

SOCIAL EXPLANATION : REFERENCE AND INDETERMINACY*

In view of the raging controversy regarding the definition of social explanation it will be safer to begin with a tentative exposition of social explanation with a hope that a more definite picture will emerge out of our discussion. Following Professor Lukes we may say "to explain something is at least to overcome an obstacle—to make what was unintelligible intelligible"¹. Explanation in social sciences should be clearly differentiated from *prediction* of future social events or *retrodiction* of past events. On the other hand, any social scientist will probably agree that revolutionary² explanations in social sciences are not the outcome of mere data-collection and analysis. Homans correctly says "But analysis is not explanation, and a conceptual theme is not a theory"³. Data-collection and analysis nevertheless play important roles in explanation.

The exact method of social theory is not decided upon. Professor Kuhn seems to hold that the methods of one discipline are diametrically opposed to the methods used in another. As for instance he holds logic as opposed to history and social psychology; normative as opposed to descriptive method.⁴ When taken singly the method of logic can definitely be contrasted with the method of history and social psychology. But in social explanation logic, history, psychology, description and axiology seem to serve complementary roles in the process of making a problem intelligible. How much straight description and how much normative evaluation should come into the fold of social explanation, will depend much on the nature of the problem to be explained. There are no doubt degrees of clarity and vagueness attributed to these methods e. g. logic is supposed to give us indubitable truths whereas history and axiology are weaker competitors for this position. But the fabric of reality is also woven of threads of various hues and strength. In our zeal to be precise and perspicuous any aspect of social reality should not be neglected even if it is comparatively indeterminate or opaque.

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an approach to facts. We will either have to try and understand To say the problem of indeterminacy does not exist is too naive the vagueness caused by indeterminacy till absolute clarity is achieved or we will have to accept it as it is.

Indeterminacy in explanation may occur while formulating a single theory or it may occur when a number of theories and deductions are put together to give an explanation. Here theories are taken in a broader sense as being synonymous with explanation. To quote G. C. Homans "The explanation of a phenomenon is the theory of the phenomenon. A theory is nothing — it is not a theory — unless it is an explanation"⁵.

The problem of indeterminacy is usually related with ontological questions and rightly so. But the type of indeterminacy in our discussion will be regarded as a conceptual or epistemological indeterminacy. (The author does not accept ontological indeterminacy because she supports a unique set of reference.) In spite of the doubts raised by Kuhn and Feyerabend one is bound to search for stability of a theory / explanation through its reference. The duration of this stability may vary because this stability is dependent on many extra-ontological factors as well e. g. contex of the explanation, repercussions of scientific development and so on. The brute facts to be explained are easily attainable from society but facts do not speak for themselves, they have to be explained. In explaining thought must play a constructive role. This construction of a theory on the basis of data is that which is called free creation of the imagination by the instrumentalists⁶. The constructive role of thought may be differently called 'creative intuition', 'irrational element' or 'invention'. Einstein and Popper agree "that theory cannot be fabricated out of the results of observation, but that it can only be invented."⁷ The vital role of thought has been underplayed and even ignored by many empiricists and Logical positivists. They have a common anxiety born out of a fear that once they admit something constructive in experience e. g. intuition or psychologism the whole situation will be out of control; a situation comparable to the opening of Pandora's box. Hence they judiciously guard thought with the domain of discursive thinking and deny it any constructive role.

Acceptance of intuition engenders fears because intuition accepts indeterminacy of reference. One of the outstanding features of intuitive thinking is the absence from it of the law of excluded middle and the subsequent absence of other related principles.⁸ Here I would like to make a plea for a modest empiricism in which room can be made for both strict empiricism and intuition in explanation. The role of intuition in model building will not reflect ontological indeterminacy but only epistemic indeterminacy.

