hand, be too high for the exploits of a third. In order to carry a people forward to what may be called progress one will have to dismiss from one's mind the idea of maximum perfectibility of which mankind is capable today or the highest achievement factually consum-

¹³¹ A. J. Todd: *Theories of Social Progress* (New York 1924), W. E. Hocking: *Man and the State* (New Haven 1926), pp. 429-431; P. Sorokin: *Social Mobility* (New York 1927); J. B. Bury: *The Idea of Progress* (London 1932); H. E. Barnes: *The History of Western Civilization*, Vol. II. (New York 1935), pp. 1054-1055; A. Niceforo: "I Fatti Costanti della Vita Sociale (*Rivista di Psicologia*, Bologna, April-June 1935); F. Tönnies: *Geist der Neuzeit* (Leipzig 1935), pp. 9-11, 77-80, 133-134.

mated by the most advanced races of today. Nay, one need not pre-occupy oneself too much with what the race or the region in question is ultimately capable of in the long run or ought to demonstrate by the world-standard of today. The most important consideration lies in ascertaining just what the race or the region has been accomplishing at the present moment and then in enabling it to raise its activity-index or achievement-level somewhat above it in the near future.

Since 1905 the Bengali people would be found to have been achieving laurel after laurel, such as is recognized by the international world, in diverse fields of creative enterprise, cultural, political and economic.¹³² The little industrialization that the Bengalis have to their credit today,—in the form of cotton and jute mills, coal mines, chemical works, tea plantations, banks and loan offices, insurance companies, workingmen's unions etc.—is in the main the outcome of the great *Swadeshi* ideas of 1905. We must not forget that even in the line of constructing tools and machines Bengali engineers and *mistris* have also been showing some mentionable results.

The industrial exhibitions and the *melas* held in Calcutta and the Mofussil, like many other things in the industrial field that we have been able to accomplish, constitute perhaps a child's play in contemporary "world-economy." But it is very desirable at the outset to fully realize that it is only in comparison with the industrial "great powers" that the Bengali people is backward in matters of modern technology and industry. In the perspective of Bulgaria, Rumania, Poland, and other countries of the Balkan complex, Eastern and Southern Europe and Russia, however, all of which are politically sovereign and some of which republican, the people of Bengal is not entirely negligible. Indeed nearly sixty per cent of the peoples of Europe is in point of industrialism more or less in the same conditions as the Bengali people. An objective study of comparative industrialism is not likely to place Bengal in a very unfavourable situation.

Nor are the industrial conditions of the Bengali people specially dis-

¹³² Cf. the present author's presidential addresses while opening the Bengal Provincial Industrial Exhibition at Berhampore (December 4, 1931) and the Industrial and Health Exhibition at Chittagong (February 23, 1936). See S. C. Dutt: *Conflicting Tendencies in Indian Economic Thought* (Calcutta 1934), pp. 215-219. See also the present author's "Ramakrishna and the Bengali Epoch of World-Culture" in the *Ananda Bazar Patrika* (Calcutta, 24 February 1936), lecture reported in the *Panchajanya* (Chittagong, 25 February 1936), and addresses on "Ramakrishna as a Remaker of Man" at the Town Hall, Calcutta, and at the Quadrangle of Maharaja Nabakrishna's Temple, Calcutta (26 February 1936).

couraging by the Indian standard. So far as other Indians are concerned, there is hardly anything to choose between the Marathas or Deccanis and the Bengalis, the Punjabis and the Bengalis, and the Tamils or Andhras and the Bengalis in regard to industrial achievements. It is only the Gujaratis and the Bhatias as well as the Parsis who are ahead in this respect as much of the Bengalis as of the Marathas, Tamils, Punjabis and other races of India. It will have to be admitted, however, in passing, that the industrial backwardness of the Marathas, Tamils, Punjabis and Bengalis does not as a matter of course imply an all-round backwardness of these peoples in comparison with the Gujarati-Bhatia-Parsi complex.

The industrial backwardness of the Bengali people, in so far as it is a fact, no matter by what standard, cannot be regarded as a backwardness in industrial "aptitude." All that it is rational to admit is that for one reason or other the economic initiative and energism of the Bengalis have as a rule chosen other fields to function in than those of modern industry. It is only recently that the Bengalis have begun seriously to attempt financial investments in industrial lines. It is chiefly this lateness in the emergence of effective interest that should account for the "relative" backwardness of the Bengali people in modern industrial enterprises.

The backwardness can be explained but need not be explained away or excused. We have to combat this regrettable defect by every possible means. In regard to industrial achievements the Bengali people has today but one objective before itself, namely, to catch up to the Gujarati-Bhatia-Parsi attainments, nay, to the extra-Indian heights as well. The economic tactics or schemes of economic development may be left out of consideration in the present study.

But it is necessary to refer to a factor of great and almost universal importance in the socio-economic structure of India. We are speaking of the non-Bengali Indian, in one word, the "Marwari" element in the capitalistic organization of Bengal. The industrial statesmen of Bengal will have to appreciate the Marwari financiers, industrialists and businessmen as their colleagues, and their co-operation is to be sought in every possible field of economic endeavour. It cannot be ignored that in the past the Marwaris, settled in Bengal, have worked hand in hand with the Bengalis. In all Bengali movements, political, nationalistic, cultural, social and economic, they have invariably taken an enthusiastic and active part in the same spirit as the children of Bengal. Their services will have to be still further utilized in the interest of the Bengali people for some long time to come.

It is time to visualize in a scientific and unprejudiced manner the rôle of the Marwari in Indian economy. Objectively considered, his contributions to economic India are almost identical with those of the Jew in

Eur-American business organization. Comparable to the "international Jew," the Marwari is an all-Indian personality. Not only the Bengalis, but the Marathas, the Punjabis, the Tamils, the Biharis and others,—all have to depend more or less on Marwari finance in almost the same way as the industrialists and traders of the different countries of the Western world on the Jewish bankers, banking institutions and trading houses. Intimate association with the Marwaris ought to be consciously and deliberately promoted as a fundamental tactic in the industrial policy of Bengal.

The contributions of extra-Indian (British, and to a certain extent American) capital to the expansion,—however slow and modest it be,—of the Bengali and other Indian peoples are no less fundamental. The "relativity" of progress as a social reality is nowhere more manifest than in the fact that non-Bengali capital is a basic necessity for the social metabolism of the Bengali people. Bengali capital has been growing by all means. But for some long time yet it is bound to remain but a second fiddle to the British and Marwari finance. Optimists cannot afford to ignore this solid foundation of progress in so far as it is and bids fair to remain a fact.

Bengalis have commenced the A.B.C. of modern industry and commerce rather late. It is worth while, therefore, to remember that compared to the people of Great Britain the Frenchmen and the Germans were also late by nearly two generations in regard to modernization and industrialization. Late-comers in the same game have likewise been the Italians and of course the Japanese. On the strength of positive Bengali achievements in the different *vidyās* and *kalās*, in literature, arts, sciences, education, politics, handicrafts, agriculture etc.,—achievements such as have stood the world-tests,—it may be possible to foresee that like the Germans and the Japanese the Bengali people, although a late-comer, will yet demonstrate to the world that it is quite possible to catch up to the go-aheads.

The industrialism of the Bengali people may still be a source of inspiration to the backwards in India as well as in Asia from China to Mesopotamia and in Africa. Nay, the *swadeshi* movement of Bengal, with which the "ideas of 1905" are associated, although hampered as it has been by unfavourable conditions, is perhaps going to be appraised in the annals of world-economy as belonging to the same rank as the industrial nationalism of the Russian Gosplan and the economic patriotism of Fascist Italy. The pioneering rôle of the Bengali people as the initiator of a new era in the history of the undeveloped and semi-developed races and regions of the world may yet be recognized in culture-history even before the twentieth century sees its end. And with this fact may be

taken to commence a "Bengali period" of world-culture and human civilization.

We notice, then, that the social metabolism of every race or region is promoting more or less the same type of achievement, namely, modernism in technique and socio-economic structure. The future of the human race from the standpoint of the *sociologie des valeurs* can be taken to be pretty well assured because the qualitative capabilities of the new races like the Italians, the Slavs of the "Balkan complex," the Russians, the Japanese, the Bengalis and other peoples of India, nay, the other Asians, as well as Africans enable them to assimilate the contributions of their predecessors and carry forward their work.

Structural and Functional Changes in the Younger Peoples

The expansion of life, vegetal or animal, can be measured objectively like the expansion of rocks or rivers. In the case of group life it is possible to examine the expansion not only from the standpoint of numbers but also from those of institutional structure and functions or activities. Among the "new races" of the world such as are exhibiting the indices of virility and creative youth we may, again, cite the people of Bengal.

The Bengali people has grown 38 per cent in fifty years (1881-1931). This is the average rate of growth for All-India also. This shows that Bengal has neither declined nor grown relatively less than other parts of India. Every Division in Bengal embodies this expansion, although at different rates. Chittagong and Dacca's rates of growth are between 60 and 90 per cent whereas that for Burdwan, Presidency and Rajshahi is between 17 and 27 per cent. The average Bengal rate is higher than that of France, Czechoslovakia and Spain.¹³³ It is time to get rid of the conventional, erroneous ideas about the demographic conditions of Bengal.

We should likewise pay due heed also to the fact that mortality conditions in Bengal have improved. The annual death rate has come down

¹³³ *Statistique Générale de la France: Annuaire Statistique 1931* (Paris), pp. 12*-13, 202*-203*, 210*. The present author's "Comparative Birth, Death and Growth Rates" (*Journal of the Indian Medical Association Calcutta*, May 1932); *Census of India 1931*, volume on Bengal, Part I. pp. 106, 135.

in certain areas from 30 to 21 per thousand inhabitants (p. 20). It is the lowest in Chittagong Division, and lower in Dacca than in Burdwan and Presidency Divisions. In the interest of further improvement we should urge for the enactment of a Public Health Act in Bengal on British and German lines. But it should be unwise in any case to ignore the improvements, however modest, that are already patent.

Very often it is suspected that most of these improvements in Bengal are enjoyed exclusively by non-Bengalis. But there are not more than 363 non-Bengalis per 10,000 inhabitants in Bengal. In fifty years the growth is only 50 per cent, whereas in England the growth of foreign-borns during the same period is 100 per cent, in France 123 per cent and in Germany 344 per cent. Besides, the positive services of the foreign-borns must not be ignored or minimized. The tea-gardens, coal mines, railways, jute-works and other enterprises which have been directly and indirectly helping forward the material and cultural progress of the Bengali people owe their present position in the main to the manual labour of non-Bengalis. The contributions in capital from non-Indians as well as from the so-called "Marwaris" are likewise considerable. Co-operation with Marwari and British finance will remain, let us repeat, the bed-rock of Bengali economic expansion for some long time to come.

Among institutions the like of which did not exist in Bengal a generation ago are to be named the co-operative societies of peasants, the trade unions of working men, the chamber of commerce and trades associations of merchants and industrialists.¹³⁴ The Zamindars (land-holders or rent-receivers) whose work in the economic and cultural development of Bengal is well recognized by the leading men of the Mofussil, have also established associations in almost every district. Then we have the organized movements of the so-called lower castes. Last but not least, the dozens of institutions run by and for women for educational and social welfare point to some of the most creative features in Bengali society. Structural changes of a profound character mark therefore the present-day morphology of the Bengali people.

The character of the Bengali people has likewise undergone a tremendous transformation as manifest in the development of new qualifications, aptitudes, activities, and professions. Company promoters and directors, bank managers, insurance agents, manufacturers, exporters

¹³⁴ *Annual Report on the Working of Co-operative Societies in the Presidency of Bengal* (Calcutta 1935), pp. 5-10, 18.

The present author's "Bengali Zamindars and Bengali Industry and Commerce" (*Arthik Unnati*, Calcutta, September, 1933).

and importers, news agents, these constitute some of the new social classes of today. Incidentally, it may be observed that in Bombay, the Punjab and the C. P. Bengali coal merchants are prominent figures as well as Bengali engineers and chemists. The progress made by the Bengali people as manufacturers and merchants in the course of the last three decades or so cannot but be noticed by those observers who are used to watching the happenings in the cultural world from year to year.

The feeling is one of all-round expansion in the economic activities of the Bengali people. And in and through this expansion is manifest the profound remaking of social Bengal that has been consummated.

