I.P. Desai Memorial Lecture: 27

Population, Statistics and Governmentality

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Preface

We indeed felt privileged and nostalgic listening to Prof. Pradip Kumar Bose delivers the XXVI I. P. Desai Memorial Lecture. Prof. Bose, formerly a Professor of Sociology at Centre for Studies in Social Sciences, Kolkata, had worked as a faculty member at Centre for Social Studies, Surat during its formative and consolidating period from 1978 to 1990.

In his address, Prof. Bose has interrogated the mechanism of the modern form of the art of government. He emphasised the role of statistics which he considered as an ideology that shapes perception of society in a specific fashion. Statistics is used by government as it has the appearance of neutrality and impartiality. He further argued that with the support of statistics, politics has become increasingly mathematical as it has become medical. Bio-power involves the building up of profiles, statistical measures and so on, increasing knowledge through monitoring and surveillance and controlling through discipline. Birth and death rates and measures of longevity become important; poverty, fertility, illness, diet and habitation become measured; and statistics and demographics come together with economics and politics. Elaborating, he mentioned that emergence of industrial countries in the 20th century produced the distinction of citizens and population, wherein citizen carries normative burden, whereas population is identifiable and subject of policy. The regime secures legitimacy not by facilitating participation of citizens but by claiming to provide for the well-being of the population. Prof. Bose further added that census data gathered by colonial enumerators had influenced theoretical formulations, especially pertaining to institutions such as caste and religion. On the other hand, British rulers considered caste and religion as two sociological keys to understand and govern Indian people. Such information has been used then and even now for political purpose in the varied sense of the term. He made a crucial point that populations are produced by the classificatory, statistical schemes of governmental knowledge which is not bearing any inherent moral claim; likewise, citizenship that carries the moral connotation of sharing in the sovereignty of the state. Governmental information gathering exercise such as the census and surveys has two dimensions of being justificatory and disciplinary. Prof. Bose observed that the governmentality of state is interested in the health of the people in statistical terms, not existential terms.

The CSS is grateful to ICSSR for supporting the lecture. We express our gratitude profusely to Prof. Pradip Kumar Bose to come all the way from Kolkata to deliver the lecture. We are also thankful to Prof. Ghanshyam Shah for chairing the event. Prof. Satyakam Joshi and Dr. Sadan Jha provided great support in organising the lecture and copy-editing in publishing the lecture, respectively. I am grateful to them. And lastly, the CSS is immensely grateful to the citizens belonging to cross-sections of Surat city who have been regularly attending I P Desai lectures over the years in significant proportion.

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The Form of Laws

This paper is not about technical or computative problems of statistical methods, but it is a sociological discourse on the role of statistics in social sciences. The paper also attempts to investigate how statistics is employed by the state and how it has helped in determining the forms of laws about society and the character of social facts. It has generated concepts and classifications within social sciences. Moreover, the collection of statistics has given birth to extensive bureaucratic machinery. One may think that statistics only provides information, but the truth is that it is itself a part of the technology of power in the modern state.

Different schools of sociology assign different roles to statistics. In the early 1830s, August Comte wanted to give the name of 'social mechanics' or 'social physics' to his new science. But at about the same time, the Belgian statistician Adolphe-Jacques Quetelet (1796-1874) adopted the very same name for a new statistical science of mankind. Comte always resisted this, and coined the name 'sociology' just to get away from probabilities. But Quetelet was a great propagandist and eventually became the grand old man of a new 'science'. Today, we see that Quetelet triumphed over Comte: an enormous body of modern sociological thought takes for granted that social laws will be cast in a statistical form.

For long, it was thought that statistical laws are epiphenomena emerging from non-statistical facts at the level of individuals. By the 1890s, Durkheim held the opposite idea, urging that social laws act from above on individuals, with the same inexorable power as the law of gravity. Durkheim's innovation was to found his argument on the sheer regularity and stability of quantitative social facts about statistics and crime. From the time of Quetelet to that of Durkheim, social facts simply became facts that are statistical in character. In addition, there developed statistical

meta-concepts, of which the most notable was ‘normalcy’. It is no accident that Durkheim conceived that he was providing a general theory to distinguish normal from pathological state of society.

