A NOTE ON THE IMPACT OF QUANTIFICATION ON THE METHODOLOGY OF NON-QUANTITATIVE HISTORY

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THE study of history in America has been greatly enlivened in the last few years by the increased application of methods of analysis derived from the other social sciences. Our understanding of economic development and past politics (traditionally the central concern of historians in this country) have been modified in important ways through the use of these new techniques. In social history less has been done, but the promises are even greater. In all of these fields new interpretations have been developed and older ones have been placed upon new foundations.

Until recently much of the historical profession resisted these innovations, defending the discipline as a humanistic study as if there were some intrinsic conflict between humanism and methodological clarity, but the substantive results of some of the new approaches have been so impressive that it has become impossible to deny their importance. The issue of whether or not the social sciences are to be allowed to influence the study of history has been settled, but the question of what kind of influence they are going to have in the long run remains; are new modes of inquiry to be opened up, or are new restrictions on the nature of historical investigations to be imposed?

The social scientist brings two related but separable gifts to the historian. The first is an awareness of the importance and relevance of quantitative materials for many historical issues. In the past some historians, particularly those interested in politics, have relied upon impressionistic evidence in dealing with questions that required quantitative answers. The work of

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the social scientist historians has proven that many problems with which the profession has always been very much concerned can no longer be handed responsibly without reference to statistical data. But the second gift of the social scientist may prove to be even more important. He has insisted that historians become more aware of their methodology. They must establish hypotheses and appropriate rules for testing them, construct models or paradigms and compare them to the historical materials, making assumptions explicit and continually examining them in the light of new knowledge. He has asked that historians become more sensitive to the limits of their work in general, and to the limits of any particular work, both in terms of what is substantively known and the degree to which that knowledge is certain.

This methodological awareness has been largely wedded to quantitative studies, and the influence which the social science historians have come to have in the profession has been grudgingly granted, not because of their methodology, but because of their solid accomplishments in the study of largely quantitative questions. This profession is perhaps the most pragmatic in academia; a well designed historical study means next to nothing without a substantive contribution to knowledge. The traditionalists accuse the innovators of emphasizing methodology at the expense of substance, but there have been substantive contributions, and the profession has finally listened. It has learned new ways of looking at some of the established questions, but most of what it has perceived has been the use of new kinds of data. Frequently when we say that we not only know new things now, but that we know them in a new way, what we mean is that we now have quantitative verification for old interpretations, or new interpretations which are accepted because they are based upon solid quantitative studies. It has been the apparent precision of quantification which has impressed the profession, not the methodological rigor of the social scientist. In part this is the result of the profession's obsession with substantive conclusions, but it is also due to the failure of the quantitative historians to clarify the distinction between methodological consciousness and the use of statistical materials.

There is a danger in this confusion, a danger that the new approaches will fail to have the influence that they might
otherwise have, or alternatively, if their impact is great, that
they will close off avenues of historical study rather than open
up new ones. Some social scientists believe that the only mean-
ingful questions are quantitative ones. There is little that one
can say in response to that assertion. To be sure, there may
prove to be more questions which can be dealt with quantitatively
than is now evident, but what this belief implies in practice
is not that all questions will be considered quantitatively (in
itself a strange idea) but that only questions which lend them-
selves to quantitative analysis will be considered at all, all others
becoming the realm of nonsense or poetry.

If such a view were to prevail in the historical profession
the results would be disastrous. Most of the traditional work
of the historians would be read out of existence, not transformed
as the studies of voting behavior have transformed our under-
standing of American political history, but simply placed in a
category beyond the legitimate reach of the discipline.

Even if this view does not prevail it may have a negative
effect, because it makes the practitioners of social science his-
tory look alien to the rest of the profession, and it makes it
possible to box them off in their own limited area. The value
of their specific studies may be acknowledged, but the larger
implications of their work will be ignored. Those larger im-
plications lie not in the kinds of data used but in methodological
awareness.

There is no necessary connection between the use of quantita-
tive evidence and methodological precision. Studies based upon
numerical materials may lack methodological intelligence; care-
fully designed studies of great sophistication may not involve
quantitative evidence at all. The confusion of the two is partly
historical—they are both identified with the development of the
application of "science" to the study of human behavior—and
in part conceptual—they both result in what is felt to be a
more certain kind of knowledge.

The issue here may be clarified if we look closely at what
we mean when we say, as we sometimes do, that in social
science history we may know the same things that we know
in impressionistic history, but we know them differently. I
think we mean two distinct and separable things. We may
mean that we now have a different kind of evidence for what
we know, quantitative evidence, evidence which in itself gives our knowledge a new kind of conviction. It is more certain because the kind of evidence is more certain. Or we may mean that we know it in a new way because we know more precisely what it is that we know, because the perimeters of our knowledge have been more consciously established. This also provides a feeling of greater certainty, and rightly so. If we have presented clearly defined assumptions and a carefully designed hypothesis, tested it in an appropriate and explicitly stated way, verified the circumstances under which it is applicable and the kind of material to which it applies, we know what we know in a new way, even if the hypothesis were to be derived from an established belief in the profession. There is no intrinsic reason why the hypothesis would have to be stated in quantitative terms or verified numerically. It is the logic of this operation, not the kind of evidence, that provides a new way of knowing. For some kinds of questions, of course, only a quantitative hypothesis and statistical test would make sense. For others, they would make no sense at all.

A deeply felt empathetic biography may provide us with profound insight into an individual and through him into a past time. What we know from such a study has very severe limits, but they are very different kinds of limits from those of a quantitative study which carefully correlates certain restricted classes of people with a small part of their behavior. Both kinds of studies are valid history; both can benefit from methodological awareness and a frank recognition of their restrictions.

Multivariant analysis provides a good example of a social science technique with potentially broad applications. It has been used, with very significant results, to analyze the correlations between overlapping sets of data in studies of voting behavior. This data is quantitative, but the persuasive power of this method lies not only in the statistical evidence to which it has been applied, but also in its logic, which could be adapted to non-quantitative materials.

If we continue to see methodological consciousness as married to statistical evidence the effect of the new history will be narrow or negative. If we recognize that they are separable, new avenues are opened up. A lack of quantitative information or the intrinsically non-quantifiable nature of a question should
not be excuses for methodological sloppiness. We can know many non-quantitative things with more certainty than we now have if we are careful about how we go about determining them, if we are explicit about our assumptions and means of verification, and about the limits of our knowledge, limits of kind and of degree.

History extends from science to art, from technical through ordinary to poetic language. Much of the profession seeking to keep it that way, resists the claims of the social science historian and tries to box him into a narrowly prescribed area. Others would read both extremes out of the profession, demanding that the historian restrict himself to the safe middle ground of narrative history and impressionistic evidence, remaining free of conceptual rigor or poetic vision. There is no justification for such limitations. The social science historian gives unwitting support to these narrow views if he insists that methodological awareness requires quantitative evidence. Every historian can benefit from a better understanding of what it is that he is doing. Even a poet should know the limits of his poem.¹

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