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Weiss, Volkmar

German Central Office for Genealogy

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The Population Cycle Drives Human History – from a Eugenic Phase into a Dysgenic Phase and Eventual Collapse

Volkmar Weiss*

German Central Office for Genealogy, Leipzig

In the period before the onset of demographic transition from large to small families, when fertility rates were positively associated with income levels, Malthusian pressure gave an evolutionary advantage to individuals whose characteristics were positively correlated with child quality and hence higher IQ, increasing in such a way the frequency of underlying genes in the population. As the fraction of individuals of higher quality increased, technological progress intensified. Positive feedback between technological progress and the level of education reinforced the growth process, setting the stage for an industrial revolution that facilitated an endogenous take-off from the Malthusian trap. The population density rose and with it social and political friction, especially important at the top of the social pyramid. Thus, from a certain turning point of history, the well-to-do have fewer children than the poor. Once the economic environment improves sufficiently, the evolutionary pressure weakens, and on the basis of spreading egalitarian ideology and general suffrage the quantity of people gains dominance over quality. At present, we have already reached the phase of global human capital deterioration as the necessary prerequisite for a global collapse by which the overpopulated earth will probably decimate those of mediocre IQ.

Key Words: IQ; Dysgenics; Democracy; Poverty; Francis Galton; Darwinism; Fertility; Demographic transition; Human capital.

About 50 years ago, in the former communist East Germany, I asked my schoolteacher what would happen after communism. He answered: “Nothing else, because communism is the final stage of human history.”

Today the President of the United States does not stand alone in his conviction that democracy is the final stage of history to which the entire world is headed. However, 2,350 years ago, Aristotle wrote in his *Politics* that democracy is only one stage in history and would be superseded by another stage. From the history of the Greek city-states, he gained the insight that any particular constitution depends on the distribution of poverty and wealth. “There must therefore necessarily be as many different forms of governments as there are different ranks in the society,

* Volkmar-Weiss@t-online.de

arising from the superiority of some over others, and their different situations.” But Aristotle knew also: “The first and principal instrument of the politician is the number of the people; he should therefore know how many, and what they naturally ought to be.” And Gunnar Myrdal added in 1938 (p. 33): “No other factor – not even that of peace or war – is so tremendously fatal for the destinies of democracies as the factor of population. Democracy, not only as a political form, but with all its content of civic ideals and human life, must either solve this problem or perish.”

Because the number, density and social structure of a population (Lopreato and Crippen, 1999) are never constant but always changing (Sorokin, 1937; Weiss, 1993), the constitutions and political ideals of states are also never constant, but always changing: from monarchy to aristocracy, further to oligarchy and democracy, not in a linear fashion, but with steps backwards and forwards. Sooner or later the cycle of constitutions leads to democracy – according to Aristotle “of all the excellent constitutions ... the worst, but of bad ones, the best.” Necessarily, the deficiencies of democracy (Hoppe, 2001) must be made up by taxes, confiscations, and fines imposed upon the well-to-do. In such a way democracy inevitably degenerates into a corrupt government of the plebs and mobocracy. A “dictatorship of the proletariat”, which in the name of democracy (Somit and Peters, 1997) redistributes without any constraints from poor to rich, from the brave and diligent to the paupers, destroys the economic power of the society in its roots. Finally, the people will hail an autocrat as saviour, and after a complete breakdown the cycle starts again.

Is our history actually cyclical (Galtung and Inayatullah, 1997)? And if so, in what phase of history are we living today?

We have all grown up with an understanding of history as involving linear progress. We all know a number of indicators that show a change in one and the same direction – either rising or decreasing – over centuries. When we look at shorter periods, there may be fluctuations and a change of slope. The percentage of people employed in farming has decreased from nearly 100% to 2% in highly developed industrialized nations across the past 250 years. Accordingly, the productivity of labor rose in all economic sectors over many generations. In the past century, life expectancy rose dramatically. There are a lot of further statistics showing

a clear demographic trend (Inglehart and Wetzel, 2005): In the West the incidence of divorce has multiplied over recent decades. The public view of homosexuality is changing. In Europe the number of Christian believers has been decreasing, with fewer and fewer people attending church. In contrast to this, in France the number of Muslims rose from half a million around 1960 to more than five million forty years later (Gourévitch, 2000); a parallel development took place in Germany and other countries. In many schools in Berlin, Paris, Amsterdam, and many cities of North America, white children are now in a minority. People keep more and more pet animals; the relative proportion of social spending in German cities is rising; the birth rate is dropping, and so on. Nobody doubts that all these trends (Noelle-Neumann, 1978) – with the exception of the rise in labor productivity, say optimists – cannot continue indefinitely. If so, this would presumably end with a sudden change, a revolution (Goldstone, 1991), or a cataclysm (Chesnais, 1995; Brander, 1998; Laqueur, 2007).

In marked contrast to the unshakable faith of politicians and scholars in the march of progress, all great religions announce – with their own variations – an end of the world, apocalypse and rebirth.

Cyclic Decline Instead of the Hoped-for Equilibrium

However, in the industrialized countries the number of native inhabitants shows no further increase, but a decrease. Over how many generations this number will decrease, nobody knows. For such a development the established authorities of demography have no theory to offer, despite their having been aware of the decline of the birth rate very early and having projected its proximate course and consequences. For decades, professors of demography have been satisfied with the “theory” of demographic transition, which predicted a stable population would be reached in some unknown future. Yet, to the astonishment of the professors, who seemed to be blind to the fact that equilibriums in nature and society are rare but cycles are common, birth rates were dropping still further and are now far below the level for natural population replacement. But why are birth rates dropping in such a way? Academic demographers can provide hundreds of arguments and opinions, but controlled variables and causes seem to be hidden from them. The

solution of the mystery can be found in the papers of some young economists (Galor and Moav, 2002) – to which the present paper will return.

