ENTREPRENEURSHIP

Dr. Dennis Ridley

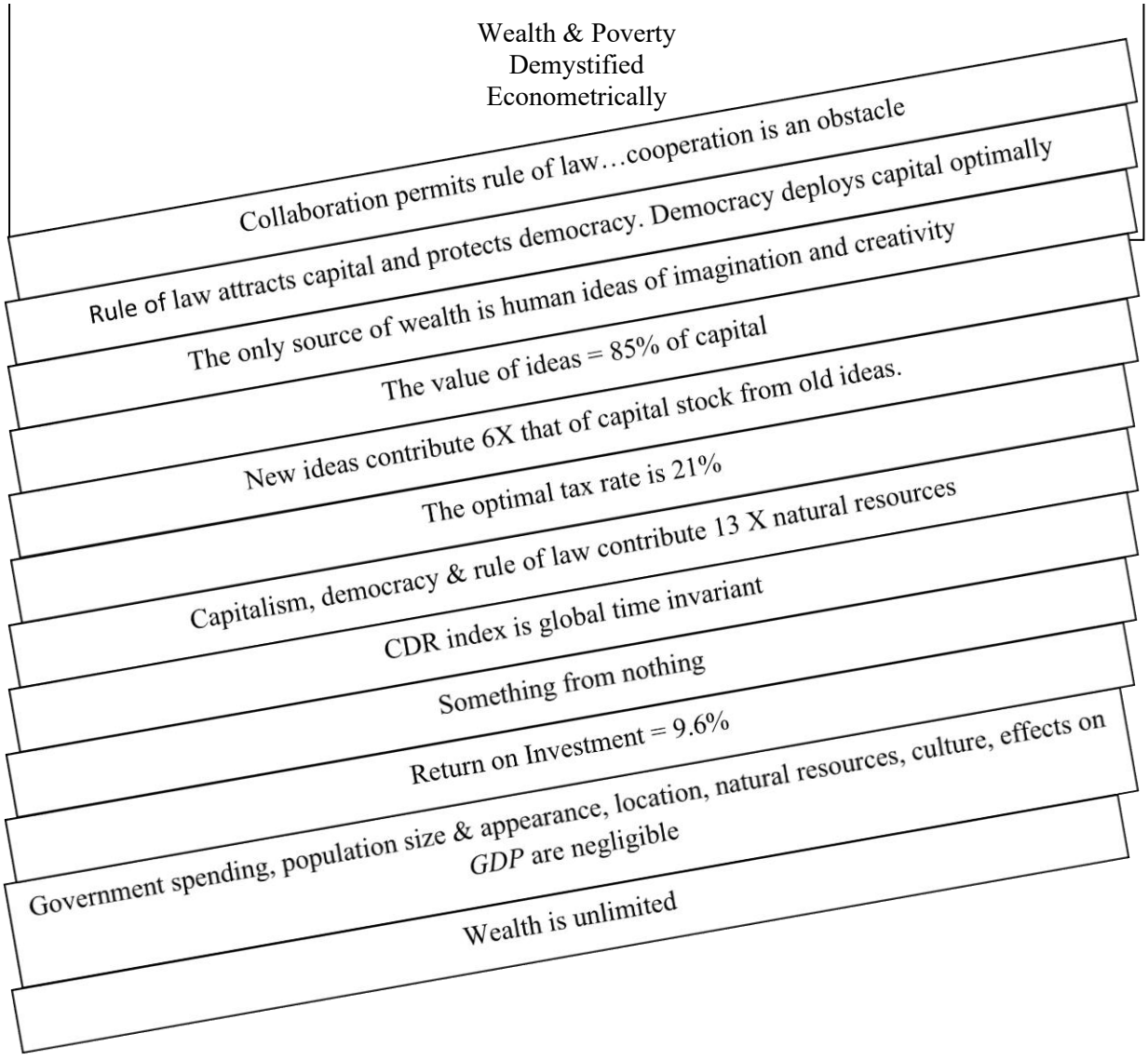
Wealth

explained by

Capitalism.Democracy.Rule of law

General theory of economics

CDR supply side scientific growth law unveiled
from confusion to clarity



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Wealth

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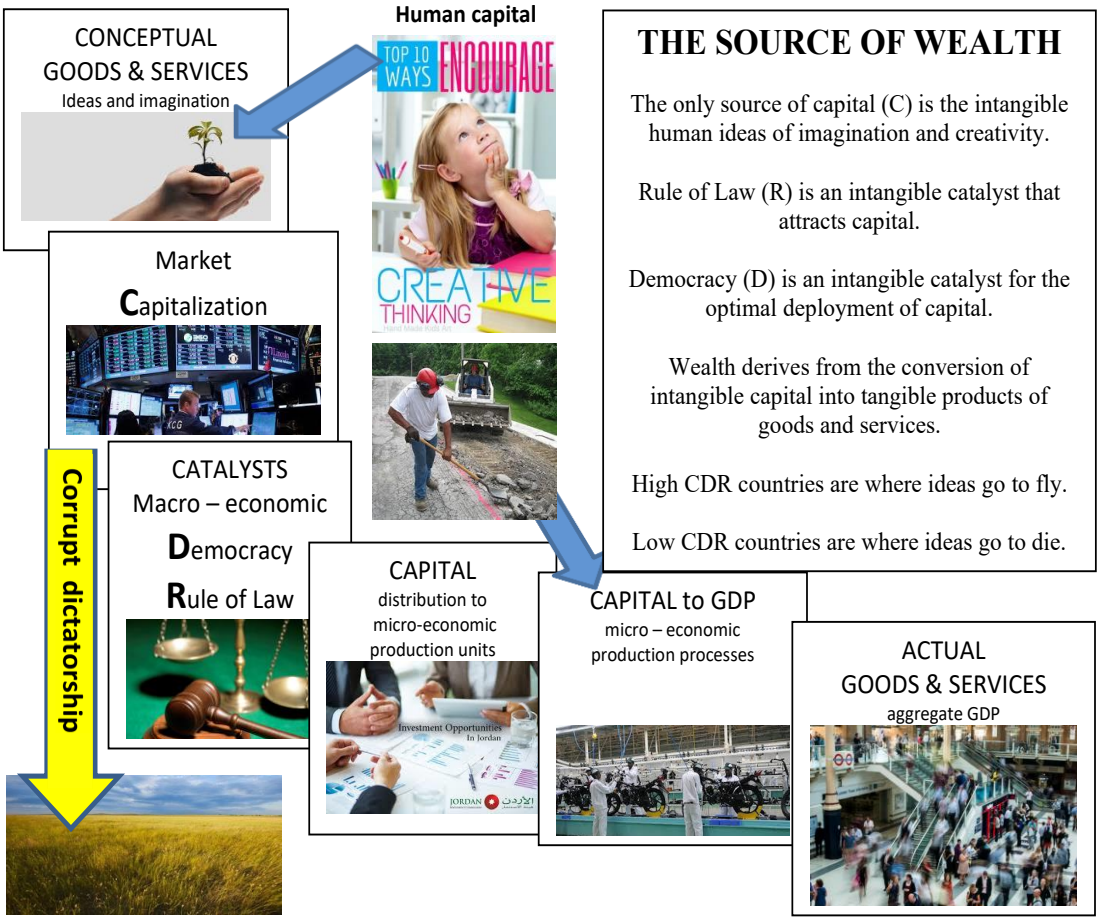
Capitalism.Democracy.Rule of law

