

Review of: "Liberalism Caused the Great Enrichment"

Christian Kiedaisch¹

¹ University of Namur

Potential competing interests: No potential competing interests to declare.

As there are already a lot of other reviews, I will focus this review on some more technical aspects of the article that have not yet been addressed.

Main remarks:

In order to formalize some of the ideas of the article, McCloskey introduces the following production function (on p. 30 of the pdf):

$$1. Q = I(D, B, R) \cdot F(K, sL)$$

Q stands for output, $I(\bullet)$ is an innovation function depending on dignity for innovators D , liberty B , and rents (or prestige) for innovators R . $F(\bullet)$ is a production function with K indicating physical capital (and land), L indicating raw labor and s an education and skill multiplier.

The main claim of the article is that liberalism, captured by the variable B (but also D) is the main driver of long run growth of output. The production function above allows for this if the functional forms are such that an increase in B can substantially increase $I(\bullet)$ and if increases in the other factors only have a relatively small effect on Q .

Later on (on p. 35), McCloskey bases her analysis on a specific Cobb-Douglas specification of such a production function (the following formula is not given in the text):

$$2. Q = Z D^{\delta} B^{\beta} R^{\rho} K^{\kappa} s^{\lambda} L^{\lambda} \quad (\text{or } Q/L = Z D^{\delta} B^{\beta} R^{\rho} K^{\kappa} s^{\lambda} L^{-1})$$

Z is a constant and the greek letters indicate the output elasticities of the different production factors (β for example indicates the output elasticity of liberty, that means by how much a one percent increase in B changes Q in percent).

Taking logs and differentiating with respect to time (assuming that all variables except for the output elasticities and Z are time-dependent) then allows to obtain the following formula that is given in the text:

$$3. (Q/L)^* = (\delta D^* + \beta B^* + \rho R^*) + (\kappa K^* + \lambda s^* + (\lambda - 1)L^*)$$

Letters with an asterisk denote growth rates (not rates of change as indicated in the article) of the underlying variables. In order for the growth rate $(Q/L)^*$ of output per capita to be mainly driven by liberty, the term βB^* must therefore be large relative to the other terms. The elasticity-weighted growth rate of the liberty index must therefore be sufficiently large. While McCloskey discusses in detail why she thinks that liberty is important for innovation, she does not spent much time

discussing how liberty can be measured, whether it has increased a lot over time (as required by the above specification) or how large its output elasticity is likely to be. These issues would in my view warrant a more careful investigation if McCloskey wants to convince the readers of the usefulness of the production functions given above.

However, I think that there is a fundamental problem with the specification of the production functions in equations 1 and 2 as they do not distinguish between innovation and the stock of knowledge. In standard endogenous growth models, innovation is a flow variable that increases the stock of knowledge (a state variable). So, a more natural specification of a production and innovation function would in my view be the following:

$$4. Q = A \cdot F(K, sL)$$

$$5. A' = I(D, B, R, L_I, s_I, K_I, A)$$

The variable A would then be a measure of productivity and could be denoted as the “stock of knowledge”, while A' would be the rate of change of this stock of knowledge, denoted as “innovation”. Innovation could then depend on the variables D , B , and R , on the quantities of labor L_I , skills s_I , and capital K_I employed in innovative activities, and on the current stock of knowledge A . With such a specification, liberty could be crucial for innovation and, unlike in the specification used in equations 1 and 2, there could be substantial economic growth even if there was no increase in liberty. Furthermore, a sudden and substantial reduction in liberty would not automatically lead to a substantial decline in output, but would merely reduce the rate of productivity growth.

