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Evolution is Still Puzzling: A Critical Analysis of Evolution's Social-Humanitarian Puzzle

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Review of "Pieces of Evolution's Puzzle: A Social-Philosophical Perspective" by Gregory Sandstrom

Аннотация. Работа нацелена на критический анализ статьи Г. Сандстрёма "Головоломки эволюции: взгляд с позиций социальной философии". Несмотря на то, что некоторые вопросы, сформулированные Г. Сандстрёмом, правомерны и даже интересны, в целом, в статье канадского автора отсутствует обоснованная позитивная альтернатива эволюционной теории. Сандстрём принимает и повторяет "пост-эволюционную" позицию Стива Фуллера, отчасти базирующуюся на идеях Питирима Сорокина. В работе подчеркивается, что статья Г. Сандстрёма имеет скорее "научно-провокационный" характер, в ней есть положительные моменты (к примеру, Сандстрём по-новому предлагает осмыслить идеи русского мыслителя Феоодосия Григорьевича Добжанского (1900-1975) – одного из самых ярких генетиков-эволюционистов XX века).

Abstract. This paper is an attempt to critically review the article "Piece's of Evolution's Puzzle: A Social-Philosophical Perspective" by Gregory M. Sandstrom. I argue that Mr. Sandstrom's paper, though it may offer legitimate challenges to evolution in human-social thought, ultimately falls short in its failure to offer an alternative to evolutionary theory. Instead, he just tries to follow the main lines of logic developed by Steve Fuller to promote the ideas of Pitirim Sorokin. Sandstrom's paper nevertheless has many provocative and insightful contributions; he reintroduces Theodosius Dobzhansky's culturally-sensitive biology to current social sciences.

1. Introduction

I am sceptical of the value of criticising evolution as the defining paradigm of the modern age. The suggestion that we have in some ways moved beyond the 'modern age' may be convincing in parts, but this does not mean that evolution is ready to fall as its standard bearer. The paper "Pieces of Evolution's Puzzle: A Social-Philosophical Perspective" by Gregory Sandstrom is a unique contribution to Russian social-philosophical thought, however, it does not go far enough. Its criticism of social evolutionism fails to convince because it lacks a positive contribution, an alternative which would dethrone evolution as the sociological king of yesteryear.

The critique of evolutionary sociology in this paper is deliberate and well-argued. Unfortunately, the failure to offer an alternative to evolutionary theory is the paper's ultimate downfall. Without an alternative theory, methodology or paradigm, the author's critique of evolution is weakened because it is merely negative, offering nothing positive to scientific or philosophical knowledge that would challenge evolution's supreme role.

The strategy of using Steve Fuller's *The New Sociological Imagination* as a contemporary launching pad to promote Pitirim Sorokin's sociological canon and Theodosius Dobzhansky's culturally-sensitive biology¹ has both the potential to impress and also to backfire. Fuller is, after all, a self-declared agnostic, secular humanist and not an Orthodox Christian as both Dobzhansky and Sorokin were. Sandstrom nowhere shows how belief and unbelief in evolution can and must be accommodated to a larger context, including one's religious sensibility or worldview. Instead of a non-evolutionary or post-evolutionary paradigm in human-social thought, what could result is a 21st century hyper-evolutionary contribution (Fuller fits this possibility into what he calls a 'karmic worldview') that leads deeper into what Sorokin described as the realm of Sensate culture (more about this below).

2. Sorokin, Dobzhansky and Fuller's New Sociological Imagination

The author sets the task of convincing readers that a biological explanation of society and human behaviour is ultimately limited. This part is rather easy to accept. Biologists clearly do over-step their claims to knowledge when they suppose biological evolution can explain all things about human society, as the almost obsolete field of socio-biology clearly demonstrates². Such is the classical reductionist fallacy. Nevertheless,

¹ "Human evolution is a singular product of interaction between biology and culture" (*Dobzhansky*, 1956).