Wealth & Poverty Demystified Econometrically

General theory of economics

CDR supply side scientific growth law unveiled
From confusion to clarity

One source of wealth watches over another



COLLABORATION

THE WEALTH GENE

Acknowledgements

This book is constituted from several research papers on the subject of collaboration as it applies to gross domestic product and standard of living. Some were coauthored, and the primary author thanks the coauthors of those papers: Andrea Nelson, David Thistle, Felipe Llaugel, Inessa Korovyakovskaya, Kenyatta Rosier, Lorin Lee. I would also like to thank Bruce Smith, Cartreal Davison, Dalvin Roberts, Inger Daniels, James Flagg, Kelvin Wallace, Pierre Ngnepieba, Randall Holcombe, Sue Gross and Winston Roberts for probing questions and good discussions but take full responsibility for any errors and omissions even after the discussants made their own views clear.

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About the Author

Dr. Dennis Ridley studied Electrical Engineering at Middlesex University in England and the University of the West Indies, where he received the Master of Science degree in Computer Methods in Electrical Power Systems Analysis. He received his PhD degree in Engineering Management from Clemson University, USA. He has the distinction of a US patent, publication in the Journal of the Royal Statistical Society, Fellow of the Royal Statistical Society, US State Department Fulbright Senior Specialist at Kharkov University in Ukraine and Harvard Business School certificate in The Art & Craft of Discussion leadership.

Currently, he is a Professor in the School of Business & Industry at Florida A&M University, and a Faculty Associate in the Department of Scientific Computing at Florida State University. Previous appointments include Howard, George Mason, and Clemson Universities, Nekoosa Packaging Corporation, Radio Corporation of America, Jamaica Public Service Co., and the International Atomic Energy Agency in Vienna, Austria.

He is widely published in the fields of electrical, industrial & biomedical engineering, economics, finance, management science, operations research, time series analysis, statistics, supply chain management and entrepreneurship. His professional societies have included the Institute for Operations Research and Management Science, the International Institute of Forecasters, the Institute of Business Forecasting, the American Statistical Association, and the Production & Operations Management Society.

He is the father of the computer-powered wire(less) ultra-intelligent real-time monitor, antithetic time series analysis, the moving window-spectral method, the CDR economic growth index, the professorial evaluation metric, live case study pedagogy, Andrew Ridley and Jon Ridley.

Dr. Ridley has served as an accreditation visitation team member in service to the University of the District of Columbia, Seton Hall University, State University of New York and Rutgers University.

PREFACE

This book is a companion to *The Mystery of Wealth* (Ridley, 2020a) and *Collaboration trumps IQ* (Ridley, 2023) – *that together present the first complete economic theory of entrepreneurship*. It completes the path to widespread and accelerated entrepreneurship. The purpose of these two books is to demystify the causes of wealth and poverty like never before done. *The Mystery of Wealth* was the seminal comprehensive presentation of the CDR index. The CDR index is a mathematical model that shows how capitalism (C), democracy (D) and rule *of* law (R) jointly with natural resources and geography explain almost all economic growth. Rule *of* law attracts capital and democracy creates additional pathways for the optimal deployment of capital. As the CDR index is raised so is the real per capita gross domestic product adjusted for purchasing power parity. So, the question is how to raise the CDR index of a country so as to raise wealth. This book identifies the key lever as collaboration, and the existence of a biological gene for collaboration. Hence the title *The Wealth Gene*.

The book will serve the needs of individuals who wish to gain a basic understanding of national wealth and the macro-economic growth and decision making that is responsible for wealth. The reader may start with a preliminary review of the information at CDRindex.blogspot.com and here in Chapter 1. The blog is intended for anybody, especially persons with a high school education and beyond. Chapter 1 explains wealth in general terms. It contains a summary of conclusions that flow from the basic CDR fact that the source of all wealth is human capital ideas of imagination and creativity. Cooperation is required for ordinary economic growth but through collaboration human capital is converted into capital stock of knowledge, machines, recordings, etc. that are used to create new products and services, and therefore extraordinary economic growth. It contains many conclusions that are counterintuitive and different from commonly held beliefs. Chapters 2 and beyond are intended for college and university students, and professionals. It is anticipated that through the study of entrepreneurship, students might gain a sense of ownership and purpose that places higher value in their own education. They might also become more supportive of the minority of students who choose entrepreneurship for a career and will likely pioneer future wealth building for society as a whole.

Chapter 2 Investigates the phenomenon of Singapore per capita income that is fifty percent higher than that of the United States of America (USA). By comparison the outstanding Singapore feature is mandatory school sports training that produces collaboration skill which is essential for rule *of* law. And rule *of* law attracts capital and protects democracy which deploys capital optimally for production of gross domestic product.

Chapter 3 Extends the Singapore USA investigation to include mandatory school music education that also produces collaboration skill. The investigation also discovered that there is a gene for collaboration skill. *The Wealth Gene*. But the gene could be turned off due to ancestral environmental stresses such as forced labor, excessive discrimination, and exposure to dangerous chemicals. The turned off gene malady can result in a negative epigenetic transgenerational psycho sequela.

Chapter 4 Reviews corporate managerial frameworks for collaboration skills training of employees from formerly oppressed communities. Corporations can avoid these communities or they design jobs to develop collaboration skill, and create more possibilities for growth and expansion with high profit objectives in mind.

Chapter 5 Investigates a legal framework for reparations to help formerly oppressed communities pursue psychological health rehabilitation and recover collaboration skills. Such reparations would take the form of mandatory sports training, music education, and gene therapy.

Chapter 6 is a cross-state US capitalism-democracy-rule *of* law (CDR) economic model for comparison with the cross-country CDR model (introduced in *The Mystery of Wealth*) to see where similarities and differences may exist. Differences are expected because there are no state total market capitalization data for C like there are for countries. A surrogate, product of state population and education, is used as a proxy for capital.

