Fanboys, Real Theory, and a Séance - Darwin & Marx

2019-12-15

I. Introduction – Marx's Notion of Dialectical Materialism

There are some 20th century American scientists who felt the obligation to hold their political views as codified secrets in order to not have their work become interrupted. Stephen Jay Gould was one such prominent member in the field of paleontology. After making a thoughtful reference to liquidation of reactionaries, David Warsh, writing in the *Chicago Tribune* in 1992, declared that, "Not Max Planck, not Thomas Kuhn, not Niles Eldredge and Stephen Jay Gould would have dreamt of citing Marx as an established authority in their tradition; it would have slowed immeasurably the reception of their work if they had."[1] Gould had eventually turned to the related discipline of biology, aiming to make another significant impact in the wake of what seemed to be the already largely completed work of meeting Darwinian evolution with the newly arising theories of genetics and cognitive neuroscience - leaving only some more brain scanning to be done for maximal confirmation. It could have been said then all that were left amounted to filling in the minor details of this mostly already pieced together puzzle. At least, this was the anxiety Gould might have been feeling as he searched for his own place among the ranks of post-Darwinian theorists. One journalist, John Horgan, concluded as much after an interview conducted with him in 1995, where they touched upon Gould's high aspirations along with his rumored associated with Marxism[2].

[1] Warsh, David. "Through A Backdoor, Marx Wins One." *Chicago Tribune*, 3 May 1992.

[2] Horgan, John. "Stephen Jay Gould on Marx, Kuhn and Punk Meek." Scientific American. 2 Nov. 2015. blogs.scientificamerican.com/cross-check/stephen-jay-gould-on-marx-kuhn-and-punk-meek.

Horgan admits having his own doubts about Gould leading up to the interview, that he claimed to follow with the great philosopher of science Kuhn in the nearly fatalistic belief that an overarching sense of progress cannot be demonstrated merely by some community committing itself to a practice of science. Whether this correctly characterizes Kuhn's work is not at stake so much as how it is particularly reflective of certain American intellectual anxieties that would have been commonly expressed at the time. Furthermore, Horgan includes an additional fear that, "Some critics - and Gould's success ensured that he had legions - accused him of being a crypto-Marxist. But Marx's highly deterministic, progressive view of history seemed antithetical to Gould's." It would seem that for these kind of American liberal intellectuals in the time after the fall of the Berlin Wall and the end of the Cold War, Marxism remained a dirty label that one avoided being too closely attached to when in possession of a good sensibility. After all, Marx's alleged commitment to progressivism cannot nearly make up for any indication of having attempted to legislate authoritarian laws that would govern over the whole of human life. Although it is fair, given all the hyper-paranoia of the time, for Gould to have protected himself, it now remains unclear the extent to which he was actually informed in his writing by Marx.

What finally led to international acclaim for Gould was his work in overturning the strongly held gradualist views of the field of paleontology at that time. Researchers then had stratified the types of processes that could be said to be leaving a trace of effects on the world much short of what as it appeared to many scientists outside of a certain established view had been taking place in certain peculiar historical periods. Most importantly, this resulted in his coauthored publication, along with fellow paleontologist Niles Eldredge, on the newly formed theory of punctuated equilibrium in 1977[3]. In a review of Gould's dense 1400 page book on evolution, *The Structure of Evolutionary Theory*, Tim Flannery gives a helpful short description of the theory and its reception that summarizes them both appropriately[4]:

> The theory seeks to explain a persistent pattern in the fossil record whereby a species suddenly

[3]Gould, Stephen Jay, and Niles Eldredge. "Punctuated Equilibria: The Tempo and Mode of Evolution Reconsidered". *Paleobiology*, vol. 3, no. 2, 1977. www.jstor.org/stable/2400177.

[4]Flannery, Tim. " 'A New Darwinism?' 2002." The Stephen Jay Gould Archive. The New York Review of Books, 23 May 2002. www.stephenjaygould.org/reviews/flannery_structure.html.

> appears, then persists unchanged for a very long time before going extinct. This pattern is seen in a wide variety of contexts, from marine creatures such as shellfish and sea urchins to mammals and birds. Punctuated equilibrium posits that these species come into existence relatively rapidly (over tens of thousands of years), though just how (and indeed if) this happens is hotly debated.

Serious questions can be raised here on whether processes that occur on the span of tens of thousands of years are gradualist theories in line with Darwin's naturalist commitments. Furthermore, what exactly is entailed by selection happening on groups rather than between the individuals of a population within a species? Gould believed that evolution comes from multiple complex and mixing sources which do not admit stable categorization, and that while evolution was often slow and followed deterministic changes (simple empirical ordering of events as accepted as a tenet of gradualism) - it also admitted for the possibility of irregular radical changes. Even while punctuated equilibrium is declared by its inventors to track with Darwinian evolution (and so to have a long history in theory), this opens up a much more inflammatory dimension of the debate.

