## **Historical Significance**

L. M. Stallbaumer-Beishline

#### How do historians determine significance?

"...in trying to make sense of history, 'one cannot escape from the idea of significance. History, to be meaningful, depends on selection and this, in turn, depends on establishing criteria of significance to select the more relevant and to dismiss the less relevant.'" ~ Tim Lomas, *Teaching and Assessing Historical Understanding* (1990, p. 41)<sup>1</sup>

What a historian views as significant is inherently manifest in her topic selection. Stéphane Lévesque, who researches how Canadian history is taught writes, "Historical significance is thus a quality determine by historians (or other investigators) in response to the past. An event, to paraphrase [Peter] Seixas, becomes significant when contemporary people see its relevance to other events and ultimately to the present."

Until the mid-twentieth century, most professional historians were interested in war, political history, and the history of great men. Subsequently, their stories dominated the pages of history textbooks and monographs. During the 1950s and 1960s, historical studies became more diversified making room for an ever widening range of topics: feminist-women-gender Histories; Black Studies and African-American History; Latino Studies and Hispanic History; Popular Culture History; History of Memory; History of Everyday Life; Psycho-History; Sports History; Media History; and the list goes on....

For students who have learned history in grades K-12; you may have the impression that history is a series of facts to be memorized. Textbooks encourage this belief presenting a story clearly organized around chronological or thematic narratives that leave the impression that every event of the past was significant. But is every event significant? What choices do historians make when writing specialized studies of the past, and not massive textbooks that suck the life right out of us as we read!

#### **No Scientific Rule**

As Stéphane Lévesque notes, there are no scientific rules about what make something significant, but several factors shape historians' choices.<sup>2</sup>

- 1. Importance
  - a. Was it important to those who lived it?
  - b. Did it influence their behaviors?
- 2. Profundity
  - a. How deeply were people affected?
- 3. Quantity
  - a. How many people were affected?
  - b. Be careful not to allow the need for large number to shape analysis
- 4. Durability
  - a. Should an event last a long time to be significant? What would that length of time be?
  - b. How does one determine durability if the beginning and end are unclear?
  - c. Be careful not to assume that only long-lasting events be significant.
  - d. How does the before and after picture compare?

<sup>&</sup>lt;sup>1</sup> Quoted by Stéphane Lévesque, *Thinking Historicaly: Educating Students for the Twenty-First Century* (Toronto: University of Toronto Press, 2008),

<sup>&</sup>lt;sup>2</sup> Lévesque, *Thinking Historically*, 46-52.

- 5. Relevance
  - a. Does the event have to be relevant to the historian?
  - b. Does the event have to be relevant to present-day developments?
  - c. Be careful to avoid presentism; what is relevant changes with time and each person.

## Additional (More Troubling) Factors?

In judging relevance, we must acknowledge that "where we stand determines what we see." However, we must also abide by the standards of the historical profession. Stéphane Lévesque elaborates and suggests three additional factors that might shape how we determine significance.<sup>3</sup> These pose more challenges to meeting the standards of history (see American Historical Association Statement of Standards). What is more, if these factors dictate our judgment, do we risk writing history with a capital H? (See John Arnold's essay.)

- 1. Intimate Interests
  - a. Is the event more personal or intimately of interest, e.g. family history, ancestry?
  - b. Be careful, because our personal investment may lead us to dismiss what is relevant if it does not jibe with personal interests.
- 2. Symbolic significance
  - a. "Is the event emblematically important? Does it represent something significant in the collective consciousness?"
  - b. Be careful, because this approach may lead to binary thinking if we create labels of us vs. them. What is more, it might lead us to exaggerate a turning point. For example, World War I (1914-1918) is often interpreted as a major turning point in European cultural history, even though evidence of these changes were present before 1914.
- 3. Contemporary Lessons
  - a. Are we drawn to a past event to explain or make analogies to current events?
  - b. Be careful, when we engage is this approach, we risk failing to understand the past on its own terms, in its own context.

## Differing Opinions on the "Scientific Revolution"

To illustrate the challenge of determining significance, compare Herbert Butterfield and Steve Shapin.