Chapter appendices that include supporting information for a chapter are placed at the end of the chapter. Global appendices that support multiple chapters are placed at the end of the book and are named with double letters. Appendix AA contains a nomenclature of economic terminology that is developed specifically to explain the CDR growth model, how it works, and how it is developed through collaboration. Appendix BB contains data and the regression results and chart that depicts the source and mechanism of wealth. Appendix CC contains a question-and-answer review that compares traditional economic growth concepts with the CDR economic growth model that is based on collaboration.

CHAPTER 1

Introduction

Collaboration permits rule of law which attracts capital formation and protects democracy that deploys capital optimally to raise CDR and GDP. CDRindex.blogspot.com.

We know from the companion books "The Mystery of Wealth" and "Collaboration trumps IQ" that economic growth is determined by the policy variables capitalism, democracy, rule of law (CDR) model. When natural resources and geography are added to the model, it explains approximately 90% of real per capita gross domestic product adjusted for purchasing power parity (GDPppp-international dollars). It is most impressive how few variables are required for explaining GDPppp. This is in keeping with Einstein (1879-1955) and the parsimonious principle of Occam's Razor. These place growth economics on a sound scientific footing. The question remaining is how does a country raise its CDR in order to raise its GDPppp? This book shows that collaboration is essential for rule of law that attracts capital and protects democracy that deploys capital optimally to produce GDPppp and contribute to wealth. We show that there is a gene for collaboration and refer to it as The Wealth Gene. If the gene is turned off due to ancestral environmental stresses such as forced labor, excessive discrimination, and exposure to dangerous chemicals, it may result in a negative epigenetic transgenerational psycho sequela. A loss of collaboration skill and wealth might continue for generations, indefinitely. Gene therapy may serve to recover collaboration skills and end poverty. Our objective is to further explain and motivate entrepreneurship.

The Source of Wealth

It is a commonly held belief that the source of wealth is natural resources. One only has to travel around the world to see that the countries with the greatest natural resources are the poorest. To benefit from natural resources a country must have access to human beings with cerebral knowledge of the natural sciences. These include physics, chemistry, etc., and their extensions to applied science, technology, engineering, and mathematics (STEM). The true source of wealth is exogenous human capital ideas of imagination and creativity. See also Simon (1981), Ridley (2010). Figures 1a,1b,1c depict the healthy system of capitalism that occurs in the United States of America (USA). Entrepreneurship is the process of starting a business, typically a startup company offering an innovative product, process, or service. See also Foss & Klein (2013). Entrepreneurs collaborate to convert their exogenous human capital ideas of creativity and imagination into endogenous capital stock of knowledge, machinery, computers, program code, recording, etc. This endogenous capital is deployed democratically to produce gross domestic product of goods and services. After subtracting depreciation, obsolescence, and consumption, we are left with contribution to wealth.

In this way, capitalism organizes capital for investment in industry. It is necessary to transport raw materials to manufacturers and products and services to the places where they are consumed. And the consumer must be transported to the places where they can make purchases. Both parties pay taxes to a third party to provide roads, bridges, canals, airports, and seaports, etc. Industry requires educated and healthy people. Taxes are also used to build schools and hospitals. They are also needed to provide clean air, and water, police, and courts to ensure justice, the common

defense, etc. These are all part of the capitalist system that creates economic growth, development, and a high standard of living. The optimal tax rate that maximizes GDP was calculated to be 21% by Ridley (2022b) and Ridley & Davison (2022). Laffer, et. al. (2008, 2010, 2014) argue that it is possible that reducing taxes from a high level can increase tax revenues. But Laffer did not derive the optimal rate.

There is a commonly held misunderstanding that the existence of taxes implies, by definition, the practice of socialism. Capitalism is the economic system in which the decision of how much to produce, where to produce and when to produce is made by private enterprise. This is entirely different from socialism in which the decisions of how much to produce, where to produce and when to produce are made by a central authority, namely government. In capitalism, each private industry and consumer can, for example, build roads to transport goods to a marketplace. Alternatively, they can pool their funds through taxes to a third party, namely the government, to accomplish this effectively and economically. The government does not actually build roads, it uses the taxes to hire private contractors to build roads.

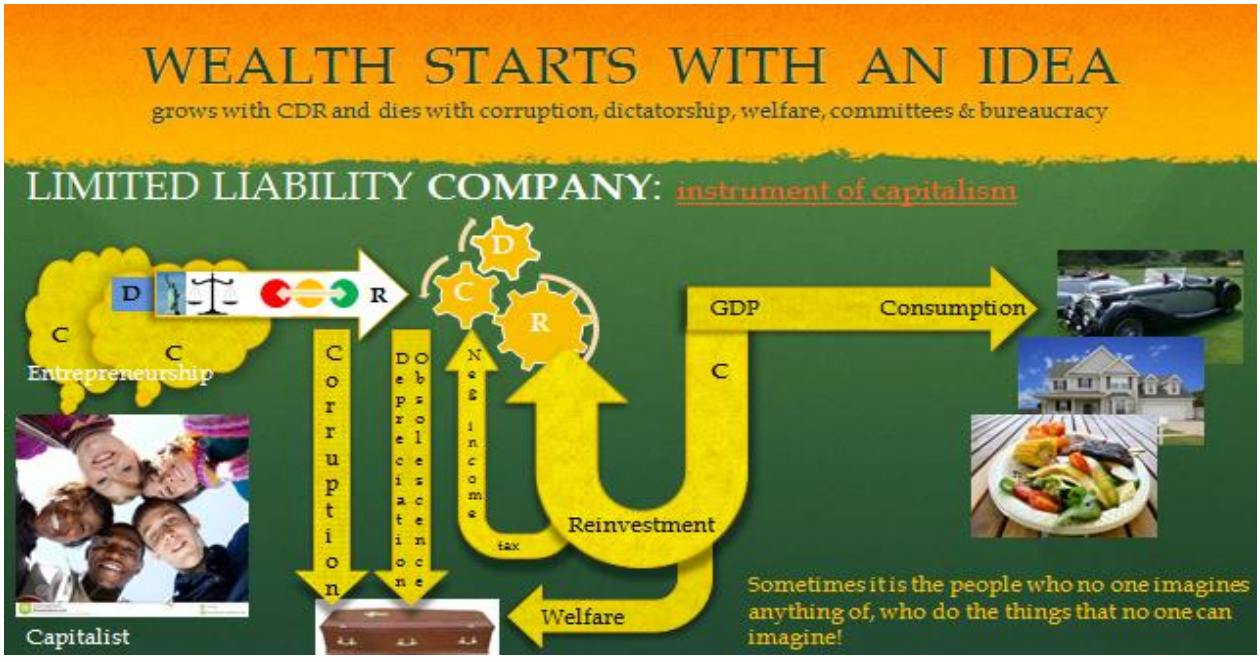


Figure 1a. Capital to GDP generating process in the presence of catalysts democracy (D) and rule *of* law (R).