The term gets described further in an essay titled "The Revolution of Evolution" published from a polemical Marxist website[5]: "It completely overturned the framework through which we understand natural history, from evolution's rhythm to the role played by natural selection." And importantly, it conceivably may be related to Marx's theory of the revelation of old, hidden connections between things, "Dialectical materialism sets out from the idea that matter, the ultimate basis of our understanding, is always in motion, in a state of change. However, changes do not take place gradually but as a result of slow accumulation in quantity that, at a certain point, produces a qualitative leap." Darwin was taken to have engaged with dialectics implicitly in his own work, which constrained it as being crudely mechanical.[6] So, if following this logic punctuated equilibrium is confirmed as a principle of evolution, it could also serve as evidence for dialectical materialism holding as a natural principle of the social order. It would provide an absolute confirmation of Marx's rationalist overturning of Hegel's idealist philosophy he describes in his early 1844 writ-

[5]Cullorà, Emanuele and Lorenzo Esposito. "Marx, Darwin and Gould, The Revolution of Evolution – Part One." In Defence of Marxism. 31 Aug. 2012. www.marxist.com/marx-darwin-and-gould-the-revolution-of-evolution-pt-1.htm.

[6]Carter, Richard. "Didn't Karl Marx offer to dedicate Das Kapital to Darwin?." *The Friends of Charles Darwin*. 2006. http://friendsofdarwin.com/articles/marx-capital/.

ings *Economic & Philosophical Manuscripts*[7]. There, Marx argues that Hegel leaves the category of mystical experience not carefully defined and easily misconstrued - or yet in other words, not viewed in its essential nature as being a product of the commodity form.

Gould has sadly passed away in the year 2002 and at the time was honored not just for his contributions to biological science but also received recognition for his work among the very Marxist circles the aforementioned article would have been produced from. As an additional tribute, a final collection of his essays was then published in the same year, titled, *I Have Landed*. At the time of the writing of these articles in the collection, he was a long famous paleontologist and needed to keep the momentum in his career going, so he chose to start writing on evolutionary biology and the history of science[8].

One of the essays included in the book is provocatively titled, "The Darwinian Gentleman at Marx's Funeral: Resolving Evolution's Oddest Coupling". Gould in this essays talks about a certain Ray Lankester, who he says was[9], "A prominent young British evolutionary biologist and leading disciple of Darwin … but later to become—as Professor Sir E. Ray Lankester K.C.B. (Knight, Order of the Bath)." This was held among other royally endowed British titles, which left him as Gould calls him, "about the most celebrated, and the stuffiest, of conventional and socially prominent British scientists," mirroring in a sense the life of Darwin. Gould asks of this man, "Why, in heaven's name, was this exemplar of British respectability, this basically conservative scientist's scientist, hanging out with a group of old (and mostly German) communists at the funeral of a man described by Engels, in his graveside oration, as 'the best hated and most calumniatic man of his times?' " Gould even goes on to lament the young biologist further, "Despite his basically conservative views in matters of biological theory, Lankester was a scrappy fighter by nature, an indomitable contrarian who relished professional debate, and never shunned acrimonious controversy."

[7]Marx, Karl, and Dirk J. Struik. Economic and Philosophic Manuscripts of 1844. New York: International, 1997. 63-67.

[8]Shermer, Michael. "This View of Science: Stephen Jay Gould as Historian of Science and Scientific Historian, Popular Scientist and Scientific Popularizer." National Center for Biotechnology Information. U.S. National Library of Medicine, Aug. 2002. www.ncbi.nlm.nih.gov/pubmed/12503565.

[9]Gould, Stephen Jay. I Have Landed: The End of a Beginning in Natural History. New York: Harmony, 2002. 122-146.

Lankester is said by Gould to have been sent a telling cautionary letter by his mentor Thomas H. Huxley, who also served as Darwin's go to debate champion against assorted theologians and opposing camps of biologists[10], "Seriously, I wish you would let an old man, who has had his share of fighting, remind you that battles, like hypotheses, are not to be multiplied beyond necessary … No use to tu quoque me … Under the circumstances of the time, warfare has been my business and duty." Lankester's mentor is telling him is that biology used to be controversial due to political differences that no longer exist, so it would be better now to take up the opportunity for biology to inform and serve the whole of society rather than allowing for it to remain divisive. Later in life, Darwin maintained contact with racialist socialist Carl Vogt who was among such a crowd adopting Darwin's work[11], and also wrote to a lawyer Heinrich Fick about his belief that trade unions would undermine competition, placing progress at risk.[12]

II. Did Marx Become Informed by Evolutionary Theory?

It might sometimes seem from a philosophical lens that Darwin has only one story to tell. In a way, everybody has come to a kind of an understanding of it in an abstract manner held away at a distance from oneself, safe then from having any real noticeable impact on the everyday. It can be summed up in one word and is a formal category that exists on a level even below that of natural selection: contingency. An article on the website counterbalance.org, a celebrated non-profit group that promotes science, states that the sense of contingency as it arises in Darwin's theory of selection is best exemplified much later through Gould's idea of punctuated equilibrium[13]. Outside of that all too narrowly confined snapshot though, we have to be reminded Darwin continues to be a controversial figure. This is largely due to how he is viewed as the originator of what's viewed to be the very modern practice of linking an espoused naturalist methodology in science with ma-

[10]Gould, Stephen Jay.

[11]Sheasby, Walt Contreras. "Karl Marx and the Victorians' nature: the evolution of a deeper view: part two: the age of aquaria." *Capitalism Nature Socialism*, vol. 15, no. 3, p. 72.

[12]Weikart, Richard. "A Recently Discovered Darwin Letter on Social Darwinism." *Isis*, vol. 86, no. 4, Dec. 1995. p. 611.