I do not want to argue that most applications of new statistical knowledge were evil. The social reformers of the Victorian era fought for better sanitation and better living conditions, backed by statistical enquiries. Statistical data do have certain superficial neutrality between ideologies. No one used the facts collected by the factory inspectors in England more vigorously than Marx. Yet, even Marx did not perceive how statistical bureaucracy would change the state.

The Character of Statistical Facts

It is generally understood by any student of social science that statistical techniques have been developed to describe coherently, not only the collectivity of life around us, but also to anticipate, or forecast, their recurrences in the future, which we express in terms of degrees of probability. The concept of quantitative methods, therefore, has been defined in two related terms: 1) the factual data themselves and 2) the methods, theories and techniques by means of which the collected descriptions are summarised and interpreted. I must also add here that the statistical method is not only a set of practicable techniques, but it is also an ideology which validates the use and application of the techniques. There are, of course, other views of nature besides the quantitative or statistical, as is evidenced by the opposition which this method has aroused in some quarters during its history, especially when applied to human or social behaviour. The nineteenth century moralists condemned this endeavour to reduce human behaviour to statistical regularities as a denial of the free will of man, as something which undermines the very foundation of personal responsibility and morality.

Adolphe-Jacques Quetelet (1796-1874), the Belgian statistician was among the first to apply these quantitative procedures to human behaviour in citing the constancy in the number of crimes

from year to year. This regularity, he asserted, could be used as a basis of probabilistic prediction – in the common place manner that automobile deaths are forecast for holiday weekends these days, and commented upon feelingly. Thus, it was claimed that we might enumerate in advance how many will be forgers, how many will be prisoners; we can even enumerate in advance the births and deaths that should occur. The English social historian Henry Thomas Buckle (1821-1862) caused some consternation by calling attention to the fact that year after year about 256 persons committed suicide. After pointing out that, among public crimes, none seems to be as completely dependent on individual impulse as suicide, he still observed that:

> It is surely an astonishing fact that all the evidence we possess leaves no doubt... that suicides are merely the product of a general condition of society, and that the individual felon carries into effect what is necessary consequence of preceding circumstances. In a given state of society a certain number of persons must put an end to their own life! (Buckle 1859: 20).

In other words, he held that it was proved by statistics that human actions are governed by laws that are as fixed as those occurring in the world of physics. Views such as these have prompted the critics to speak about ‘tyranny of numbers’, but at the same time, we should keep in mind the phenomena of ‘tyranny of words’, which is no less mischievous than the ‘tyranny of numbers’.

At this point, let us make a sober assessment of one of the most commonly used quantitative techniques, namely, statistics. Statistics has two very broad functions. The first of these functions is description, the summarising of information in such a manner as to make it more usable. The second function is induction, which involves either making generalisations about some population, on the basis of a sample drawn from this population, or formulating general laws on the basis of repeated observation. The descriptive statistics refers to the measurement and enumeration of the characteristics of population, property, institution and so on; on the

other hand, theoretical or probability statistics refers to methods used to infer from information about a sample to information about the population.

As mentioned before, nineteenth century statisticians like Adolphe Quetelet made extensive use of descriptive statistics and sought to construct an empirical science of society, the study of moral or social facts and social condition that caused them. Yet in general, Quetelet and the other administrators and reformers responsible for gathering descriptive social statistics during the nineteenth century limited themselves to immediate practical concerns, and did not construct general theories of history about the social processes they documented so comprehensively. Conversely, social philosophers like Comte and Spencer, if they used evidence at all, relied on comparative and historical methods in which qualitative material from historical and anthropological sources were used to arrange societies in an order of progression. The gulf between them was great. Indeed, as I have already mentioned, it was Quetelet's use of 'social physics' to describe his statistical science that led Comte to abandon that term in favour of 'sociology' in an effort to distance his highest positive science from mere statistics. And Durkheim criticised Quetelet's notion of the average man as being an inadequate indicator of social forces, because it confused the average of the properties of society's component individuals with the emergent properties of the collectivity.