1st & 2nd

Figure 1b. Diadic cooperation:
Self-interest.
Contractual agreement - what's in it for me?

Figure 1c. Triadic collaboration:
Shared interest.
Trust - what's in it for us? What's in it for society?

Cooperation is required for ordinary economic growth. In terms of economics, it involved division of labor, trade and self-interest. Despite the element of self-interest, the Adam Smith (1776) invisible hand causes the trading partner to be better off. And one cannot get rich unless one makes somebody else better off. If one were to sell a product or service at a price that is high or a quality that is low, there would be few or no purchasers. We stand on the shoulders of Adam Smith, and Milton Friedman (1980, 2002) who explains Smith very well. But we also add to the science when we recognize that collaboration is required for extraordinary economic growth. The element of self-interest makes cooperation an obstacle to rule *of* law. But through collaboration, the institution of rule *of* law is created (Ridley & Nelson, 2022a). *Rule of Law* is the reverse of corruption, the protection of shareholder and other property rights, and a catalyst for the attraction of capital. *Property* is the legal expression of an economically meaningful consensus by people about assets, how they should be held, used and exchanged. Property rights facilitate innovation and extraordinary economic growth. Thereafter, trade and cooperation may continue in the Adam Smith ordinary economic way.

In passing, we mention another term, socialist, that is loosely used in connection with socialism. Socialist has nothing to do with the means of production. Nor does it have anything to do with the source of wealth. Socialist is a term that refers to income redistribution. When a high-income person is taxed and the money given to a low-income person, the incentive of the high-income person to produce is reduced, and the incentive of the low-income person to work is reduced. Their combined total income is reduced. In the limit as income redistribution continues, the total income declines to zero. See also Laffer, et. al.(2008,2010,2014). For example Venezuela.

The Collaboration Gene

Animals and human beings can cooperate, but only human beings can collaborate (Tomasello, 2023). See also Sartre (1943) on ontology and existentialism. We now know from mice studies (Avital, Aga-Mizrachi & Zubedat, 2016 and Avital & Aga-Mizrachi, 2022) that there is a gene for cooperation. By inference we will assume that there is a gene for collaboration. In the mice experiment, mice were observed as they negotiated a maze. Successful completion was rewarded with a tasty treat. The amount of reward earned was a measure of cooperation skill. Next, a maze with two pathways was created, one path for each mouse. The mice could see each other. It was found that the mice cooperated such that the amount of reward they each received was greater than the amount that they received when working individually.

In the next phase of the experiment, high cooperation mice were bred with each other, and low cooperation mice were bred with each other. When placed in the maze, it turned out that the children of the high cooperation mice out cooperated the children of the low cooperation mice by earning an even greater amount of reward. The grandchildren of high cooperation mice outperformed the grandchildren of low cooperation mice by a yet greater amount of reward earned. The experiment was conducted over ten generations. The effects were random, but the results showed a clear transgenerational trend (see Figures 2a). In practice, the effects follow a random probability distribution. The majority of high cooperation parents will produce high cooperation children. Only a small percentage of high cooperating pairs will produce low cooperation children. An epigenetic instruction error regarding what proteins to produce can occur. On the other hand, if low cooperation is caused by a gene being turned off, the children will also have the dysfunctional gene. Low cooperation parents will not produce any high cooperation children. This can explain why the gap between the grandchildren was even greater. And still greater between

the great grandchildren. This is evidence that there is a gene for cooperation. Figures 2b and 2c depict the transgenerational inheritance process. For a detailed explanation see Ridley (2023).

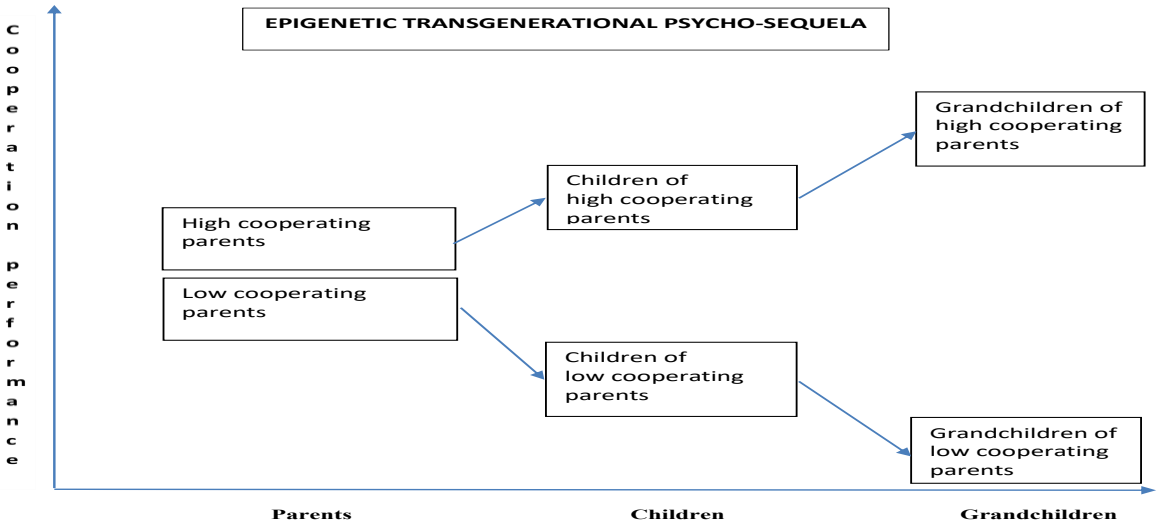


Figure 2a. Comparison of children of high and low cooperating mouse parents. The gap between high and low cooperation children increases with each new generation due to an epigenetic transgenerational sequela.