## Herbert Butterfield The Origins of Modern Science, 1300-1800

Historian of ideas Herbert Butterfield (1900-1979) argued in this 1957 publication that the late sixteenth and early seventeenth centuries witnessed a radical break with the past and the emergence of a dramatically new way of understanding both knowledge and the world – in short, a Scientific Revolution. Butterfield earned his MA from Cambridge University (England) in 1922, and he had longtime affiliation with that institution. He is the author of numerous publications including: <u>Christianity and History</u> and <u>George III, Lord North and the People</u> (1949), and several studies of the nature of the historical profession in Great Britain.

<sup>&</sup>lt;sup>3</sup> Lévesque, *Thinking Historically*, 56-59.

 $\P 1 \dots$  Before the seventeenth century had opened, the general state of knowledge in regard to the physical universe had been conducive to the production of a number of speculative systems – these not founded upon scientific inquiry as a rule, but generally compounded out of ingredients taken from classical antiquity [e.g. Ptolemy, Aristotle, Galen]. Already in the sixteenth century, also, attention had been directed to the question of a general scientific method, and in the seventeenth century this problem of method came to be one of the grand preoccupations, not merely of the practicing scientist, but, at a higher level amongst the general thinkers and philosophers....

 $\P$  2 Attacks on Aristotle had been increasingly common and sometimes exceedingly bitter in the sixteenth century. [Butterfield provides examples of these]...

¶ 3 Now it was [Francis] Bacon's firm principle that if men wanted to achieve anything new in the world, it was of no use attempting to reach it on any ancient method – they must realize that new practices and policies would be necessary. He stressed above all the need: the direction of experiments – an end to the mere haphazard experimenting – and he insisted that something far more subtle and far-reaching could be achieved by the proper organization of experiments.... He insisted on the importance of the actual recording of experiments, a point which, ... was now coming to be of some significance. He urged that experimenters in different fields should get together, ...

 $\P 4 \ldots$  The changes which took place in the history of thought in this period, however, are not more remarkable than the changes in life and society. It has long been our tendency to push back the origins of both the industrial revolution and the so-called agrarian revolution of the eighteenth century, and though ... we can trace back the origin of anything as far as we like, it is towards the end of the seventeenth century that the changes are becoming palpable. The passion to extend the scientific method to every branch of thought was at least equaled by the passion to make science sere the cause of industry and agriculture, and it was accompanied by a sort of technological fervour. Francis Bacon had always laid stress on the immense utilitarian possibilities of science, the advantages beyond all dreams that would come from the control of nature; and it is difficult, evening the early history of the [London] Royal Society, to separate the interest shown in the cause of pure scientific truth from the curiosity in respect of useful inventions on the one part, or the inclination to dabble in fables and freakishness on the other. It has become a debatable question how far the direction of scientific interest was itself affected by technical needs or preoccupation in regard to shipbuilding and other industries; but the Royal Society followed Galileo in concerning itself, for example, with the important question of the mode of discovering longitude at sea. Those who wish to trace the development of the steamengine will find that it is a story which really begins to be vivid and lively in this period. Apart from such developments, the possibilities of scientific experiment were likely themselves to be limited until certain forms of production and technique had been elaborated in society generally. Indeed, the scientific, the industrial, and agrarian revolutions form such a system of complex and interrelated changes, that in the lack of a microscopic examination we have to heap them all together as aspects of a general movement, which by the last quarter of the seventeenth century was palpably altering the face of the earth. The hazard consists not in putting all these things together and rolling them into one great bundle of complex change, but in thinking that we

know how to disentangle them – what we see is the total intricate network of changes and it is difficult to say that any one of these was the simple result of the scientific revolution itself.

¶ 5 ... We can see why our predecessors were less conscious of the significance of the seventeenth-century Enlightenment, for example – because in this as in so many other cases, we can no discern those surprising overlaps and time-lags which so often disguise the direction things are taking. Our Graeco-Roman roots and our Christian heritage were so profound – so central to all our thinking – that it has required centuries of pulls and pressures, and almost a conflict of civilizations<sup>4</sup> in our very midst, to make it clear that the centre had long ago shifted. At one time the effects of the Scientific Revolution, and the changes contemporary with it, would be masked by the persistence of our classical traditions [e.g. reverence to Aristotle] and education [e.g. scholasticism taught at universities], which still decided so much of the character of the eighteenth century in England and in France, for example. The seventeenth century, indeed, did not merely bring a new factor into history, in the way we often assume – one that must just be added so to speak, to other permanent factors. The new factor immediately began to elbow the other ones away, pushing them from their central position.