Although it was quite common for political arithmeticians and moral statisticians to compare measures of different aspects of society and offer explanations of one in terms of the others, it was the British eugenicists who formalised the procedures of bivariate and multivariate analyses. Eugenics was the study of methods to improve the mental and physical abilities of the human race by choosing who should become parents. In an attempt to measure the degree to which a child inherits the characteristics of its parents, Francis Galton(1822-1911) introduced the coefficient of reversion symbolised by *r* and renamed the coefficient of

regression. This soon led him to the notion of the co-relation coefficient, or as he renamed it correlation coefficient, to measure the strength of relationship between two characteristics. They were refined and extended by Karl Pearson(1857-1936), who developed Galton's work by introducing *inter alia*, the ideas of multiple, partial, bi-serial, tetrachoric correlation, curvilinear regression and the chi-square test, as well as giving the modern name to many other statistical ideas, such as the mode, kurtosis, standard deviation, and homo- and hetero-scedasticity. Pearsons' and his students' techniques provided the formal tools with which to test empirically hypotheses about the relationship between social variables, relationships which otherwise could only be investigated in an informal way, as in the work of the nineteenth century moral statisticians, and as exemplified by Durkheim's *Suicide* (1897).

However, what is interesting is though these statistical advances were made in Britain, and explanatory random social surveys of the kind whose description now forms the core of many sociological research methods text, they did not become routine in Britain until after the Second World War, when they gained respectability from their widespread use in America. In the early twentieth century, the largely British developments in multivariate and inductive statistics that provide the rationale for this type of surveys were tainted by their association with the eugenics movement, which was opposed by those responsible for the institutionalisation of academic sociology. Eminent sociologist like L T Hobhouse (1864-1929) who was appointed to the first British Chair of Sociology in 1907 at the London School of Economics, objected strongly to attempts by the eugenicists to reduce the science of society to a part of the science of biology (Hobhouse 1911).

In America by contrast, the men who headed the new sociology departments that were founded during the rapid expansion of universities at the end of nineteenth century realised that academic acceptability depended upon leaving behind the spirit of liberal reformism that had inspired the creation of their

departments, and demonstrating instead that their discipline was scientific. This was particularly the case with Franklin Giddings (1855-1931) who held the chair at Columbia University from 1884. He was influenced by Comte, Spencer, Durkheim, Pearson and most notably by Mill. In his writings, he argued for sociology that closely followed Mill's methods, and he gave statistical analysis of precisely measured social facts a central place in social science. Under his leadership, Columbia University became the centre for training in the rigorous application of quantitative methods to sociological issues. Columbia students such as W F Ogburn (1886-1959) and F Stuart Chapin (1888-1978) were instrumental in professionalising American sociology around survey research and statistics of all types. Statistics was used to provide both the methods of inquiry to legitimise the scientific status of sociology and the standards of scholarship to exclude the propagators of unsystematic generalities in the nineteenth century tradition of social philosophy. This professionalism reached a peak in the studies of American army under the direction of Samuel A Stouffer (1900-60), a student of Ogburn who had worked with Karl Pearson and Ronald Fisher. The results were published in four volumes, of which the two-volume *The American Soldier* (1949) is best known. Stouffer was a sociologist and quantitative methodologist who, during the Second World War, directed research in the US War Department. His research there culminated in his most famous work *The American Soldier* which made a major contribution to social psychology and survey methodology, as well as developing the concept of relative deprivation.

The natural science of society, these new professionals maintained, would be value- neutral if emotion and prejudice were disciplined by the dispassionate and meticulous application of quantitative techniques to objective numerical data. But this aspiration, that quantitative techniques would provide the foundation of a value-free science of society, has constantly failed because the use of quantitative techniques in social inquiry and with it the notion of positivism that it carries – namely, a theory of knowledge according to which the natural science of sociology

consists of the collection and statistical analysis of quantitative data about society– have never been without controversy. All types of statistics have been challenged from a wide variety of standpoints that range from technical quibbles to epistemological quarrels.