It is not only the industrialized countries of Europe and Asia, but also the white populations of North America, Australia and South Africa, that have for decades been falling short of the magical number of 2.1 offspring per woman (Buchanan, 2002). Many 20th-century population forecasts and demographic assessments are proving famously wrong (Longman, 2004; Steyn, 2006). In the last 30 years, in France (Laulan, 2003) and in Germany (Weiss, 2000) a number of books appeared in which a population policy was called for in order to stop the imminent population implosion. The politicians were blamed for doing nothing, or not enough. In such a way each industrialized country would have culprits of its own. But the similarity of probable outcomes (Demeny, 2003) in nations as different as Japan, Korea, Germany, and Italy suggests that the general trend must have a deeper and more general cause.

Looking at the speed at which the birth rate is falling within both old and new industrialized countries, while attending to the distribution of ages at which women marry and bear children, and to similar demographic parameters, the convergence between the developments within Eastern Europe, the historically Catholic Southern Europe and Protestant Europe is impressive to such a degree that it seems there must be an underlying law. But what law? If all industrialized countries, and in the meantime all newly industrialized countries, too, despite their different historical backgrounds, are affected by sub-replacement childbearing patterns, the cause must be much deeper than the policy of each country, which – as in ancient Sparta and in Rome – has proved entirely helpless (Schade, 1974).

An accompaniment of the population cycle is always the progressive concentration of the inhabitants in cities. “At this level all civilizations enter upon a stage ... of appalling depopulation. The whole pyramid of cultural man vanishes. It crumbles from the summit, first the world-cities, then the provincial forms and finally the land itself, whose best blood has incontinently poured into the towns, merely to bolster them up awhile. At the last, only the primitive blood remains. ... This residue is the Fellah type,” wrote Spengler in his book *The Decline of the West* (1922; 251). He

comprehended the essential elements of the downward spiral in a typological way, without proving his conclusions statistically. Until far into the 19th century – even into the ascending phase of European civilization – in all large cities, more men died than were born in them. Large cities grow and always flower at the expense of the surrounding countryside. In the crowded conditions of any large city prostitution and sexual laxity flourish while human reproduction declines. (Davis, 2006).

Why are big and fierce animals rare? Their place in the food chain is the most exposed and their existence requires a large number of smaller animals – hares, deer and so on – which need plants as fodder. In German we speak of somebody as a “Big Animal” if he is a man of the first rank; but his status also depends upon the large number of poorer citizens who work for him or pay taxes. The ecological space of big animals is limited. They themselves are the first to perceive when their space is becoming crowded (Colinvaux, 1980).

As many studies have shown, the rural peasantry in Central, West and Northern Europe had far more children between the 16th to the middle of the 19th century than the urban poor of the same period, whose families often had only two children or less (Weiss and Münchow, 1998). In contrast to the situation in the new areas of settlement for the white race overseas, the employment opportunities for peasants were limited, and this social stratum and the upper stratum in the towns were eventually the first to begin using birth control (Clark, 2007).

In the last decade, a handful of young economists have become aware that there is no reasonable theory for the fact that after a certain point of historical development had been reached the well-to-do had fewer children than the poor. From purely theoretical considerations, these economists drew the conclusion that there must have been a turning point in a cycle; from that point onwards the poor had more children than the rich (De la Croix and Doepke, 2003). In the early stages of industrialization, when physical capital was the prime engine of economic growth, societies were marked by a stable class structure. In the second half of the 19th century the process of industrialization enhanced the importance of human capital in production and induced the capitalists to lobby for the provision of universal public education. This produced a socio-economic transformation of the demographic and class structure.

Poorer parents who had for centuries had large families while investing little in education now began to restrict the size of their families in order to give every opportunity to those who were born (Schneider and Schneider, 1996). Hoping they had given birth to a gifted child, the price for its education and upward mobility was to reduce the number children born (Galor and Moav, 2006).

How Fast Can Demographic Change Take Place?

In 1865 the Englishman Charles Boner, who travelled through Transylvania, wrote a report which is illuminating:

But how is it that these German colonists, all thinking men, should thus dwindle away, instead of peopling the land with their race? ... The man of substance could not bear the thought of his possessions being divided. For a middle state he had a decided distaste; and the patrimony could not be increased to provide amply for each member of a numerous family. ... There are villages where the population has remained stationary for a hundred and more years. In others, where originally every inhabitant was German, with but a few Wallack huts outside the boundary, there is now hardly one Saxon left, and the whole population is Wallack, and the change has taken place since the childhood of men still living. ... Even from the pulpit, difficult as the subject is, it has been vigorously and eloquently treated. ... Everywhere, throughout the land, the Saxons, who took the first, are now gradually falling into a secondary position. The Wallacks are increasing so fast, that their ever-growing population displaces and threatens soon to overwhelm entirely the original settlers. ... The number of their representatives in the Transylvanian Parliament is so great, that they carry every measure by an overwhelming majority. They seek office with avidity Most of these men are in every respect unfit for office. ... In the numerous judicial cases, in which they have to decide between Saxons and Romanians, the Saxons go to the wall. They expected that while their numbers remained stationary, those of their serf dependants would do the same. But their calculations have proved false; the vassals have grown in strength, and the hum of their voices, always raised to demand new concessions, grows louder and louder.

Today, three generations later, this crowding out of the Saxons has been completed. Apart from a small residue there are no Germans left in Transylvania. The two World Wars were only stages in a long

development, whose consequences Charles Boner foresaw correctly in 1865. Once a population has fallen below a critical size, within a short time it comes to a complete collapse – the Serbs in Kosovo are another example.