[13]Southgate, Christopher. "God, Humanity and the Cosmos Topic: Punctuated Equilibrium and Radical Contingency." Counterbalance, 1999. www.counterbalance.org/ghc-evo/punct-frame.html.

terialist first principles in philosophy[14]. While Darwin's materialism simply consisted in his very hands on and calculated approach to experiments with animals he encountered and catalogued out in the world, as a theoretical commitment at the time it held dangerous associations with atheism[15].

Marx follows in exactly these footsteps in the course of his own separate development and in his 1863 text, *Theories of Surplus Value*, Marx quotes Darwin, where he writes that[16], "In his splendid work, Darwin did not realize that by discovering the 'geometrical progression' in the animal and plant kingdom, he overthrew Malthus' theory." But for all the praise Marx showers Darwin where he mention him by name, this notable instance is included as one of only three total places where he chose to bring him up at all. Most of all, Marx and his colleagues had attended lectures on Darwin's work held by Huxley in 1862, which left them all reportedly talking about Darwin for months.[17] As an aside, by the geometrical progression, Marx means that the rate of production of food can maintain pace with the rate of population growth even given the extreme measures Malthus arrived at[18], and this holds obvious significance for Marx's theory.

We should also see that Marx aimed to parallel Darwin by repeating for the natural world of human society what Darwin had done for the natural world of the animal and plant kingdoms more generally. Lastly, although Darwin's similarities with Marx are not exactly clear, they both can trace some of their theoretical roots back to Adam Smith's empiricist moral theory about the origins of the liberal, democratic market economy. He describes a group of enterprises each doing its best to succeed, which have their direction governed purely by natural law[19]. It need not be said, for example, that it is divine command that decides who should come out ahead, and additionally, markets can be described as a closed order of inputs mapped with outputs, so that once you've fin-

[14]Griffin, David Ray. Religion and Scientific Naturalism: Overcoming the Conflicts. Albany, NY: State U of New York, 2000. 259.

[15]Angus, Ian. "Issue #100 Features: Marx and Engels…and Darwin?" International Socialist Review. 2009. isreview.org/issue/65/marx-and-engelsand-darwin.

[16]Marx, Karl, and David McLellan. Selected Writings. Oxford: Oxford UP, 1977.

[17]Colp, Ralph Jr. "The Contacts Between Karl Marx And Charles Darwin." University of Pennsylvania Press, Journal of the History of Ideas, Vol. 35, No. 2, Jun. 1974, pp. 329-338.

[18]Malthus, Thomas. "An Essay on the Principle of Population." Marxists Internet Archive. 1798. www.marxists.org/reference/subject/economics/malthus.

[19]Smith, Adam, Edwin Cannan, and Max Lerner. An Inquiry into the Nature and Causes of the Wealth of Nations. New York: Modern Library, 1937.

ished mapping everything there isn't anything left out like a more fundamental, underlying driving force. In the end, Marx rejects this view along with Darwin's partial reliance on the idea of the struggle for life between individuals as failures to measure up to the historical materialist method in regard to the class struggle.

Despite this, in a letter sent to a friend Lassaille in 1861, he explains an important development of the theory that must be secured is the fact that[20], "Not only is the death-blow dealt here for the first time to 'teleology' in the natural sciences but its rational meaning is empirically explained." Here, Marx identifies Darwin's most striking fundamental point as the issue of absolute contingency, or that everything happens without a final end it is moving toward. He also sends Darwin, who for much of his life lived down the road from Marx, a copy of *Capital*. Darwin responds that, "I heartily wish that I was more worthy to receive it, by understanding more of the deep & important subject of political economy,"[21] but it appears that he did not manage to read much of it due to a combination of his lack of reading comprehension in German and also possibly a suspicion of Marx's rebellious bent. Marx, meanwhile, could not have entertained Darwin's influences by Malthus, and he may have had something of a premonition about Darwin's eventual reception as an anti-egalitarian social theorist of "survival of the fittest" by the likes of Herbert Spencer.

Although Marx understands the need for theory to criticize metaphysical foundations of religion, he breaks with earlier Hegelians like Feuerbach over whether these sorts of intellectual rationalizations would have the capacity for motivating an entire society to move beyond religious institutions[22]. Rather, for Marx, religion serves as a condition of the oppressed masses desperate attempts at relating to a world that is not for them[23]. In an apparent response to being asked permission to be included in the dedication to the 2nd edition of *Capital*, Darwin writes of a common shared stylistic method held between them in regard to how generally to treat theology:

> It appears to me (whether rightly or wrongly) that direct arguments against christianity and

[20]Grant, Ted. Reason in Revolt Volume II: Dialectical Philosophy and Modern Science. Algora, 2003. pp 100-107.
[21]Carter, Richard.
[22]Marx, Karl, and David McLellan. 382.
[23]"A Marxist Critique of the 'New Atheists'." International Communist League (Fourth International). 31 Aug. 2012. www.icl-fi.org/english/wv/1007/newatheists.html.

> theism produce hardly any effect on the public; and freedom of thought is best promoted by the gradual illumination of men's minds which follows from the advance of science. It has, therefore, been always my object to avoid writing on religion, and I have confined myself to science.

But Darwin is rejecting Marx's appeal and seems to hold his explicit attack against religion as a form of commodity fetishism as consisting in an unnecessarily over-the-top rejoinder to the insufficiencies of theology as a basis for empirical work. He says by comparison then, "It has, therefore, always been my object to avoid writing on religion, & I have confined myself to science." Having only barely skimmed one of Marx's works, this comes across as more of a desire not to be marked by the distrust of the reigning Catholic authority than an actual disagreement over whether to write in an antagonistic manner to the dictates of religion, which both men have done. Although it has been suggested this second letter was addressed rather to a work on Darwin by Edward Aveling, the spouse to one of Marx's daughters, Marx did attempt to dedicate a draft of the 2nd edition of *Capital* to Darwin before having it removed for publication. Overall, it remains unclear and the same peculiar rhetorical position of Darwin develops in either case.