The descriptive adequacy of social statistics, especially official statistics gathered by government agencies, has been found wanting because of measurement errors, which for some pose technical issues of estimating validity and reliability, but for others, especially sociologists influenced by ordinary language philosophy, undermine the empiricist conception of language upon which quantitative description is said to rely. The appropriateness of multivariate statistics has been questioned because, until the 1950s, it was only for interval-level data that measures of covariation were well-developed (other than Chi-Square for nominal data), whereas it was argued, most sociological data are ordinal-level data. Some maintain that this question has been answered by technical developments both in scaling ordinal data, that is, mapping it on interval measures such as Liekart and Thurstone scales and in devising an extensive family of ordinal-level covariation measures. Others argue that the question raises fundamental issues about the nature of causal relations in human sciences, issues that are left untouched (or whose solutions are pre-supposed) by sociologists' attempt to infer causality from observed correlations in non-experimental data through the introduction of causal or path-analytic models. The application of inductive statistics as means of generalising sample data has been controversial for a number of reasons. It is essentially about the meaning of probability and justification of induction.

Statistics and the Art of Government

Having discussed the role of statistics from the historical-sociological perspective, let us now examine the political dimension of the subject. In his celebrated lecture at the College de France entitled *Security, Territory, Population* (Foucault 2007), Michel Foucault points out that in Europe at the start of the

seventeenth century appeared a completely different description of the knowledge required by someone who governs. According to Foucault, what the sovereign or person who governs must know is not just the laws but those elements that constitute the state. That is to say, someone who governs must know the elements that enable the state to be preserved in its strength. Foucault claims that this implies the sovereign's necessary knowledge will be a knowledge of things rather than knowledge of law, and this knowledge of the state is precisely what at the time was called 'statistics'. 'Etymologically statistics is knowledge of the state, of the forces and resources that characterise a state at a given moment' (*ibid: 274*). For example: knowledge of the population, the measure of its size, mortality, birth rate; calculation of the different categories of individuals in a state and of their wealth; all such data, and more now constitute the essential content of the sovereign's knowledge. Foucault claims, hence it is no longer the corpus of laws or skills in applying them when necessary, but a set of technical knowledge that describes the reality of the state itself.

Technically, this knowledge of the state raised great many difficulties. It was easier for the smaller states to collect the information, but the task was not so easy in the larger states. Because of these technical difficulties, it was also necessary to think about an administrative apparatus that did not yet exist, but which would be such that it would be possible to know exactly what is taking place in the realm at any moment, and administrative apparatus which would not just be agent for executing sovereign's orders, or for raising taxes, wealth, and men needed by the sovereign, but one that at the same time would be an apparatus of knowledge, and here again, as an essential dimension of the exercise of power. An additional difficulty was the problem of the secrecy. The knowledge that the state must develop of itself carried the risk of losing some of its effects, if everyone were to know what was going on. In particular, the state's adversaries and rivals must not know the real resources available in terms of men, wealth, and so on, hence the need for secrecy. At the time, this was an explicit part of the 'reason of the

state' and known as the secrets of power, and for a long time, statistics in particular was considered secrets of power not to be divulged.

The new theory of the art of government was linked to a set of analyses and forms of knowledge that began to develop, according to Foucault, at the end of the sixteenth century; essentially knowledge of the state in its different elements, dimensions, and the factors of its strength, which was called precisely, 'statistics', meaning science of the state. Thus, the earlier theme of man and the social sciences came to be understood on the basis of the emergence of population as the correlate of power and the object of knowledge. Man was to the population what the subject of right was to the sovereign (*ibid*: 79). With the stress on the notion of *governing*, rather than earlier forms of rule, Foucault suggests that 'one never governs a state, never governs a territory, never governs a political structure. Those whom one governs are people, individuals, or groups' (*ibid*: 122). The question of population is a major contribution in Foucault's work, which we will discuss below.