Let us look at South Africa where a national census was carried out in 1921. The director of the statistical office of the Union of South Africa, C. W. Cousins, commented on the numbers in the following way: “While within the last 30 years the non-European population by natural growth has increased [by] around 2,630,000, the European population increased ... its number [by] only 500,000.” Therefore, in Cousins’ opinion, “it will probably be decided within the next 25-50 years whether Europeans will remain in South Africa alongside the vastly more numerous African population.” Cousins published three different projections of the possible population in 1971. Indeed, in 1971, the actual number lay within these projections. In 2002, of approximately 44 millions, only 13% were white. More recent numbers suggest that this has since fallen to 10%. Between 1890 and 2005 the numerical ratio between black and white shifted from 5:4 to 9:1. The change of political power, envisaged by Cousins in 1921, took place in 1994, and since then the exodus of whites has been continuous. In South Africa, the brain drain has long been underway: qualified young people are emigrating to Europe, Australia or Canada. If the IQ data given by Lynn and Vanhanen (the blacks of South Africa average IQ 66, whites 94, coloreds 82) are correct, then from 1890 to 2005 the average IQ of South Africa sank from 81 to approximately 70, and continues to sink.

In Kenya, once heavily settled by whites, the main exodus is already complete; as also nearly so in the former Southern Rhodesia (today Zimbabwe), where the economic and currency crisis has entrapped those whites who have not already left.

Malthus argued that a population always increases more rapidly than the means for its subsistence. From this, Darwin drew the conclusion that natural selection, which eliminates the unfit, brings about an equilibrium between propagation and carrying capacity. From 1841 on, when overpopulated Ireland suffered from cruel famines, in consequence of which, and also by emigration and celibacy, the population of the island halved from eight million to about four, this seemed to be an example of a

Malthusian collapse. But the theoretical model of Darwin fails in the cases of the German peasants of Transylvania, of the white population of South Africa and of the upper and middle stratum of the prosperous industrialized countries. In order to interpret this behavior and to predict its outcome, we need more insights than the analogies by Spengler of the growth and final decay of all cultures, and the answer is to be found in demographic transition.

In the period before the onset of the demographic transition, when fertility rates are positively associated with income levels, the Malthusian pressure generates an evolutionary advantage for individuals whose characteristics are positively correlated with child quality. Under such conditions, those who are successful in competition, those who acquire and hold more territory, or develop skills that lead to higher productivity, are also more successful reproductively, and so increase the percentage of their genes in the population. High-quality individuals generate greater wealth and have more resources to support a larger number of offspring of higher quality. As the percentage of individuals of quality type increases, technological progress intensifies. Positive feedback between technological progress and the level of education reinforces the growth process, setting the stage for an industrial revolution that facilitates an endogenous escape from Malthusian controls.

Investment in human capital increased gradually in the pre-industrial era due to a gradual increase in the representation of individuals with higher inherited qualities. The demographic transition generated a reversal in this relationship. In the Malthusian regime there is a positive correlation between income and fertility rates whereas in the modern growth regime this correlation is negative (Lam, 1997). Once the economic environment improves sufficiently, the evolutionary pressure weakens, and the quantity of people gains dominance over quality.

Global Human Capital Deterioration

At present, in all industrialized countries, even in the newly industrialized and the developing countries, women with middle and higher education have far fewer children than uneducated women – e.g. in China, despite the one-child policy, it is only half the number. For men, since they often marry downward, the negative relationship between

social status and child number is not pronounced in such an outspoken way, but verifiable. Since the genotypic value of IQ and educational status are highly correlated, these data imply a worldwide dysgenic trend – a worldwide decrease of genotypic IQ. Although those who are poor are not automatically dull, and to be rich moderate intelligence is often sufficient, yet it is the members of the middle class, to which in industrialized countries about a third of the population belongs, who determine by their number of children whether the society goes up or down in the cycle. The offspring of the middle class supply the largest percentage of upwardly mobile individuals and the highest absolute number of the highly gifted, with an IQ above 123 (Weiss, 1992). The highly gifted originate only to a small degree from the marriages of the highly gifted themselves, because the highly gifted proportion of any population is always very small. Beginning in the rising phase, with the formation of a meritocratic society, with the expansion of the educational system and with educational selection, nearly all the gifted members of the lower classes move upwards out of that class into higher classes where they reproduce at lower rates. In the end nearly all women with medium and high IQ can be found in professions and high-level occupations that make the rearing of a large number of children difficult. The childlessness or child paucity of the upper third of society has the consequence that average IQ is decreasing, and the cycle of societal achievement enters a declining phase, a phase that is now spreading to most advanced societies around the world (Itzkoff, 2003b).

Already in the last quarter of the 19th century, the decrease of birth rates in the upper stratum of advanced societies led to a recognition of the threat of an accompanying decrease in the average giftedness of a nation (Blacker, 1952). But cognitive test scores, which are not natural constants and can be influenced by many factors, and it has been noted that IQ has been rising in some countries over a number of decades. In light of the data that supports the notion called the Flynn Effect, the argument that a dysgenic development was imminent seemed to be ridiculous (Neisser, 1998). However, to the author and various other geneticists (see Weiss, 2000), it seems certain that – in analogy with the acceleration of human height – such a rise in IQ can only be the result of phenotypical influences and not genotypic improvement.