1933 saw the centenary of Rammohun Roy's death.¹³⁵ Perhaps nothing demonstrates more effectively and objectively the amount and variety of reconstruction in Bengali character and qualifications that has taken place in this century than the factories, firms, companies, and associations, such as point to the remarkable development of Bengali enterprise in industry and commerce. The industrial exhibitions have thus unconsciously turned out to be some of the most important expressions of the Bengali people's homage to the genius and spirit of the remaker as embodied in the manifold activities of Rammohun.

But one feature of these exhibitions in Bengal cannot escape anybody's notice. They are all small in dimensions.

Here, indeed, we touch the very speciality of Bengali enterprises. They are small in size but large in number. The multiplicity of ventures as well as the smallness of the undertakings constitute the fundamental characteristic of Bengali economic activities.

It is interesting to observe that Bengal is in this regard essentially different from Bombay. Some time ago the number of joint stock companies in Bombay was something like 800 whereas Bengal possessed more than three times this number, not less than 2600. But the Bombay concerns as a rule are fairly large-sized, the average capital of each being nearly Rs. 1,250,000. In Bengal, on the other hand, the concerns, no matter whether Bengali, or non-Bengali, Indian or non-Indian,—are rather petty, each with less than one-third the Bombay average, namely, about Rs. 400,000 as capital.¹³⁶

¹³⁵ The present author's "Pursuit of Science and Scientific Research in Modern Bengal" (*India and the World*, Calcutta, 1932 December and 1933 January).

¹³⁶ The present author's "Umfang und Kapitalkraft der industriellen Unternehmungen in Indien" (*Maschinenbau*, Berlin, 16 April, 1931); *Statistical Abstract for British India* (Delhi 1934), pp. 728-736; *Large Industrial Establishments in India* (Delhi 1934).

In the immediate future Bengal is likely to remain a country of small business units, and Bengali business heads should have to look upon, say, two to three hundred thousand Rupees as quite a decent financial outlay to strive after. The luxury of large enterprises and all the economies of "rationalization" such as such enterprises confer,—it may never be the luck of many of the present-day Bengali businessmen to enjoy.

It is not for them to cry for the moon in the shape of large scale production and trade. But like true pioneers they will be called upon to make the best of their small units and render them as economically worth while as possible. The "next stage" of Bengali economic life will know how to organize fusions, amalgamations, cartels and similar formations.

But in the meantime the present developments will not fail to impress upon us the fact that the Bengali people has been expanding not only in education and culture but also in industry and commerce. Progress in science and technology will appear to be solid, no matter what be the rate at which progress is being achieved.

Even fifty years ago, *i.e.* about the time when *Bande-Mataram* was being composed by Bankim Chandra Chatterjee and the Indian National Congress established, the number of Bengali Hindus as businessmen in modern forms of industrial and commercial endeavour could be counted perhaps at fingers' ends. Today the Hindu elements of the Bengali people have grown into a powerful community of technically equipped and scientifically efficient industrialists and traders of all denominations. The industrial and commercial professions have been attracting not only the Sahas, Tilis, Gandhavaniks and Suvarnavaniks, the traditional business castes of Bengal, but the so-called intellectuals or higher castes as well.

The Kayasthas of Bengal today are not all scribbling clerks, the Vaidyas not all Kavirajes with mortar and pestle, and the Brahmans not all priests or cooks. Nor is the community of Brahmans, Vaidyas and Kayasthas at the present moment a community exclusively or chiefly of school masters, lawyers and medical men. The Bengali intellectuals, *bhadraloks* or castemen of the present generation can count among them hundreds of manufacturers, factory-directors, mill-managers, engineers, chemists, contractors, bus-owners, exporters and importers, shippers and carriers, aviators, bank officials, insurance agents, industrial artists, film producers, printers, publishers, journalists, and what not. The tone of life among caste-Hindus is being furnished not by lawyers and school masters but by businessmen, technologists, managers of industrial establishments, and company promoters.

The population of Bengal has grown, as indicated at the outset, only 38 per cent in fifty years,—from 37 to 51 millions. But in each of the

so-called higher castes the number of persons that have taken to manufacture, export-import, banking, insurance, and transportation etc., in other words, the new lines of economic and professional activity, has increased several hundred per cent. Today their name is legion. The character of the upper-caste Hindus is in course of being entirely transformed on account of these new careers and means of livelihood. The caste-Hindus of Bengal have taken to industry and trade in a manner unparalleled in the Bengali annals of the nineteenth century and of course of previous centuries. The number of industrial and commercial magnates among the Bengalis is yet insignificant. But not even Bankim Chatterjee would recognise us today as Bengalis, and naturally neither Rammohun nor the author of *Kavi Kankana Chandi* (c. 1590).

Virtually, none of the businesses, manufactures, commercial enterprises etc., in which Bengali brain and administrative power have been manifesting themselves so markedly today were known to or rather seriously attempted by the Bengalis half a century ago. It is during the last decades, especially since the *Swadeshi* Movement of 1905 that all these professions and careers have been assiduously explored by the adventurous and energetic spirit of the Bengali people and annexed to the realms conquered by Bengali ambition. This achievement of Young Bengal's deserves to rank as one of the conspicuous items in the social revolution of modern Asia.

It is neither necessary nor possible to mention all the different lines or all the different individuals or families that have taken a pioneering or prominent part in the development of each, whether as an inspiring force or as an active businessman. Besides, we must remember that not every Bengali that has explored or entered new industrial and commercial professions has become a millionaire. Nor has everybody's career in these lines been a record of uninterrupted success. In terms of Rupees-annas-pies as in the size of business concerns the achievements of the Bengali people are as a rule certainly very modest.

The hindrances are too many, opportunities are few, and poverty is universal and immense. But while discovering these new paths or trying them out the adventurers of Young Bengal have demonstrated their capacity to persist in their endeavours in spite of failures. The thousand and one fields of modern industry and commerce that are being attempted by them point to so many instances of heroic struggle, the pursuit of new professions under difficulties, and the will to conquer of the Bengali people.

Neither the German nor the Japanese nor the American youths have exhibited a greater tenacity and strenuousness in the midst of the same kind and amount of handicaps, hardships and discouraging circumstances

than have the Bengali youths bent on conquering and to conquer in the realms of modern economic enterprise. And so far as the forefathers are concerned, very few of them were as a rule superior in industrial or commercial skill, intelligence and organizing power to the present generation of Bengalis.

And yet it is only the start that has been made. But the journey is uphill, long and tedious. The challenge from mountains of difficulties and obstacles has however been boldly accepted by Bengali brain and brawn. The Bengali people will not fail to inject an increasing stream of dare-devil adventurers, scouts and pioneers into the regions of the industrial and commercial Unknown.

The institutional and functional expansion of the Bengali people is encouraging so far as it goes. But "the highest is yet to come". The Bengalis have to improve their business methods and enlarge their technical experience in addition to attempting new fields of industry and commerce. It is time to redouble their activities along the entire front of economic life and concentrate them in an intensive manner each in his special domain.

The story of "social mobility" as exhibited by the Bengali people is but the story of all the new or younger races. Like the Slavs of Europe and to a certain extent her Latins as well as the Japanese of Asia the Bengalis as well as other Indians have been proving themselves to be the architects of a new epoch of world-culture. The creative aptitudes of these younger races are well calculated to remake the history of mankind in case the older races,—the more senescent,—should, as is very often feared by demographers, disappear or get submerged in the race-fusions of today and tomorrow.

Economic Remaking vis-a-vis Population Growth in Bengal

The most spiritual force in the economic and social life of the Bengali people in the Mofussil (villages) today is to be found not in *Bhakti-yoga* (emotionalism) or *Jnana-yoga* (intellectualism) but in *Yantra-yoga*, the devotion to machineries, tools and implements. The *Swadeshi* Movement of 1905 has meant for the men and women of Bengal the *digvijaya* or world-conquest of industrialization and the penetration of technical apparatuses and engineering goods in the subdivisions and rural centres. The Bengali *chashi* (peasant) is today a person with a torch. The hurricane lantern is replacing the *kupi* (primitive oil-lamp) even in the remotest villages. The young man on the cycle, the driver of the motor-lorry, the *mistri* (skilled worker) and the engineer of the mechanical repairs works,

the inventor of machines, these are the types that characterize the "new society" of Bengal. The Bengali cotton-mill-directors have become experts in the language of tools and implements. Chemical technology is furnishing inspiration to the projectors of sugar-mills. Electrification of district head-quarters tends likewise to be an important ingredient in the intellectual and social life of the people.

Industrialization has been an aid to urbanization also. Coal and iron industry has given birth to four or five towns in West Bengal, the shipping industry to four important centres in East Bengal. Jute alone is responsible for the industrialization of some half a dozen centres in Pabna, Faridpur, Mymensingh and Dacca and some twenty on the banks of the Ganges near about Calcutta.

In 1921 there was provision for filtered water supply in thirty-one towns. In 1931 such towns were forty-three in number.

About the time of the *Swadeshi* Movement for every 1000 persons living in villages the number of the town-dwellers was only 65. In 1931 the number rose to 79. The growth of towns has led to the progress of the people in democratic movements and combined activities of diverse kinds in politics no less than in culture.

The men who have been chiefly instrumental in the fostering of this social transformation of the Bengali people are the engineers. And the spirituality which is operating in and through this transformation is the spirituality of the machine. The blood of Young Bengal has been rejuvenated by the tonic of machinery.

During the decade from 1898 to 1907 the number of engineers, mostly civil, who passed out of the College at Shibpur, was as low as 103. But during 1919-28, the number was 412. In 1905 when the *Swadeshi* Movement was started, the National College of Engineering at Jadabpur (Calcutta) did not exist. But from 1920 to 1935 Bengal was furnished by this institution with 580 mechanical, electrical and chemical engineers. It is engineers that are the heroes of new Bengal.

Some of the aids to industrialization such as have been in force in Bengal as in other parts of India may here be singled out.

Of all the goods imported by India from foreign countries about 1913-14 nearly one fourth consisted of metals, machineries, hardware, instruments, railway stock etc. i.e. those articles which help forward the industrialization of the country. To-day, the proportion has risen to nearly one-third. Among the stores imported by the Government also nearly two-thirds belong to this class of goods.¹³⁷

¹³⁷ *Review of the Trade of India 1934-35* (Delhi), pp. 20, 178-179, 182-190; *Bulletins of the Bengal Board of Economic Enquiry* (Calcutta): *District*

It is on the strength of these imports from foreign countries that the *Swadeshi* Movement has been built up. And in the interest of the same movement, Bengalis will require for some long time more this tonic of machinery to be imported from abroad.

More than half of the world's machineries are consumed in the U.S.A. Nearly 40 per cent is consumed in Great Britain and Germany in equal proportions. In Russia, the proportion is 2.5 per cent. Less than 2 per cent is consumed in Italy, about 1.5 per cent in Japan and 1 per cent in India. If America spends Rs. 100 per head of population on machineries, Great Britain 43, Germany 36, Italy 10, Japan Rs. 5-8, Russia Rs. 4-4-0, and India nearly three-fourths of a Rupee.

There is great scope for an increase in the Indian consumption of machineries. It is impossible for the Indians to rise to the American, nay, to the British-German standard. The highest ideal in the line of industrialism for Bengal as for All-India can be and ought to be Japan for some long time to come.

The most important item in the new economic *Gestalt* of Bengal as of All-India is to be found in the fact that she is already well established in countries overseas as an industrialized region. In pre-war years India's exports in manufactures constituted 23 per cent of her total exports. In 1933-35 some 27 per cent of all the articles exported by India were wholly or mainly manufactured goods. Bengal's as well as All-India's industrialization maintained itself in an active manner even during the epoch of alleged depression.

The industrialization of the districts in Bengal, however partial and halting it be, is an outstanding fact in the qualitative transformation of the Indian people. While one watches the expansion and improvements of Calcutta it should be reasonable to be conscious also of the economic and social changes that have come upon Jalpaiguri, Serajganj, Narayanganj, Chittagong, Kharagpur, and other areas. During the last thirty years or so all these places have grown considerably, first, as "ports," secondly, as industrial centres, and thirdly, as commercial emporia for agricultural produce and manufactured goods. This growth has made itself felt in the houses, roads, water-works, schools, hospitals, motor conveyance, engineering repair stations, etc. of the rural centres. These items indicate that there is not only a change but also a rise in

Faridpur (1934), *District Bankura* (1935), p. 11, *District Pabna* (1935). For comparative machinery-consumption see *Die wirtschaftlichen Kräfte der Welt 1930* (Dresdner Bank, Berlin). See also W. Woytinsky: *Die Tatsachen und Zahlen Europas* (Vienna 1930), pp. 156-160.

the standard of living of the Bengali people. The district, subdivisional and rural centres embody economic complexes such as may be regarded as some of the indices to Bengal's material and social progress since the *Swadeshi* (indigenous industry) Movement of 1905.