This model could of course be extended further in order to distinguish between countries at the technological frontier (with the highest levels of A) and follower countries that can increase their productivity by imitating technologies that have been developed in frontier countries (such a model is for example analyzed by Acemoglu et al., 2006). Then, liberty might be more important for innovation (in frontier countries) than for imitation (in adopting countries), which might explain why there can be substantial economic growth in countries like China. Moreover, the model could be extended to allow for the fact that liberty might also affect static allocative efficiency (B could positively affect the $F(\bullet)$ function by for example leading to more competitive markets). If the stock of knowledge can depreciate over time due to forgetting, the model could also be extended to allow for liberty to affect this depreciation rate.

In order to better understand such possible interactions between liberalism and economic growth, it is, however, not sufficient to simply write down an aggregate production function and making assumptions about how output depends on different inputs, but there should in my view be a more rigorous analysis of the underlying economic mechanisms. Some of these mechanisms have already been explored in greater detail in the innovation and growth literatures. Aghion et al. (2009) for example study the role of academic freedom for innovation. Moreover, the vast literature on endogenous growth has analyzed various factors that can encourage innovation and growth. Chu (2021) for example gives a short review of the theoretical literature that studies the effect of patent policy on economic growth. Such analyses show that the topic is too complex to be appropriately analyzed by a single variable R (measuring rents or appropriability) in an aggregate production function.

It would in my view be helpful if McCloskey could explain in some more detail how liberalism interacts with some of these

already studied economic mechanisms and what this for example implies for the optimal design of intellectual property rights or innovation policies.

Further remarks:

In the following, I mention some further issues that should in my view be clarified:

- On p. 18, McCloskey argues that “efficiency is not the point”. This could be clarified by stating that static allocative efficiency is not the point, while dynamic efficiency is clearly crucial when it comes to economic growth.
- The analysis on p. 19 on the effect of railroads on GDP is not clear to me: what does “the new part of the industry” mean? Are the shares calculated ex ante or ex post? Moreover, “QED” should not be used if there is no proof.
- The graph on p. 20 should in my view be better explained. Is the opportunity cost of labor curve assumed to be fix and always upward sloping? If so, an increase in labor productivity would go along with an increase in labor supply, which is at odds with the observation that hours worked have generally fallen over time (see Boppart and Krusell, 2020). Moreover, a concrete example of a labor-supply enhancing policy intervention leading to an efficiency gain could be mentioned and it could be clarified that the resulting increase in GDP is larger than the resulting welfare gain.
- On p. 29 (top), McCloskey argues that institutions such as property rights have no present opportunity cost and should therefore be free. The same is later on claimed (on p. 32) for the variables B (liberty), D (dignity) and R (rents). Is it so clear that the provision of these things only (if at all) involves fixed, but no variable costs? This should in my view be better explained and the issue of how they should optimally be financed could be addressed.
- On p. 36 it should be explained why the presence of economies of scale increases the parameter κ .
- On p. 36 it could be made more clear that output elasticities only reflect factor income shares in the case of constant returns to scale (i.e. if all output elasticities sum up to one) and perfectly competitive markets.
- At the bottom of p. 36, “large” should be replaced by “small” (two times) and “reduced” by “increased” as returns to labor are more diminishing when λ is smaller.

General assessment:

I enjoyed reading this article and think that the main argument has merit. However, McCloskey frequently makes bold claims without backing them up with careful analyses or appropriate references. While this informal style of writing can be quite entertaining, too much of the (very long) text is in my view devoted to historical anectotes and polemical discussions and too little to rigorous empirical or theoretical analyses.

References:

- Acemoglu, D., Aghion, P., and F. Zilibotti (2006): “Distance to Frontier, Selection, and Economic Growth.” *Journal of the European Economic Association*
- Aghion, P., Dewatripont, M., and J. Stein (2009): “Academic Freedom, Private Sector Focus, and the Process of Innovation”. *Rand Journal of Economics*

- Boppart, T., and P. Krusell (2020): “Labor Supply in the Past, Present, and Future: A Balanced-Growth Perspective”. *Journal of Political Economy*
- Chu, A. (2021): “Patent Policy and Economic Growth: A Survey”. *The Manchester School*