III. Alfred Russell Wallace, Spiritual Successor

A biographical website dedicated to another prominent 19th century evolutionary theorist, Alfred Russell Wallace, says about his relation to Darwin that[24]: "While Darwin's theory clearly replaced William Paley's 'divine Watchmaker' view of nature as espoused in his *Natural Theology* (1802), the degree to which Darwin's evolutionary theory actually 'revolutionized' the Victorian world in which he lived is questionable." They claim this is because Darwin's implicitly understood commitment to what they call a, "Stark materialism," amounted to the beginning of a redefinition of science that was not really able to find completion with itself but instead, "merely ratified the skepticism of David Hume and the positivism of Auguste Comte." It may in the end be true that Darwin's revolutionary idea was not able to come to fruition in his own time and also that he did hold some relation to these thinkers in a less than contemptuous manner.

[24]Flannery, Michael. "Wallace FAQs." Alfred Russell Wallace. 2010. www.alfredwallace.org/faqs.php#charlesDarwin.

Darwin[25], "Began formulating his theory of natural selection in the late 1830s," as noted by a berkeley.edu encyclopedia entry, but he continued carrying this lengthy inductive procedure out for over twenty years. In that time he was introduced to Wallace who sent Darwin birds to help his study and aimed to publish his own ideas on evolution through enlisting his help. When Darwin discovered their theories were nearly identical, he quietly rushed the publication of his own work in 1858 and arranged through Charles Lyell to have it presented at the Linnaean Society with Wallace's theory left included as a marginal footnote.

It might appear that in spite of Wallace's naivety in regard to Darwin's business sense, they each had set out in search of their theories from equal footing in the beginning. Wallace's journey took a much different turn than Darwin's very successful early voyages however, as a New Yorker article details[26], ""Wallace's ship caught fire and sank, and he found himself, after four years in the Amazon, floating in an open boat in the Sargasso Sea, seven hundred miles from shore." They go on to describe how he had alienated himself from his colleagues earlier on the journey in argument and almost sank a second time on the boat that rescued him. With what few notebooks he was able to carry through the ordeal he arrived home and, "Decided never to travel again." However, the industry of naturalist exploration was picking up quickly and before long he was called out to go on another voyage, this time encountering much less turmoil. Given these events, Wallace would have had to arrive at his theory through speculative deductive methods from a much smaller body of collected evidence than Darwin was able to work with due to his many successful voyages over a period of decades.

For a new rising group of British theorists who declared commitments to strict empiricism, this difference would have amounted to the choice between arbitrary guesswork and meticulous observation. This was only to be one among a number of competing factions though and by the end of the century Darwin's theory was being reworked in its introduction to both the very distinct parties of German nationalist race theorists, including Ernst Haeckel, and a secluded group of English scien-

[25]"Natural Selection: Charles Darwin & Alfred Russel Wallace." Understanding Evolution. evolution.berkeley.edu/evolibrary/article/history_14.

[26]Rosen, Jonathan. "Missing Link." The New Yorker. 04 Feb. 2007. www.newyorker.com/magazine/2007/02/12/missing-link.

tists, who considered themselves as independent of archaic religion by their association to a newly formed underground spiritualist movement, along with yet others. Separately, Anton Pannekoek, a Dutch Marxist writing in 1912, said that[27], "Many of Haeckel's popular writings, when looked at from a scientific standpoint, are very superficial." For materialisms that otherwise hoped to gain ground through appeals of moderation to the bourgeoisie, he says furthermore that, "Now mysticism has gained the upper hand; all that was solved appeared as very trivial, while all things that remained unsolved, appeared as very great indeed, embracing the most important life question."

In any case, it has since been found that Wallace was fairly correct in the estimation of his theory similarly to Darwin. It could be said that Darwin's theory was more widely encompassing across a range of subject matter, but it is likely there are other contributing factors that led Darwin to making a much stronger historical impact. The Alfred Wallace website goes on to describe how Darwin was, "Hidebound to methodological naturalism," whereas in Wallace's view, science need not be, "Restricted to only material explanations for natural phenomenon." While Darwin never declared his commitments to material causes, those were the only ones he took to be as valid forms of explanation throughout the entirety of his work. A full definition of material causes need not be given for lines to be drawn very clearly in certain cases, and in the rest we should fall on the side of skepticism rather than allowing for an immodest plurality of poorly explored hypotheses. Of course, as the site concludes, ""It should be pointed out that methodological naturalism is not itself scientific; it is a philosophical position about how science should be pursued."

IV. Séance

In a *Scientific American* history of Darwin and his close followers, they tell the following story about Huxley[28]:

> In January 1874 … Darwin sent two close members of his circle to attend a séance … His friend and lieutenant, the famous zoologist Thomas H. Huxley, was introduced as "Mr. Henry"

[27]Pannekoek, Antonie. "Marxism and Darwinism." Marxists Internet Archive. 1912. www.marxists.org/archive/pannekoe/1912/marxism-darwinism.htm.