To measure and prove a dysgenic trend in the genetic contribution to IQ is extremely difficult. If the sea level is rising or falling this can easily be measured. The IQ, however, is a relative measure always gauged to the median of a reference population and the distribution of test scores will be identical with the arithmetic mean of a “bell curve.” Lynn and Vanhanen (2002) chose the median of the United Kingdom of 1979 as the score 100 of their “Greenwich IQ.” But no country can claim to be resistant to change. In 2000 and 2003, the PISA (*Programme for International Students Assessment*) studies compared the intelligence in certain countries (Rost, 2005; Rindermann, 2006), with the result that in 2003, due to the first-time inclusion of Turkey into the sample of reference, the average “PISA-IQ” of Germany and other countries that had been included in the 2000 study rose without their contributing anything to such an effect. Educational politicians in industrialized countries could be even more proud of their nations’ IQ if Brazil and other Third World nations were to be included in the sample from which the general mean is calculated—and prouder still if the nations were weighted by the total numbers of school children in the respective countries (Weiss, 2006).

In the study “Child Poverty in Rich Countries in 2005,” the poverty threshold is defined as the percentage of children living in households with incomes below 50 per cent of the national median income. The percentage of children living in poverty is likely to increase when the poor have many children or the well-to-do have relatively fewer children. In the area of the former West Germany, for example, more than 40% of women with an academic degree remain childless (Weiss, 2002). “The Report series has regularly shown there is a close correlation between growing up in poverty and the likelihood of educational underachievement, poor health, teenage pregnancy, substance abuse, criminal and antisocial behaviour, low pay, unemployment, and long term welfare dependence. ... Such problems are associated with, but not necessarily caused by, low income (for example, low levels of parental education or parental skills)” (UNICEF, 2005, p. 6).

A high percentage of children in poverty provides a strong hint as to a probable dysgenic trend in that country; alternatively, a small percentage may hint at a eugenic trend. Indeed, the eight richest countries (Denmark,

Finland, Norway, Sweden, Switzerland, Czech Republic, Luxemburg and France) in the “Child Poverty League” (UNICEF, 2005, p. 4) – with no more than 7.5% of their children living in poverty – have on average no IQ decrease; Finland, where only 2.8% children live in poverty, has an IQ-increase of 6 points. But Germany (IQ decline of 6 points, down to a mean IQ of 96), Italy (with a child poverty level of 16.6%; and an IQ loss of 7 points), and Mexico (child poverty 27.7%; IQ decline of 17 points) exhibit a clearly dysgenic trend.

Now let us put these poverty percentages in context with the percentage of children who have a PISA-IQ of 88 and lower. The fifteen countries that have a below-average percentage of low IQ children (Denmark, Finland, Norway, Sweden, Switzerland, Czech Republic, France, Belgium, Netherlands, Austria, Japan, Australia, Canada, Ireland, New Zealand) have on average the same IQ as given by Lynn and Vanhanen. However, the eight countries with an above average percentage of dull children (Hungary, Germany, Greece, Poland, Spain, Italy, USA, Mexico) show a mean IQ drop of 6 points. In this way, comparing three bodies of independently collected data, Lynn-Vanhanen-IQ, PISA-IQ, and the percentage of child living in poverty, and we have evidence for eugenic and dysgenic trends on a national scale, varying up to 6 points within one generation. Maybe the trend would be even more obvious if the Lynn-Vanhanen-IQ could be uniformly scaled to the year of birth (1960).

Australia and Canada show an IQ increase despite high percentages of children in poverty. Maybe an indigenous dysgenic trend is counterbalanced by selective above-average IQ immigration, which may be having an adverse effect on the countries from which high IQ migrants leave. It is to be noted that there are very negative changes in the IQ of Latin American and Third World countries: Argentina has a Lynn-and-Vanhanen-IQ of 96 (PISA-IQ 77); Brazil 87 (68); Chile 93 (81); Indonesia 89 (72); Mexico 87 (70); Peru 90 (63); Uruguay 96 (79).

But the downward trend has an easier explanation. In Brazil, for example, as early as 1970, the 2.5% of women in the top income group averaged only two children or less (Wood and de Carvalho, 1988, 191). However, the women in the four poorest strata, comprising 48.5% of the population, averaged 7.4 children: consequently their share of the

population grew to 58% in 2000, while the share of the top income group dwindled to 1.4%. In contrast with this, in 12 national fertility surveys taken around 1970, Finland was the only country with a positive relationship between husband's income and education and achieved fertility (Jones, 1982).

In the World Population Prospects report (2006) we find a table (p.7. Table I, 2) of the countries and areas accounting for about 75 per cent of the total world population (estimates and median, 2005 and 2050). In 2005, 24 countries comprised 74.7 per cent of the world population. If we weight the average IQ (taken from Rindermann, 2007) of these populous countries, we obtain an average IQ of 90. In 1950, by an analogous calculation, we obtain an average of IQ of 94. But in 2050, when it is estimated that Uganda, Kenya, Tanzania, Sudan and Colombia (each estimated to have populations exceeding 60 million by then, and an average IQ below 80) will qualify to be included in that list, we predict an average IQ of only 86. If we take the list of countries by population in 2005 and extend the list by a further 31 countries, including in such a way up to 90 per cent of the total world population, we correct the 2005 world average IQ to 88.¹

Considering that at any time the world average is heavily influenced by the value of China, doubt should be entertained whether the average IQ of China is indeed 105 as Lynn and Vannahan assert. This may hold for the more advanced regions, but perhaps not for the provinces in the interior. In view of the fact that within Germany the IQ difference (Ebenrett et al., 2003) between the prosperous regions in the south and economically backward federal states in the former East German northeast amounts to about 10 IQ points (the same size as the difference between Massachusetts and Mississippi; McDaniel, 2006), why should the situation in China be different? Also, for decades in China, as in most countries all over the world, highly qualified women bear only half the number of children as unqualified women (because the one-child policy is not rigorously applied amongst rural peasants).