It may be difficult indeed to believe that Bengal is getting more and more industrialized while all the time one feels especially in the days of depression since 1929 that the Bengali people is so fatally dependent on an agricultural produce, namely, jute.

But curiously enough it is just this jute that, among other things, is raising Bengal up to an industrial level. The expansion of acreage in cultivation has gone hand in hand with the expansion in industrialization so far as jute manufacture is concerned. Rather, the rate of industrialization has invariably been higher than that of expansion in cultivation.¹³⁸

It will be easy to visualize the comparative situation in the following equations:

$$(1) \text{ Jute acreage (1907)} = 1.360 \text{ jute acreage (1893).}$$

$$(2) \text{ Jute manufacture (1907)} = 1.917 \text{ jute manufacture (1893).}$$

The following equations embody the relative change as consummated in recent years:

$$(1) \text{ Jute acreage (1929)} = 1.156 \text{ jute acreage (1923).}$$

$$(2) \text{ Jute manufacture (1929)} = 1.933 \text{ jute manufacture (1923).}$$

For the entire period of 37 years the relations between cultivation and manufacture in jute yield the equations as given below:

$$(1) \text{ Acreage (1929)} = 1.466 \text{ acreage (1893).}$$

$$(2) \text{ Manufacture (1929)} = 3.513 \text{ manufacture (1893).}$$

So far as jute is concerned, Bengal has not grown exclusively as an agricultural country. Bengal's growth in industry also, although mainly under non-Bengali financial auspices, is eminently noteworthy, being more than $3\frac{1}{2}$ times while that in cultivation somewhat less than $1\frac{1}{2}$ time. Jute has thus served to industrialize the country to a considerable extent.

Economically speaking, it would be an error to suppose that Bengal is merely a supplier of raw produce to the rest of the world. The story of jute is well calculated to dispel this illusion. The exports of raw jute to foreign countries have indeed grown in the main, but they have not grown in the same proportion as the manufacture of jute within the country itself.

In the field of exports jute goes out of India less as raw than as manufactured. Both in volume and value Bengal is known in international

¹³⁸ *The Investor's Year-Book 1930-31* (Calcutta) pp. 184-186; *Review of the Trade of India 1934-35* (Delhi), pp. 84, 86.

commerce more as a manufacturing country than as a land of cultivators, so far, at any rate, as jute is concerned. The export of manufactured jute as bags rose from 369 millions in 1913-14 to 423 millions in 1934-35 and as cloth from 1,061 million yards to 1063 million yards while that of raw jute came down from 768,000 tons to 752,000 tons during the same period.

With 1901 as the base the population of Bengal increased upto nearly 111 in 1921. But during the same period the number of men, women and children maintained by occupations connected with the extraction of minerals rose to 244, with railways to 196, with trade in chemicals to 176, and with textile industry to 128. That is, the progress of industrialization proceeded at a much higher rate than the numerical growth of population.¹³⁹

It is to be observed that the number of men, women and children supported by the cultivation of "special" crops (tea, coffee, etc.) as well as by vegetable and fruit gardening increased to 132.

And the fact that the number of persons maintained by motor driving and domestic service rose to 167 shows that in 1921 prosperity was enjoyed by a much larger number of families than in 1901.

Attention should also be called to an important item in the economic structure of the Bengali people. The number of persons supported by ordinary cultivation did not rise to a higher figure than 111. Thus, relatively to population, Bengal did not grow more agricultural, as is commonly believed. And apart from the "special" industries mentioned at the outset, the progress of "general" industrial occupations was a few points above that of "general" agriculture.

From 1921 to 1931 the population of Bengal increased only 7.2 per cent. But the number of persons "living on their income" rose 34.6 per cent. This class does not include the landowning or zamindar community and points to the growth of what may be described as non-rural and non-agricultural capital. The expansion of capitalism is a signal feature of the new economy in Bengal and is indeed a correlate to the phenomenon that industrialization has marched faster than population-growth.

The persons whose occupations are indefinitely described in statistical publications have grown more than 35 per cent. On an intensive examination it is found that they belong to the class of manufacturers, businessmen, contractors, machinists, accountants, book-keepers and industrial workers. We encounter here the expansion of technically

¹³⁹ *Census of India 1931*, Vol. V, *Bengal and Sikim*, Part I, *Report* (Calcutta 1933) pp. 16, 70, 74, 84, 261, 299. See also the Volume for 1921 pp. 104, 105, 423-28.

equipped "middle" and labouring classes. In the perspective of this remaking of Bengal's economic and professional groups we are to visualize the numerical growth of motor drivers in personal services as well as of cooks, bearers, durwans and other domestic servants by 70 per cent in ten years.

During the first period of the *Swadeshi* movement (1905-09) the average annual income of cultivators from the sale of jute amounted to Rs. 249,661,000. But during the quinquennium (1925-29) the average per year rose to Rs. 569,662,000. The cultivators' income rose from 100 to 228.1. But during the same period the population rose from 100 to 119.1. By sales of jute the cultivators have got during twenty years proportionately more than, almost twice as much as, the population has grown in numbers.

In 1881 there were 75 houses per square mile in Bengal. In 1931 there are 120. In Chittagong Division the number has increased from 44 to 108, in Dacca Division from 81 to 170, in Rajshahi Division from 75 to 105, in Presidency Division from 80 to 112 and in Burdwan Division from 111 to 139. In each Division as well as in the entire country the Bengali people today has more housing accommodation per square mile than in 1881. This is an index to the improvement of material, sanitary and moral conditions. In those days, be it observed further, the number of persons per house was 6.3. In the course of half a century the number has come down to 5.1. That is, men, women and children in the villages are today living relatively speaking more comfortably than before. The facts of congestion and over-crowding, absolutely considered, cannot however be ignored.

To the increased provision of houses has to be added that of clothing, shoes, umbrellas, playing cards, lanterns, schools, etc., such as signalize the consumption-schedule and purchasing power of the Bengali masses. It need not be overlooked that this heightening of the standard of living has gone on in spite of the increase in the cost of living and rise of prices.

New Classes and Creative Agencies in Culture

In the evolution of social classes the newer and younger races have been exhibiting the stratification such as has become established in the community of the "elders" and the "adults." The resulting class-consciousness has been proving to be a powerful factor in social betterment and human welfare. Students of optimum as well as race-improvement have need to take note that the Bengali like the other Indian peasants of today have grown into a self-conscious class. Econo-

mically also they are better off than formerly. Through the medium of the co-operative societies which operate crores of Rupees the agriculturists have indeed been functioning to some extent also as capitalists. They live in better houses than their forefathers and their standard of living has risen along many fronts. They are getting keen on literacy also. Altogether the agriculturists of Bengal as we see them today are conspicuously different in ability, character and outlook as well as financial resources from their grandfathers and greatgrandfathers. Bengali society is going to be established on new foundations on account of this transformation of the peasant class.¹⁴⁰

"The "working class" of Bengal is virtually a new creation of the twentieth century. The industrial workers are today organized in unions and the Workmen's Compensation Act has been rendering them valuable services. Not a few among the clients of the Postal Savings Banks belong to the working classes. The potentialities of the working classes as a social force have attracted to them a large number of intellectuals, and this association of brain and brawn is likewise of profound significance in Bengali economic life at the present moment.

The "middle class" that we know today did not exist in the early nineteenth century in the days of Rammohun Roy. In those days Bengal had what we still conventionally call the "*bhadralok*" class. The middle class has grown along with industrialization (railways, mills) and Government services. It is the product also of the schools and colleges which have sought to furnish these offices of the new order with trained hands. Today the middle class is a power in society and politics, not only in point of number but also because of culture and wealth. The fixed and current accounts in joint stock and co-operative banks, both Indian and foreign, as well as the premia collected by the life insurance companies come in large proportions from the middle class. The clubs, libraries, athletic and sports associations, Matric schools, publishing houses, journals,—these are all institutions of this class. The phenomenal growth of these insti-

140 *Report on the Land Revenue Administration of the Presidency of Bengal 1934-35* (Calcutta 1935), pp. 9-14, 16-18; *Annual Report on the Administration of the Indian Factories Act in Bengal 1933* (Calcutta 1934); *Annual Report of the Chief Inspector of Mines in India* (Delhi 1934) p. 46; *Report of the Joint Parliamentary Committee* (London 1934), pp. 68, 71, 346, 347, 349; *The Workmen's Compensation Act 1933* (Delhi 1934), pp. 5-6, 34-35 (Schedule II); P. K. Mukerjee: *The Economic Services of Zamindars to the Peasants and the Public as analyzed by Prof. Benoy Kumar Sarkar* (Calcutta 1934); *Report of the Indian Cinematograph Committee 1927-28* (Madras 1928), pp. 21-25, 94-98.

tutions is a remarkable fact of the present century. All this expansion, functional as well as numerical, points likewise to the relative growth in material prosperity of the middle class.

Less vague but not more powerful than, because to some extent coincident with, the middle class is what we may describe as the intellectual class, comprising as it does mainly the liberal professions like law, medical practice, teaching, journalism as well as the Government services. It is the "divine discontent" of this *intelligentsia* that has been furnishing the spiritual urge to all remakings. Consequently the "natural leaders" of today have been coming more and more from among the school-masters, lawyers, authors, artists, journalists, doctors, engineers and chemists.

One can observe the definite beginnings of a new class that is in formation out of the middleclass-intelligentsia. This is the class of industrialists and merchants, bankers and insurancemen. It is the youngest of the social classes in Bengal. Perhaps we are already watching the marks of a tug-of-war between this new group and the *intelligentsia* as such in regard to the leadership to be exercised in society. The age of the industrial-commercial bourgeoisie is not yet in Bengal,—but it is coming.

The landowning or landholding, i.e., Zamindar class constitutes perhaps the oldest community in modern Bengali society because it can be traced back to the close of the eighteenth century. During the first half of the nineteenth century the Zamindars were the "natural leaders" and virtually the only leaders of the Bengali people, of the religion, literature, culture etc. of Bengal. With the emergence of the intellectual classes as a result of University education lawyers, medical men and administrative officials etc. came to constitute a new group. But the Zamindars have always made it a point to ally themselves with this group of "new leaders" and co-operated with them in all enterprises of educational, literary, scientific, industrial, sanitary, municipal and social advancement. The financing of Bengali culture in all its phases has been done during the last century mostly by the landholding classes. The capital that has been concentrated in their hands has thus been utilized in the interest of the peasants as well as the middle classes. The co-operation of the Zamindars with the still younger group, that of industrialists and merchants, is also a notable fact of the last three decades. Indeed, the entire *Swadeshi* period of Bengali culture-history (since 1905) is the joint making of the landholding, intellectual and industrial classes. The transformation of a part of the landholding class to a certain extent into the two classes, intellectual and industrial, is also to be indicated as a new sign of the times.

It is a matter of importance that Bengalis today do not have to depend exclusively on the charity, patriotism or leadership of any one class. Bengalis have not only new classes, but each class that has evolved in the course of the last few generations has been contributing to the material and moral strength of the Bengali people. The creativeness of the diverse classes, self-conscious and well-differentiated as they are, furnishes but another index and assurance to the steady pursuit of progress and uplift of the millions.

Comparative sociography forces upon our attention the operation of the most diverse creative forces such as are embodied in the experiences of the men and women of every region. Every people is thousand-handed, so to say, in its formative agencies. In the researches into the sociology of "values" it is necessary to divert our attention from the few conventional quarters to the manifold channels of energism that are virtually ignored in the stereotyped "cultural" census or intellectual inventories. It is not only that students of population, optimum, eugenics, efficiency and man's future as a rule overlook the achievements and possibilities of the newer races and regions but they fail very often to appraise the contributions of the manifold groups and forces within these races and regions in the scheme of societal evolution and world-progress.