[28]Milner, Richard. "Charles Darwin and Associates, Ghostbusters." Scientific American. 11 Feb. 2009. www.scientificamerican.com/article/charles-darwin-and-assoc.

> (his middle name). Darwin's son George, then 29 years old, went as well. Although bottles moved around and a guitar played by itself, the two concluded they had observed nothing but crude trickery…

It goes on to describe how Lankester, then serving as Huxley's laboratory assistant, wanted to catch his own act of fraud in order to, "Impress his heroes Darwin and Huxley." Tensions were rising in spiritualist and magic communities over the issue of authenticity, and those under suspicion began, "Avoiding anyone connected to Darwin's circle." To his luck though, in 1876, "A celebrated American psychic, 'Dr.' Henry Slade, had come to London 'to prove the truth of communication with the dead.' " Slade was said to perform this feat by way of his then dead wife writing to him on slates.

Gould himself has retold this very curious incident, illustrative of Lankester's character[29], "Recognizing Slade's modus operundi, [he] grabbed the slate from the medium's hands just before the spirits should have begun their ghostly composition. The slate already contained the messages supposedly set for later transmission from a higher realm of being." They then ended up in a legal battle where Slade was nearly sentenced to three months of hard prison labor for his alleged fraud before being saved on a technicality, when he then moved his practices to what Gould calls, "a more gullible America." During the trial, multiple factions rallied around both sides in order to publicly demonstrate the superiority of their own regime of ideas, from materialists to the spiritualists and all with weighty credentials to heave around. Gould finally concludes in parentheses, "(As an interesting footnote in the history of evolutionary biology, the spiritually inclined Alfred Russel Wallace testified on Slade's behalf. While Darwin, on the opposite side of rational skepticism, quietly contributed funds for Lankester's efforts in prosecution.)"

It is explained in the *Scientific American* article how these sides arranged themselves around the legal battle taking place. Darwin was happy enough to have Lankester exposing Slade's fraudulent undermining of actual, natural human capacities, but it upset him to find that his old colleague Wallace positioned himself on the opposite side as another target of the attacks. The trial is called, "One of the strangest courtroom cases in Victorian England," and says of the motivations on each

[29]Gould, Stephen Jay. 2002.

side: “some saw it as a public arena where science could score a devastating triumph over superstition. For others, it was the declaration of war between professional purveyors of the “paranormal” and the fraternity of honest stage magicians.” However, what was most peculiar about the trial was simply how the “greatest naturalists of the century”, Wallace and Darwin, took their opposite sides, as, “The ‘arch-materialist’ Darwin gave aid and comfort to the prosecution, and his old friend Wallace, a sincere spiritualist, was to be the defense’s star witness—making it one of the more bizarre and dramatic episodes in the history of science.” The same article finally notes of the spiritualism popular with a segment of the Victorian public at the time and which Wallace adopted that it, “Attracted people with a wide spectrum of interests, but its major focus was on the possibility of communication with the dead.”

V. Personalities of Materialism and of Spiritualism

It must be kept in mind that Darwin held a very deeply personal stake in the argument since after his[30], “…beloved 10-year-old daughter Annie had died in 1851,” he reportedly, “had nothing but contempt for the ‘clever rogues’ who preyed on grieving relatives.” His work, “Origin of Species”, had caused him enough controversy already and he did not want to cause further trouble for himself in public. Rather, “Privately, he wrote Lankester an effusive letter of congratulations. Jailing Slade was a public benefit, he said, and insisted on contributing £10 to the costs of prosecution,” as Lankester paid for court costs which amounted to nearly a regular month’s wages. Lankester himself was a long time later fooled by another hoax, bringing into question his skeptical mastery. A con artist of the time was burying fake fossil bones in an excavation site near Darwin’s home, and upon its finding Lankester fell for the trap, “For the next 40 years, scientists accepted the ‘ape-man’ fragments, dug up about 25 miles from Darwin’s home, as remains of the ‘missing link’.” Lankester and the prosecution were generally unable to poke major holes in the medium’s case, and their argument was considered lackluster.

On the other hand, it is said that the major moment of the trial was, “Wallace’s appearance for

[30] Milner, Richard.

the defense," who was then known for his "integrity and candor." Wallace's testimony said that he, "Witnessed the alleged phenomena but refused to speculate on whether the writings were caused by spirits." He called Slade an honest man and is quoted as offering him equal legitimacy with any working scientist, who deserve to be viewed as, "Incapable of an imposture…as any earnest inquirer after truth in the department of Natural Science." Slade was not the only person disparaged by the trial, though. Darwin attempted to request for Wallace to receive a, "Government pension in recognition of Wallace's brilliant contributions to natural history." He had heard of Wallace quietly making a living by grading exam papers. A botanist Darwin wrote to for help first refused, saying that, "Wallace has lost caste terribly," by allowing a paper to be read on mental telepathy at their scientific meetings. Darwin replied that the "prevailing superstitions of the country", or in other words those held by members of the dominant Anglican Church, were similar to the despised views of Wallace, and after more work finally arranged for Wallace to receive his "modest pension", who then continued writing books until, "the age of 90".

His unorthodox beliefs are noted in a *New Yorker* article as having led to some very odd ends, as when it is said that he[31], "Campaigned against vaccination, arguing that doctors, as interested parties, should not be the ones to decide the question." Then, while performing lectures in America in 1887, "Alongside talks on 'Darwinism,' " he raised an outrageous question when holding lectures, "…with such titles as 'If a Man Dies, Shall He Live Again?' " There, he is said to have responded with an "unequivocal" yes. The article claims that many 19th century naturalists invested nature with various divine capacities due to the long held religious assumptions of their culture they were only beginning to provoke a massive shift within. Since they couldn't always see the ways they were still being influenced, and since the formal category of time itself basically remains unassailable, "Whether one saw such transformations as an explanation or as a subtler form of magic remained a matter of opinion."