² "[S]ociobiologists confidently strip social scientific research of its theoretical overlay in order to reveal phenomena that can then be slotted into evolutionary explanatory frameworks" (*Fuller*, 2006).

Sandstrom could have done more to show precisely how limited evolution is in human-social thought, with examples, using the three main figures he has adopted in his anti-evolutionary quest.

The extreme position of the socio-biologists, and now the evolutionary psychologists, is not accepted for the most part in the Russian academic tradition. The reasons for this differ, however, from those in Sandstrom's western academic tradition, wherein the ideology of evolutionism represents a type of cognitive relativism or progressivism that verges on anarchy. The 'bigger', 'stronger', 'better', 'faster', 'higher', 'more powerful' vision of evolutionism, as exemplified in the radical perspective of 'vulture capitalism', advocates that bio-physical existence is more important than the mental-spiritual existence. This latter problem is called biologism, which Sandstrom identifies in his paper.

Biology remains, nevertheless, an important, sovereign field and should not be over-looked for what it can tell us about human decision-making, given that human beings are partly biological entities. Russian social thought has long maintained the fruitfulness of a cooperative³ symbiotic relationship between biology and human-social thought, as the example of Dobzhansky adequately illustrates. Symbiosis is the type of perspective that Sandstrom is promoting. He does this by distinguishing evolutionary biology from evolutionary social-humanitarian perspectives to highlight the sovereignty of each field so that they may better compliment one another from their respective cores. For this task he draws mainly upon the work of Sorokin and Dobzhansky, through the lens of Fuller.

The concept and the theory of evolution, though Sandstrom does not precisely define them, are quite different in Sorokin's sociological and cultural philosophical work than in Dobzhansky's biology and genetics. Sorokin speaks about evolution as a symbol of what he calls 'Sensate culture'. In such a view, evolution is an instrument of process philosophy that has taken hold across many disciplines, promoting the Greek philosopher Heraclitus' idea of 'flux', instability and ever-changingness. *Dobzhansky* (1963) on the other hand argues that "mankind is the outcome of a process of evolutionary development going back to the dawn of life". His is a physical argument based on natural history, rather than a philosophical view that looks closely at civilisation comparisons. These two positions illustrate the classical divide between natural science and human-social scholarship.

In bringing together these two scholars, Sandstrom does not challenge a singular, specifically-defined concept of 'evolution', as it is sometimes considered in the realm of natural science. This is because biological evolution has gained a relatively solid consensus among biologists and geneticists, which has influenced other natural scientists operating under similar methodological principles. We may even assume that Sandstrom accepts biological evolution as the consensus view in the biological or more broadly naturalistic realm. This is a view that Dobzhansky helped to promote. Sandstrom attempts instead to re-define 'evolution' as a general term that is used, and even sometimes abused in a variety of contexts, including the realm of social-humanitarian thought. This strategy is what makes the paper's contribution unique and interesting.

As an intended link between Sorokin and Dobzhansky, Steve Fuller's provocative book, *The New Sociological Imagination* can be interpreted rather differently than Sandstrom does in his article. Fuller warns of the threat of bioliberalism, which he calls "the emerging dominant ideology of our time"⁴ and of bioprospecting, which is of concern in today's pharmaceutical and biotechnology industries. Genetic engineering, as the argument goes, can slide quite easily into the instrumental engineering of human societies, allowing easier "passage of human beings in and out of existence", what Fuller calls the "casualization of the human condition" (ibid). This is perceived as an obvious danger to sociological thought wherein humanity is de-centered to a more peripheral position; human life is more casual and less ultimately meaningful than the project of social science has up to now been prepared to accept.

Fuller identifies the rise of a new left-leaning political movement, a 'Darwinian left' led by Australian philosopher Peter Singer, based on neo-Darwinian logic, as a potential replacement for neo-Marxism. This perspective places hope in a 'karmic worldview', in contrast to the 'anthropic worldview' of the majority monotheistic world religions. Fuller sees an opportunity for the monotheistic religions (with which he includes secular humanism, as obviously the most anthropocentric) to cooperate together in resisting neo-Darwinism, and even possibly in overcoming it. This is one reason that Fuller defends the concept-duo of 'intelligent design' as a legitimate 'science', whereas most natural scientists have rejected such a claim. Fuller is confronting the preference toward neo-Darwinian thought in the framework not of it being a 'science', but rather as if it were a 'worldview', which potentially can affect social policies if human life is casualized.