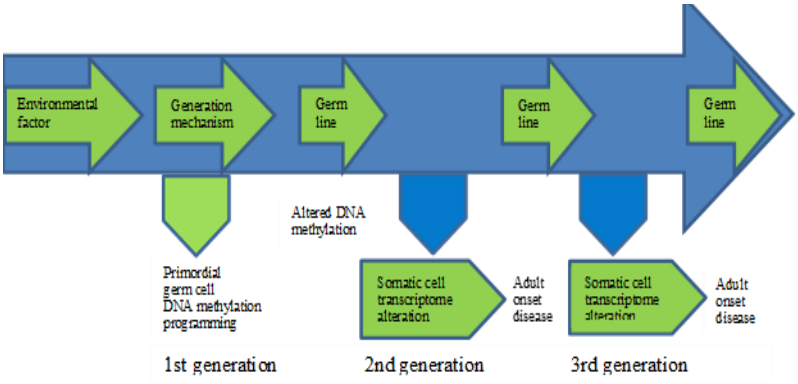


Figure 2b. Parent organism exposed to the environment. *Source*: Own schematic

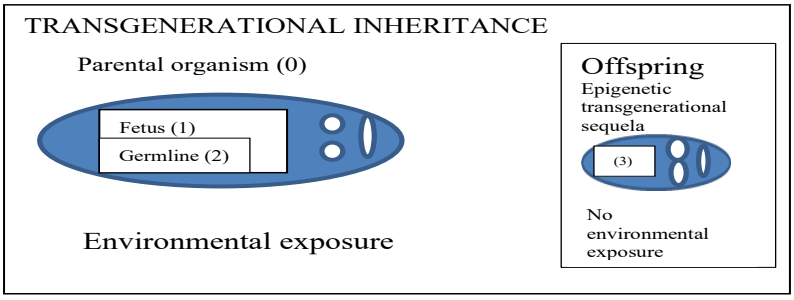


Figure 2c. Role of germline in epigenetic transgenerational inheritance.
Source: https://www.youtube.com/watch?v=erjyk9CbFwI

If the gene for collaboration skill is turned off for any reason, it may be due to exposure to stresses such as forced labor, excessive discrimination or dangerous chemicals, and can result in a negative epigenetic transgenerational psycho sequela. This could apply to entire communities, villages, states or countries. The result may be widespread poverty. Ninety percent of the people in the world live in abject poverty. See Figure 3. See also Nilsson, et. al. (2022), Beck, et. al. (2021), King & Skinner (2020), Ben Maamar, et. al. (2018), Skinner (2014), Skinner, et. al. (2013) & Crews, et. al. (2012). Harlow & Zimmermann (1958) and Harlow, Dodsworth & Harlow (1965) showed that baby rhesus monkeys that were removed from their mother and not allowed to breastfeed and bond with their mother grew up unable to form relationships with their peers. For human beings, this in turn can negatively impact academic learning, job performance, entrepreneurship, and performance in the economy in general. To simply correct and remove the environment that caused low collaboration effects in the first place and hope for the best will be to no avail. A curative intervention is required if collaboration skill is to be recovered.

Because the effect is random some individuals may escape the effect and suffer little or no consequences. They are tempted to believe that because they became successful, then anybody who does not is lazy. Until of course they realize the existence of the genetic malady that we speak of. In studies by Ridley, Lee and Nelson (2023) and Lee and Ridley (2024), Singapore was shown to have adopted mandatory school sports and music education and concomitant world highest scores in collaboration skill and GDPppp. See Figure 4a and Figure 4b, and Chapters 2 and 3. Efforts to cope with a gene malady may include school sports and music education. Full immersion in these activities teaches collaboration. It may go a long way towards the recovery of collaboration skills. These are lifetime treatments. They may be only temporary and limited to intragenerational cures. Chapter 4 reviews corporate managerial frameworks for collaboration skills training of employees from formerly oppressed communities. But a rapid and permanent transgenerational cure would be gene therapy.

A subset of volume of gross domestic product (g) for all countries on a spherical globe is depicted in Figure 4c. This is a vector field ($\vec{F}$) representation in the CDR domain. C is investment capital inflow (curl arrows) in the presence of catalysts D and R, and g is the outflow (divergence arrow). See Ridley & Llaugel (2022) for a full explanation on how to calculate g and return on investment.

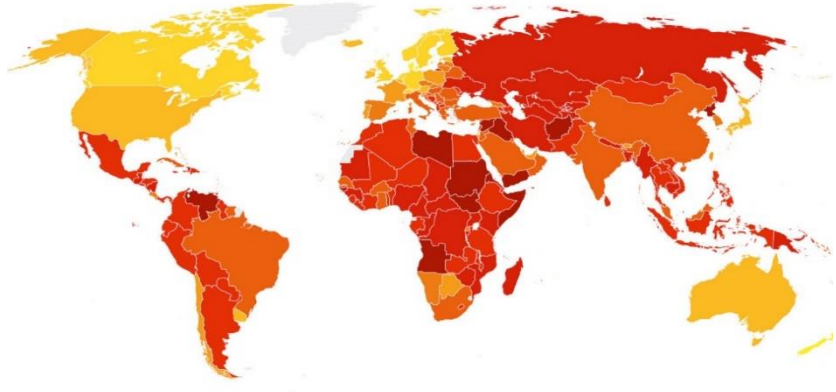
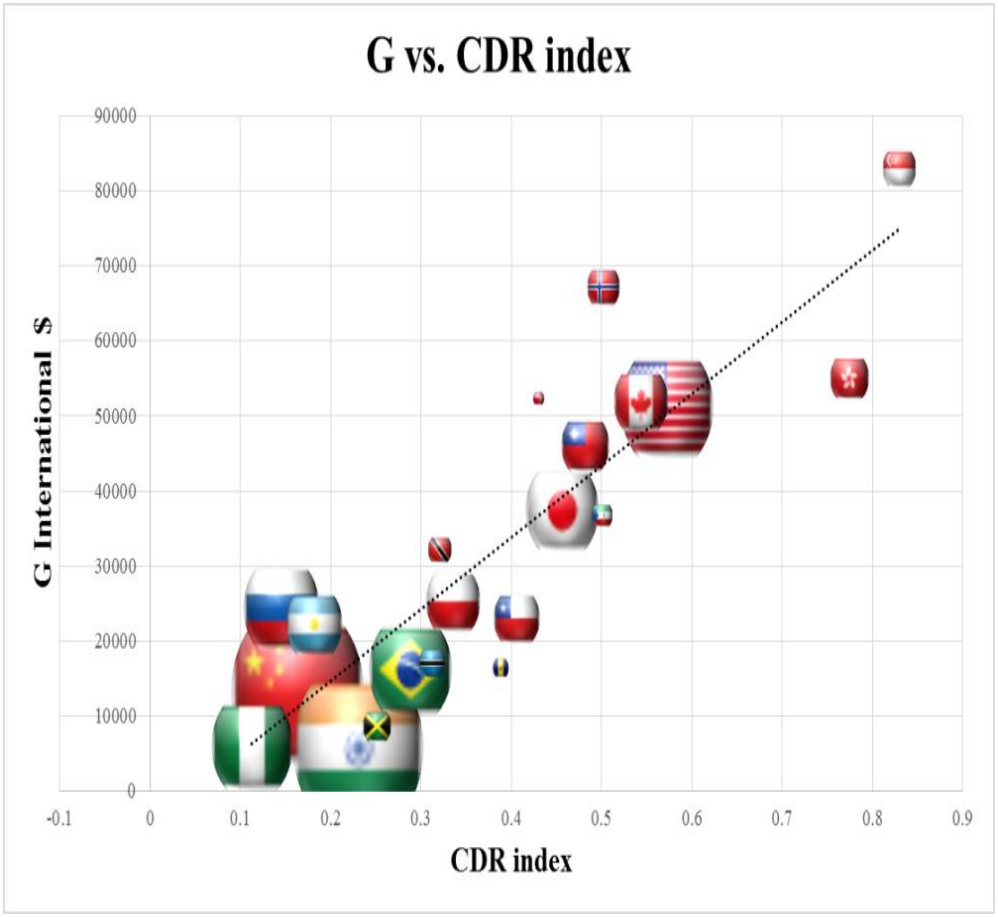