Their theoretical predecessor Lyell, the great ordainer of gradualism in geology as a structural foundation, laying the whole rest of the natural sciences on this origin, who is described as having

[31]Rosen, Jonathan.

been, “so important to Wallace and Darwin,” was never able to come around to an understanding of the younger duo’s deeper evolutionary theories. According to Lyell, and as defined in Olson’s “Science and Scientism”[32], nature must be rationally understood as orderly, or as Darwin took Lyell to mean, it must be viewed as a set of gradualistic processes that continue to remain observable in action just has they had once occurred some time in the past. Prior to events in which drastic immediate change is believed to have occurred, that would necessarily erase all or most rationally obtainable evidence, anything may be said to have existed and done things and is therefore inadmissible as evidence.

How much does this hold for the process of evolution said to be taking place in the world, Lyell should have found himself wondering? Much later, Pannekoek responds that, “While nature is very slow in its development and changes during human history are practicably imperceptible, so that it may almost be regarded as stable, human society nevertheless undergoes quick and continuous changes,” but that, “laws that apply to the animal world cannot suddenly lose their applicability to man.” Therefore we should not view evolutionary theory as having overthrown the old natural order but that it is just the same order playing out in other new ways and at times even at a much quicker rate. An article on the website evolutionnews.org[33], dedicated to debates over intelligent design and evolution, raises an argument between Darwin and Wallace on exactly this issue of the kind or degree of differences that arise between man and animal, which Gould later picks up on:

> Wallace felt that the special attributes of the human mind, its facility for abstract reasoning, mathematics, music, even wit and humor was inexplicable by Darwin’s own principle of utility … Admitting that none of these most human of traits promoted survival, Wallace instead suggested that these qualities were explicable only through some “Overruling Intelligence”.

It adds that Darwin and his followers have been appalled ever since learning of this change in Wallace’s trajectory as a theorist. Gould has attempted to take this problem up by falling on the side of Darwin. He pinpoints Wallace’s error as the, “Insistence that natural selection can only ‘fashion a feature for immediate use’,” which was a view ironically shared by some of Gould’s

[32]Olson, Richard. Science and Scientism in Nineteenth-Century Europe. U of Illinois, 2007.

[33]Flannery, Michael. “Gould’s Fatal Flaw: The Thirtieth Anniversary of Wallace’s Encounter with Darwinian Newspeak.” Evolution News & Views. 8 Jan. 2010. www.evolutionnews.org/2010/01/goulds_fatal_flaw_a_thirtyyear030471.html.

self-acclaimed ultra-Darwinian opponents, sometimes called, “hyperselectionism”. There is also a question of whether this charge is fairly attributed to Wallace, who did not claim that selection governed all changes in life, so much as it could not have led to the kind of intelligence as expressed by humans in his view, but also was not able to hypothesis alternative mechanisms that the, “Overruling Intelligence,” could have even possibly been working by.

The website then extends Gould’s own explanation: “Wallace failed to understand Darwin’s ‘subtler view’ and ‘misunderstands the nature of organic form and function. Natural selection can, according to Gould, create organs for specified functions the very complexity of which can ’perform many other tasks as well.’ ” His example is a factory that implements a computer to process pay checks. Gould points out that, “…such a machine can also analyze the election returns or whip anyone (or at least perpetually tie them) in tick-tack-toe. Our large brains may have originated for some set of necessary skills in gathering food, socializing, or whatever,” and he adds that, “but these skills do not exhaust the limits of what such a complex machine can do.” But they respond to Gould’s example about the structure of computers from the standpoint of intelligent design that:

> The computer possesses versatility precisely because some “overruling intelligence” (in this case a computer programmer) gives it the instructions to perform these different tasks. In order for Gould’s example to fit appropriately to his point, the computer would have to randomly or by some process of necessity within itself just spontaneously attain the capacity to generate pay checks, analyze election returns, or play games.

This argument can just continue in circles as to whether what is at bottom is something that possessed intelligence or not, however there is clearly an extent to which certain capacities “found” on computers were “already there” without having been designed by the makers of the computer before it was actually realized in operation by an end user. This is so much the case that it basically characterizes the history of progress in computers rather than the converse of some individual or small organization at the outset knowing everything that would have been needed to be included in them for all this to have ended up taking place in exactly the way that it did.

VI. Conclusion – Sociobiology and Universality

In his funeral article, Gould eventually settles on the somewhat anticlimactic fact that Lankester's relation to Marx wasn't so much a reflection of a youthful outburst of socialist tendencies that became constrained in Lankester later on[34]. It was neither a direct attempt of Marx to bring himself closer in line with Darwin, who he was in some dialogue with and paid great respect to but in the end diverged ways. Rather, Marx by the time of his old age had fallen out with many comrades over all kinds of heated argument, but he did keep a close following of young intellectuals who never parted with him, and among these were another Darwinian biologist along with Lankester.