³ Cooperation in nature: "the great fact...completely ignored by the Darwinists" – N.K. Mikhailovskii ("Teoriia Darvina I obshchestvennaia nauka").

⁴ Fuller, 2006.

Neo-Darwinian evolution naturally compliments a karmic worldview⁵, in that it reduces humanity's uniqueness to inter-species differences and refuses to acknowledge the human capacity to transcend animal nature. Such views are consistent with polytheism, pantheism, agnosticism and even atheism. Fuller, in commenting on this broad worldview perspective, tunes into recent developments in genetics, biological sciences and genomics, noting their sociological significance. The threat to human identity posed by biology-centric scientism and the dehumanizing naturalism of neo-Darwinian ideology as part of a karmic worldview has direct relevance for human-social thought.

Given the differences between Sorokin's and Dobzhansky's views, it is not clear, however, that Fuller's work can effectively serve as a synthesis between them. Sorokin's Christian Orthodoxy moved him towards a soft anti-evolutionary position, while Dobzhansky's Christian Orthodoxy led him towards French palaeontologist and Jesuit priest Pierre Teilhard de Chardin's catholic position of 'theistic evolution'. In Fuller's sociological imagination, since they count as anthropic ideas based on a shared Christian cosmology, both Sorokin's theistic anti-evolution and Dobzhansky's theistic evolution are held as legitimate views. However, if Sorokin is correct, then as our societies move again from a Sensate toward an Ideational super-system, the ideology of evolutionism, including theistic evolutionism, must be on its way out. Fuller deals with this apparent disconnect by arguing not directly with 'evolutionism', but rather with neo-Darwinism and neo-Darwinian evolution, using as a counter-concept duo the idea of 'intelligent design' (*разумного замысла*).

Taking these features into account, and leaving aside the controversy about 'intelligent design', it is apparent that evolutionary theory still remains puzzling. Does it make any sense to speak of human-social things using 'random mutation' and 'natural selection' when social development often demonstrates a purpose or at least seeks an end and noting that 'nature' is a distinct category from 'society', and hence the classical disconnect between natural sciences and human-social sciences? Can evolution be consistent with monotheistic thought or does it undermine theology in general by contradicting the spiritual uniqueness of the first human beings? Is evolutionary theory best useful for biological, cultural or cosmological topics or for all three and more, including the human-social and philosophical?

Fuller, for example, challenges the biological domination of sociological thought, but does not explain whether or not he accepts Dobzhansky's cultural and cosmological types of evolution. Sandstrom would have been correct to address this issue head on, but his paper didn't tackle it. Nevertheless, though there are obvious limitations to evolutionary theory in human-social sciences, it is important that we should not stop searching for biological, cultural and cosmological explanations for human-social phenomena. If the search is not for direct empirical causal explanations, then it can be for ways in which these spheres can synthesis or cooperatively interact with one another.

It is acceptable and reasonable then to say that evolution need not be interpreted as a comprehensive theory of human life outside of human biology. Sandstrom's thesis could be interpreted rather uncharitably, however, as saying simply that evolution is wrong and that science should stop. But this is not the message. The conclusion that evolutionary theory may not be 'scientific' when it is applied in human-social thought leads one to consider whether or not evolution is over-reaching and over-stretched linguistically. If so, how can we change our vocabularies? Can 'evolution' be 'evolved' into something that is no longer itself? A wide-range of non-naturalistic evolutionary applications is revealed in the paper, wherein Sandstrom addresses linguistic, philosophical, sociological, pedagogical and psychological (mis-)uses of evolution, each with their own effective challenge to the core of evolutionary social thought.