In the first place, it is to be observed that in almost every district of North and West Bengal, to take one of the younger or newer regions, the Santals have come to stay as agriculturists and are gradually becoming Bengalicized in language and social manners. Some Bengali-Santal blood-fusion is also in evidence. In these processes we are encountering perhaps some of the steps by which the Bengali people of today has been made during the past centuries. The contributions of the Santal, Garo and other "tribal" elements to the arts and crafts as well as the economic and religious structure of Bengal deserve more than a cursory notice. Another central fact of Bengali culture and social morphology is the existence of some eight million men and women belonging to the so-called "depressed" communities. Although depressed, they represent, be it noted at once, like the "tribes" none the less some of the most powerful forces that have contributed to the making of Bengali culture. Thirdly, it is a notorious fact that in Bengal not less than 46,000,000 are illiterate in a total population of some 51,000,000. Some of the illiterates belong also to the depressed classes.

The presence of so many tribals, depressed as well as illiterates is as a rule considered to be a serious obstacle to progress. But the students of culture and societal reconstruction have need to realize that illiteracy does not necessarily mean ignorance, absence of brains, poverty in professional skill, proneness to criminality, or want of moral and society-

building qualities. As long as the tribes, the depressed and the illiterates are employed in some agriculture, cottage industry, mine, factory, railway, fishing, boat-plying and what not they are getting themselves "educated" intellectually and technically in the very process of work. And in the daily interests of their tribal, neighbourhood or occupational life they are factually developing some solid social, civic and political virtues. The intellectual and moral discipline acquired by the illiterates on account of actual participation in life's work cannot be treated as of inferior grade in comparison with what the literates pick up in the elementary, secondary or collegiate institutions. Sociologically, it should be considered unscientific to wait for universal literacy before thinking of endowing these illiterates, depressed and tribes with social and political privileges. It should rather be a first postulate to treat the masses as "educated" in every sense *minus* literacy as well as "creative" in all spheres from cultivation and handicrafts to music and dance, as well as engineering and commerce.

The traditional notions about creative forces and educative agencies have indeed to be replaced by more rational, objective and constructive ideas. Even among the literates not much of real worth in the line of man-making, inculcation of ideals, training in leadership, pioneering and so forth can be and has been imparted by the schools, colleges and Universities of the world. On the other hand, the newspapers and libraries have rendered inestimable service in Bengal as in other countries, Indian and foreign, in the awakening of creative energism among the adventurous youths.

Nobody even in Bengal is today unaware of the functions discharged by the radio and cinema in recent years, not only as aids to the democratization of culture among the masses and the classes but also as sources of inspiration to the ambitious, the energetic and the out-of-the-way. To the same category of agencies helping forward the growth of personality belong also the age-long *Melās*, *Yātrās* and *Kirtans* as well as modern theatres, museums, congresses, conferences, exhibitions, baby shows, health-weeks, sports and gymnastic competitions etc.—all institutions independent of the formal schools and colleges. It is a fact of common observation that in Bengal as elsewhere some of the most fruitful enterprises have been initiated by persons who were not much heard of in the academic atmosphere. And in Eur-America today—from Soviet Russia to the U.S.A.—as well as in Japan the attention of social reformers, publicists and patriotic workers is being focussed more and more on "adult education" in all its phases, the Chautauqua, the film, the movie, travelling libraries, excursion-ships, travels, scientific pilgrimages and so on.

Those millions of the Bengali masses, who because of race, social status or economic condition are forced to educate themselves solely in and through professional activity and group intercourse extending as it does from tribal feast to cinema entertainments, are to be given their due by the students of social science at any rate as some of originators and popularizers of Bengali institutions, economic, aesthetic and moral as well as political. The masses have contributed immensely to the material and spiritual wealth of Bengal.

Neither demography (or larithmics, as H. P. Fairchild¹⁴¹ calls the quantitative study of population) nor eugenics can afford to overlook the creative activities and ignore the "heroism" of the tribes, the depressed and the illiterates. They deserve artistic recognition from poets, story-writers and dramatists as well as painters, etchers and sculptors. The Santals, the Garos, the cultivators, the artisans, the workingmen and others who constitute more than forty-six out of fifty-one million Bengalis deserve greater attention likewise from the anthropologists, economists and sociologists. Nay, the politicians also would do well to induce the Government to establish a permanent Bureau of Races and Classes as an organ of public administration in order to watch, record and help forward the processes of social development.

Eugenic Forces Among the Rising Races and Classes

Demographers and eugenists are as a rule obsessed by the records of the races that have already contributed to the civilization of mankind. It is time for the quantitative and qualitative students of population to direct attention to the signs of new life such as are being exhibited by those peoples, groups or classes that have no tradition and no history. The *mores* and ideologies of the communities deserve to be examined in the futuristic no less than in the antiquarian and historical manner. Evidences of race-betterment and the rejuvenation of mankind are forthcoming from the exploits of many unknown clans, tribes, classes and societies. No study of population or progress with reference to the Indian and world conditions can be adequate which happens to remain blind to the intellectual, moral, aesthetic and social transformations going on among the rising races. In the slow but steady ascendancy of the unknown or ill-known classes, tribes, castes or groups the objective student of population sociology may detect the discharge of many eugenic currents

¹⁴¹ "A New Aspect of Population Theory" in *Problems of Population* (ed. by G. H. L. F. Pitt-Rivers, London 1932). Be it observed *en passant* that Fairchild's pro-Malthusian position is challenged by L. I. Dublin, pp. 325, 326.

and agencies such as are well calculated to raise the physical, intellectual and spiritual values of the human race.

Many of the good or desirable biological stocks and strains remained unsuspected in the submerged and inconspicuous races and classes of the world. The humanitarian, philanthropic, social reform and etatistic activities of the nineteenth and twentieth centuries have enabled some of them to display their mettle and "fitness" in Eur-America. The evocation of eugenic forces by social means and methods is continuing its work still. The rise of new nationalities in Eastern and Central Europe as well as the birth of a regenerated Russia under Soviet auspices¹⁴² are some of the processes through which the depressed, repressed and inferior of yesterday have been proving themselves to be the culture-bearers, civilizers and world-remakers of today. The same process has been going on in India since the Mohenjo Daro times; and at the present moment as in the past the culture-creating strains such as have remained hidden or unobserved in the biological make-up of the alleged lower classes, inferior castes and worthless communities are being provided with fresh opportunities by social, legal and political methods for getting themselves recognised in the eugenic planning of the Indian population.

During the present century the Bengali people has been witnessing a slow but steady transformation of a far-reaching character. It is possible to notice the beginnings of what may be described as a tremendous social revolution. In 1905 when we used to think of Bengal, we used as a rule to notice the literary, educational and political activities of the Hindus. In those days the Mussalman element was, generally speaking, very inconspicuous in public life. Today the Mussalman as a political factor is one of the most important constituents in Bengali society. In the great events of national importance a very significant part is played by the Mussalman men and women of Bengal. It may be said therefore that Bengali life today has been enormously enriched by the introduction of the Mussalman element in politics. Then, again, if we examine the schools and colleges not only of Calcutta but of the different districts and rural centres in our province it is patent that the academic life of Bengal has become Mussalmanized in considerable proportions. The Hindu is not today the monopolizing race in primary, secondary, collegiate,

¹⁴² T. G. Masaryk: *The Making of a State* (London 1927); K. Capek: *President Masaryk Tells His Story* (London 1934); *La Philosophie Tchechoslovaque Contemporaine* (Prague 1935); the present author's "Masaryk's Mind in Growth" (*Calcutta Review*, February 1936); L. L. Lorwin: *The Present Phase of Economic and Social Development in the U.S.S.R.* (*International Labour Review*, January 1936).

medical, technical and other professional institutions. In Bengali literature also the contributions of the Mussalmans have of late been acquiring an importance whose value cannot be under-estimated. Among the most powerful poets, essayists, editors and journalists of Bengal a large number comes from the Mussalman side. It is well-known, besides, that in export and import, in retail trade and in some of the factories and other industrial concerns the Mussalman business organizers and directors are prominent personalities. Altogether, the Mussalman has succeeded in the course of the last generation to assert his claims to the development of the Bengali people along modern lines. The establishment of this fact should be regarded in the estimation of publicists, patriots, social workers as well as economists, eugenists and sociologists as a great social event.

We may now turn our eyes to some other corners of Bengali society. There was a time, even thirty years ago and, of course, half a century ago by all means, when the leading men of Bengal were known as Banerjees, Chatterjees, Ghoses, Sen-Guptas and so on. In the course of the last few decades it is very interesting to watch how the very family titles of prominent persons have become multiform and diverse. If we analyze the list of members in any public organization in any subdivision of the districts of Bengal we notice that it is very often difficult to guess from the family titles the exact caste or social grade of the persons. The same diversity and heterogeneity of family titles will be detected in the registers of elementary, secondary, collegiate and other educational institutions. In one word, the Bengali people of today is not a community primarily of Brahmans, Kayasthas and Vaidyas. These castes are not monopolising the cultural, political and economic functions of Bengal. The "thousand and one" castes of the Bengali Hindu society have risen into prominence and the values of their contributions in every sphere are so great that there is hardly anybody who cares at all to enquire into the caste of the person to whom Bengal owes one or other form and one or other item of her greatness. We might analyze the situation deeper and see how the social structure of Bengal has been on the way to a radical change owing to the introduction of some distinctively new features.

The contributions to the wealth and social economy of Bengal may be examined from the side of what for want of a better term can be described as the "aboriginal" tribes or races. There are reasons to believe that in virtually every district of Bengal and especially in the border districts the non-Hindu and to a certain extent non-Bengali races are becoming absorbed in the general mass of the Bengali community. The Santals are well-known. This race is today occupying many of the productive

agricultural regions in the districts of West and North Bengal. For the present they are engaged chiefly in the work of cultivation but some of the more modest arts and handicrafts are also being cultivated by them. The Rajbanshis of North Bengal may be described as another such race as has been slowly but steadily entering the Bengali Hindu society at the thin end of the wedge.

It is not necessary to enumerate all the different ethnic stocks which, either 100 p.c. non-Bengali or partially non-Bengali, have been more or less gaining a solid footing in the nooks and corners and even in the highways of Bengali life. Their activities are not only confined to agricultural and primitive industries as well as manual labour, agriculture, mining or factory. There are some cases of trading and shop-keeping functions being discharged by these heterogeneous "non-Bengali" races. The intrusion of these new racial elements is a very stupendous fact in the social economy of Bengal. It is being understood besides that the participation of these different races in the economic life of the Bengali people is helping them by degrees, first, to acquire mastery over the Bengali language, and secondly, to assimilate domestic rites and ceremonies, manners and customs, social etiquette etc., of the Bengali people. Many of them are getting Hinduized (p. 72), but, all the same, the Bengali people is being powerfully influenced by the introduction of these racial factors. One can say that Bengal has really been experiencing an expansion in her economic and cultural activities. We have today a veritable "Greater Bengal" within the geographical boundaries of Bengal.

When we consider the actual developments of the last three decades from the standpoint of the men and women who have been actually functioning as creators of economic, social and political values, we are surprised to discover to what a great extent the populational structure of the Bengali people has become democratized. The Bengali people of to-day is not what it was in 1905 and certainly not what it was at the time when the Indian National Congress was founded in 1886. The very flesh and blood of the men and women, that is, the physical and physiognomical features of the Bengali people who are playing an active part in contemporary life are to a certain extent different from those of their fathers and grand-fathers. The phrases such as "the wealth of Bengal," "the contributions of Bengal," "Bengali public life," "Bengali culture," "Bengali economic activities," "economic and political Bengal" etc. mean today entirely different things from those phrases as used by some distinguished lawyer or publicist in the early years of the present century. In those days, from his own private office room in a certain district town he used to wire to a leader or to a leading daily of Calcutta, "The district so and so is with you or behind you." In those days the self-conscious

and creative sections of the Bengali people were indeed so homogeneous and microscopic as to be patriarchally represented or bossed in this manner.