Figure 3. Corruption Perceptions Index 2023. Lighter color less corruption. Darker color more corruption. Visit www.transparency.org/cpi for more information



Argentina	
Barbados	
Bermuda	
Botswana	
Brazil	
Canada	
Chile	
China	
Equatorial Guinea	
Hong Kong	
India	
Jamaica	
Japan	
Nigeria	
Norway	
Poland	
Russia	
Singapore	
Taiwan	
Trinidad & Tobago	
United States	

Figure 4a. Year 2014 *G* vs CDR Index for 79 countries (line). Bubble size (21 countries) is the square root of population. This model was re-estimated for years 1995 to 2016 with similar results. *G* = *GDPppp*.
For additional comments on the countries listed see Ridley (2020a). See Appendix BB for related data and equations.

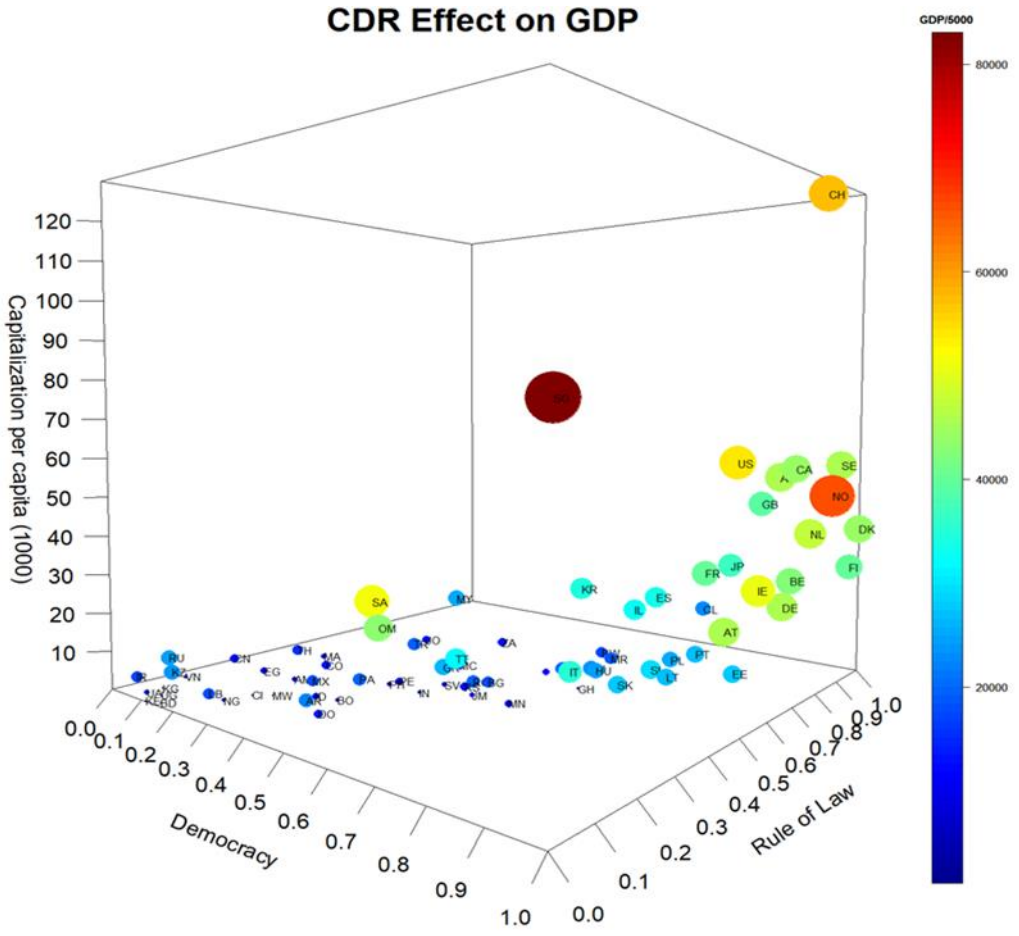


Figure 4b. Four-dimension bubble graph that displays the policy variables *C*, *D*, *R* and the corresponding GDPppp. The sizes of the bubbles are set to GDPppp. As the size increases the bubble color goes from dark blue, to light blue, to green, to yellow, to red, to dark red. As *C*, *D* and *R* increase GDPppp (bubble size) tends to increase. The capitalizations for Singapore (SG) and Switzerland (CH) are atypically very large. Switzerland is unique in its policy with respect to the attraction of capital. The highest goes to Singapore. Singapore is described as a benevolent dictatorship with a low *D* rating. Its high *C* and *R* ratings more than make up for that in determining GDPppp. Its low *D* rating sets it off the trend in Figure 4b. The lowest GDPppp goes to Malawi (MW). See Appendix BB for related country codes, data and equations.

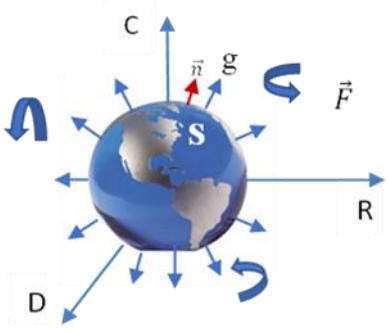


Figure 4c. Subset of volume of gross domestic product (g) for all countries on a spherical globe.

The CDR Economic Growth Model

The CDR economic growth model corresponding to Figures 4a and 4b is given in Figure 5.