3. Evolution and the Explanation of Human-Social Causality

In contrast to Sandstrom's thesis, however, it may be safely argued that evolution is an inference to the best explanation for human-social causality. This holds as long as choice, free will and agency are included in the evolutionary paradigm, which many social philosophers, sociologists and theorists have attempted to do (*Wallerstein, 1974; Eisenstadt, 1978; Runciman, 1983; Collins, 1999; Sanderson, 2001; Grenin, 2002; Korotayev, 2004, et al.*). It is simply not true that respected scholars have not tried to include these terms within an evolutionary social framework.

When the variables of choice, free will and agency are left out or purposely excluded from evolutionary social research, there is obviously something wrong with the paradigm and a new paradigm might sooner or later be called for to replace it. If they are included, however, evolution in human-social thought can be seen simply as a type of change, that is unpredictable, cumulative, adaptive, irreversible, and which leads to unintended consequences of human-social action. Whether or not 'purpose' or 'teleology' is involved in social change is not the main point. The number of things that don't evolve or change is, after all, pale in comparison to the number

⁵ Karmic world-view: "reduces the supposed 'uniqueness' of *humanity* to marginal inter-species differences that are not necessarily valuable in themselves" (*Fuller, 2006*).

of things that do evolve or change. What remains for Sandstrom is to show that the efforts to include the above terms have not led to significant gains for social-philosophy; for example, that the effects of such efforts are misleading or as of yet misunderstood.

Natural selection, as Sandstrom explains, is a limited concept duo in human-social thought. Nonetheless, criticising natural selection is one thing; it would be something else to promote a deeper or wider meaning for the counter-concept of 'human selection'. The author's point here is significant in that human selection does stand as a legitimate alternative to natural selection. Even biologists and geneticists admit that human selection is distinct from Darwin's view of evolution⁶, which distinguished 'natural selection' from 'artificial selection'. This seems to be a topic that could be further explored as a more positive contribution to the theme.

What is curious is the strategy to start with sociology and to move 'backward' or 'downward' to biology. Thus, whether or not 'human selection' can stand on its own sovereign ground is a legitimate question. Why does the author not promote 'human selection' more explicitly as a positive concept duo instead of arguing that natural selection simply does not belong in human-social thought? Such a step would offer space for discussion about the merits of two distinct approaches to human-social change: evolutionary environmentalist (naturalistic) and human-agent oriented (humanistic) selection.

The author's attempt to grapple with sociology's boundaries and limitations, to question sociology's legitimate sphere of study, is most promising. However, S. Fuller's following basic claim needs more analysis: "the most fundamental challenge facing the future of the social sciences: *Are humans always the privileged members of society?*"⁷ Sandstrom reinforces the classical sociological position that human beings are indeed somehow special. Yet he doesn't explicitly say what makes us special or unique, other than appealing to the sociological tradition, as does Fuller.

Sandstrom's tone takes an air of calm on the reality of evolution's irrelevance in human-social thought, when perhaps the issue is more controversial than it appears. A curious reader might wonder if an attempt is being made to unlock a riddle in the great problem of conscious human choice and action, which evolutionary theory has not exposed. Or does the author merely wish to redefine the appropriate place for evolutionary theory in the landscape of social-humanitarian thought and thus to revise the value of evolution as a communicative term in the contemporary academy? If his goal is the latter one, then such a contribution could coincidentally help redeem the human-social sciences from their dependence on natural scientific methodology. An alternative to evolution in human-social thought on the topic of change, dynamics, cause and effect, choices and consequences would make a significant mark on the field. This would likewise serve to justify Sorokin's theory of cultural super-systems, the idea that in western societies, Sensate culture⁸ is giving way to a more Idealistic system⁹.