Today there is no individual and of course no institution anywhere in any district of Bengal that would dare make statements like the above in regard to some questions of public importance. The situation is today quite heterogeneous, multiform and pluralistic. Those of our countrymen who have discovered for themselves that, populationally speaking, in its very physical make-up Bengal is a thoroughly new phenomenon not to be comprehended in terms of the demographic basis of a generation ago will be in a position to comprehend the problems of young Bengal during the next decade. The next three, five, seven or ten years of the Bengali people can be managed only by those of our publicists and scholars who possess no vagueness about the fact of a racial, castal or religious expansion of the Bengali people. Once this societal transformation of the Bengali people has been recognized as the foundation of our national policy for today and tomorrow, shall we be in a position to eschew many of the conventional doctrines of social service and patriotism. The new orientations in our economic policy and, what is more important, in political philosophy can be acquired only by those who are thoroughly convinced of the radical transformation that has been going on in the populational structure of our country. The Santals, Rajbanshis and Domes of today are as good Hindus as the conventional Hindus of yesterday. Today the Namasudras, Baruis and the other alleged lower castes have been exerting an influence on the societal economy no less striking than do the alleged superior castes. Last but not least, the Mussalmans on account of their cultural as well as other activities have been growing into good and valuable Bengalis like the Hindus who but a short time ago happened almost to monopolize the energism in the public and cultural life of Bengal.

These discoveries in the domain of Bengal's populational structure should induce us to get prepared for certain discoveries in other domains. It is time for us to examine objectively some of the experiences that the Bengalis have picked up during the last generation in the course of contacts with the different racial, linguistic and religious elements in the population. Those nationalists who have been serving the working classes as promoters or organizers of trade-unions can certainly help us with results of some of their discoveries in this regard. The inspectors who are officially connected with the co-operative credit movement among the peasant classes are also in a position to enrich us with reports about what they have discovered in the character and aptitude of

the families with which they have had to come into contact. The activities of the Hindu Mission workers as well as of the Ramakrishna-Vivekananda Mission and other social service propagandists who in one way or other are connected with the untouchables will also serve to throw light on the personal qualifications of those men and women whose lives as a rule have lain beyond the grasp and imagination of literary men, journalists and patriots. It should appear that the railway coolies, plantation labourers, mine-workers, factory labourers, peasants, in other words, those occupational classes which constitute the majority of the "gainfully employed" population,—the "Masses,"—who have so long remained submerged in the Bengali society do not necessarily possess an intelligence and moral character inferior to those of the persons who academically, professionally and economically belong to the the upper ten thousands.

From the standpoints of "arithmetics" and eugenics this is one of the greatest discoveries in regard to the social make-up of the Bengali people. Let us be perfectly clear. We are speaking here of those men and women who happen to be "unlettered (89%)." It is to be noted that we are not using the word "uneducated." By the word "unlettered" is to be understood a person who cannot read and write. The distinction that we make here is of profound significance in regard to the appraisal of human "values." A man who is unable to read and write is not necessarily uneducated or uncultured. Literacy is an essentially modern phenomenon, but culture and education have been going on in the human race for thousands of years. There were millions of cultured and educated men and women during the primitive, ancient and mediæval epochs of history even in those regions and among those races where reading and writing were unknown. In other words, human intelligence is not as a rule dependent very much on book-learning and school-going. The natural intelligence as well as practical experience of the teeming millions among the illiterates of Bengal are, therefore, very valuable intellectual assets. The cultivators, the blacksmiths, the spinners, the weavers, the potters, the basket-makers, the *mistris* (mechanicians), the *gharamis*, (cottage-builders), the boatmen and sailors etc. of Bengal possess an intelligence which has been sharpened by the practice and traditional experience of ages, and in this intelligence and experience they are equal to the Japanese, Italians, Frenchmen, Germans, English, and Americans. Class for class, the Bengali *mistris*, carpenters and other hand-workers as well as the cultivators of Bengal can challenge competition with their comrades of any nationality on the surface of the earth in regard to natural intelligence and mother-wit independent of machinery and tools.

We may now institute a comparison of these illiterates with those who

have acquired "education" in schools and colleges. In other words, let us compare the peasants and mechanics of Bengal with schoolmasters, lawyers, deputy-magistrates, doctors, journalists and political leaders. There is hardly any body among the so-called educated classes who would venture to assert that as intelligent persons, that is, as men and women of common sense, the cultivators and *mistris* do not understand the problems of their daily life, their family requirements, their village surroundings in the same way as do the schoolmasters, lawyers, *Swadeshi*-preachers and so on. Those who know the illiterates intimately admit, as a rule, that the fact of being ignorant in regard to reading and writing does not render them incapable of comprehending the interests of themselves, their families as well as their neighbours. On the other hand it is also necessary to observe that a schoolmaster, a lawyer or a doctor is after all an expert in one, two or three things of life. These alleged "educated" persons can claim proficiency only in a very limited sphere of interests. The doctor is not an authority in problems connected with engineering, the engineer in questions involving a knowledge of botany, the chemist in questions of astronomy, and so on. The highest that one can possibly claim for these intellectual classes is that some one is a specialist in a particular line and a certain person in another.

Now, agriculture is also a profession of very great importance. The men and women therefore who are experts in agriculture, that is the illiterate cultivators,—therefore, deserve the same consideration from the other members of the community as a lawyer does from the engineer and an astronomer from the chemist. Professions are to be respected as professions. The agricultural profession does not demand less intelligence, less dexterity, less shrewdness, less commonsense, less organizing ability than do the so-called learned professions. The same remarks hold good in regard to the profession of the blacksmith, weaver, potter and so on. The *mistri*, the cultivator and others in the so-called manual professions are as educated and cultured, although unable to read and write, as are the lawyers, doctors and the professors. We are prepared to go a step beyond and assert that as a "moral person," that is, as one who as a free agent discharges the duty of his life in regard to himself, his family and his neighbours, the lawyer, doctor or the professor is not necessarily superior to the *chashi*, coolie, *majur*, *mistri* and all other manual workers. Let the members of the so-called "educated class" place their hands on their breasts and compare their character as sons and daughters, as parents, as uncles or aunts, as guardians, as nephews and nieces with those of the cultivators, factory workers, independent handicraftsmen. It is impossible to assert that the peasant as a class in his moral obligations and sense of duty towards relatives and kinsfolk as well as to the neighbours, lives on a lower plane than members

of so-called educated class. In regard to other functions of moral life also we can institute a comparison and we shall come to the conclusion that in regard to the activities involving money matters, the engineer, the contractor, the schoolmaster, the land-owner, the factory director and others do not as a rule enjoy an enviable position such as might give points to the members of the unlettered classes. We can take other items of private and public morality and we shall find that in criminal statistics, the *chashi*, the *mistri* and the *majur* do not figure oftener and in larger numbers, proportionally speaking, than do men and women of the so-called superior classes.

These discoveries, based on the experience of a very large number of public workers and scholars, lead us inevitably to the proposition that the illiterate is not a person who deserves to be differentiated from the so-called educated as an intellectual and moral being. And on the strength of this discovery we are prepared to formulate a doctrine which should counteract the superstition that has been propagated in Eur-America and later in Asia as well as of course in India to the effect that literacy should be the basis of political suffrage. Our observations entitle us to the creed that political suffrage should have nothing to do with literacy. The illiterate has a right to political life and privilege simply because of the sheer fact that as a normal human being he has factually demonstrated his intellectual strength and moral or civic sense. The rights of the illiterate ought to constitute in social psychology the foundation of a new democracy. A universal suffrage independent of all considerations as to school going, ability to read and write, or other tests should be the very first postulate of social economics. Those of our countrymen who are equipping themselves for the task of conducting the movements of the Bengali people have been somewhat disabusing their minds of the pretensions of schools and colleges in regard to their contributions to political preparedness. It is because the claims of the intellectual ability as well as of the moral worth of the millions of unlettered men and women of Bengal are being objectively considered and appraised in a proper manner that the Bengali people has been successful in opening a new creative chapter in the history of its societal energism.

It is not easy to contribute to the solution of the legal questions bearing on the definition of the "scheduled castes." Nor is it always possible to suggest to the party leaders the ways and means of bringing about solidarity between the classes, castes, creeds and communities.¹⁴³

¹⁴³ Joint Committee on Indian Constitutional Reform: *Report* (London 1934), pp. 66-68, 108.

The thought that is uppermost in a scientific study of population questions with reference to qualitative improvement is of a non-legal, non-political and non-party character. Our observations may be offered as hints for further and intensive investigation to the students of economic and cultural expansion as well as to all those inquirers who are interested in the facts and theories of progress.

The non-higher castes, scheduled or unscheduled, subject, as they are, to varying doses of repression, have begun to rise. It is time for the alleged higher castes,—the Brahman-Kayastha-Vaidya,—to approach the problems of this rise with new heads and new hearts. The Brahmanocracy will have to get oriented to a new order of social facts and developments.

There is a tendency in certain quarters of Bengal to rest assured that there are no "depressed classes" in Bengali society. It is necessary, therefore, to observe at the outset that every human being who for one reason or other feels that he is being discriminated against because of birth is a depressed creature. Whatever be the law, whatever be the schedule, whatever be the tradition, and whoever be the makers of the law, the schedule and the tradition, the fact of discrimination is a moral and spiritual grievance of the highest order. And every body who feels aggrieved belongs to the depressed.

The anthropological verdict of world-culture is positive. The alleged lower race or class of today has turned out to be the superior race or class of to-morrow. The decline and fall of the high has not implied the decline and fall of civilization.

Even if all the Hindu seats in the Council and the Assembly, then, were made over to or independently captured by those who belong to the non-higher castes, nay, to be very extreme and ultra-radical, even if the few millions belonging to the alleged higher castes were to be physically extinct,—an assumption, of course, which it is impossible to realise except perhaps through geological catastrophes,—the culture and wealth of Bengal would not be endangered but continue to flourish. Our position in regard to race or class extinctions has already been made clear in the examination of Lapouge and Ammon's conclusion (p. 73). In a reasonable way of looking at things there should be no room for economic, political, social or cultural scares of any sort as regards the consequences of an eventual predominance of the "scheduled" and other "depressed" classes. It is utterly unscientific to assume a cacogenic or dysgenic predominance in the upheaval of the alleged "lower" castes or classes.

The "communal award" of Manu, Yajnavalkya, Raghunandana and others had sanctioned the disfranchisement of the teeming millions of the

population. The culture-bearing stocks and strains of the hydra-headed multitude were generally overlooked by those lawgivers. But under the regime of new legal institutions and economic transformation in recent times certain individuals belonging to those disfranchised classes of centuries have succeeded in demonstrating to the world that they are capable of being at a par with individuals of the privileged classes in brain, character and self-sacrifice. The eugenic postulates, hypotheses, axioms and foundations of the new social order may therefore not turn out to be less fruitful and creative than those of the old.

Literacy has been spreading and is going to spread if not adequately, at any rate, to some extent among all the castes and classes. This expansion is sure to influence the college and the University atmosphere. The achievements of the "non-higher" castes in the arts and sciences are tending to acquire larger and larger proportions. Their impact on the Government services, legal profession and clerical jobs in mercantile firms and railways and other offices is also to be taken for granted. These traditional avenues to cultural, political and social advance belong to every system of reconstruction as a matter of course.

Among the social processes such as are likely to call forth the play of eugenic forces and the assertion of good biological stocks and strains among the poorer and "lower" classes or castes in the next generation may be mentioned likewise the economic betterment and the elevation of the standard of living which the Government expenditure of Rs. 1,600,000 on rural reconstruction (Rs. 10,000,000 for All-India) is expected to promote (p. 59). The establishment of union board dispensaries, the improvement of rural water supply, drainage and flushing schemes, the establishment of seed and crop demonstration centres, the introduction of agricultural training in certain secondary schools, the provision for village libraries, and plans for the marketing of jute and paddy,—all these socio-economic, "socialistic" and etatistic measures envisaged in the programme of 1936 affecting as they do the physique and *morale* as well as surroundings of the unknown races and classes should not be treated by students of sociology as exclusively "environmental" or "social" in their bearings. It is through the setting up of such environmental conditions and social institutions and machineries that the biologic-genetic forces are going to be generated for the progress of the teeming millions. In regard to India as to other countries the student of social science is called upon to admit once more the great reality that factual socialism and positive or constitutional democracy are two of the most profound eugenic agencies in the destiny of mankind.

