COMMUNICATIONS

TO THE EDITOR:

I should like to reply to a couple of specific points in Richard Nelson’s review (March issue, pp. 258–9) of Models of Man.

1. He states that the book “is presented as a showcase of the usefulness of mathematics in the social sciences. This, the reviewer believes, it is not.” As the preface makes clear, the aims of the book are substantive, and mathematics is used only because (p. viii) “I found mathematics indispensable in enabling me to deal with these questions clearly and precisely.” No showcase, this.

2. The reviewer errs when he states: “In several of the models Simon derives his conclusions by mathematical manipulations that are illegitimate, given his stated assumptions. In particular, he differentiates functions that he states are ordinal and then makes use of differences in the magnitudes of the derivatives.”

The functions in question are not ordinal, although a careless sentence on page 117 could be interpreted to imply this. What is claimed (and the claim, I think, honored) is that in drawing substantive conclusions from the model only properties that are invariant under transformation to an ordinarily equivalent scale are used. The signs of derivatives (including time derivatives) are invariant, as is the sign of the difference between two derivatives at a given point in phase space. These are the properties of derivatives that are, in fact, used in interpreting these models. The initial introduction of cardinal variables provides a scaffolding which, like most scaffoldings, is highly useful to build the structure but must be removed when the builders are done. What the reviewer says about the ordinality of variables like “friendliness” is no more than what I said in the two chapters in question and on page 91 of the introductory comments to those chapters.

Since the reviewer does not specify his other examples of illegitimate mathematical manipulations, I cannot judge whether they are valid. There are some other debatable statements in the review, e.g., that the conclusions I draw from the characteristic equation are untranslatable (they are, in fact, translated), but both author and reviewer have done their work, and the book is best left now to defend itself.

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REPLY TO ARNOLD TOYNBEE

TO THE EDITOR:

Professor Arnold Toynbee has written what he himself considers a “condemnatory” review of my book, Oriental Despotism. I find this entirely consistent since in my study I rejected his approach to the history of man. On this score, and despite his derogatory language, no answer would be required. But his review contains inaccuracies which so competely obscure both the intent and substance of my analysis that a response is in order.