... We know now that what was emerging towards the end of the seventeenth century was a civilization exhilaratingly new perhaps, but strange as Nineveh and Babylon [i.e. civilizations in Ancient Sumer]. That is why, since the rise of Christianity, there is no landmark in history that is worthy to be compared with this.

# **Steven Shapin** *The Scientific Revolution: The History of a Term*

Steven Shapin (b. 1943) is the Franklin L. Ford Professor of the History of Science at Harvard University. His publications are as extensive as Butterfield's and include <u>Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life</u> (1985) and <u>A Social History of Truth: Civility</u> and Science in Seventeenth-Century England (1994). The excerpt below comes from his 1996 monograph, <u>The Scientific Revolution</u>, which was translated into fourteen languages. He did post-graduate study in genetics at the University of Wisconsin-Madison in 1966-1967. He earned a PhD in History and Sociology at the University of Pennsylvania in 1971.

¶ 1 There was no such thing as the Scientific Revolution, . . . Some time ago, when the academic world offered more certainty and more comforts, historians announced the real existence of a coherent, cataclysmic, and climactic event that fundamentally and irrevocably changed what people knew about the natural world and how they secured proper knowledge of that world. It was the moment at which the world was made modern. It was a "Good Thing," and it happened sometime during the period of the late sixteenth to the early eighteenth century. In 1943, the French historian Alexandre Koyré celebrated the conceptual changes at the heart of the Scientific Revolution as "the most profound revolution achieved or suffered by the human mind since Greek antiquity. It was a revolution so profound that human culture "for centuries did not grasp its bearing or meaning; which, even now, is often misvalued and misunderstood." A few years later the English historian Herbert Butterfield famously judged that the Scientific

<sup>&</sup>lt;sup>4</sup> The conflict that Butterfield appears to be referencing is between secular and religious views.

Revolution "outshines everything since the rise of Christianity and reduces the Renaissance and Reformation to the rank of mere episodes.

... [It is] the real origin both of the modern world and of the modern mentality." It was, moreover, construed as a conceptual revolution, a fundamental reordering of our ways of *thinking* about the natural. In this respect, a story about the Scientific Revolution might be adequately told through an account of radical changes in the fundamental categories of thought. To Butterfield, the mental changes making up the Scientific Revolution were equivalent to "putting on a new pair of spectacles." And to A. Rupert Hall it was nothing less than "an *a priori* redefinition of the objects of philosophical and scientific inquiry."

¶ 2 This conception of the Scientific Revolution is now encrusted with tradition. Few historical episodes present themselves as more substantial or more self-evidently worthy of study. There is an established place for accounts of the Scientific Revolution in the Western liberal curriculum, and this [selection] is an attempt to fill that space economically and to invite further curiosity about the making of early modern science. Nevertheless, like many twentieth-century "traditions," that contained in the notion of the Scientific Revolution is not nearly as old as we might think. The phrase "the Scientific Revolution" was probably coined b Alexander Koyré in 1939, and it first became a book title in A. Rupert Hall's *The Scientific Revolution* of 1954. Before that time there was no event to be studied in the liberal curriculum, nor any discrete object of historical inquiry, called the Scientific Revolution. Although many seventeenth-century practitioners expressed their intention of bringing about radical intellectual change, the people who are said to have made the revolution used no such term to refer to what they were doing. . . .