In this context, Foucault draws our attention to the meaning of the word 'police' that was associated with the art of government. According to him, from the beginning of the seventeenth century, 'police' begins to refer to the set of means by which the state's forces can be increased while preserving the state in good order. In other words, police will maintain a stable and controllable relationship between the state's internal order and the development of its forces. Hence, police makes statistics necessary, but police also makes statistics possible. For it is precisely the whole set of procedures set up to increase, combine, and develop forces, it is this whole administrative assemblage that makes it possible to identify what each state's force comprises and their possibilities of development. Foucault writes: 'Police and statistics mutually condition each other, and statistics is a common instrument between police and the European equilibrium. Statistics is the state's knowledge of the state, understood as the state's

knowledge both of itself and also of other states. As such, statistics is the hinge of the two technological assemblages' (*ibid*: 315). In other words, the notion of population, which was in the process of taking the central position in all political life and political science elaborated through an apparatus that was installed in order to make reason of the state function. This apparatus was police.

In his lecture on security, territory, population, while speaking on governmentality, Foucault points out that the art of government found fresh outlets through the emergence of the problem of population. It was through the perception of the specific problems of the population that the problem of government finally came to be thought, reflected, and calculated outside the juridical framework of sovereignty. And 'statistics' now becomes the major technical factor of this new technology. The perspective of population renders possible the final elimination of the model of family and recentring of the notion of the economy. Whereas statistics had previously worked within the administrative frame and thus in terms of the functioning of sovereignty, it now gradually reveals that population has its own regularities, its own rate of death and diseases, its cycle of scarcity, etc. Statistics also shows that the domain of population involves a range of intrinsic, aggregate effects, phenomena that are irreducible to those of family, such as epidemics, endemic levels of mortality, ascending spirals of labour and wealth; lastly it shows that, through its shifts, customs, activities, etc., population has specific economic effects: statistics, by making it possible to quantify these specific phenomena of population, also shows that this specificity is irreducible to the dimension of family. In other words, prior to the emergence of population, it was impossible to conceive the art of government except on the model of the family. From the moment population appears absolutely irreducible to the family, the family becomes of secondary importance compared to population, as an element internal to population: no longer, that is to say, a model but a segment. This is the way, with the help of statistics, the theme of population unblocks the field of art of government. The

population also comes to appear above all else as an ultimate end of government. Interest considered as interest of the population regardless of what the particular interests and aspirations may be of the individuals who compose it, this is the new target and fundamental instrument of the government of population: the birth of a new art, or at any rate of a range of absolutely new tactics and techniques.

Observation and quantification are the two privileged methods of the politics of calculation. Mortality rates, birth rates, and the other mechanisms of modern demography along with influence of climate, dietary regimes on mortality, and other medical concerns, helped the emergence of population as a site of medical knowledge – distinct and yet dependent on the individual bodies that make it up. The population in this sense is more than merely the people in a particular area, but also individuals taken both as individuals and as a whole. The conditions of their existence, survival and well-being are controllable, but this is only possible with the control and surveillance of the population as a whole. Of course, well-being of the population will be assessed by statistical methods. Statistics will describe the population which has a birth rate, a rate of mortality, a population has an age curve, a generation pyramid, a life-expectancy, a state of health, a population can perish or, on the contrary grow. With the emergence of population and consequently the pivotal role of statistics, politics became increasingly mathematical as it became medical. Foucault calls this bio-politics of population. Birth and death rates and measures of longevity became important; fertility, death rates and measures of longevity were measured; statistics and demography came together with economics and politics.

Very precisely, we can ask what a population is. One way of interpreting the population is to judge it not as people. In this sense, population is a statistical category, neither the individual as singularity, nor the people as a whole. So when a dispositif of security deals with population, it establishes norms and categories, but does so statistically. Population is a political, economic,

scientific, biological problem; it is a problem of power. The new technology of power works on the bodies accumulated, as a multiplicity, a species.