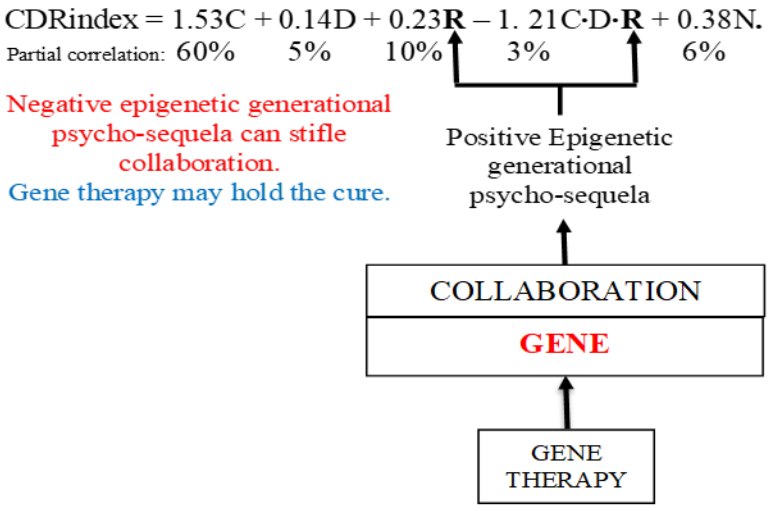


Figure 5. CDR Economic growth model. Gene therapy turns on the gene for collaboration. Collaboration permits rule *of* law which attracts capital and protects democracy that deploys capital optimally to raise CDR and GDPppp.

C is total capitalization, the value of all outstanding corporate stocks. It is the measure of capitalism. The degree to which capital is organized on the stock markets. C has a positive coefficient of 1.53 and contributes 60% to GDPppp. D is the degree of democracy, has a positive coefficient of 0.14 and contributes 5%. R is the measure of rule *of* law and is measured by the reverse of corruption. It has a coefficient of 0.23 and contributes 10%. Corruption is the opposite of rule *of* law and repels capital. There are many aspects of rule *of* law that are not obvious to the average citizen. They are opaque for the most part. But everybody understands corruption and the absence of justice. Corruption in high places has a way of filtering down to the common man. Then, it is difficult to convince anybody to do an honest day's work for what they perceive as unfair, or to apply their capital in any significant way. Hence the flight of capital. See figure 3 for high and low corruption countries. The C·D·R interactive term has a negative coefficient of -1.21 and contributes 3%. The negative coefficient depicts the effect of unnecessary excess democracy that delays decision making and reduces GDPppp. It also depicts the effect of unnecessary excess over regulation that prevents opportunity. N is natural resources rents. It has a coefficient of 0.38 and contributes 6%. There is a commonly held belief that natural resources are the majority of what GDP is made of. But as we see this not true. C is part exogenous and part endogenous. As exogenous capital is converted into endogenous capital, in the long run steady state, the exogenous capital becomes 85% of the total capital. Appendix BB shows how the two components are separated. D, R, and N are exogenous variables.

The CDR model (with latitude) explains 90% of GDPppp. The model confirms that the source of wealth is human ideas of creativity and imagination. If imagination is unlimited then wealth is unlimited. The economy achieves what the mind believes. This is in keeping with Einstein (1879-1955), and the parsimonious principle of Occam's Razor. We acknowledge this as the CDR scientific law. It places economics on a sound scientific footing.

High CDR countries are where ideas go to fly. Low CDR countries are where ideas go to die (see Figure 4a).

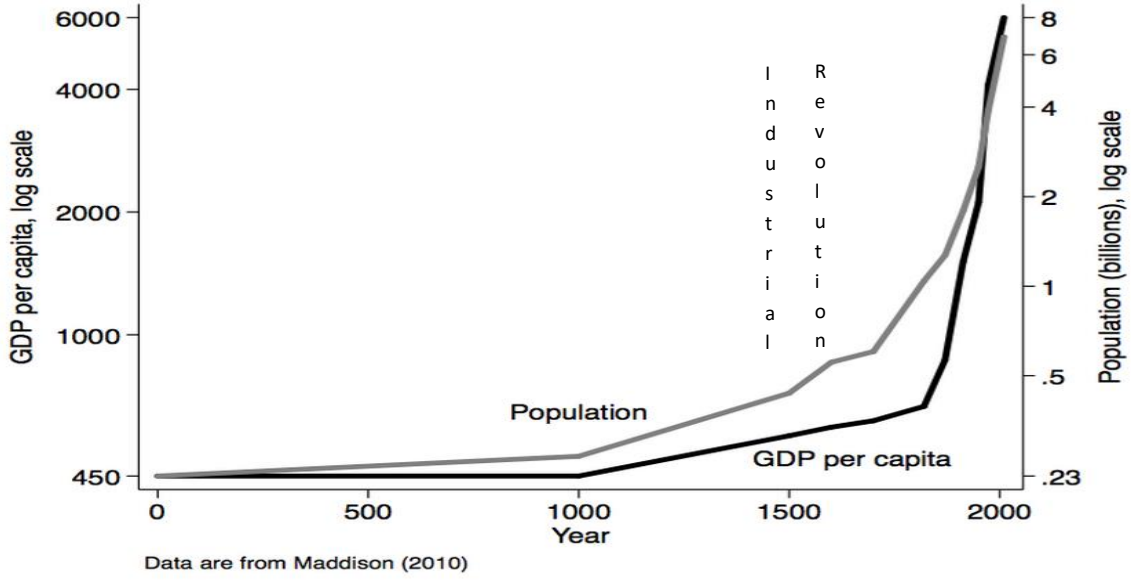


Figure 6. Before and after the industrial revolution

Rule *of* Law

In year 1215, England changed its system of rule *by* law (for example code of Ur-nammu and code of Hammurabi) where kings and popes are above the law to rule *of* law where no man is above the law. English rule *of* law is known as Magna Carta. The first attempt at Magna Carta was drafted by Archbishop of Canterbury Cardinal Stephen Langton. All parties who signed it at Runnymede, namely King John, Pope Innocent III, and a representative of 25 Barons, did so in full cooperation. But cooperation contains the element of self-interest. King John wanted to end the physical threat from the Barons, the Pope wanted to appoint the church leaders, and the Barons wanted lower taxes, and a respected voice. As soon as the Barons left London, the Pope annulled the document at the behest of King John who said he only signed it because he was under duress. King John ignored all the covenants. This plunged England into a civil war. We know now that what appears to be a good thing, cooperation with its self-interest, is in fact an obstacle to an overarching inclusive rule *of* law.

A year later King John died from dysentery. In year 1225, his son, the boy King Henry III appeared to realize what happened and reconstituted Magna Carta. The parties to a new signing did so intentionally in the joint shared interest of the good of England. They collaborated. Since then, the Western European neighbors of England adopted rule *of* law (common law or civil law) and their descendants in the USA adopted Magna Carta. They and all countries that adopted Magna Carta have experienced better economies than those that have rejected it. Prior to Magna Carta, it was unlawful to have an idea for fear of usurping the influence of the King. Human capital was suppressed and repelled.

