

Short Paper

Human Evolution

Jan-Erik Lane^{1*}

¹ Professor Emeritus, University of Geneva, Geneva, Switzerland

* Jan-Erik Lane, University of Geneva, Geneva, Switzerland

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Abstract

R. Dawkins claims success for selfish machines that room the animal kingdom. Animals have optimal genes selection. Turning from advanced biology to the humanities and social sciences, can we distil a few evolutionary lessons?

Keywords

evolution in the humanities and social science, Dawkins, Marx, Schumpeter, Piketty, Toynbee, Tocqueville

1. Introduction

The theory of natural selection has received much new inputs lately. On the one, there is the selfish gene hypothesis (Dawkins, 2020).

On the other, we have the concept of an Evolutionary Stable State (ESS) in game theory (Smith, 1982). Evolutionary approaches do not include any deliberations upon intention or reason. The survival drive offers enough motivation for natural selection to work, also at the genes.

What, then, could human development amount to? There are a few problematics.

1) Problem: intention

Human activity can have 4 modes, according to Weber:

- a) Traditional
- b) Affective
- c) Goal oriented
- d) Means-end oriented.

The latter two categories recognize intention, of which category 4 is instrumental rationality. Dawkins' selfish genes lack intention but are yet driven by purpose. How about human development? Surely it involves real purpose.

2. Problem: Micro or Macro Evolution?

Human development can take place in several forms:

Individuals, Societies, States, Nations, Empires,
for example.

Dawkins puts evolution at the smallest micro unit, viz the cell. And the drive for change is selfishness.

3. Social Change

Several theories of development have been launched based on selfish motives like power or wealth, but they are hardly evolutionary ones in scope and depth.

One could regard Toynbee's history as development theory. The same applies to Marxism, though the outcome of both theories are hardly evolutionary.

One finds of course many theories about macro social change or development in the humanities and social sciences. Thus, we have for instance:

Economic development, Urbanisation,
Industrialisation,

Postmodern society, Rise and fall of for instance Roman empire, etc.

However, these theories are strictly limited in time and space. And they often lack a clear and definitive evolution mechanism. These processes of social change result from macro forces where individuals participate *nolens volens*. Individuals do participate in social change but without there being a common purpose. In social change or development individuals tend to act on their specific intention without knowing the macro outcomes. We have Macro processes-micro motives.

4. Ill-fated Predictions

Evolutionary theory allows for predictions. One finds several well-known predictions that hardly amount to real evolutionary hypotheses. Here one can mention:

Schumpeter: socialism replacing capitalism.

Schumpeter had a brilliant hypothesis about the nature of democracy as competition between political elites. But his economic prediction of socialism replacing capitalism turned out wrong. People would undo capitalist institutions due to envy. Thus, redistribution would defeat capitalist zest.

The evolutionary perspective on capitalism was of course launched by Marx and Engels in 1848.

The rudiments of an evolutionary theory was there:

Evolutionary mechanism: development of the means of production;

Evolutionary drives: class struggle.

Marxism as an evolutionary theory had one weakness, namely the *pauperization* hypothesis. How was it to be interpreted so that it was at least relevant if not true? Endless debates followed in *Arbeiterbewegung* until Lenin and Mao eliminated socio-economic development for direct action to secure the dictatorship of the proletariat.

As a matter of fact, French sociologist Tocqueville questioned the hypothesis already in his magnum opus Democracy in America (1836-1842).

5. Successful Prediction

It may be mentioned that Tocqueville made several predictions without a basis in evolutionary theory. He predicted:

- 1) In the 20th century the two major powers will be the US and Russia.
- 2) The industrial society will multiply economic output many times over. And the increased wealth will benefit both capitalists and labourers.

This seems very much in line with truth as it happened.

6. Piketty's Hypothesis

Here is the place to bring up a recent development argument that is somewhat related to Marx. Economist Piketty argues that the division of national income has been relatively in favour of the powers of capital under periods of last 100 years, for most of the recent time. If National income = 100 %, it can be divided onto capital r or labour l after depreciation costs *et al.* Except for years of exceptional economic growth(g), Piketty holds that

$$r > l,$$

in market economies. Thus, economic inequality would rise, as manifested in the GINI index. It is often stated that *neo-liberalism* led to sharply increasing inequality between capital and wage earners.

If one takes welfare state programs into account, then inequality decreases. Piketty hardly has identified an evolutionary mechanism, because he suggests that developments could be reversed by state policies. However, the $r > g$ model does not support the *pauperization hypothesis*: if wage earners receive 45% of national income and capital 55%, then 45% of a growing economy year in and year out would improve living conditions! Actually the $r > g$ model is not clear, because capital(C) is several times bigger than GDP.

7. Civilisations

Macro culture have attracted development theories or predictions. The most ambitious example is Toynbee's theory of the rise and fall of civilisations in known history.

Toynbee documents meticulously a large set of macro cultures.

But which is the evolutionary mechanism behind rise and fall? Toynbee suggests a version of elite theory à la Pareto et al. Minorities seize power due to X advantages and rules until X are exhausted.

What does X stand for? Some form of advantages that are somehow always dissipated.

Other Civilisation hypotheses have been launched like, e.g., Huntington's Islam hypothesis.

Civilisations are not homogenous, which makes prediction hazardous. Thus, Islam as a macro culture is too diverse for it to take on the West. Why would Russia or China join forces with the Sunnis or the Shia?

To sum up: development hypotheses model macro social change either as linear predictions or circular changes in a pattern. They hardly constitute genuine evolutionary theory.

Can one formulate an evolutionary theory about micro or macro phenomena in the social universe?

8. Universal Egoism

Look at a model of a game between Egoism (E) and Altruism (A):

	E	A
E	0,0	9,1
A	1,9	5,5

This model of a game of egoism versus altruism has 2 Nash equilibria. A player with first mover advantage would adhere to egoism. One may thus conclude that Hobbes and Spinoza got it right. Perhaps Piketty's redistribution policies in favour of labour are not what a majority of egoists would opt for in elections?

9. Global Warming

Let us move to a macro game where states interact. Global warming can only be stopped if greenhouse gases diminish. But it will be costly. Two countries—China and the US—have enormous CO2 emissions that keep going up despite COVID. In a PD model coordination is bound to fail, as mutual trust is lacking.

10. Conclusion

Evolutionary theory appears successful for understanding change in the animal kingdom. Humans have existed for some 2 million years. Is there a set of selfish genes operating in development processes here too? Information and skills have no doubt increased with culture. But egoism seems to prevail both micro and macro, making global warming lethal for mankind.

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