Said to be a follower of Darwin, Lankester published one of his lectures given in 1879[35], titled, "Degeneration: A Chapter in Darwinism." He defines degeneration as so: "A gradual change of the structure in which the organism becomes adapted to less varied and less complex conditions of life." So, it is said that, "evolution was not necessarily 'improvement.' " It therefore stands in some contradiction with Darwin's theory, to the extent that continuing to exist cannot on its own be said to be a sufficient condition for improvement from some past situation in which one needed to advance forward into the present, not even on a delimited, local order – so much as one may have been undergoing literally a process of degeneration instead. Furthermore, after detailing evidence of how degeneration occurs as a process naturally across a whole variety of species, Lankester then goes on to explain how in human societies it will lead to, "A contented life of material enjoyment accompanied by ignorance and superstition," and that societies which have less need for expression will see their language degenerate along with those other forgotten needs.

When Wallace found out about the way his work was presented as a meager accompaniment to Darwin's, the New Yorker article says he, "Expressed the humble satisfaction of a servant invited to eat at the master's table", and that he wrote to his mother about his gratitude, "I sent Mr. Darwin an essay on a subject on which he is now writing a great work. He showed it to Dr. Hooker and Sir C. Lyell, who thought so highly of it that they immediately read it before the Linnean Society. This

[34]Gould, Stephen Jay. 2002.

[35]Lankester, Ray Edwin. "Degeneration, A Chapter In Darwinism." Deviance, Disorder and the Self. 1880. www.bbk.ac.uk/deviance/degeneration/lankester/10-14-0%20lankester.htm.

assures me the acquaintance and assistance of these eminent men on my return home." By contrast, he has been received in later generations with some bewildered curiosity, says the New Yorker article[36], as, "He remains today too theistic for the Darwinians and too Darwinian for advocates of intelligent design," who it is said even he wouldn't have much patience with. But there are those whose work continues to incorporate "holistic" ideas into their work quite well as he once did, including E. O. Wilson, who outraged science with his theory of sociobiology. He is said to continue dreaming of "consilience", or the possibility that evidence from indirect sources can converge together to form better theories. In other words, when two inductive procedures meet in the field by crossing paths, they must make room for one another's assumed manner in which appearances make themselves intelligible for each of us.

In *Against Sociobiology*, an open letter published by Gould's Sociobiology Study Group of Science, Gould formulates that Wilson views human beings as ultimately adaptable, and that because adaptation allows for our survival, what is adaptable is always good.[37] Conversely, when it comes to like social unrest, Wilson simply categorizes all of it as maladaptive, and so obstructs society's ability to progress. How he delineates these terms clearly results from a pre-existing political bias that informs his empirical work, which generally involves the significant but somewhat unrelated study of insect species. Wilson's response to these attacks in *For Sociobiology* is to restate his position held in 1975 that, "Does ant slavery hold any lesson for our own species? Probably not," which clearly only leaves the field open to interminable debate.[38]

Gintis, in a review of Wilson's "On Human Nature", makes the strange plea that he is both a sociobiologist and a Marxist who does not believe capitalism leads to alienation, who is shocked by the criticism of bourgeois science as producing falsities, and who abhorred Gould's early upstart socialist and 1960's antiwar group Science for the People — presumably because that would have made Gould's scientific efforts become politicized.[39] He compares this to Lysenko in the Soviet

[36]Rosen, Jonathan.

[37]Elizabeth Allen, Barbara Beckwith, Jon Beckwith, Steven Chorover, and David Culver, et al. "Against 'Sociobiology' ". *The New York Review of Books*, 13 Nov. 1975. www.nybooks.com/articles/1975/11/13/against-sociobiology.

[38]Wilson, Edward O. "For Sociobiology." *The New York Review of Books*, 11 Dec. 1975. www.nybooks.com/articles/1975/12/11/for-sociobiology.

[39]Gintis, Harold. "Review of Edward O. Wilson, On Human Nature." *Harvard University Press*, 2004. p. 1.

Union replacing Darwinism with Lamarckian theory before murdering unrepentant critics.[40] This does not seem to follow from Marx's dabbling with early evolutionary ideas, but it is similar to the kind of smears you hear coming from evolutionary psychologists about the bloody history of the left today. Gintis then claims that both Noam Chomsky and Hillary Putnam among other prominent theorists of the time were largely on his own side in the affair in challenging the accusations against Wilson and sociobiology of "racism and right-wing fascist sentiments," and of sociobiology rather being the political ideology guised as science. The kicker is when he seems to agree with Wilson where he, "favors diversity in the gene pool as a cardinal value," which is in itself a eugenics project, not at all moderate, and lays bare the whole field for the eugenicists to run amok with competing theories. Rather, there will be discrepancies in the gene pool and these should be respected rather than assimilated into a homogeneous mixture which suggests both violent removal and provides only a false sense of balance.

Why is it the case then for Wilson in *Sociobiology: The New Synthesis*, that our advanced culture so far beyond that of primitive Old World monkeys gets founded on a "protean ethnicity"[41] and not some other model like that of free association?[42] Our ethnic culture for Wilson does not seem to admit of any economy beyond that of simple barter[43], but it does show "marked racial differences" in newborn children. Sociobiologists have wisely decided to test these infants for muscle tone, emotional reactions like "quickness to calm," and other kinds of reaction to stimuli. Gould in an interview argues that while there may be differences to be found among the population, and we even should test for these and measure objective results, this should only strictly be done with the immediate goal of searching for practical methods of improving outcomes to individuals in the context of prior failures at the societal level.[44] Instead, Wilson merely seems excited to have made an apparent scientific result out of his human test subjects. He revels in his finding that,

[40]Gintis, Harold. p. 2.