4. Evolutionary Theory Still Explains Social-Cultural Change-Over-Time

As it is, however, there is nothing at the moment better than the concept of 'evolution' for exploring and explaining social-cultural change-over-time. What, after all is wrong with applying evolutionary theory both in biology and culture, as Dobzhansky did¹⁰, intertwining their vocabularies and transferring shared meanings along the way? Doing so reaffirms sociology's claim to be 'scientific'. Even if evolutionary theory is not comprehensive in any single sphere, including biology¹¹, and even if it represents the ultimate form of historicism, as Popper¹² conjectured, this does not negate the fact that no other alternative presently exists. This is the rub that confirms evolution remains a puzzle.

As Donald MacRae (1959) wrote, "To confuse history with evolution is to make the sociological analysis of social change impossible". And yet we witness people confusing 'evolution' and 'social history' all the time; the presumption that something is 'evolving' simply because it is 'changing-over-time'. Therefore, if (and if

⁶ "Human thought and selection is now replacing Darwinian evolution" – Craig Venter ("A DNA-Driven World" Speech, BBC, 19 Jan, 2008).

⁷ Fuller, 2006.

⁸ The Sensate system "most strongly favors the study of the sensory world, with its physical, chemical, and biological properties and relationships. All the cognitive aspirations are concentrated on the study of these sensory phenomena, in their materiality and observable relationships, and on the technological inventions that aim to serve our sensory needs. Knowledge becomes equivalent to the empirical knowledge represented by the natural sciences. Hence in a sensate society natural science replaces religion, theology, and even speculative philosophy" (Sorokin, 1941).

⁹ "We are living and acting at one of the epoch-making turning points of human history, when *one fundamental form of culture and society – sensate – is declining and a different form is emerging*" (Sorokin, 1941).

¹⁰ "The genetic and cultural evolutions of mankind are not independent but interdependent. They are tied together in a system of feedback relationships" (Dobzhansky et al., 1977).

¹¹ A field which Fuller mentions, is disunited across the range of theory, field work and laboratory based research.

¹² Evolution: "the central historicist doctrine that history is controlled by developmental laws whose discovery would enable us to prophecy the destiny of man" (Popper, 1949).

is a big IF) Sandstrom could enable analyses of social change *without* using the language of evolution it would provide something positive for human-social scientists to apply in their various fields. It would have to provide a methodology that does what evolution doesn't do. A non-evolutionary approach that distinguishes social change from the 'arrow of history' would secure it from the charges of historicism and determinism. This is what Comte's positive philosophy called for before the paradigm of 'Darwinian evolution' was yet on the scene and what a challenge to Darwinian-inspired social thought would have to deliver.

There are certainly grounds for making such a distinction, which is what the author suggests is possible in his paper, without actually delivering. In Dobzhansky's text *The Biological Basis of Human Freedom*, which Sandstrom repeatedly cites, "It must now be emphasized that, although biological evolution has made cultural evolution possible, it has not determined what this cultural evolution should be"¹³. Thus, we may conclude that biological evolution is not a universalistic science of life after all, since there is some freedom according to Dobzhansky for the cultural realm and for social-cultural action. Here, from the founder of the modern evolutionary synthesis, we recognize autonomy between culture and biology that functions best with a theory or methodology that denies natural selection or minimizes it as irrelevant for a majority of human-social origins and changes.

Sandstrom and I probably agree that Richard Dawkins' concept of 'meme' (1976) is unscientific and misleading. Still, the importance of genes for culture¹⁴ and culture for genes¹⁵, as for example addressed by E.O. Wilson's socio-biological idea of 'gene-culture co-evolution', should not go unnoticed. The notion that social-humanitarian thought should focus on the selfish, as in "the 'selfish' utility-maximizing paradigm of game theory and neoclassical economics"¹⁶ is indeed misplaced as a psychological abuse of sociology, which does not adequately address the unselfish acts of human beings. Sandstrom seems, however, to downplay the significance of scholarship presented by Wilson and Dawkins and their socio-biological misuse of altruism, whereas Fuller openly confronts it.