The clarity and indeterminacy of an explanatory model is very closely related to the nature of the reference points of a theory. Weak reference points are the basis of loop-holes in an explanatory model. These references are weak because they are not definite or determinate. A loop-hole in an explanatory model is not caused by a reference gap but by a weak reference. Such points of reference are being designated here as indeterminate reference. Explanatory model building in some respects is comparable to putting a jigsaw puzzle together. When the major structure is fabricated there may be a missing piece which is not exactly known but can be inferred on the basis of the rest of the model. To complete the fabrication the gap has to be filled in. The place holder that fills the gap has some amount of determinacy though at the same time it is subject to change and therefore not fully determined or definite. This reference point is considered to be indeterminate because it is not known to be certain nor is it known to be absolutely false. The scientists treat the point as being very near the truth which is yet to be known. In the course of time with the furtherance of research the indeterminate reference may be replaced by a determinate reference point or it may be retained after getting better confirmation. The term indeterminacy is being used due to lack of a better word. One may like to call this a pseudo reference but then the difficulty would be that the very act of reference would be treated as spurious. Whereas actually the act of referring is not spurious but the epistemological support for the reference is indcisive. This indecision gives rise to a kind of indeterminacy. Along with the indeterminate points a theory must also contain definite references that serve as the pivotal points for the entire explanatory model. Here determinacy and indeterminacy are

used with respect to the scientist and not as a reflection on the nature of the external world.

When a scientist has no determinate reference in his entire theory his model may be considered as a weak construction which has no explanatory weight. In order to build an explanatory model the scientist must be able to claim some reference points in his theory as certain and final with respect to the model being built. The reference points which the scientist treats as certain may be called the "reference preserving correlations" after professor Fine.¹ A theory stands or falls on the basis of these reference points and the comparison of different models should be made on the basis of these points. These reference preserving correlations are also theory preserving correlations. For instance, in the Marxian theory of social explanation all social superstructures are explained with reference to its mode of production, which in turn depends on the given "productive forces". Here it can be clearly seen that the reference to the mode of production is of vital importance to the Marxian model of social explanation and therefore it could be considered as a "reference preserving correlation". The entire Marxian thesis is built around this point. On the other hand there are parts of Marx's social theory which are comparatively less important for upholding his thesis and comparatively indeterminate too.

Let us take an example of an indeterminate point of reference in social explanation. Marx, while discussing various forms of social oppression, took the example of religion. Religion, for Marx, is a kind of opiate administered by the ruling class. Here a sweeping reference has been made to religion without trying to define and determine the role and function of the major world religions. This lack of clarity regarding the reference to religion has led to a great controversy. Though by and large religions have played an oppressive role in society there are examples of religion playing the role of a liberating force e. g. Buddhism. Buddhism has helped, at least partially, in liberating man from caste hierarchy. Here the indeterminacy of reference is caused by a hasty generalization based on the data collected from the Judo Christian tradition. This epistemic indeterminacy of reference, though, does not affect Marx's total

explanatory model. When such an indeterminate point of reference is detected it represents a minor inner-contradiction. The rectification / modification of such a reference point does not lead to a total restructuring of the explanatory model.

The distinction between a reference preserving point and an indeterminate reference point in social explanation is not based on subjective preferences nor is it based on hard facts alone. Such referential distinction is made in the context of explanation and not in the context of description per se. Explanation is description plus creative thought.

The role of reference in a descriptive statement and in explanation is somewhat different. Reference in description is more fundamental. The intervention of creative thought in explanation changes the role of reference. Here there is more scope for the use of human competence i. e., more freedom and creativity. Greater freedom and creativity give rise to greater explanatory information. Through the development of Logical Positivism and empiricism it has been found that sentences gain informative content at the cost of absolute certainty. So the more creative the modal is the more will be the *possibility* of indeterminacy within the model. I emphasize *possibility* because the existence of indeterminate reference is not necessary, nor is it a constraint to explanatory model building. At the risk of allowing indeterminacy the theoretician gains the capacity to go beyond the scope of straight description or analysis.

A reference point is not regarded indeterminate due to syntactic considerations. It has nothing to do with the simplicity or elegance of the syntactic structure of the explanatory model. Indeterminacy of reference is also not based on semantic considerations. A reference is not indeterminate because it has less meaning content. What is meant is that in a theory construction an indeterminate reference point does not have a full methodological support. This may be regarded as an epistemic consideration.

Various factors may lead to indeterminacy :

1. There are times when an entire thesis has not been worked out in its full details. Under such circumstances there may be some reference-preserving points and some approximations.

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2 (a). Sometimes problems crop up which are not directly related with a thesis but they are side products of a theory. Since these points are often inferred from the theory without any proper data collection they are often indeterminate.

2. (b). The development of allied social reference may affect the reference points of a given model by bringing out embedded reference points. These embedded reference points are like potential reference points which, when made actual, may be indeterminate. For instance, in woman's present search for identity, scholars are trying to extract Tagore's theory on the role of women. Much can be collated from his work though there is no direct reference. What emerges from his works regarding this point is at times indeterminate. This leads to an epistemic inconsistency but not to a total collapse of Tagore's Humanistic model of social explanation.