The Brahmanocracy of old, as established by Manu and his predecessors and successors, was based on twofold foundations. *Janma*

or birth was only one of the foundations of that social polity. The other foundation was *samskāra*, "initiation," education, nurture, etc. It is erroneous to ascribe a birth-monism to Manu and his peers, coming as they did down from the sociologists of the *Aitareya Brāhmana*. The *theory* of that social philosophy and societal organization was essentially right. That theory has worked well not only in India but virtually in entire Asia and Eur-America as well. Today also that philosophy and that organization are pragmatically found to be working well, on the whole. Only, Manu requires to be modified and expanded. The facts of history have gone on modifying and expanding Manu through the ages, often unconsciously, of course, both in the East and the West. At the present moment what is urgently needed is a conscious and deliberate modification and expansion to suit the incorporation and assimilation of myriads of untried and half-tried groups of men and women. It is this enlargement of Manu that is being consummated through social idealism, political franchise, educational expansion and economic planning, such as are embodied in the diverse efforts of what may be called the "new Brahmanocracy." Eugenics has found powerful allies in the *Swadeshi* movement, nationalistic activity, socialism and, curiously enough, even communal award. The detection of sound eugenic forces in these and allied measures ought to be appraised as a great achievement of contemporary sociology and population science.

The Bengali Religion of World-Conquest

The religious reconstructions and general spiritual reorientations among new races and classes constitute likewise some quality-promoting forces in human society. The population science of today, directed as it is on the one hand to the campaign against overpopulation and on the other to that against race-deterioration cannot afford to overlook these formative agencies in the diverse regions of the world. Religious monism is by all means to be avoided by the sociologist as all other monisms. But the emergence of a new cult, the ascendancy of an inspiring thought-disturber, the propagation of a burning enthusiasm in favour of certain modes of life and thought among an increasing number of men and women, these items of sociography point inevitably,—along with other factors,—to the creation of new culture-zones and the establishment of new radiation-centres for life and thought. Even if the olden culture-zones be exhausted and the historic radiation-centres be extinguished the appearance of new ideals, faiths, cults, heroes, prophets, sects, congregations and orders, may be depended upon as furnishing aids to the remaking of human personality and the reconstruction of civilization.

For sometime it has been the custom to believe that from Rammohun (1772-1833) to Gandhi, i.e., during the nineteenth and twentieth centuries creative India has taken interest solely or chiefly in matters economic, political or educational. It would be wrong to appraise the creations of modern India as having reference to these fields only. There are other aspects of life and other interests of culture, and to these also the Indian mind has addressed itself during the last four or five generations. The creations of modern Indian culture in these other fields are apt continuations of ancient and medieval, and by the world-standard of today also they would be found to be as humane, as edifying and as ennobling as anything of *le monde des valeurs* in the two Hemispheres. We are talking of the contributions of modern India to spirituality, moral life and religious experience, and in this connection would like to single out Ramakrishna (1835-86), the Bengali saint, who is now a world-figure as the *guru*, preceptor and maker of Swami Vivekananda (1863-1902).

At the outset it is necessary to observe that Ramakrishna was a worshipper of Kali and professionally a priest in a temple. His book-learning was limited and he knew as little of geology or the binomial theorem as the man in the moon. Besides, he did not think in terms of social reform, political advancement, industrial reconstruction, or things like that. Neither the category, "world-forces," nor the category, "nationalism," would have conveyed any meaning to his life. And yet his *Kathāmrita*, "the nectar of words" (1882-86), has turned out to be the most dynamic social philosophy of the age, and this has created for him a position of one of the greatest "remakers" of mankind.

Worshippers of Mother Kali or Tantrists in Bengal are legion. But not every Mother-worshipper or Tantrist sings, talks or practises alike. There was Ramaprasad in the eighteenth century in whose *Malsi* songs addressed to Kali we encounter the genuine devotee's concentration on the "inner self," the purification of thoughts and actions. Rituals, pilgrimages, and all the external paraphernalia of religious life are held as of hardly any worth in this kind of thought. It is this type of positivism as embodied in attention to individual character that is the most marked feature of Hindu folk-morality. A modern Tantrist, Ramakrishna, devotee as he is of the Divine Mother, strikes quite another note in his messages.¹⁴⁴ "As the same sugar," says he (No. 690), "may be made into various figures of birds and beasts, so one sweet Divine Mother is worshipped in various climes and ages under various names and forms. Different creeds are but different paths to reach her."

144 *The Teachings of Sri Ramakrishna* (Advaita Ashrama, Calcutta, 1934).

It is to be understood that indifferentism to externals as well as the appreciation of other faiths, in one word, the toleration of every form, positive or negative, in matters religious and spiritual, have come down from the earliest times to our own days. This explains why it is extremely difficult for the exponents of new faiths to conquer Hindu India with messages alleged to be unknown to the Hindus. In spite of the thousand and one rites and ceremonies attended with the folk-religion or folk-religions of the Hindus, the unity of the Godhead furnishes the bed-rock of popular intelligence and "collective conscience," to use an expression from Durkheim, Lévy-Bruhl and Bouglé.

The positivism of Ramaprasad is continued by Ramakrishna also. "Travel to all the four quarters of the earth," says this Master of the middle of the nineteenth century in a categorical manner (No. 663), "you will find nothing (no true religion) anywhere. Whatever there is, is here (he said, pointing to his heart)."

It is wrong to believe that all this is much too high a philosophy or metaphysics for the masses such as are used to the folk-gods, folk-rituals and folk-festivals. Should religious reform or social reform be said to imply insistence less on the forms of religion, images, conventions, etc., and more on its spirit, such reforms have been propagated in India all through the ages for the folk in folk-language and by the persons born and bred among the folk. Ramaprasad and Ramakrishna are but two of the modern exponents of this *norm-cum-reform* in Hindu folk-spirituality.

It is in the language of the folk that Ramakrishna administers the following bit of folk-logic (No. 781): "My strength is all-sidedness. I would like to enjoy fish, for instance, in a variety of ways,—fried and boiled, made into soup, pickled, etc. I enjoy the Lord not only in His unconditioned state of Oneness, as unqualified Brahman in *samadhi* but also in his various blessed manifestations." The power of Ramakrishna over the folk-mind can be easily guessed from such statements.

Ramakrishna's messages are pervaded by the milk of human kindness. He has his own conception of morality and spiritual life. But he is realistic and shrewd enough to recognise the distinctions between individuals, and his programme for the remaking of man knows how to adapt itself to the requirements of each. "The worship from fear, e.g., of hell fire," we are taught (No. 387) "is intended for the beginner. Some people look upon the sense of sin as the whole of religion. They forget that it marks only the earliest and lower stage of spirituality." In his judgment "there is yet a higher ideal, a higher stage of spirituality, viz., the love of God as our own Father or Mother." It is this personal nexus, the human touch, between God and the individual that Ramakrishna

emphasises in season and out of season. To be able to conceive such a direct *liaison* in these matters constitutes by itself a revolution of capital importance.

The teachings of Ramakrishna are pregnant with catholicity and the spirit of universal freedom. "As you rest firmly on your faith and opinion," runs his advice (No. 564), "so allow others also equal liberty to stand by theirs." A precept like this is intended especially perhaps for the "high-brows," the lovers of *vitandā* (discussion), the disputants. And armed with a methodology like this his disciples can exercise their *charaiveti* (march on), undaunted and in a dare-devil manner. Here we have the doctrine of a self-conscious pluralism such as would afford "the other fellow" also a chance for self-assertion and create opportunities for an open-air intellectual tug-of-war at mutual convenience.

To Ramakrishna vacillation is a sin, weakness is a sin, procrastination is a sin. In the very manner of Sakya the Buddha expounding the cult of *appamāda* and *virīya* Ramakrishna teaches Young Bengal the value of great and noble thoughts as follows (No. 518): "Many with a show of humility say, 'I am like a low worm grovelling in the dust.' Thus, always thinking themselves worms, in time they become weak in spirit like worms." Ramakrishna would not allow anybody to cultivate such dehumanizing, ignoble and demoralizing thoughts. "Let not despondency ever enter into thy heart," says he, "despair is the great enemy of progress in one's own path." His burden is as follows: "As a man thinks, so he becomes."

He is the enemy of humility, cowardice-promoting as it is, genuine or counterfeit. It is the mind on which he works. The objective of his spiritual conversations is the transformation of the mental processes along channels of strength, courage and hope.

"The bondage is of the mind," says he (No. 516), "freedom is also of the mind. If thou shouldst say,—'I am a free soul, I am the son of God, who can bind me?'—free thou shalt be." Ramakrishna's pedagogics is nothing but a steady and comprehensive play upon the mind. As we have already observed, he does not talk much of social reforms, moral propaganda, plans of national reconstruction or the like. It is the transformation of the mind in which he is almost exclusively interested. For he is convinced (No. 514) that "the mind is everything. If the mind loses its liberty, you lose yours. If the mind is free, you are free too." In the *milieu* of such Kantian, Fichtean or Renouvierian messages bearing on the mind and its freedom, coming as they did from the lips of a man whose school learning hardly went beyond the three R's, one can easily understand why the "high-brow" Universitarians, equipped as they were with Kant, Fichte, Hegel and others, felt like pigmies, and

"fools who came to scoff" remained but to pray. Ramakrishna is the philosopher, as Gaston Richard (*Sociologie et Métaphysique*) would say, of *l'autonomie, la responsabilité individuelle, and la valeur de la personnalité*.¹⁴⁵

Fichte's attitudes are well-known. Writing in 1808 for Young Germany he said: "*Euch ist das grössere Geschick zuteil geworden, überhaupt das Reich des Geistes and der Vernunft zu begründen* (To you has been assigned the greater destiny, namely, that you have to establish the Empire of the spirit and reason), *und die rohe körperliche Gewalt insgesamt als beherrschendes der Welt zu vernichten* (and that you have to annihilate the raw physical power as a determinant of the world)." It is this supremacy of the spirit and reason, and the emancipation of the mind from matter, or rather the mind's dominion over the world that constitutes the *Leitmotif* of Ramakrishna's sayings.

Nothing but strong determination and doggedness can please Ramakrishna's soul. It is the strenuous and tenacious young men that he would like to see around himself. And for them he has propagated one soul-inspiring motto. They are to say all the time (No. 504): "I must attain perfection in this life; yea, in three days I must find God, nay, with a single utterance of his name, I will draw Him to me." Such is the creed of individual self-discipline preached by Ramakrishna in the interest of the remaking of youths.

Hollow formalism can have no place in Ramakrishna's thought. "What is the good of merely repeating the word *Shivoham* (I am Shiva or God)?" he asks (No. 413), "It is only when one, by perfect meditation on the Lord in the temple of one's heart, has lost all idea of self and realized the Lord Shiva within, that one is entitled to utter this sacred word. What good can the mere repetition of the formula do without the realization?" We are to understand that this attack on "words, words, words" is delivered as much against the Hindus of all denominations as against Christianity, Islam, Buddhism and all other faiths, great or small, in the interest of sincerity and spirituality.

Lectures on eternal verities like God and the soul, howsoever popularly delivered, or on the denunciation of *Kāminī* (woman) and *Kānchara* (gold or wealth), howsoever well-meaning they be, may leave in the long run hardly any impression upon the worldly-minded man. He needs a definite prescription for his daily life. Everybody in the two Hemispheres has often asked the question as to how it can be possible to harmonize God and the world. Ramakrishna's homely recipe is as follows: "Look at the carpenter's wife," says he (No. 252), "how many

145 *Reden an die Deutsche Nation*, Lecture XIV.

things she is doing at once! With one hand she stirs the flattened rice in the mortar of a *Dhenki*, with the other hand she is nursing her child, and at the very same time she bargains with a purchaser about the rice. Thus though her occupations are many, her mind is fixed the while on one idea that the pestle of the *Dhenki* shall not fall on her hand and bruise it." The moral is self-evident. We are taught to be in the world but "always remember Him and never go astray from His path."

Ramakrishna's messages do not therefore compel everybody to renounce house and home, family and property. His followers are not all *Sanyāsins*, *Sādhus*, and *Swāmis*. He is the teacher of house-holders, —businessmen, lawyers, clerks, cultivators, and others,—as well. In spite of his perpetual emphasis on the soul and communion with God Ramakrishna has thus succeeded in becoming one of the most influential expounders of positivism and secular endeavours. In this synthesis of the transcendental and the positive he is but a chip of the old Hindu block coming down from the Vedic, and perhaps still earlier times. And it is on the strength of this synthesis, again, that his Narendra the Vivekananda thundered a Young India into being, the India of economic energism as well as of spiritual creativeness, of material science and technocracy as well as of self-control and social service.