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Figure 7. Rule of law is a catalyst that creates the stability that attracts capital

Following Magna Carta, England experienced a cognitive revolution in 1662 via the Royal Society charter for science, and the now famous industrial revolution beginning in 1776. Following the industrial revolution, GDP has increased exponentially in the 10% of high CDR countries where the population is rich. See Figure 6. Growth appears to continue without bounds. It appears that the source of wealth is human imagination and creativity and if imagination and creativity are unlimited, then wealth is unlimited. See also Tupy & Pooley (2022). High CDR countries are where ideas go to fly. However, in the 90% of low CDR countries, people live in abject poverty. They appear to have lost their human ability collaboration skills and cannot accomplish rule *of* law. Low CDR countries are where ideas go to die. If the loss of collaboration skill is due to a genetic malady, the pursuit of gene therapy is appropriate.

Figure 8 illustrates how positive and negative epigenetic transgenerational sequela result in high and low living standards, respectively. Formerly oppressed communities experience a negative epigenetic transgenerational psycho sequela. Their development is truncated because collaboration skills are lost. The result is a low standard of living. Normal communities exhibit a positive transgenerational psycho sequela. Collaboration skills are in tack and facilitate rule *of* law. Rule *of* law attracts human capital imagination and creativity and protects democracy. Democracy deploys capital optimally such that CDR converts capital to GDPppp. The result is a high standard of living.

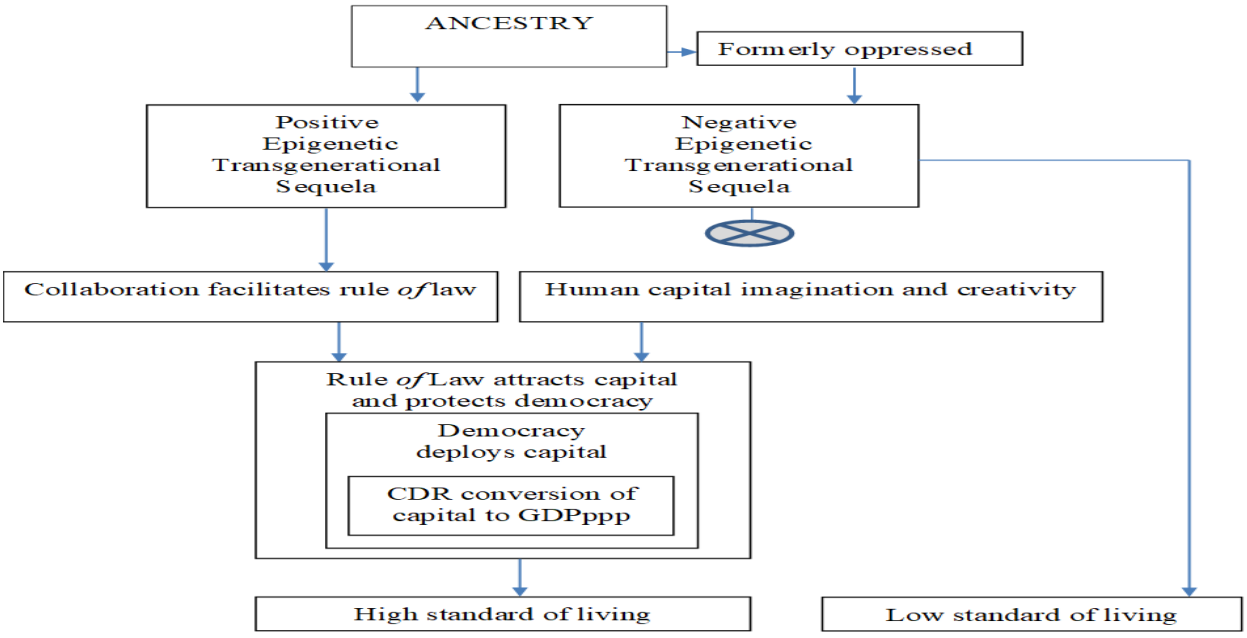

Figure 8. Positive and negative epigenetic transgenerational sequela result in high and low standards respectively.

Summary findings

The following is a summary of the important findings of the three companion books *The Mystery of Wealth*, *Collaboration trumps IQ*, and this book *The Wealth Gene*.

There are two psycho-behavioral axioms namely Cooperation and Collaboration and three institutional policy axioms of economics namely Capitalism, Democracy and Rule of Law that completely determine economic growth. From these we have established that:

There is a gene for cooperation and an implied gene for collaboration.
Negative epigenetic transgenerational sequela must be overcome to enable collaboration.
Collaboration skills can be developed by training via team sports, music education and other similar activities.
Cooperation is an obstacle to rule *of* law.
Collaboration is essential for rule *of* law.
Rule *of* law is not evolutionary it is revolutionary.
Cooperation is necessary for ordinary economic growth and development.
Collaboration is necessary for extraordinary economic growth and development.
Equality of consumption is possible, equality of income is not.
Collaboration trumps IQ as a predictor of standard of living.
CDR is necessary for economic growth and development.
The CDR economic growth model is global time invariant.
The CDR economic growth model places economics on a sound scientific footing.
20% of people possess 80% of capital... only a rising rich lifts the tide and the poor with it.
Human capital ideas of imagination and creativity represents 85% of total capital.
The theoretical expected value of endogenous economic growth is 1.8%.
The theoretical maximum one-year growth is 30%.
The theoretical economic reinvestment rate is 21%.
The tax rate that maximizes gross domestic product is 21%.
The theoretical expected return on investment is 9.6%.
Natural resources, geography, population, and government spending are negligible for GDP.
If collaboration is a maximizing principle, then dissociation is a minimizing principle.
Wealth is unlimited because imagination is. Even if the number of atoms in the world is finite, the number of ways in which they can be combined through collaboration is beyond counting.

We established that the genesis of economic growth and development and what is salutary thereto is good institutions. The precedent institution required is rule *of* law. Furthermore, collaboration is required for rule *of* law. And there is a gene for collaboration. If that gene is turned off or missing either by a genetic methylation accident or exposure to environmental stresses, then lost collaboration skills will be inherited by progeny via a negative epigenetic transgenerational psycho sequela. Now let us examine various scenarios for possible recovery of collaboration skill by means of sport and music training, and gene therapy. The object is to unveil the mystery of wealth, how wealthy countries got rich, and how to create middle class countries around the world. In particular, what is the legal framework in which collaboration skills recovery and psychological health rehabilitation of formerly oppressed communities in the USA justify reparations. Monies are required to pay for mandatory sports and music education. Research monies are required to specifically identify the collaboration gene and provide the necessary gene therapy. This is the paramount question that will be explored in Chapter 5.