The notion of population introduces several key things that will have broad effects on how the art of government is conceived, and will also enable its elaboration. First, it introduces a different conception of the governed. The members of population are no longer subjects bound together in a territory who are obliged to submit to the sovereign. They are also, by the end of the eighteenth century, living, working and social beings, with their own customs, habits, histories and forms of labour and leisure. Second, a population is defined in relation to matters of life and death, health and illness, propagation and longevity, which can be known by statistical, demographic and epidemiological instruments. Knowledge of a population in this sense is concerned with the specification of variations around the norms, themselves generated by statistical measures. Population itself is not simply a collection of living human beings, but a kind of living entity with a history and a development, and with possibilities of pathology. In the *History of Sexuality* (1978:139), Foucault uses the term 'species body' to designate this aspect of population and to distinguish a bio-politics of the population from an 'anatomo-politics' of the individual body. A third element of the notion of population follows from this view of the species body. It is a collective entity, the knowledge of which is irreducible to the knowledge that any of it members may have of themselves. It is also a collective with a history, customs, habits, and so on that need to be taken into account. The population is not just a collection of living, working and speaking subjects; it is also a particular objective reality about which one can have knowledge.

However, while the philosophical discussions on the rights of citizens in the modern state hovered around the concepts of liberty and community, the emergence of mass democracies in the advanced industrial countries of the West in the twentieth century produced an entirely new distinction – one between citizens and

populations. *Citizens* inhabit domain of *theory, populations* inhabit domain of *policy.* Unlike the concept of citizen, the concept of population is wholly *descriptive* and *empirical*; it does not carry a normative burden. Populations are identifiable, classifiable and describable by empirical or behavioural criteria and are amenable to statistical techniques such as censuses and sample surveys. Unlike the concept of citizen which carries ethical connotation of participation in the sovereignty of the state, the concept of population provides a set of rationally manipulable instruments for reaching a large section of inhabitants of a country as the targets of their policies. And this is how Foucault characterises the modern power as the 'governmentalisation of the state'. The regime secures legitimacy not by participation of *citizens* in matters of state but by claiming to provide for the well-being of the *population*. It is in this manner ideas of participatory citizenship, over the years, have retreated before the advance of governmental technologies that have promised well-being to more people at less cost.

In short, the classical idea of popular sovereignty, expressed in the legal-political idea of equal citizenship, produced *homogeneous construct of the nation*, whereas activities of governmentality requires different classification of population as targets of multiple policies producing a *heterogeneous construct of the social.* Here then, we have the antinomy between the lofty political imaginary of *popular sovereignty* and the mundane administrative reality of *governmentality*. It is the antinomy between the *homogeneous national* and the *heterogeneous social.*

The story of citizenship in the modern West moves from the institution of civic rights in civil society to political rights in the fully developed nation-states. Only then does one enter the relatively recent phase where 'government from the social point of view' seems to take over. Chronology is different in South Asia, technologies of governmentality here often predates the nation-state. In South Asia, the classification, description and enumeration of population groups as the objects of policy relating

to land settlement, revenue, crime prevention, public health, management of famines and droughts and host of other governmental functions, has a history of at least a century and a half before independent nation-state of India was born. The colonial state was what Nicholas Dirks called an 'ethnographic state'.

In adopting the technical strategies of modernisation and development, older ethnographic concepts often entered the field of knowledge about populations – as convenient descriptive categories for classifying groups of people into suitable targets for policy administration. In terms of the *formal* structure of the state as given by the constitution and the laws, all of society is civil society; everyone is a citizen with equal rights and therefore to be regarded as the member of the civil society. This is, however, not how the things work. Most of the inhabitants of India are only tenuously rights-bearing citizens in the sense imagined by the constitution. They are not, therefore, proper members of civil society and not regarded as such by the institutions of the state. But it is not as though they are outside the reach of the state or even excluded from the domain of politics. As populations within the territorial jurisdiction of the state, they have to be both looked after and controlled by various government agencies. These activities bring these populations into a certain *political* relationship with the state**.**