As a student of world culture and the creations of modern India it is possible to call the attention of scholars to Swami Vivekananda as one of the World-Conquerors of our own times. More than two decades ago (1912-13), even when the Vivekananda movement was in its infancy, the present writer¹⁴⁶ ventured to foresee that the moral and spiritual values in the transcendental experiences of Ramakrishna and the self-control, self-sacrifice and social service personified in the men and institutions of the Ramakrishna-Vivekananda complex were destined to constitute the living religion of our country, of our masses and classes, during the present century. In those contexts Vivekananda was described as the Carlyle of Young India and credited with the gospel of Napoleonic energism and triumphant defiance of the West.

It is indeed possible to talk an entire encyclopaedia about Vivekananda's messages and activities. Physically of athletic build, healthy and strong as a mere man, he knew, to be very realistic, how to do justice to the daily meals. He was a lover of art, a poet, a musician and a singer. *Wanderlust* was in his very blood. He knew every province of India by travel and he was a world-tourist. Men and things he knew how to observe shrewdly.

¹⁴⁶ *Vishva-Shakti* (World-Forces), Calcutta, 1914 (first published in the *Grihastha*, Calcutta, 1913).

A first-rate orator, he was a writer of the same rank. Bengali literature he has enriched with vigor and Bengali language with expressions picked up from the streets. A researcher and a translator, he was no less a commentator and a propagandist. He knew the Buddhist teachings and the Christian Gospels as much as he knew his Hindu texts. His knowledge of Western institutions and ideals was no less extensive than his familiarity with those of Orient. He studied the antiquities as much as he came into contact with the modern realities.

He was deeply absorbed in religious preaching and social reform. His patriotism also was perennial and of the loftiest type. Nay, he was a socialist too. His socialism, however, was not Marxian, but rather romantic like that of, say, the Frenchman St. Simon.¹⁴⁷ Or rather, like Fichte, the father of the German youth-movement, and exponent of nationalism and socialism, Vivekananda initiated in India the cult of *Daivdra-Narayana* (God as the Poor). He was emphatically a nationalist and yet a fervent internationalist. His comparative methodology served to establish the universalistic, cosmopolitan and humane basis of all religious and social values.

As one dying at the age of forty and accomplishing so much for his fatherland and the world, Vivekananda was certainly an *Avatar* of youth-force. One may adore him as a man of action, as a man of self-sacrifice, as a man of devotion, as a man of learning, as a man of *Yoga*. He was a hundred per cent idealist, a thoroughgoing mystic, and yet he was a foremost realist and a stern objectivist.

If we look upon Ramakrishna as the Buddha of our times, Vivekananda may pass for one or other of the great apostles of yore, say, the scholar Rahula, the constitutional authority Upali, the devoted lieutenant, Ananda, the sage Sariputta, or the master of discourses, Mahakachchayana. One can almost say that Vivekananda was all these great Buddhist preacher-organizers boiled down, as it were, into one personality.

And yet when this whole encyclopaedia has been said about Vivekananda, we have not said all or enough. He was much more than a mere exponent of Vedanta, or Ramakrishna, or Hinduism, or Indian culture. Antiquarian lore, translation of other persons' thoughts, past

¹⁴⁷ C. Bouglé: *Socialismes Français* (Paris 1933); J. Baxa: *Einführung in die romantische Staatswissenschaft* (Jena 1923); Bonar: *Philosophy and Political Economy* (London, 1893); R. R. Ergang: *Herder and the Foundations of German Nationalism* (New York 1931).

or present, popularization of some Hindu ideals did not constitute the main function of his life. In all his thoughts and activities he was expressing only *himself*. He always preached his *own* experiences. It is the truths discovered by him in his own life that he propagated through his literature and institutions. As a modern philosopher he can be properly evaluated solely if one places him by the side of Dewey, Russell, Croce, Spranger, and Bergson. It would be doing Vivekananda injustice and misinterpreting him hopelessly if he were placed in the perspective of scholars whose chief or sole merit consists in editing, translating, paraphrasing or popularizing the teachings of Plato, Ashvaghosha, Plotinus, Nagarjuna, Aquinas, Samkaracharya and others.

Vivekananda's lecture at Chicago (1893) is a profound masterpiece of modern philosophy. Before the Parliament of Religions this young Bengali of thirty stood as an intellectual facing intellectuals, or rather as a whole personality face to face with the combined intelligence of the entire world. And the impression left by him was that of a man who told certain things that were likely to satisfy some great human wants, as one who thus had a message for all mankind. There he shone not as a propagator of Vedanta or Hinduism or any other traditional "ism" but as a creative thinker whose thoughts were bound to prevail.

What, then, is Vivekananda's self? What is the personality that he expressed in this speech? The kernel can be discovered in just five words. With five words he conquered the world, so to say, when he addressed men and women as "Ye divinities on earth!—Sinners?" The first four words summoned into being the gospel of joy, hope, virility, energy and freedom for the races of men. And yet with the last word, embodying as it did a sarcastic question, he demolished the whole structure of soul-degenerating, cowardice-promoting, negative, pessimistic thoughts. On the astonished world the little five-word formula fell like a bomb-shell. The first four words he brought from the East, and the last word he brought from the West. All these are oft-repeated expressions, copy-book phrases both in the East and the West. And yet never in the annals of human thought was the juxtaposition accomplished before Vivekananda did it in this dynamic manner and obtained instantaneous recognition as a world's champion.

Vivekananda's gospel here is that of energism, of mastery over the world, over the conditions surrounding life, of human freedom, of individual liberty, of courage trampling down cowardice, of world-conquest. And those who are acquainted with the trends of world-thought since the middle of the nineteenth century are aware that it was just along these lines that the West was groping in the dark to find a solution. A most formidable exponent of these wants and short-comings

was the German man of letters and critic, Nietzsche, whose *Als sprach Zarathustra* or the "Sayings of Zoroaster" (1885) and other works had awakened mankind to the need of a more positive, humane and joyous life's philosophy than that of the *New Testament*. This joy of life for which the religious, philosophical and social thought was anxiously waiting came suddenly from an unexpected quarter, from this unknown young man of India. And Vivekananda was acclaimed as the pioneer of a revolution,—the positive and constructive counterpart to the destructive criticism of Nietzsche.

There are very few men who have promulgated this doctrine of energism, moral freedom, individual liberty, and man's mastery over the circumstances of life. One was the German philosopher, Immanuel Kant, another was Vivekananda's senior English contemporary, the poet, Robert Browning. And among the ancients we have our great intellectual giants, the thinkers of the *Upanishads* and the *Gītā*.

The key to Vivekananda's entire life, his decade-long preparation down to 1893 and his decade-long work down to his death in 1902 is to be found in this *Shakti-yoga*, energism, the vigour and strength of freedom. All his thoughts and activities are expressions of this energism. Like our Pauranic Vishvāmītra or the Aeschylean Prometheus he wanted to create new worlds and distribute the fire of freedom, happiness, divinity and immortality among men and women.

In his life-work there is to be found another very striking characteristic. This consists in his emphasis on individuals, on persons, and in his attempt to harness energism to their thoughts and activities. Vivekananda may have ostensibly preached religious reform, social reconstruction as well as crusade against poverty. But it is the making of individuals, the training for manhood, the awakening of personality and individuality on which his whole soul was focussed. Everywhere he wanted men and women who were energetic, freedom-loving, courageous, and endowed with personality. The objective of his diverse treatises on *Yoga* is none other than the "chiselling forth" of such individuals as may be depended on as "divinities on earth," as persons who are determined to master the adverse conditions of life and to conquer the world.

Vivekananda deals in *Shakti-yoga*, human energism. It is above the region, the climate, the space, the environment, in one word, above Nature that he places man and his destiny. "Man is man," says he in London (1896), "so long as he is struggling to rise above nature."¹⁴⁸

¹⁴⁸ *The Complete Works of Swami Vivekananda*, Vol. II (1924), pp. 65, 104, Vol. V (1924), p. 323.

Again, "Man is born to conquer Nature and not to follow it." According to his "*sociologie des valeurs*," therefore, the whole history of humanity is a "continuous fight against the so-called laws of Nature, and man gains in the end. He, as it were, cuts his way out of Nature to freedom." It is to his ceaseless strivings, his continuous fights, the unbroken display of his energy that man owes his achievements, *vidyās*, *kalās*, arts, sciences, civilization and culture.

The words that are constantly on Vivekananda's lips are the *Upanishads* and the *Vedānta*. These philosophical documents of ancient India appeal to him simply because they can be utilized as texts of his own cult of *shakti*, energy, individuality and manhood. We may describe his philosophy as embodying the cult of Neo-Vedantism.

Lecturing at Madras in 1897 about "*Vedānta and Indian Life*" on his return from America and Europe, Vivekananda held forth on energism as follows:¹⁴⁹

"Strength, strength is what the *Upanishads* speak to me from every page.....Strength, O man, strength, say the *Upanishads*, stand up and be strong; aye, it is the only literature in the world where you find the word *abhih*, fearless, used again and again.....The *Upanishads* are the great mine of strength. Therein lies strength enough to invigorate the whole world. They will call with trumpet voice upon the weak, the miserable, and the down-trodden of all races, all creeds and sects to stand on their feet and be free; freedom, physical freedom, and spiritual freedom are the watchwords of the *Upanishads*. * * * * * Aye, this is the one scripture in the world, of all others, that does not talk of salvation but of freedom. Be free from the bonds of Nature, be free from weakness."

The philosophy of Vivekananda is therefore for the declaration of war against the "bonds of Nature," against the weakness engendered by geography,—the science of space and environment, regionalism and so forth. And since tradition, again, is nothing but environment in time, i.e., the despotism of the region or the space as solidified in history his doctrine of "continuous fights against Nature" makes of man a permanent soldier against the tyranny of tradition, history, established norms, usages and popular ideas or ideals, the *idols* of the market.

Nowhere can we catch this radical Man-above-Naturism or Man-born-to-conquer-Naturism of Vivekananda more effectively than in the following words of his "plan of campaign" described at Madras (1897). "For centuries," says he, "people have been taught theories of degrada-

tion. They have been told that they are nothing. The masses have been told all over the world that they are not human beings. They have been so frightened for centuries till they have nearly become animals." And again, "you have been told and taught that you can do nothing, and nonentities you are becoming every day." This is the tradition, the history, the custom, the environment, the social *milieu* that he condemns. Defeatism is not to find a place in his intellectual and moral system. As against this psychology, logic or ethics of decay, degeneration, downfall, his "societal planning" introduces the cult of courage, energy and hope, of life, conquest and expansion. "What we want is strength, so believe in yourselves," thus runs his recipe. "Make your nerves strong," he tells us, "what we want is muscles, muscles of iron and nerves of steel. We have wept long enough. No more weeping, but stand on your feet and be men." It is the man above Nature, the *Purusha* over *Praṅkṛiti*, that he understands. Accordingly, in his words, "it is a man-making religion that we want. It is man-making theories that we want. It is man-making education all round that we want."¹⁵⁰

Vivekananda is not the man to appreciate his great French contemporary, the sociologist Durkheim, to whom *la morale est pour nous un système de faits réalisés* (morality is for us a system of facts already realized). According to Durkheim the life of the individual is almost tyrannically "determined" by the "society," the *groupement professionnel*, the social *milieu*. He has, therefore, no interest in the question of *valeurs respectifs des états sociaux* (respective or relative values of the different social conditions).¹⁵¹ Vivekananda is the farthest removed from the man of "closed systems" or of settled facts. Like Gaston Richard,¹⁵² the powerful critic of Durkheim, Vivekananda is the

150 *The Complete Works*, Vol. III, pp. 223-24.

151 E. Lasbax: *La Cité Humaine* (Paris, 1927), Vol. II, pp. 5-13.

In *Leçons de Sociologie sur l'Évolution des Valeurs* (Paris, 1929) C. Bouglé discusses the limits within which and the sense in which Durkheim's doctrine of the society as the creator of ideals is valid, pp. 27-37. For the formulation of this doctrine see Durkheim: *Formes élémentaires de la vie religieuse* (Paris, 1912) as well as *Règles de la Méthode Sociologique* (Paris, 1904) in connection with the doctrine of *contrainte* (force or compulsion) as the formative factor in social phenomena.