¹ A difference of plus or minus two seems to be within the limits of error of measurement for any such average, because for some countries the values are only estimates.

On the basis of a “List of countries by population in 1907” (*Wikipedia*, entry from the *Nuttall Encyclopaedia*) we are able to calculate a world average IQ of 94, the same as in 1950. Given the available demographic data, hence from about 1960 to about 2004, the world average IQ has dropped about 8 points under the assumption of stable average IQ for each country. However, as shown above, for some Latin American countries these averages are not stable but are in obvious decline. A decline can also be expected for numerous industrialized countries because of immigration of an unqualified workforce from the Third World, dysgenic birth rates or selective emigration of qualified people (for example from former communist East Europe to the West). Summarizing from all these data, we conclude that a drop of world average IQ of more than 10 points, even up to one standard deviation of about 15 points, seems to be potentially real and imminent. This means a drop of about 3 points per generation, or even up to 5 points.

Independently, on the basis of the IQ data given by Lynn and Vanhanen (2002) and statistics of the U.S. Census Bureau, Lynn and Harvey (2007) calculated the average world’s IQ, confirming the general trend downward. They found a mean of IQ 93 in 1950, of IQ 90 in 2000 and of IQ 87 in 2050. This is in very good agreement with our results here: IQ 94 in 1950, IQ 90 or 88 in 2005, IQ 86 in 2050.

Besides the rise in prices of energy and raw materials, environmental pollution and so on, mankind also faces “population pollution.” This is a term that could easily be misunderstood and therefore “human capital deterioration” might be a better one. If nature is reacting to dramatically reduce the present bloated size of the human population, which is upsetting the normal balance of species and resources, and in this way protect the earth against further exploitation, human capital deterioration would be one way to bring about this end because this large human population has become dependent on high IQ for its survival. Because in a democratic society population pollution is politically non-existent and even impossible by definition, the success of the counter-strike of nature against a species that is intelligent enough to propagate and fill the earth, but not sufficiently intelligent to understand that it must conserve its ultimate resource, the human mind and thus the quality of its population, seems to be guaranteed.

An important threshold value is the IQ 105. The person scoring 105 and above can acquire higher education, can operate a small business successfully or be an independent craftsman. In the world-wide web one finds a table published by a scientist writing under the pseudonym “La Griffe du Lion”. It shows a linear relationship between the percentage of the population “f” with an IQ above 105, crucial for economic power, and the gross national product of the country. From the major gene theory of IQ (Weiss, 1992), it follows that the frequency m_2 of the dull allele M_2 is the square root of $(1 - f)$, where f is the “smart fraction”. The frequency of the bright allele $m_1 = (1 - m_2)$. The smart fraction f follows from the Hardy-Weinberg-Law $m_1^2 + 2 m_1 m_2 + m_2^2$, where $f = m_1^2 + 2 m_1 m_2$.

From the “Table of IQs, smart fractions and GDP,” the national frequencies for M_1 and M can easily be calculated. For the Congo the frequency of M_1 is near zero, for Singapore near 0,20, which is my estimate for highly developed Eurasian populations (Weiss and Weiss, 2003). The power of a nation does not depend on its mere numbers, but of the number in its cognitive elite. This is the lesson learned from these data.

A decrease in the world’s average IQ from 94 in 1950 to 86 in 2050 means a decrease of the gene frequency of M_1 from 0,12 to 0,05 and a decrease of the smart fraction with an IQ above 105 from 22% to about 10%. That means a relative decrease of about 4% per generation. This is the reality that we have to face. In an economically healthy society with an average IQ of 100, the smart fraction comprises 36% of the population.

In 1998 each percentage point increase in IQ was worth about \$600 to per capita GDP. Of course, a correlation between IQ and individual contribution to GDP can also be found within almost all countries.

The Cycle Cannot be Stopped Because our Understanding of its Cause has Come too Late

According to Karl Marx, history has to be understood as an unbroken series of class struggles, and each epoch would have a population law of its own. But which law, when and why? Perhaps we make progress in our understanding if we regard each social class or stratum, each religious group and so on as its own self-interest acting structure – including even

the state bureaucracy – as a biological species that strives to maximize its size and its portion of the social cake at the expense of all the others. Since humans belong to a species that is capable of conscious birth control, we would expect societies to resort to either migration or birth control or both when the crowding effect becomes severe. Since such controls begin in different social strata and different cultures at different times, their numerical weights shift.

When this became obvious around 1900, it induced Galton to found a eugenic countermovement (Soloway, 1990). In view of the small numbers of children in the upper stratum, Galton predicted a drop in the general intellectual level. However, the opposite came about. Improved living conditions, better education and the smaller numbers of siblings born into families led, after 1900 in all industrialized countries, to a rise of the IQ test scores of about 15 IQ points. Despite the fact that this Flynn Effect could only be phenotypic (environmental) improvements, to the broader public the arguments by Galton and his adherents seemed to be exaggerated and untrustworthy. As we know today, the decline in IQ test scores predicted by Galton, as measured by phenotypic values, needs two or three generations, or nearly a century, to be expressed in test scores. But within this century the political climate has changed fundamentally (Scheler, 1921). Today, 100 years after Galton, his political aim to promote the birth of gifted children is no longer politically feasible (Lynn, 2001), since all men must be seen as – or at least be said to be – genetically equal in intellectual endowment. Therefore, Galton's goal has not the slightest chance of being realized as a national policy in the West (Lee, 2000; Reiss, 2000; Burch 2005); so there seems no hope that the march of the human lemmings into the Great Chaos may be stopped. When the insight began, it was not immediately met with the expected consequences, and by the time the consequences did eventuate, any effective policy was already mentally handcuffed by egalitarian ideology.