Colonialism, Population, Census

During the colonial rule, the British administrators invested a great deal of their resources in collecting systematic information about many aspects of Indian society and economy. The history of Indian Census must be seen in this context. From the early nineteenth century, the British tried to estimate the population of India. In addition to the estimates made in 1820s for the total population of India, the British continued in the 1830s and 1840s to try to determine the population of India. Most of the efforts were based upon the revenue surveys and were a by-product of attempts to map villages and lands. A full census of India was to have

attempted in 1861 but due to dislocations suffered by the rebellion of 1857-59, the census was postponed until 1871-72. A census was carried out in 1871 and 1872, but there were lot of discrepancies and inconsistencies in the information and there was much evidence of little cooperation from the population because of the fears that the census was for tax purposes. What I am trying to illustrate through this history is that even the colonial government devoted their skill and energy in collecting information about the population of India. It is interesting to note that British census officials always included in their reports accounts of rumours which were purported to circulate among the Indian population.

As we have already noted, the population was divided into heterogeneous segments depending upon one or multiple criteria and the heterogeneity of different population segments was represented through various statistics. Statistics, in a way, summarised the characteristics and distinctiveness of a population, which then became the target of governmental policy. The census of castes and tribes is an illustration of this. The effects of census operations on the politics of caste have been deep and far reaching. The census operations also fabricated the new consciousness about caste and legitimised the use of census for validation of claims to new status within the caste system. What influence did the census operations have on theoretical views which both administrators and social scientists developed about the Indian social system? Most of the basic treatises on the Indian caste system written during the period 1880 to 1950 were written by men who had important positions either as census commissioners for entire India or for a province. Among these were R E Enthoven, B S Guha, J H Hutton, L S SO' Mally, H H Risley and E Thurston. Those who were outside this circle but wrote important works on caste, like, G S Ghurye, C Bougle, J C Nesfield, and E Senart, also drew heavily on the materials generated by the census of India. Bernard Cohn has written: ''It would not be an exaggeration to say that down until 1950, scholars' and scientists' views on the nature, structure and

functioning of Indian caste system, were shaped mainly by the data on conceptions growing out of census operations'' (Cohn 1990:242).

Cohn mentions that it was felt by many British officials in the middle of the nineteenth century that caste and religion were the sociological keys to understanding the Indian people. If they were to be governed well, then it was natural that information should be systematically collected about caste and religion. Concern with counting the characteristics of the Indian population which started as the administrative necessity of knowing the 'natives', eventually culminated into an object to be used in the political, cultural and religious battles which continues even today and has strengthened and intensified over the years. In the process over a period of time, colossal administrative machinery and sophisticated statistical techniques have developed to collect information about population.

From the standpoint of governmentality population is only a usable empirical category that defines the targets of policy. Thus, populations are empirical categories of people with specific social or economic attributes, often statistically determined, that are relevant for the administration of development or welfare policies. Heterogeneous populations segmented or classified through various criteria, like, caste, ethnicity, income, etc., are granted specific schemes for their benefit. Each scheme of this type will identify distinct population groups whose eligibility, specific socio-economic or cultural characteristics will be empirically determined through censuses, surveys and statistical techniques. Populations thus are produced by the classificatory, statistical schemes of governmental knowledge. Unlike citizenship which carries the moral connotation of sharing in the sovereignty of the state, populations do not bear any inherent moral claim. When a specific population is not a beneficiary of government policy, the reason is often economic or political. With the change in political calculations, composition of target groups may also change. Thus, governmental administration produces a heterogeneous social, consisting of multiple population groups to be addressed through

multiple and flexible policies. This is in sharp contrast to the conception of citizenship in which the insistence on homogeneous is fundamental.