152 *Sociologie et Métaphysique* (Paris, 1911) and *La Sociologie Générale et les Lois Sociologiques* (Paris, 1912); *Revue Internationale de Sociologie* (Paris, July, 1935), numéro exceptionnel consacré à M. Gaston Richard, pp. 44-45, 78-81, 88; W. E. Hocking: *Types of Philosophy* (New York, 1929), pp. 319-320, 446.

149 *The Complete Works*, Vol. III, pp. 237-238.

address of welcome on his return from the West, Vivekananda reminds Young Bengal of the story of Nachiketa in the *Kathopanishad*.¹⁵⁶ "I am superior to many," said Nachiketa, as we are aware, "I am inferior to few, but nowhere am I the last. I can also do something." It is the religion of self-confidence in the interests of action that Vivekananda promulgates, and he reminds the audience also that this creativeness of man is not conditioned by the circumstances, the social situations. He energizes the humblest and the poorest to the creative enthusiasm of Nachiketa. It is above Nature and social surroundings that man has to rise in keeping with Vivekananda's general philosophy. "The whole world has been made by the energy of man," says he, "by the power of enthusiasm, by the power of faith."

The glorification of the individual, the deification of the personality, which enables the man of the *Atharva Veda* (XII, 1, 54) to declare to Nature, "Mighty am I, Superior by name, upon the Earth, all-conquering am I, completely conquering every region," is the "ideal that creates the reality" in Vivekananda's psychology. His doctrine of Man-born-to-conquer-Naturism finds therefore its natural paraphrase in the message he delivered to the Bengali people as to All-India at that epoch-making Calcutta meeting. "We have to conquer the world," he declares, "That we have to! India must conquer the world and nothing less than that is my ideal. It may be very big, it may astonish many of you, but it is so. We must conquer the world or die. There is no other alternative. The sign of life is expansion; we must go out, expand, show life or degrade, fester and die. There is no other alternative."

Let us remember the year. It is 1897, seven or eight years before the Bengali "ideas of 1905" take a definite shape. Today in 1936 it is possible to observe objectively that among all the agencies that are contributing to the expansion of the intellectual horizon both in the East and the West, and the establishment of international *rapprochement* none is more substantial and profound as a world-force than the Vedanta Centres in the U.S.A., which, as is well known, have served to bring the men and women of America into friendly contacts with the men and women of India. Vivekananda's selection of New York as the nucleus of Vedanta propaganda in Eur-America nearly a generation ago possesses almost the same significance in the history of inter-racial relations as St. Paul's selection of the capital of the Roman Empire as the seat of his missionizing activity. Vedanta has been tending to break down the

¹⁵⁶ *The Complete Works*, Vol. III (1932), pp. 316, 319; cf. K. Haushofer. *Jenseits der Grossmächte* (Leipzig, 1932), p. 489.

distinctions between the modern peoples, and at the present moment, Americans and our countrymen are working hand in hand in diverse fields of social endeavour both at home and abroad. It has proved to be a powerful unifying force calculated to strengthen the foundations of world-peace.¹⁵⁷

The movement was pioneered by Vivekananda but it did not die with him. He has been lucky enough to be succeeded by a band of brilliant colleagues and disciples who have known how to continue and foster his work with whole-hearted devotion and energy. Until Vivekananda came upon the scene modern India's position in cultural trade with the rest of the world was almost exclusively "passive." We were virtually mere importers, nay, beggars. But with Vivekananda begins an epoch in which the men and women of India have been functioning also as active partners and creative colleagues in the spiritual commerce of mankind. Since then India has been not only importing but also exporting modern culture-goods of all kinds: literature, art, science, philosophy and religion.

This new gospel of energism, individuality and freedom is being propagated today by deed and by word in 94 centres throughout India, of which nearly a third is to be found in Bengal. There are twelve centres in the U.S.A. In 1932 a call came from Buenos Aires (Argentina) and a centre has been established there by one of the missionaries of the Ramakrishna-Vivekananda movement (Swami Vijayananda) as the nucleus of neo-Vedantic culture in Latin America.

Recently Europe also has been annexed to the movement. At Wiesbaden in Germany, in response to an invitation from a group of German scholars interested in philosophy, a study circle has been established in 1933. In the work done by the missionary (Swami Yatiswarananda) who has been deputed by the headquarters at Belur (near Calcutta) German intellectuals can detect the family likeness of the philosophical idealism such as is embodied in the greatest thinkers of their race, namely, Kant, Fichte, Hegel and Schopenhauer.

In 1934 the British Isles came likewise to be interested in the study-circles conducted by a missionary of the movement (Swami Avyaktananda). At the present moment it is possible to announce the publication of Spanish, French and German editions of some of the works by and about Ramakrishna and Vivekananda.

It is necessary to add that in Indian centres this neo-Vedantism manifests itself, among other things, in the social service activities of all

¹⁵⁷ Cf., for instance, the liberal attitude in W. E. Hocking (editor): *Rethinking Missions* (New York, 1932), p. 28.

sorts from the *ārogyadānam* (health-gifts), i.e., dispensary and hospital work as described in Hemādri's *Chaturvarga-chintāmani* (c. 1300 A.C.) down to night schools, industrial training, farming, girls' homes, rest-houses, refuges for invalids, as well as famine, flood, fire and tornado relief, etc. Preaching and publication belong to the system as a matter of course.

From the Mohenjo Daro culture of the Indus Valley to the neo-Vedantic positivism of the Gangetic Delta of today world-culture and humanity have been experiencing the *charaiveti* (march on), i.e. *l'exubérance de vitalité*¹⁵⁸ of Hindu energism. It is but the six thousand year old Indian tradition of *digvijaya*, world-conquest, and elevation of the most diverse races and classes to soul-enfranchising ideals and activities that Vivekananda and after him the Swamis of the Ramakrishna Order have been pursuing under modern conditions, thereby exhibiting the virility and strenuousness of Hindu humanism and spirituality.

For the present, it is not necessary to be archæological or anti-quarian and look back to the past. It is enough for the qualitative science of population to note that an historically young and new race, as the Bengali undoubtedly is, has been furnished with a dynamic religion which has arisen out of the folk in very recent times and that it inspires the men and women to the creation of new values in hope, courage and exertions as well as to embark upon a career of world-conquest. While perhaps not ignoring the claims of the historic races, classes and regions the sociology of population, especially eugenics, will then be well advised to investigate also the culture-promoting activities, ambitions, *mores*, ideologies, religions etc., among the unknowns and half-knowns of today.

The Sociology of New Epochs in World-Culture

In material culture, arts and sciences as well as religious inspiration the rise of the Bengalis in recent times is, like that of the Japanese, but another testimony to the possibilities of world-progress being accomplished by races or peoples such as are comparatively young and traditionless. In regard to the Bengalis as to the Japanese it is worth observing that their achievements in the past were not characterized by palpable creative

¹⁵⁸ E. Lasbax: *La Cité Humaine* (Paris), Vol. II (1927), p. 219; P. S. Reinsch, *Intellectual and Political Currents in the Far East* (Boston, 1911); P. T. Hoffmann: *Der indische und der deutsche Geist von Herder bis zur Romantik* (Tübingen, 1915); The present author's *Futurism of Young Asia* (Berlin, 1922); H. v. Glasenapp: *Indien in der Dichtung und Forschung des deutschen Ostens* (Königsberg, 1930).

influences on the life and thought of their neighbouring races or peoples. From the Mohenjo Daro epochs (c. 3500 B.C.) down to the beginnings of the nineteenth century it was the rôle of the Bengali people mainly but to assimilate the creations of the non-Bengali races and peoples. The instances of the Bengali people as having left the solid marks of their own creations on the culture of Northern, Western and Southern India as well as of "Greater India," i.e. in areas uninhabited by the Bengalis, during six thousand years were very few and far between. Emperor Dharmapala (c. 800 A.C.) with his exploits at Kanauj, Atisa, the scholar-saint of Tibetan fame (c. 1100), and Chaitanya (1485-1533), the apostle of Vaishnava faith, with influences in Orissa and Assam may perhaps be considered to be some of the Bengali creative forces such as happened to possess extra-Bengal dominion of one form or other.

In the nineteenth century, then, the Bengalis were at bottom one of the youngest races of India. The Ramakrishna-Vivekananda movement (1835-1902) represents a very significant landmark in Indian culture, inasmuch as it started the Bengali people virtually for the first time on to what may be regarded as a career of *charaiveti* (march on) and world-conquests. A Bengali period of culture-history was thus seen to be in the making. It is in the *Swadeshi* movement of 1905 that the new social forces engendered by the Bengali people got recognized as a power among the powers in the world of culture. An interesting chronological coincidence,—but which points to the same sociological agencies as the birth of Young Bengal—is the simultaneous recognition of Japan as a world-power in the political and military fields. For the qualitative and racial investigations into population questions the students of demography and eugenics will then discover in the emergence of the "unhistoric", "traditionless" and "unknown" Japanese and Bengali peoples, as associated with the "ideas of 1905,"¹⁵⁹ profound "world-disturbers" such as are calculated to unsettle the settled dogmas and pioneer more fruitful doctrines in the problems of human progress and race-betterment. Present-day Bengal, like modern Japan, furnishes us with the sociological data bearing on new epochs or the beginnings of fresh epochs in world-culture.

The beginnings of new epochs such as can be seen in the Japan and Bengal of "our own times" are but paralleled by such phenomena in the socio-cultural conditions of the German people during the period (1744-1835), say, from Herder to Humboldt. It was then that for the first time German culture, still relatively "young" and "unknown" as it was, commenced its career of "world-conquests." The sociology of such beginnings deserves intensive research from demographers as well

¹⁵⁹ The present author's *Futurism of Young Asia* (Berlin 1922).

as eugenists with a view to throwing more light on the problem of progress.¹⁶⁰

New epochs have very often been started by "races" or "classes" which from the platform of the dominant races or classes, i.e., the *élites* of the age, were declared in so many words to be "inferior," worthless, semi-civilized, "dysgenic," "unfit" or incompetent. It is in such beginnings of new epochs in world-culture among the alleged "inferior" races or classes of the day that we find objectively and historically disproved the chauvinistic contention of Lapouge in his paper on *La Race chez les populations mélangées* presented at the Second International Congress of Eugenics (New York 1921). In his judgment *les blancs* (the whites) and *les riches* (the rich) were pronounced to be identical with *les éléments intellectuellement supérieurs* (the intellectually superior elements) and their work with *la civilisation elle-même* (civilization itself).

It is time for the sciences of population and sociology to get emancipated from the unthinking proneness to establishing such equations between cacogenic (or dysgenic) factors and the "untried" (or "unhistorical") races on the one hand and the poorer and "lower" classes on the other. The scare propagated by Lapouge, Leonard Darwin and other eugenists to the effect that the age of the rise of the "races" that are known to be "inferior" and of the poorer "classes" is tantamount to the epoch of *la barbarie des contemporains du mammoth* (the barbarism of the contemporaries of the mammoth) or that "the nation as a whole is slowly and steadily deteriorating as regards its average inborn qualities" ought to have no place in positive or speculative science. For, neither the poor nor the young (or the unknown) can be postulated to be dysgenic *en masse*. Eugenic "fitnesses" or good, i.e., desirable stocks and strains are "widely distributed" among the diverse races and classes. The possibilities of progress may then be taken to be assured for mankind.¹⁶¹

160 E. Spranger: "Das Wesen der deutschen Universität" in *Das akademische Deutschland* (Berlin 1930), Vol. III; "Wilhelm von Humboldt" in *Research and Progress* (Berlin) July 1935. K. Francke: *A History of German Literature as Determined by Social Forces* (New York 1911); R. R. Ergang: *Herder and the Foundations of German Nationalism* (New York 1931). See also Popenoe: "Eugenics and Islam", A. B. Wolfe: "Eugenics and Social Attitudes", L. I. Dublin: "The Higher Education of Women and Race Betterment" in *Eugenics in Race and State*, Vol. II, (Baltimore 1923), being the Scientific Papers of the Second International Congress of Eugenics (New York 1921).

161 For two conflicting views see A. Loria: *The Psychophysical Elite and the Economic Elite*, a paper for the First International Eugenics Congress, London, 1912, and L. Darwin: *The Need for Eugenic Reform* (London 1926), pp. 318, 327 (Is the race deteriorating?). See also the present author's *Science of History and the Hope of Mankind* (London 1912).

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