Myrdal (1940, 188ff.) wrote far-sightedly: "The basic principle for population policy in a democratic country ... is, that a very large number of births must be regarded as undesirable. ... In a democratic society we cannot accept a way of things whereby the poor, ignorant, and inexperienced maintain the stock of population. ... The deepest dilemma of democratic population policy is that we [do] not desire ... a reversal of

industrialization and rationalization. ... The general method of population policy can be described as a transfer of income from individuals and families without children to families with children. ... In a democracy a population policy is a contradiction in itself. ... It is not, like much other reform policy, the relatively simple question of inducing a majority to tax a minority for its own benefit. It is just the contrary: to ask a majority to tax itself severely in favor of a minority. For the majority of every population ... consists of citizens who are either unmarried or have no child burdens at all, or only very light ones. ... For the overwhelming majority of every people, distributional reforms in the interest of the reproducing families mean economic sacrifice.” Nowhere in the Western democracies can such a policy, let alone a eugenic one, have any chance of success.

Among rodents – who are similar to a species from which *Homo* apparently evolved – we find density-dependent regulation (Schäfer, 1971), resulting in a constant fluctuation of numbers, by which any plague of mice or rats is followed by the subsequent collapse of their population. Among social mammals, which usually live in a social hierarchy, the breakdown of the population and a new start are forced upon nature by a chain of events: crowding and hence strong intraspecies competition leads to a striving for equality and to the destruction of social hierarchy (Leyhausen, 1968). A population with a destroyed hierarchy is becoming more and more incompetent and unable to act, and the individuals are fighting each other. In an overcrowded cage with rhesus monkeys we see murder and homicide, and with rodents apathy, sterility and cannibalism (Calhoun, 1962). Such cruelties have also been reported from overcrowded and undernourished camps of prisoners-of-war (Werth, 2006). Not only on Easter Island has such a cycle come into effect in all its stages and its cruelties, but also in various other, more complex human societies.

It is by such cyclical means that nature regulates population density in a feedback loop. The full cycle requires the destruction of social order and a disorientation of female individuals away from the normal pattern of successful reproduction and rearing of offspring. Western societies call such behavior “emancipation” and “feminism.” Under healthy conditions, the exhibition of virility, such as the heat of the deer and the courtship of

cocks, or among men the exhibition of social prestige, have procreative purposes. In ascending societies, men with power also have access to the most attractive women and the potential to produce the largest number of descendants. In societies that have entered the declining cycle, the courtship of men and women, their awareness of the latest fashions, the brand of their cars, their prestige journey to the Seychelles and their cooing on the telescreens become ends in themselves not related in any way to the number and quality of their children. In the work life, educated women are under an achievement pressure, which defers the production of children, resulting often in the birth of only one child. Only a few can pay for service personnel that can make a full-time job and a family with many children compatible..

When we look at the history of past high civilisations, it is noticeable that it was a long time before internal decay lead to final collapse (Knaul, 1985). From a certain point on there were nearly only failures. The economy stagnated and the finances of the state and of the cities fell more and more into disorder. The number of people depending on welfare rose from year to year, although each new ruler declared it an aim to lower this number. The security of the citizens was no longer guaranteed; the relationship between man and woman had likewise changed as had the relationship between young and old. The whole society seemed to be stricken by an illness and incapable of making and implementing rational and necessary decisions. Although nobody wanted the decline, the states and their inhabitants accepted policies that steered themselves into an abyss in such a way, as though they had no other goal than falling into the abyss. Today, our situation is similar (Burnham, 1964)?

If a biological species over-exploits its ecological space, then natural selection will be directed against the species as a whole and will regulate the species by catastrophe to a size that makes a new start possible. In the ascending phase individual selection plays a large role and the allele frequencies of genes, which are positively correlated with achievement parameters – especially with higher IQ –, rise. In the descending phase, group selection becomes decisive. This density-dependent switching from individual selection to group selection is the crucial point in our argumentation, leading far beyond Darwin and Marx (Witting, 1997). The entire population has the same fate as an army after a lost battle. The

defeated are killed or enslaved as a group, the tribe is decimated or extinguished. The study of evolution shows that when a population expands so much that it destroys the resources on which it depends, a certain point of no return is reached, and that population collapses. Until now all such catastrophes, if they concerned human populations, were regional ones. But today, for the first time, mankind as a whole has brought into being conditions that could lead to a catastrophic global collapse of the human population.

If we assume that man was enabled by hundreds of thousands of years of evolution to think logically, to be imaginative and creative, even to work scientifically (Mokyr, 2005) to improve the conditions of his life (Boserup, 1981), then we must see that the consequence – the unbalanced explosion of the human population – must be recognized as an error that has to be corrected. The balance of nature on earth is being disrupted by the excessive size of the human population, and nature will drastically reduce this overweening population within a very short period of time. This will result in the Great Chaos.

Already during the 19th century in Central Europe, crowding had the effect that the percentage of people depending on welfare rose and rose. Villages were obliged to support the old and disabled who had the right of domicile (*Heimatrecht*). But when large numbers of young people moved away to the cities the villages became unable to fulfil their obligations. In order to relieve the distress of the people, the German Chancellor Bismarck issued the first social laws. If the poor had children, they demanded and received support; the poorer the mother was, the more support she got. In this way the breeding of stupidity was encouraged. Since about 1900, on average, it has been the underperformers who have begotten the most children.

