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Commentary on

PSYCHOLOGICAL ORIGINS OF THE INDUSTRIAL REVOLUTION, by Nicolas Baumard

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Abstract

Baumard's thesis that the English industrial revolution can be explained by life history theory's predictions for psychological development is a progression of much literature in economic and social history. However, the theory suffers from its reliance on increasingly fragile data indicators for 'wealth' and its focus on 'innovation' as new research begins to explore sectoral dynamics in long run growth.

Main text

Throughout most of the late twentieth century the industrial revolution was studied as being caused by structural change in relationships between capital and labour, but as Cannadine described, (1984) each generation finds its own features in the mirror of the industrial revolution. In an age of tech start-ups and rapid growth trajectories in new markets, historians and economists of the last two decades have approached the industrial revolution as a case of technological innovation led growth, and sought the origins or cause of that innovation as a kind of 'Holy Grail' (Crafts 2010), the origins of modern economic growth itself. Douglass North called for cognitive science to serve as the basis for breakthrough in economics and social sciences almost a quarter of a century ago (North 1996), so it's surprising that it has taken so long for someone to present a coherent thesis for the psychological origins of the innovation led Industrial Revolution. The Baumard thesis is, in many ways, a natural progression of much literature in economic and social history and the paper itself describes the close fit between life history theory's predictions for behaviour and much of that influential literature.

The thesis as presented relies on the given fact of the relative greater wealth of the English by the dawn of the eighteenth century. As Baumard acknowledges, although there is a rich literature that asserts this, it is not considered proven, and there is currently an increasing body of new research from all over Europe challenging its traditional foundation comparative wage data (Mocarelli 2019, Humphries and Schneider 2019, Stephenson 2018, Lopez Losa, 2016). The focus on relative wealth and its psychological effects raises at least three important and unanswered questions about the occurrence of industrialisation. Firstly, that of location: although the Dutch Republic is mentioned the anomaly of the lack of Dutch industrialisation, or technological innovation, through the Golden Age when clearly Dutch wealth outstripped that elsewhere in NW Europe is not addressed, nor the concomitant questions about what the psychological development and effects of that Golden Age, and decline, might have been. Secondly, the level and kind of wealth or income, and whose it was that led to innovation. As recent research indicates (Stephenson, 2019) unskilled men in London may have had incomes of merely half what Allen (2009) calculated. This raises the question about the distribution of wealth, income and capital, and its psychological effects, particularly since inequality is also such an important contemporary question (Piketty, 2014). Was there a difference between the wealth or income and psychological motivations of 'inventors' and the artisans and apprentices who 'tinkered'? Did their relative wealth matter? How does inequality impact on reward orientation, materialism, and cooperation? If innovators arose only in a particular class or group then is the greater wealth of England necessary for the theory to hold? Moreover, if that were the case might there be other institutional and social factors beyond wealth which would cause the psychological progressions? This is essentially the subject of McCloskey's bourgeois theses cited which have proven so hard to model or confirm. It should be pointed out that the histories of actual innovators who created new technology, machines, and ways of working like Richard Arkwright tell a story of very different behaviour to that predicted by life history theory (Styles, 2016).

Thirdly, the major question of timing. It is possible that the model Baumard advances does not require that England was the wealthiest state but it's presentation here *does*. The essential question of why the affluence mindset occurred to bring about innovation in England in the eighteenth century rather than elsewhere is not addressed other than by the (shaky) fact of England's predominant wealth at that time. In not being able to predict the timing of innovation, nor explain a lack of it elsewhere the theory fails to make a contribution to the causes of the industrial revolution, rather the paper makes some well-founded and well researched speculative associations between LHT's predictions and what is known of England's eighteenth-century trajectory. It should be noted that current research on the actual level of growth in output shows that the timing question may render the thesis irrelevant. England's growth in the eighteenth century was slower than that of the seventeenth, with changes in output rates only beginning to take off after 1821 (Crafts and Mills, 2017).

There is an obvious gap in the classic economic history literature discussed: deVries's industrious revolution, (2008) which although touched on is only so in relation to working hours. The essence of the deVries thesis is that household behaviour, consumption, and individual actors' choices changed. Surely the household would be a better agar plate in which to test LHT against economic behaviour – if only for the probate accounts? The other glaring absence here is that of actual eighteenth-century history of the emotions, a growing field, but one where the rich social and cultural history of the eighteenth century can already offer many cases and sources. (Hewitt, 2017; Reddy, 2001).

If necessity is *not* the mother of invention after all – as life history theory seems to say – then there is probably no better century than the eighteenth in England in which to try and test the thesis. The paradoxes of eighteenth-century wealth and destitution, militarisation and enlightenment, revolution and persistence will undoubtedly be forever produced and reproduced by historians. It remains to be seen whether innovation and wellbeing will be one of them, however.

References:

Allen, R. (2009). The British Industrial Revolution in Global Perspective. Cambridge: Cambridge University Press.

Cannadine, D., (1984). The Present and the Past in the English Industrial Revolution 1880-1980. Past & Present, (103), 131-172.

Crafts, N., Explaining the First Industrial Revolution: Two Views http://wrap.warwick.ac.uk/44710/1/WRAP_Carfts_10.2010_craftsindustrial.pdf

Crafts, N. Mills, T.C., (2017), 'Six centuries of British economic growth: a time-series perspective' European Review of Economic History, 21, pp. 141–158

Hewitt, R. (2017). A revolution of feeling: The decade that forged the modern mind.

Humphries, J. and Schneider, B., (2016), Spinning the Industrial Revolution, No _145, Oxford Economic and Social History Working Papers, University of Oxford, Department of Economics, https://EconPapers.repec.org/RePEc:oxf:esohwp:_145

L'opez Losa, E.,(2016) 'Spanish real wages in the northern-western European mirror, 1500– 1800. On the timings and magnitude of the Little Divergence in Europe', Asociacion Espa[~] nola de Historia Economica working paper, no. 1607

Mocarelli, L. (2004). Wages and the Labour Market in the Building Trade in 18th Century Milan. Jahrbuch Für Wirtschaftsgeschichte / Economic History Yearbook, 45(2), 61-82.

North, Douglass C. (1996) "Economics and Cognitive Science", IDEAS Working papers.

Reddy, W. (2001). The navigation of feeling : A framework for the history of emotions. Cambridge: Cambridge University Press.

Stephenson, Judy Z., Looking for Work? Or Looking for Workers? Days and Hours of Work in London Construction in the Eighteenth Century (January 22, 2018). Available at SSRN: https://ssrn.com/abstract=3128189 or http://dx.doi.org/10.2139/ssrn.3128189

----- (2019) The pay of Labourers and unskilled men in London 1660-1770, forthcoming in (2019) Hatcher and Stephenson (Eds.), Seven Centuries of Unreal Wages, Palgrave.

Vidal, F. (2000). The Eighteenth Century as "Century of Psychology". Jahrbuch Für Recht Und Ethik / Annual Review of Law and Ethics, 8, 407-434.

De Vries, J. (2008). The industrious revolution consumer behavior and the household economy, 1650 to the present. Cambridge ; New York: Cambridge University Press.