The role of numbers in the complex information gathering apparatus such as the census, surveys, etc. has two sides: the one side may be described as *justificatory*, the other as *disciplinary.* It is *justificatory* in the sense of arguing for major social or resource-related policy initiatives. More interesting, however, is the *disciplinary* dimension of statistic. Here, the argument is that body counts create not only types and classes but also homogeneous bodies (within categories), because number by its nature, flattens idiosyncrasies and creates boundaries around these homogeneous bodies, since it performatively limits their extent. In this latter regard, statistics are to bodies and social types what maps are to territories: they flatten and enclose. So, for instance, the link between colonialism and orientalism is most strongly reinforced not at the loci of classification and typification, but a locus of enumeration, where bodies are counted, homogenised and bounded in their extent. Thus, the unruly body of the subject (fasting, feasting, hook swinging, ablating, burning, bleeding) is recaptured through the language of numbers that allows these very bodies to be brought back now counted and accounted for the humdrum projects of the state. I may say in passing that with regard to disciplinary functions, Foucault's ideas about bio-politics certainly are more relevant today since the state sees itself as part of Indian body politic, while it is simultaneously engaged in reinscribing the politics of the Indian today.

According to Foucault, beginning from the time of Machiavelli, another form of thinking about power began to be formulated by the nameless bureaucrats and policy-makers who actually run the governments, which had no other concern than the power of the state. It viewed the population of the state as a resource and developed knowledge about its people accordingly: on one hand, it wanted to learn about humans as a species and come to know their biological secrets, and on the other hand, it wanted to

develop the capacity of humans as machines by disciplining their bodies. Foucault termed this new kind of political rationality bio-power because it concerned itself with every aspect of life, right down to its most minute parts, though only in the abstract. It was interested in the health of the people in statistical terms, not existential terms – it cared about how people live and die, but not who lives and dies.

Through control and administration of body emerges the bio-politics of population. Bio-politics, understood as a government-population-political economy relationship, refers to a dynamic of forces that establishes a new relationship between ontology and politics. Bio-politics is a strategic relation; it is not the pure and simple capacity to legislate or legitimise sovereignty. As mentioned before, this was the theme of Foucault's lecture on security, territory, population (Foucault 2007). We might say that bio-politics is Foucault's term for the attempts made by governments to rationalise the problems posed by the physical existence of a population, namely health, hygiene, birth-rates, longevity and race. Bio-politics is a matter of treating the population and the social body, and it provides the rationale for the formulation of health policies from the eighteenth century onwards. Prevention becomes the primary goal as hospitals are transformed in the 'curing machines' that replaced the asylums of old and as health comes to be defined in statistical terms. Life-styles and patterns of child-raising are increasingly viewed as areas for medical intervention, and medical practice is integrated into the economic and social management of society. Bio-politics places a new emphasis on childhood and medicalises the family by generating an ethics of good health, while the new stress on hygiene makes medicine an agency of social control. Bio-politics of population affects the structures of urban space as hospitals are reformed, redesigned and rebuilt. It also has obvious effects on the population as a whole, the family unit and the bodies of individuals.

In this paper, I have tried to interrogate the mechanism of the modern form of the art of government. I have emphasised the role

of statistics by arguing that statistics is an ideology and shapes our perception of society in a particular fashion. It is used by the government because it has the appearance of neutrality and impartiality. With the help of statistics, politics has become increasingly mathematical as it has become medical. Bio-power involves the building up of profiles, statistical measures and so on, increasing knowledge through monitoring and surveillance and controlling through discipline. Birth and death rates and measures of longevity become important; poverty, fertility, illness, diet and habitation become measured; statistics and demographics come together with economics and politics.

I have tried to show through my arguments that governmental power evolves through the developments of *tactical* measures with which to render the natural life of the individuated body the object of power over life. Bio-power, in contrast, evolves through the development of *strategies* with which to constitute bodies in relation as populations. Tactics divide, segment and serialise, while strategies combine, integrate and coordinate. The strategies through which the social body is mobilised as a population are inconceivable in isolation from those tactical mechanisms that determine how the natural life of bodies comes to be individualised. Understood thus, the imperative question of politics which, in fact, reiterates Fanon's original postcolonial critique, is that of how to disengage from the processes of subjectification by which life comes to be variably pacified and mobilised.

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