Humans are not much different from animals. If one promotes the reproduction of farm horses, one gets farm horses and not racehorses. As outlined above, the power of a people depends upon its percentage of intelligent and efficient individuals. These cannot be produced by schooling and education alone; they must be born, like racehorses. It is the erroneous belief of the politically correct that, if they were to be properly nourished and educated, the “genetically-challenged” would be able to uphold the high level of Western civilization or even develop it further.

Lack of food is noticed immediately. However, the lack of sufficient space, which prevents humans to test their range, is developing slowly. It is felt by all members of a community as unpleasant proportionally to the respective crowding. When around 1880 people from the villages and towns on their search for work and bread moved into the industrial villages around the large cities, this concentration of people was connected with the rise of socialists, requesting equality and universal suffrage. The first socialist members of German parliament (*Reichstag*) were elected in Saxony, in the industrial agglomeration between Chemnitz and Zwickau, which then had the highest population density world-wide.

Around 1885, the suburb of Leipzig where I live, was, even by international comparisons, an extraordinarily industrial village on the meadows between the allotment gardens where large crowds of children would play. At that time a new large Lutheran church was built. Today the church still exists, but it no longer has a congregation. God has “left the country” (Mak, 2000). In the square in front of the church a kebab shop has opened. In the shop hangs a picture of the mosque in Mecca, full of people.

In the 18th century the French reached a population level that was greater than the land could support with the technology then available. Under the slogan “liberty, equality, fraternity” the French revolution decapitated not only its aristocracy, but also many outstanding non-aristocratic intellectuals. Subsequently, for virtually the first time, birth rates sank in a European country, again in France (Dumont, 1890). Spengler (1934) understood the significance of this link between political, economic and demographic events. The wheel of history, which drives the Aristotelian cycle of constitutions, expresses itself in the spirit of the age (*Zeitgeist*), affecting the social systems, the political conditions and the number of children born in the various social strata.

The pogroms in the Ukraine, which drove hundreds of thousands of Jews westwards to Central Europe, were but a further manifestation of the struggle in an increasingly crowded area (Weiss, 2000). If the members of another race or another people are overrepresented in the upper stratum, they sooner or later become the target of social unrest. Regional economic elites, like the Chinese in Southeast Asia, the

Lebanese in West Africa, the Indians in East Africa, the pre-1941 Germans in Eastern Europe, the Armenians in Asia Minor, all at one time or another became the subject of terror and expulsion, even extermination. Whoever is able to stir up the masses against a racially, ethnically or socially differentiated minority elite, has a good chance of winning power. Yet after completing the expulsion, or extermination, of that elite from the “liberated” regions, the latter are usually in a worse economic situation than before. The apocalyptic scenario has advanced yet another step further.

In 1941, the religious community of the Parsis in India peaked at 115,000. This 0.03% of the population of India provided 7% of all engineers and 5% of all physicians in the entire country. Parsi female literacy today is 97%, the highest in India. For generations their women have been educated, they study and marry late and end up having fewer children. Since 1953 their birth rate has sunk below the magic number of two, and may at present be even less than one per family. If this does not change, by 2020 there will likely be only about 23,000 Parsis in India. The Parsis symbolize – even in a more pronounced way than the secularized Jews – the fate of the industrialized society and of its elites. The Parsis, who have been characterized (Kulke, 1974) as “engines of social change”, share their fate with the childless feminists. Because they will have exterminated themselves by failing to reproduce, the culture they represent will be replaced by the culture of those who are more prolific.

States with only short phases of upswing and a low average IQ have no chance to reach the stage of fully developed democracy at all, but oscillate between oligarchy and tyranny, before they are drawn into the abyss. Despite this insight being such a simple one, it is seldom shared by contemporary Western politicians who could save billions of dollars if they recognized the importance of demographics. He who believes, for example, that it would be possible to establish civil society in the Congo by simply introducing general suffrage, shows only that they are prisoners of the current myths of the age. The same incapability misguides the attitude toward world hunger and poverty, ignoring the need to encourage the use of birth control techniques, and prevents proper action against mass immigration into the First World. In recent decades of economic boom, just as in Europe before 1890, we have seen prosperous states with

farseeing governments and a high average IQ of population, such as Japan, South Korea, Taiwan, and Singapore, rigidly resist the waves of immigration that could otherwise drown them.

During an upswing in prosperity, there is a phase in all states with a very young population, when large numbers of young men – third-born, fourth-born, fifth-born sons – search for purpose in their lives. As numerous statistics have confirmed, when such a structure of population is reached there nearly always follows an expansive and belligerent policy. When in Europe migration proved to be an inadequate solution, egalitarian ideology blazed the trail for communism and social democracy. It culminated in the revolutions of 1917 and 1919 in Russia and Germany. The structure of population and of age that existed in France around 1790, and in the German Reich and Russia around 1910, today obtains in parts of Africa such as Darfur, West Africa and the Congo, as well as in Afghanistan, Iran, Nepal, and many other troubled regions (Heinsohn, 2003). For the hour, By midnight, which will be shown by the hand of history in Europe to arrive around 2030, it will make nearly no difference whether in World Wars I and II England, Germany, Italy, or Russia were on the side of the victors. In all essential symptoms of the crisis they are similar, and in the abyss of history there will not be space for all.

Prospects after the Turning Point

The cycle in which we live, running from the end of the 17th Century to the middle of the 21st Century, consists of rises and falls. The trajectory is never straight upwards or downwards, but advances in waves, sometimes accelerated, sometimes braked. When does a society reach the point of no return? It is in a figurative sense like the point at which the power train of a rocket goes out. From this point on the flight follows the laws of a ballistic curve, initially still rising, but then slowly declining and finally falling more and more rapidly. For the German Reich this point undoubtedly was already reached between the years 1880 and 1890, for England two or three decades earlier. From this point in time (not to be mistaken for the peak of a culture), the fall is more or less rapid and constantly downward. In Germany this peak, recognizable particularly from the prestige of German science, lay after 1918.

