Innovation: Population Bombs Have Long Led To Agriculture Booms

By Hank Campbell — August 3, 2016

In the 1950s, actual eugenicists had fallen out of favor, thanks to a certain little Austrian who had used the endorsements of it by intellectual elites in the United State and United Kingdom to embark on a genocidal campaign across Europe. They still wanted to control the numbers of less "fit" people - how they viewed the poor, disabled and ill - so they changed from forced sterilization to population control.

Humans were going to overrun over our host planet, they believed in true Malthusian fashion, but since advocating that they starve to death or be sterilized was no longer politically correct, they began to work to see those who did not meet the standards of elites were never born. When we look at the founders of everything from Planned Parenthood [1] to Sierra Club [2] and Environmental Defense Fund [3], the common thread that binds them is support for eugenics.

Theirs was a cynical outlook - they believed their ideas were the pinnacle of intellectual achievement and that human innovation had stopped. Their disciples, Paul Ehrlich, John Holdren, et al., even believed a Population Bomb was about to occur, and we were going to have wars over food.

That didn't happen, of course. Despite what eugenics proponents thought - and their population control descendants still think now - more people actually lead to more innovation. A new study [4] makes the case again that, when stressed, human ingenuity is likely to win out, even in the short term.

Using carbon-dating of artifacts and tools, University of Utah anthropologists plotted the dates of artifacts in 100-year blocks from ~13,000 B.C. on and were able to gain understanding of when humans in eastern North and the midwest America domesticated plants for the first time. And why. (1) The answer, even 5,000 years ago, was because they needed to feed a growing population.

Using inference - more people leave more stuff behind - they looked at thousands of artifacts of sites from Missouri and east and their dates. They found that the growing population correlated to the change to agriculture, they used scientific experimentation to move plants from one region to the next and determine which food crops could grow.
(a) Relative human population density as measured by a calibrated and taphonomically corrected KDE fit by a generalized additive model (GAM). The plot illustrates the model fit with 95% confidence intervals and is colour coded to indicate significant (\(p < 0.01\)) periods of increase (blue) and decrease (red) based on the first derivative of the model fit. The period of initial domestication is defined by the earliest occurrences of domestic \(C.\) pepo at 5025\(^{\text{cal BP}}\), \(H.\) annus var. macrocarpus at 4840\(^{\text{cal BP}}\), \(I.\) annua var. macrocarpa at 4400\(^{\text{cal BP}}\), and \(C.\) berlandieri at 3800\(^{\text{cal BP}}\). Periods of significant change in the taphonomically uncorrected GAM are shown as coloured horizontal lines at the base of the panel. (b) Histogram of relative human population levels through time as measured by observed and corrected archaeological site counts in 100 year intervals. Colour-coded horizontal lines at the base of the panel indicate periods of significant change in the taphonomically corrected (top) and uncorrected (bottom) GAM fits. As predicted by the model-based BE framework, human populations increase significantly to a local peak prior to initial domestication in the study area. Credit: DOI: 10.1098/rsos.160319, CC BY 4.0 [5]

The population boom came first. Then they set out to work within it. They didn't ration and mitigate and tell the less fortunate to stop having children, they grew more food.
Obviously that didn't work every time, sometimes nature changed faster than we could innovate, sometimes the land at the time was just too inhospitable. In the 20th century and even today, we can find people starving, but it's not because we can't grow enough food, it's because we don't let people have the tools. We have policies that say it is better to send food to starving countries where we hand it over to vicious warlords rather than remove the vicious warlords so people can eat- and an entire continent penalizes developing countries that want to level the agricultural playing field using modern science.

Such approaches are not just immoral and anti-science, they are in defiance of history. Innovation is going to win over time, no matter how many population control groups spring up to suppress the poor.

Citation: Elic M. Weitzel, Brian F. Codding, 'Population growth as a driver of initial domestication in Eastern North America', Royal Society Open Science, 3 August 2016, DOI: 10.1098/rsos.160319

NOTE:

(1) Squash, sunflowers, even the ancestor of quinoa. Why quinoa? It's a science mystery.

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