Indeed, the contrast between individuals and groups (or institutions) as basic units of analysis is still a critical question in human-social scientific versions of evolutionary theory. Richerson and Boyd, for example, focus on the cross-generational cultural learning of individuals¹⁷, while Nelson and Winter in their book *Evolutionary Theory of Economic Change* (1982) focus on groups, firms and institutions at the level of 'complex society'. What is needed, therefore, is a conceptual paradigm that is not reducible to biology or evolutionary psychology and which can provide greater balance between group and individual interpretations, whereby social-cultural origins and changes can be appropriately measured using empirical, positive and quantitative methods. Without such a framework or paradigm, pretenders to scientificity such as Dawkins' with his selfish memes will be given undeserved consideration, while Dobzhansky's belief in the autonomy of culture is pushed aside by reductionist-physicalist thinking.

Aside from the question of how ideas are transmitted among human-societies, other challenges to the evolutionary paradigm (Darwinian or otherwise) persist. The great problem of 'progress' lingers regarding whether or not progress is reversible or irreversible. Evolutionary theory, in its contemporary form has become theoretically flexible enough so that not only progress, but also regress can be considered an evolutionary trait. This is clearly not compatible with Darwin's version of evolution, however, which posits gradual, step-by-step improvements based on reproductive fitness to environment. This may also be why Fuller subtitled one of his chapters as "the struggle for Marx's successor", warning about the revolutionary overtones of the 'new Darwinian left'.

Some people have invoked the concept 'devolution', though in most cases it is not helpful as a clear opposite of 'evolution'. Variation in evolutionary discourse leads to the post-modern questions: Which evolution? Whose evolution? Is evolution Darwinian or Lamarckian? Is it Gould and Lewontin's version of evolutionary biology or Wilson, Dawkins and Pinker's versions? There doesn't seem any limitation to what evolutionary theory can claim to account for when it is elevated into a universalistic worldview, which is what Sandstrom is positioning himself strongly against. Any philosophically-minded observer inevitably must acknowledge a limited-use for evolutionary theory. So we remain stuck in the transition from an evolutionary to a post-evolutionary, but not necessarily to a revolutionary understanding of human society.

¹³ Dobzhansky, 1956.

¹⁴ "There is no such thing as a gene for self-awareness, or for consciousness, or for ego, or for mind. These basic human capacities derive from the whole of the human genetic endowment, not from some kind of special genes" (Dobzhansky, 1967).

¹⁵ "No correlation has ever been established between the contents of a culture and any physical or physiological characteristics of its possessors...Evidence that cultural patterns are determined by the genes is utterly lacking" (Dobzhansky, 1956).

¹⁶ "War and Peace" – Robert Aumann (Nobel Prize Lecture, Economic Sciences, 2005).

¹⁷ Richerson Peter and Robert Boyd. *Culture and the Evolutionary Process*, 1985.

5. Evolutionism and European Philosophy

In "Pieces of Evolution's Puzzle", it is arguable that evolutionism isn't necessarily Euro-American-centric, even though Britain and America are thoroughly permeated by evolutionary philosophy. Evolution has by the 21st century taken on global proportions, not just through describing natural history, but as a methodology applied across national borders and boundaries, in scientific institutes and laboratories. At the same time, philosophically speaking, if something is always evolving, then nothing is stable or unchanging; in such a situation the past can be easily forgotten¹⁸.

Likewise, if evolutionary theory is blind to teleological meaning, which its proponents vociferously profess it to be in order to qualify as 'scientific', then natural selection is defined by random changes (cf. unanticipated consequences), which may be a fanciful ideology or a pet theory, but which hardly counts as an effective framework for human-social scientific thought. We may wonder whether it is a definition of 'science' in general to exclude teleology, or whether it is a condition of the evolutionary paradigm to avoid teleological discourse at all costs. Even more convincing, notes Fuller, is that "evolutionary change occurs over timeframes that transcend virtually all the interesting contexts that call for sociological explanation¹⁹". Fuller is clearly not an anti-evolutionist, but perhaps rather a post-Darwinist, someone who is challenging the legitimacy of the Darwinian hegemony.

