Albert Einstein said, "The world as we have created it is a process of our thinking, it cannot be changed without changing our thinking." Changing our thinking requires an understanding of how our brains work. Scientific research has led to the discovery that our thinking brain is strongly influenced by our primitive emotional brain, known as the limbic system, which evolved from our apelike ancestors. If we wish to change our thinking so as to create a different world we need to understand the influences of our limbic system on our thinking. This is the key to understanding why all progressive movements seeking to free themselves from domination have ultimately resulted in a new class of dominators. The last 6,000 years of history can attest to the long line of economic systems that have allowed a tiny, selfish minority to subjugate and exploit the vast majority of humanity. This has been a constant feature of the top down economic systems: Slavery, Feudalism and Corporate Capitalism.

Previous movements for political and economic equality have "failed to see that human hierarchical tendencies are simply too strong.... those entrusted with authority may try to aggrandize their power, even if they are working for the common good".¹ The respected anthropologist Christopher Boehm states, "Humans lived 400,000 years as egalitarian hunter gatherers and they were "utter realists about human nature. Instinctively they comprehended the need for eternal political vigilance and *the need for force in the hands of the rank-and-file* as a means of controlling the self aggrandizing tendencies of their leading citizens". ²

Mankind's natural empathy drove the need to suppress the aggressive egoism of our "apelike despotic nature." The seat of empathy in the brain's limbic system is established early in life. Infants' pro-social behavior can be identified at

¹ "Hierarchy in the Forest" by Christopher Boehm, 1999, pg256

² Ibid,pg257

³ Ibid,pg258

less than two years of age.⁴ The vast majority of human brains have an active empathic center that allows them to be sensitive to the feelings, thoughts and experiences of others. Despotic tendencies are the result of brains that have defective empathy.⁵ A brain that fails to register other peoples' pain tends to manipulate others for personal profit, money, or power. Such Individuals are typically selfish and prefer authoritarian social systems. Such a brain might explain how for example, at a Presidential Republican Party debate 9/12/11, after a question was raised about letting a critically ill 30 year old man without health insurance die, a chorus of voices in the crowd shouted out—"Yeah! Let him die!" Brain studies also demonstrate⁶ that most people have healthy empathy centers, and prefer to live in a more egalitarian society.⁷ Such a society is dependent on controlling despotic tendencies.

When hunter gatherers became farmers 10,000 years ago, populations expanded, and the ability of the rank-and-file to control the 1% who seeks to dominate the rest of us unfortunately weakened. The 1% manipulated themselves into positions of authority and dominance. These individuals had a keen understanding of certain tendencies in the human brain which they were able to manipulate to consolidate and maintain their hierarchical power. Over the last few decades scientists have discovered that the human brain has tendencies for status, disgust and moral corruption.

Having status, a more privileged social position, can activate areas of the primitive human brain. Brain imaging evidence supports the role of the limbic system and other brain areas in human social rank processing. Social rank is a brain based system. There is "a neural basis for the high motivational value of

⁴ "A New Look at Children's Prosocial Motivation" by Robert Hepach, Amrisha Vaish and, Michael Tomasello, Infancy 18(1):67-90, Jan 2013

⁵ "The antisocial brain: psychopathy matters" by Gregory S., Fyt ch D., Simmons A., KumanV., Howard M., Hodgins, S. Blackwood N. Arch Gen Psychiatry, 2012 Sept, 69(9): 960-72

⁶ "Neural Basis of Preference for Human Social Hierarchy versus Egalitarianism" by Joan Y Chiao,, Vani A. Mathur, Tokiko Harada, and Trixie Lipke, Values, Empathy, and Fairness across Social Barriers: Ann .N.Y. Acad. Sci. 1167:174-181 (2009)

⁷ Ibid

⁸http://www.cognitivepolicyworks.com/blog2012/07/24/how-will-the-99-deal-with-70-million-psychopaths/