 $\P$  3 As our understanding of science in the seventeenth century has changed in recent years, so historians have become increasingly uneasy with the very idea of "the Scientific Revolution." Even the legitimacy of each word making up that phrase has been individually contested. Many historians are now no longer satisfied that there was any singular and discrete event, localized in time and space, that can be pointed to as "the" Scientific Revolution. Such historians now reject even the notion that there was any single coherent cultural entity called "science" in the seventeenth century to undergo revolutionary change. There was, rather, a diverse array of cultural practices aimed at understanding, explaining, and controlling the natural world, each with different characteristics and each experiencing different modes of change. We are now much more dubious of claims that there is anything like "a scientific method" – a coherent, universal, and efficacious set of procedures for making scientific knowledge – and still more skeptical of stories that locate its origin in the seventeenth century, from which time it has been unproblematically passed on to us. And many historians do not now accept that the changes wrought on scientific beliefs and practices during the seventeenth century were as "revolutionary" as has been widely portrayed. The continuity of seventeenth-century natural philosophy with its medieval past is now routinely asserted, while talk of "delayed" eighteenthand nineteenth-century revolutions in chemistry and biology followed hard upon historians' identification of "the" original Scientific Revolution.

 $\P$  4 There are still other reasons for historians' present uneasiness with the category of the Scientific Revolution as it has been customarily construed. . . . Although previous accounts framed the Scientific Revolution in terms of autonomous ideas or disembodied mentalities,

more recent versions have insisted on the importance of situating ideas in their wider cultural and social context. . . . Historians have become much more interested in the "who" of the Scientific Revolution. What kinds of people wrought such changes? Did everyone believe as they did, or only a very few? And if only a very few took part in these changes, in what sense, if at all, can we speak of the Scientific Revolution as effecting massive changes in how "we" view the world, as the moment when modernity was made, for "us"? . . .

¶ 5 ... There remains a sense in which it is possible to write about the Scientific Revolution unapologetically and in good faith... Many key figures in the late sixteenth and seventeenth centuries vigorously expressed their view that they were processing some very new and very important changes in knowledge of natural reality and in the practices by which legitimate knowledge was to be secured, assessed, and communicated. They identified *themselves* as "moderns" set against the "ancient" modes of thought and practice. Our sense of radical change afoot comes substantially from them (and those who were the object of their attacks), and is not simply the creation of mid-twentieth-century historians. So we can say that the seventeenth century witnessed some self-conscious and large-scale attempts to change belief, and ways of securing belief, about the natural world....

 $\P 6 \ldots$  If different sorts of seventeenth-century people believed different things about the world, how do we assemble our cast of characters and associated beliefs? . . . Historians differ about which practices were "central" to the Scientific Revolution, and participants themselves argued about which practices produced genuine knowledge and which had been fundamentally reformed.

 $\P$  7 More fundamentally for criteria of selection, it ought to be understood that "most people" – even most educated people – in the seventeenth century did not believe what expert scientific practitioners believed, and the sense in which "people's" thought about the world was revolutionized at that time is very limited. There should be no doubt whatever that one could write a convincing history of seventeenth-century thought about nature without even *mentioning* the Scientific Revolution as traditionally construed.

 $\P$  8 The very idea of the Scientific Revolution, therefore, is at least partly an expression of "our" interest in our ancestors, where "we" are late twentieth-century scientists and those for whom what they believe counts as truth about the natural world...

¶ 9 The past is not transformed into the "modern world" at any single moment: we should never be surprised to find that seventeenth-century scientific practitioners often had about them as much of the ancient as the modern; their notions had to be successively transformed and redefined by generations of thinkers to become "ours." And finally, the people, the thoughts, and the practices we tell stories about as "ancestors," or as the beginnings of our lineage, always reflect some present-day interest. That we tell stories about Galileo, Boyle, Descartes, and Newton reflects something about our late twentieth-century scientific beliefs and what we value about those beliefs. For different purposes we could traces aspects of the modern world back to philosophers "vanquished" by Galileo, Boyle, Descartes, and Newton, and to views of nature and knowledge very different from those elaborated by our officially sanctioned scientific ancestors. For still other purposes we could make much of the fact that most seventeenthcentury people had never heard of our scientific ancestors and probably entertained beliefs about the natural world very different from those of our chosen forebears. Indeed, the overwhelming majority of Seventeenth-century people did not live in Europe, did not know that they lived in "the seventeenth century," and were not aware that a Scientific Revolution was happening. The half of the European population that was female was in a position to participate in scientific culture scarcely at all, as was that overwhelming majority – of men and women – who were illiterate or otherwise disqualified from entering the venues of formal learning. . . .