What would a non-evolutionary or post-evolutionary contribution mean? Would this present a new view of interpersonal relations, i.e. what human-social sciences study? Is there any potential for a synthesis²⁰ of human-social and natural sciences or would a non-evolutionary or post-evolutionary contribution be restricted to human-social thought, leaving evolution unchallenged in natural sciences? It is Fuller's belief that the relative equality of human persons, i.e. humans beings created in the image of a Creator, is a mental obstacle to contemporary philosophy. This is due partly to the notion of Darwinian evolutionary inequality with its 'higher' and 'lower' races or species. If so, how can a non-evolutionary or post-evolutionary theory settle the score? How can sociology offer a non-evolutionary or post-evolutionary approach to human-social change that actually matters and has consequences for redefining both its own broader realm and also potentially the natural sciences?

We may be tempted to divert the conversation here to psychology, which focuses on the individual, the self, rather than on the group. Morality and ethics, however, require sociology's contribution relating individual lives to group or community life. The conclusion that human beings are 'naturally' benevolent (e.g. H. Spencer) depends on a sociological rather than on a psychological foundation. Due focus on the group is what contemporary evolutionary psychology does not easily accept (e.g. Wilson and Wilson 2007). Ethics are in fact, however, a branch of philosophy and not of biology and biologists have little mandate for pontificating about ethics.

Going further, when evolutionary psychology draws upon ethology and animal behaviour as sources for knowledge about particularly human ethics, it effectively departs from the proper realm of those various disciplines that are concerned purely with humanity. Evolutionary psychology then becomes no longer a human-social scientific field but a field that confuses (or merges) human beings with all other animals. The presumptions of such a view are considerably destructive of the historical project of human-social science. This is why they should be opposed. Evolutionary psychology seen in this light has become more an instrument of naturalistic and atheistic ideologies than as a legitimate science worth giving attention or credit to.

Nevertheless, a problem persists that Sandstrom's paper has not solved, and which is what this review claimed at the beginning. There is no competitive framework against evolution for application in human-social sciences that could upset the entire faulty edifice upon which evolutionary psychology and socio-biology are built. This is why those fields remain pseudo-functional in today's academies. What symbol does Sandstrom propose to represent that which comes before, outside of or aside from a belief in universal evolutionary progress, which may also connect to the individual moral and ethical imperative that sees human beings as 'unique' or 'special' within the rest of 'nature'? The discovery or invention of such a linguistic symbol would offer an alternative in the field of social-humanitarian thought, leading to the eventual collapse of evolutionary psychology and socio-biology.

Altruism, especially in its reductionistic form²¹, still proposes a problem waiting to be solved by a non-natural scientist, philosopher or theologian. There is, after all, a paradox²² at the heart of human choice, i.e. free

¹⁸ "[E]volution...becomes, in the popular mind, a means of disowning the past" – T.S. Eliot ("The Dry Salvages", *Four Quartets*, 1936-42).

¹⁹ Fuller, 2006.

²⁰ "Darwin was not the 'inventor' of the revolutionary theory for which he is famous. He was a synthesizer of much work that had gone before" – Alan Jenkins (*The Naturalists: Pioneers of Natural History*. "Confessing a Murder", 1978).

²¹ "Kin selection, whereby altruism is systematically aimed at other carriers of the same altruistic allele, can explain altruism and is consistent with a large literature on animal behavior" – Steven Gaulin and Donald McBurney (*Evolutionary Psychology*, 2004).

will and predetermination, which in its entirety is not rationally explainable. It is here where we may wonder if the author is trying to merge social science with religious thought. If theology seemed to lose some of its province due to evolutionary biology, nevertheless there are ideas such as the 'invisible hand' of the market, and the 'self-fulfilling prophecy', which act like Providence, that ensure human-social sciences keep contact with the phenomenon of religion. There is no need to assume that evolution is anti-religious.