The point of no return, after which there is no longer any escape from the cycle of constitutions, is the introduction of general suffrage. Without the consequences being clear to the masses, they cheer in a democracy with general suffrage. They assume they will be biologically steered to those actions that will make their momentary situation easier. But the actions bear in the long run the certainty of a degradation in the overall culture and economy. The politician who wants to win an election and power in the hope of correcting the deficiencies, only has to extol an increased dose of the remedy (which caused the awkward situation)--progressive social redistribution (Anrich, 1973). Any party that tries to steer against the stream may survive one election, but certainly not a second.

There are individual politicians who see through the vicious circle and would like to break through it. These men and women are working against their time; they have little chance to be permanently successful. The transformation of society is an inexorable political process, in that all trends and slogans – secularization, modernization, globalization, feminism (Kingsley 1937; Kingsley and van der Oeven, 1982) and so on – have their proper place, through which our civilisation is heading toward its goal, the Great Chaos.

In a well-established democracy a certain framework is given to all thinking and acting, which has the effect that the society cannot break away before it reaches its goal. A journalist who breaks away from these rules loses his position; a university teacher like him will never be offered a chair; and for a politician of a people's party a wrong slip of the tongue will mean the end of his or her career. Reading de Tocqueville, we become aware that what we today call political correctness is nothing new, but an essential part of any democratic society (Noelle-Neumann, 1984).

For many decades I lived and worked in a communist country in the honest belief that factual knowledge on the inheritance of intelligence could contribute to create a more rational world. I hoped to counter utopian-egalitarian efforts and their devastating consequences (Pinker, 2002). Up to about 1960 in the free world the publication and discussion of behavioral genetic research lead to no serious problem for an academic. However, about 1970 I noticed with astonishment, as a locked-out

spectator in East Germany, a change of intellectual climate in the Western world (as summarized by Brand, 1996). At first this was from my point of view nothing other than a swell of the spirit of the age, which sooner or later would become obsolete with the further progress of genetics. But when from year to year this turned out to be more and more to be a misconception (see Pearson, 1997), it opened my eyes to deeper insights.

Today – 2007 – there have been published more than 200 scientific studies with the objective to discover genes for schizophrenia, but very few that have looked genome-wide for genes for IQ. In many countries this research topic is simply taboo, although the search for IQ genes is methodologically simpler and more promising than the search for genes underlying schizophrenia. There does not seem to be any foundation on earth that will fund a search for the genetic component of high IQ. It can only be hoped that IQ genes will be discovered as by-products of research targeted at genes for dyslexia, Alzheimers and so on.

Some in high pedagogy even seem to see the highly gifted as a challenge endangering the interests of the collective and those of lower intelligence. German educational psychology published its last book on intelligence testing in 1974. Despite the fact that PISA tests measure IQ very precisely (Lehrl, 2005), the terms “intelligence” are not mentioned in official German reports (Weiss, 2002). Some in positions of influence even claim that genetically-influenced differences in human intelligence simply do not exist. There are supposed to be no genetically stupid people, only poorly-educated people – people who are ‘educationally disadvantaged’ (Anger et al., 2006). Such a term implies that their condition can be remedied by increasing expenditure on their education. Today, a donor such as Bill Gates makes available billions for research to fight diseases or to support the poor. A century ago, donors would have provided the few millions that are needed for successful IQ genetic research. In this politically-correct environment, a Bill Gates would be condemned if he were to donate some of his multi-million grant money to advance research in IQ genetics, rather than for the more ‘noble’ purposes of supporting population increase amongst those who produce more offspring than they can themselves support. “All people are equal” is the only permitted message; or any inequalities are said to have social

causes that can be abolished.

The Great Chaos that I foresee does not mean an apocalypse. In the cataclysm, the large and highly specialized animals always disappeared, but many smaller, unassuming species survived. The question is actually only whether after the Great Chaos a new Dark Age will last for a long time, and much of our civilization will be lost or whether a sufficient number of capable engineers, artists, and thinkers will survive. Whoever predicts that the earth will have only 2 billion inhabitants at the end of this century, contrary to a maximum of 9 or 10 billion around 2040, would not like to have his hopes confirmed, but rather hopes he will be disproved.

Whoever has travelled across Australia or British Columbia knows that a highly developed civilisation is compatible with a small population density. Until now, no disaster could throw mankind back to the era of the hand-axe. Hitherto, the course of technological evolution was not a cycle but a spiral. In the lap of our old world the new one is to be recognized by the fact that millions of lowly qualified are set free and become unemployed forever. Worldwide, billions of humans will become superfluous. History must pass through a bottleneck that may turn out to be the passage through the purgatory of a Great Chaos.

I do not claim that population density or population quality completely determines the course of history. They are, however, constituents of a cycle of economics and constitutions in which each step is in a feedback loop with its human capital (Williamson, 2006). Politics is nothing more than the foam on the waves. Politicians believe themselves to be the drivers of history -- but they are driven by it and try to regulate something that regulates itself (Flynn, 2001). As individuals, some may have achieved an understanding of what is happening, but in mass societies they lack the power and the ability to thwart the statistical laws of history.

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Appendix:

Cognitive ability values for countries, corrected overall cognitive ability. – Because according to Rindermann the United Kingdom has a corrected value of IQ 102, we corrected all averages by subtracting 2 (equally to a “Greenwich” UK IQ of 100). PAGE 2