[41]Wilson, Edward O. "Sociobiology: The New Synthesis." *Harvard University Press*, 1975, p. 272.

[42]Kropotkin, Peter. "Mutual Aid: A Factor of Evolution." Republished from 1890-1896 essays for *The Nineteenth Century*, 1902. theanarchistlibrary.org/library/petr-kropotkin-mutual-aid-a-factor-of-evolution.

[43]Wilson, Edward O. p. 274.

[44]"Stephen Jay Gould on Intelligence Tests (IQ), the Nature - Nurture Controversy." *Unknown*, 1995. www.youtube.com/watch?v=8wcSSLo9TIs.

"Human beings are absurdly easy to indoctrinate - they seek it."[45] Finally, Wilson has no theory for why there are separate stages of evolution or why they occur at different speeds, except to say that this corresponds with the development of culture which has no separate origin apart from the selection already occurring at the genetic level. In a 1998 review of its legacy titled, "Sociobiology Sanitized", Dusek argues that Dawkins was able to replace Wilson as a figurehead of the new movement of evolutionary psychologists only by replacing his clearly outlandish and bigoted policy pronouncements with a complete skepticism about the ability to coherently formulate any (liberal) policy whatsoever, besides what sort of preternaturally arises out of the normal course of empirical science - in a peculiar recasting of intelligent design[46].

Myrna Pérez, a Harvard historian of evolution, has suggested that as a figure of the 1970's New Left movement, Gould took issue with the earlier liberal universalism that he viewed Wilson's work to be drawing upon ideologically.[47] This meant generally that a false universalism was being pushed on ethnic minority groups living in America even while they were not sufficiently being allowed to participate in all aspects of the liberal democracy. Furthermore even as promises were being made during the era of the Civil Rights movement, the changes taking place were not considered to be going all the way in terms of solving remaining significant issues still left on the table. She does amend that, "Gould, Lewontin and Wilson all shared the presumption that evolutionary biology could positively shape American society."[48] However, any left movement now existing after decades of a militarized police crushing isolated local liberation movements should strongly consider linking themselves to a broader international movement, to theory that would be applicable to all workers and would allow them to understand themselves as coming from a shared common history.[49] This does not necessitate participating in any fantasized American culture that quietly refuses inclusivity. At the same time, we need to continue to reject false appeals to universality, as

[45]Wilson, Edward O. p. 284.

[46]Dusek, Val. "Sociobiology Sanitized: The Evolutionary Psychology and Genic Selectionism Debates." *Science and Culture*, 1998.

[47]Pérez, Myrna. "Evolutionary activism: Stephen Jay Gould, the New Left and sociobiology." *Endeavour*, Vol. 37, No. 2, 2013. pp. 104-105.

[48]Pérez, Myrna. p. 111.

[49]Lott, Eric. "After Identity, Politics: The Return of Universalism." *New Literary History*, Vol. 31, No. 4, Autumn 2000, pp. 665-678.

Gould had done during the racist barbershop sit-in.

Christian Fuchs, in a series of papers from 1999-2003, identifies the concepts of "emergence" and "self-organization" within the field of systems theory as the crossover point where biology and society are brought together through the force of dialectical materialism.[505152] This would mean that while we should not ground our sociology in a reductive biology, there are in fact ways in which it can be viewed that dialectical materialism underlies the movement of both domains. So we can say for example, the emergent factors of society, or its self-organizational capacities, are analogous to but not identical with the set of emergent behaviors found in individual biological organisms. Michael Brand has later given a negative twist on this view, when in the 2011 "Dialectics, Complexity and the Crisis" he says this also must apply to the newly popular domains of, "Chaos Theory, Catastrophe Theory and Fractal Geometry," which naturally arise out of the experience of crisis and are necessary precursors to properly understanding complexity theory, rekindling Marx's relevance in the modern sciences.[53] In a 2002 article for *International Socialist Review*, Phil Gasper declares Gould as a "dialectical biologist" and argues that the three classical laws of dialectics as formulated by Engels, "…embody a holistic vision that views change as interaction among components of complete systems, and sees the components themselves…as both products of and inputs to the system."[54] For Gould, these are grounded in the given evidence of complexity that arises during discontinuous periods of crisis and abrupt change. This shift in thinking utilizes modern developments in cybernetics, relates work done in empirical biology back to the early revolutionary ideas of universality - that these same principles apply anywhere life can be found, and allows for socialists worldwide to oppose the dominant capitalist claim to having achieved a stranglehold over technical objectivity in the sciences.

---

[50]Fuchs, Christian. "The Relationship of Dialectics and Emergentism." 1999. fuchs.uti.at/wp-content/uploads/infoso/dialecticsemergence.html.

[51]Fuchs, Christian. "Dialectical Materialism and the Self-organization of Matter." *Seeking Wisdom*, vol. 1, no. 1, 2003. pp. 25-55.

[52]Fuchs, Christian. "Dialectical Philosophy and Self-organisation." *Causality, emergence, self-organisation*, 2003. pp. 195-244.

[53]Brand, Michael. "Dialectics, Complexity and the Crisis." *marxists.org*, 2011. www.marxists.org/reference/archive/hegel/txt/complexi.htm.

[54]Gasper, Phil. "Stephen Jay Gould: Dialectical Biologist." *International Socialist Review*, Iss. 24, Aug. 2002.