"Darwin's conception of a strictly lawful development is incompatible with Christian feelings as we cannot believe in an inactive Creator", writes D. Neuberger. "But when we accept mutations as a creation then evolution becomes a *creatio continua*...Only by such a conception of evolution the universe becomes sublime and the theory of descent adds to the glory of the Creator²³". This view has come to be known as 'theistic evolution' or as 'evolutionary creation', both of which leave room for the reality of human choices that converge as instruments of creation. Dobzhansky, as mentioned above, held this view in the tradition with Teilhard de Chardin. These models allow the decision-making of unique creatures made in the image of a Creator to transcend the merely biological composition of humankind. Whether or not individual social-humanitarian scholars can accept this description of human existence, which comes under Sorokin's category of Ideational, is a significant question for today's researchers and theorists to assess.

One of the important concepts for human-social scientists to contend with is indeed that of 'transcendence'. "The appearance of life and of man were the two fateful transcendences which marked the beginnings of new evolutionary eras", according to Dobzhansky. "[B]iological evolution has transcended itself in the human 'revolution'. A new level or dimension has been reached. The light of the human spirit has begun to shine. The humanum is born²⁴". If we interpret Dobzhansky's words as suggesting that human beings transcend multiple levels of existence, for example, biological and cultural, ethical, social and others, then we are given pause to realise that natural scientists need not wholly commit themselves to naturalism as if it were anti-theistic. If on the other hand we interpret Dobzhansky as a mouthpiece for the neo-Darwinian modern evolutionary synthesis promoting a westernized karmic worldview, which focuses on immanent evolutionary change that discounts transcendence, then recognition of a turn toward the Ideational in human-social thought would seem less likely.

Since he was an Orthodox Christian, of the Ukrainian-Russian tradition, it would have been contradictory for Dobzhansky to accept a philosophy of 'naturalism' if it was anti-religious. On the other hand, since he recognised human beings as unique creations²⁵ within the general order of Creation, we are then tempted to wonder why Dobzhansky made claims about culture and society, when as a natural scientist he was actually trespassing outside of his sovereign fields of knowledge to do so. Here we see the influence more of Lamarck than of Darwin on Dobzhansky's position, which is also why he is under-acclaimed by Darwinists today who indeed use evolutionary theories as weapons against religious belief.

In today's controversy, the influence of scientific, philosophical and theological voices reveals yet another theme. If Steve Fuller's insights can be applied to promote the cultural evolution of Dobzhansky and to highlight the synthesizing, integrative philosophy of Sorokin, then the result could be something entirely different than what Sandstrom has intended. If, on the one hand, evolution does not meet the gold standard of social scientific respectability, if it is indeed the greatest misanthropic social theory of our age, then it deserves to be rejected in social-humanitarian thought. On the other hand, if it can be reconstructed by human-social scholars (e.g. A. Korotaev and L. Grenin) to account for creativity, altruism, and religiosity, there may be reason to return to a Sensate understanding of human existence rather than to accept Ideational temptations.

6. Conclusion

The bottom line is this: A social philosopher or scientist cannot claim the need to replace a concept, as Sandstrom does, unless a replacement is incumbent. His paper is therefore provocative, but in the end unconvincing. As a note of conclusion, most of the time social scientists use the verb 'to evolve', they could just as effectively substitute the verb 'to change', with no loss of meaning added. L.N. Tolstoy would appreciate this clarification as much as anyone; it would have calmed the worries expressed on his deathbed. Only if another preferred concept is introduced to the discourse could the author's rhetoric be actually and effectively realized and the puzzle over evolution's controversy potentially solved.

²² "[T]he history of evolutionary theory during the three decades that followed the rediscovery of Mendel's laws is one of the most extraordinary paradoxes in the history of science" (*Dobzhansky et al.*, 1977).

²³ *Das Weltbild der Biologie*, Vandenhoeck & Rupprecht, Göttingen, 1941.

²⁴ *Dobzhansky*, 1967.

²⁵ "[C]ultural evolution is uniquely human. This uniquely human evolution is based on a principle which is almost completely foreign to the nonhuman world – the transmission of acquired knowledge from one generation to another" (*Dobzhansky*, 1956).

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