The founder of a theory is sometimes conscious of indeterminacy and sometimes not. When an author of a theory is conscious of the points of indeterminacy he feels the need for further deliberations and research on that point. But when the author is not conscious of the point of indeterminacy it is left to another set of researchers. The possibility of clarification of indeterminacy arises because the indeterminacy is related with an epistemological category and not an ontological category of reference.

Indeterminacy is not always a discouraging phenomenon in theory construction. By allowing indeterminacy a researcher can work on the broad outline of theory construction without being withheld by deliberations on minor details. Moreover, it is better to accept the incapacity of giving a determined reference than to dogmatically force a theory into a procrustean bed. Earlier in the discussion it was suggested that creative thinking or intuition in theory formulation permits indeterminacy of reference. From this it should not be concluded that intuition begets indeterminacy and empiricism gives us the 'reference preserving points'. Both reference preserving points and referentially indeterminate points are the products of intuition or creative thought based on empirical data. To find 'reference preserving points' is the conscious aim of creative thought whereas the indeterminate points are undesigned correlates of the main aim.

Indeterminacy may be found at a terminal point of a theory construction or it may be an indeterminate point between two reference preserving points.

Hartry Field discusses reference in a way similar to what is being regarded here as indeterminate reference. To quote Field :

"I think that in this situation we have to develop a new semantic terminology that is capable of handling referentially indeterminate expressions. The terminology I propose is 'partially denotes'. I want to say that Newton's word 'mass' partially denoted proper mass and partially denoted relativistic mass; since it partially denoted each of them, it did not fully (or determinately) denote either."¹⁰ But here I would prefer the word 'tentative denotation' or fringe denotation. A distinction can be made between the fringe of a theory and the core of a theory. While indeterminate reference belongs to the fringe domain of a theory, reference preserving points belong to the core domain of the theory. The word partial has the sense of both referring and not referring to an ontological entity. Whereas referring in an empirical realm seems to follow the 'all or none' principle as used in electricity. That is either it refers or it does not refer.

Some thinkers like Quine hold that indeterminacy arises when reference is compared inter-theoretically.¹¹ But the type of indeterminacy I am talking about here arises within the same theory. This 'indeterminate reference' or 'tentative reference' arises from an indeterminateness of methodology and can be discussed without going into the type of controversy over indeterminacy that has arisen between thinkers like Feyerabend, and Putnam/Kripke. What has been said here regarding reference may be better understood in the light of the general communication model. This model is a model of an input output system. We receive messages that have reference points. These are received at the level of straight description. Description enfolds the 'reference receiving' points. On the basis of descriptions a scientist builds explanatory models. In the process of model building the scientist performs the 'reference executing' activity. While executing reference some are epistemologically stronger; these are the

'reference preserving' points, the rest are indeterminate reference points.¹²

University of Jadavpur,
Calcutta.

Sefali Moitra

NOTES

1. Lukes, S. "Methodological Individualism Reconsidered" in *The Philosophy of Social Explanation*, edited by A. Ryan, Oxford Readings in Philosophy, 1973, p. 126.

2. Viz. T. H. Kuhn's distinction between normal science and revolutionary science in *Criticism and Growth of Knowledge*, edited by I. Lakatos and A. Musgrave, Cambridge University Press, 1976, p. 6.

3. Homans, G. C., "Bringing Men Back" in *The Philosophy of Social Explanation*, *Op. cit*, p. 56.

4. Kuhn, T. H., *Op. cit*, p. 233.

5. Homans, G. C., *Op. cit*, p. 54.

6. cf. Negel, E., *The Structure of Science*, London, 1961.

7. Magee, B., *Popper*, Fontana Modern Masters, 1973, p.33.

8. cf. Körner, S., *Categorical Frameworks*, 1974, p. 31.

9. Vide : Fine, A., "How to compare Theories Reference and Change" in *Nous*, vol. IX, No. I, March, 1975. p. 30.

10. Field, H., "Theory Change and Indeterminacy" *Jr. of Phil.* 1973, vol. LXX, No. 14, p. 474.

11. Quine, W. O. V., "Reply to Davidson" *Synthese*, Vol. XIX., December, 1968, pp. 303-5.

12. I am indebted to Late Dr. S. N. Ganguly (Calcutta University) for the classification of "reference receiving" and "reference executing" points.