status". 9 The primitive human brain's emotional center can be so drawn toward status that it will even forego economic advantage. Our position in social hierarchies strongly influences motivation. Studies have shown that both in brain activity and behavior, people place higher importance on social status than money. 10 When concerned about social status the brain's emotional center, in the limbic system is most active. Brain activity in the emotional center is also correlated with strong belief in racial superiority and economic inequalities. When social status is threatened the emotional center of fear is activated. Staying on top of the social ladder is as important to the brain as an addict staying high on drugs. The brain registers a satisfaction in the knowledge that there is another social group below. Studies of the brain have shown that one's empathy is "biased toward inferior status compared with superior status individuals". 11 The brain tolerates the lower level of exploitation as a relative benefit. Who wants to be on the bottom of the social ladder!! Social status perpetuates the dangerous falsehood that some people are less worthy than others. If the status of women were to improve with equal pay and benefits, most men's families would benefit. Yet the allure of men's social status outweighs the economic gains and restricts their support for women's equality. Similarly, white worker's racism has often prevented their unity with black workers even when their own economic situation would benefit. The alternative of recognizing our common interests-empathy is weakened by the primitive brain's allure for social status. Not only does the growth of social status weaken our natural solidarity for our fellow human beings, it also destroys the physical and mental health of those down the social ladder. 12

Brain studies show that moral disgust or indignation activates brain areas that connect to emotional areas of the brain in the limbic system. When a social group is identified with an object of disgust, it "throws up strong emotional

⁹ "Know your place:neural processing of social hierarchy n humans", by Zink CF, Tong Y, Chen Q, Basssett DS, Stein JL, Neyer-Lindenberg A., Neuron, 2008 April 24;58(2):273-83

¹⁰ "For the Brain Cash is Good, Status is Better", by N. Swaminathon, April 24, 2008, Scientific American

¹¹ "The Neural Basis of Cognitive Conflict and Control in Moral Judgment", by Green, Nyshom, Engell, Darley and Cohen, Neuron 2004, 44(2) 389-400, Oct. 13, 2004

¹² "Brain Trust", by K. C. Noble, Scientific American, March 2017, Also "The Health of Nations: Why Inequality is Harmful to Your Health", Scientific American, 12/2005

barriers to empathy"¹³. Such historical examples as: Nazis depicting Jews as cockroaches or black people as apes and Muslims as terrorists. "Our moral disgust/indignation brain system is the source of prejudice, stereotyping and sometimes outward aggression"¹⁴. Today's hierarchical societies continually utilize mass propaganda systems to reinforce ideologies and political views attached to certain groups on the basis of their sex, race, religion, ethnicity or nationality.

Social hierarchy also has negative effects on those higher up the social ladder. Brains become ethically compromised by their positions of dominance. "Holding high ranking positions makes people less likely to engage in principled dissent". 15 Those in high authority such as, politicians, bankers and C.E.O.'s of corporations often fail to see unethical practices as being wrong in the first place. Their brains become morally compromised. Witness the media's endless parade of corruption cases. There is a brain based truth to the well-known saying that "power tends to corrupt and absolute power corrupts absolutely". A study in *Scientific American* stated that psychiatric attributes such as lack of empathy and selfishness were very common in business leaders. This speaks to what it takes to succeed in today's American Corporate business world. 16 Corporations by their very nature demonstrate a lack of empathy, as they tend to operate solely in the interest of their shareholder's profits, not the greater needs of society. 17 We have clearly lost the ability our ancestors had to control the despots and dominators in our midst

What can be done to contain and manage the small minority of people who are driven by selfish motives and who helped create economic systems that perpetuate our intrinsic brain tendencies which weaken our natural solidarity? "It is the central question social movements have failed to sufficiently study". 18

¹³" The Depths of Disgust" by Dan Jones, Nature Publishing Group, 2007

¹⁴ Ibid

¹⁵ "Hierarchical Rank and principled dissent: How holding higher rank suppresses objection to unethical practices", by J. Kennedy, A. Cameron., In organizational Behavior and Human Decision Processes, March 2017, 139:30-49

¹⁶ "What Psychopaths Teach Us about How to Succeed", Scientific American October, 2012

¹⁷ "The Corporation, Documentary Film, 2003

¹⁸ http://www.cognitive policyworks.com/blog/2012/07/24/how-will-the-99-deal-with-70-million-psychopaths/

What can be done to attain and maintain a profoundly egalitarian society? It is imperative that we acknowledge human nature.

We must accept the need for eternal political vigilance and the need for force in the hands of the rank-and-file, to identify, expose, isolate, contain or punish those who wish to dominate, manipulate or exploit us.

We can prevent the stimulation of status based brain systems by abolishing social ladders and maintain strict egalitarianism in our organizations and decision making processes.

We can reprogram brain centers by cultivating cultural and personal values of empathy within an egalitarian economic, political and social system.

KNOW THE BRAIN—CHANGE THE WORLD

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