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## Сталин и борцы с клеточной теорией

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Вторжение советского тоталитарного режима в науку привело к трагическим последствиям. Многие должности в науке и образовании были заняты шарлатанами и демагогами, тогда как талантливые ученые и педагоги потеряли работу. Примером тому служит выдвижение старого большевика Ольги Борисовны Лепешинской, которая заявила в 1930 г., что она разработала теорию о создании клеток из внеклеточной «живой» материи. Большинство ученых выступало против этой «теории», но к ней с энтузиазмом отнеслись И.В. Сталин и Т.Д. Лысенко. По приказу Сталина было созвано особое совещание двух советских академий — Академии наук СССР и Академии медицинских наук, — на котором заявления Лепешинской были поддержаны 27 советскими биологами, заклеившими буржуазную клеточную теорию. В 1939 г. к юбилею Сталина были учреждены Сталинские премии. Номинантов выбирали сам Сталин и специальная комиссия. В 1950 г. эта премия была выдана в обход всех процедур и в непопозженное время всего лишь одному номинанту — О.Б. Лепешинской за открытие «живой материи». В конечном итоге советская биология, бывшая до того на передовой мировой науки во многих областях, потеряла свою репутацию.

**Ключевые слова:** советский режим, клеточная теория, «живая материя», Сталинская премия, О.Б. Лепешинская.

## The Uses of the Dead in the Science of Life: A Thanatology of Lysenkoism<sup>1</sup>

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This article applies U.S. anthropologist Katherine Verdery's analysis of the animation of the dead in East European politics, to a historical study of Lysenkoism. Verdery convincingly described the use of those who have passed away to influence current events, and the interpretation of history, in Eastern Europe. Verdery focused on the practices of commemoration and reburial. While these are important topics within the Lysenko controversy, biology — as the study of life — also invites us to consider Verdery's framework in scientific terms as well. I describe three instances in the history of Lysenkoism, where the dead were enlisted for political use. I use the term "politics," as Verdery does, to refer to behavior intended to make policy, justify action, claim authority, and manipulate meaning and context. My first example — the tragic suicide of Viennese Zoologist Paul Kammerer — may be interpreted as a precursor to the Lysenko controversy. The second — an essay published by Polish architect Szymon Syrkus in a 1948 issue of *Architektura* (Architecture) — is an example of when the dead were used in support of Lysenko. The third — the entry on Lamarck by University of Pennsylvania botanist Conway Zirkle, in the 1961 *Encyclopedia Britannica* — shows an instance where a deceased individual was used against him. I am interested not only in how those no longer around to speak for themselves were used to achieve a goal, vis-à-vis Lysenko, but the motivations of those involved. I also explore how notions of life, death and rebirth — so deeply embedded in the Lysenko controversy — may be re-imagined accordingly, and inform our understanding of what the word "Lysenkoism" means.

**Key words:** Lysenkoism, Michurinist biology, Katherine Verdery, science of life, the dead scientists.

In *The Political Lives of Dead Bodies: Reburial and Postsocialist Change*, anthropologist Katherine Verdery described the use of those who have passed away to influence current events, and the interpretation of history, in Eastern Europe. As Verdery noted, this phenomenon is not exclusive to the history of the Cold War. The "political life of dead bodies" stretches back to the classical period, and continues through the importance attached to the reburial of significant figures in the history of the Enlightenment, such as Thomas Paine and Napoleon Bonaparte. The most obvious example of the symbolic power wielded by the dead in the history of communism is probably the removal of Stalin from Lenin's tomb, and his reburial in a corner of the Kremlin wall, in 1953. The body count goes much higher once you consider the Cold War as a global event, and includes personalities ranging from Che Guevara — whose body was claimed for reburial by three different countries — and Pol Pot — whose corpse was nearly put on trial in the hopes of providing his victims with catharsis (Verdery, 1998, p. 1–3).

The "Lysenko affair" is a topic which begs interpretation within Verdery's framework, because not only was the question of "life" (i. e. how organisms evolve) at the center of it, but what the dead thought, said, or believed, was fundamental as well. This is most clearly true in

<sup>1</sup> Editors' note: The editorial board considers the paper as a work in progress, and not as a completed piece of research. It poses more questions than provides answers. However we believe the author's approach to be very interesting and promising, and therefore we are delighted to publish his paper in our journal.

terms of the struggle between Lysenko and his opponents over the interpretation of Darwin's theories, and their respective claims to his legacy. Lamarck would also likely have been shocked to realize the important role played by his ideas — albeit often caricaturized and distorted — over a century after his death. The fact that Lysenko's children were denied their wish to have him buried alongside Nikita Khrushchev, Ilya Ehrenburg, Vladimir Mayakovsky, and Aleksandr Oparin, in the prestigious Novodevichi cemetery, makes this avenue of investigation even more intriguing.

In the article which follows I will describe three instances in which the dead were put to political use in the history of the Lysenko affair. In doing so I am interpreting the term “politics” in the same sense as Verdery; behavior intended to make policy, justify action, claim authority, and manipulate meaning and context (Verdery, 1998, p. 23). I have chosen three examples which illustrate the role of death in the Lysenko controversy. One may be interpreted as a precursor; the second as an example when the dead were used in support of Lysenko; and the third an instance in which a deceased individual was used against him. The first case covers the tragic suicide of Viennese Zoologist Paul Kammerer, and his rehabilitation by Soviet Commissar of Education, Anatol Lunacharsky. Next is an essay published by Polish architect Szymon Syrkus in a 1948 issue of *Architektura* (Architecture), at a time when Lysenkoism, along with other features of Stalinization such as Socialist Realism, were being introduced in Poland. The last covers the entry on Lamarck, as revised by University of Pennsylvania botanist, anti-communist, and historian of science, Conway Zirkle, in the 1961 *Encyclopedia Britannica*. With these examples I am interested not only in how those no longer around to speak for themselves were used to achieve a goal, vis-à-vis Lysenko, but the motivations of those involved. I also explore how notions of life, death and rebirth — so deeply embedded in the Lysenko controversy — may be re-imagined accordingly, and inform our understanding of what the word “Lysenkoism” means.

To accomplish the latter goal I use a classic attempt to deconstruct science, Bruno Latour's *Black Box* (Latour, 1987). Latour analyzes how a scientific theory becomes a “black box,” i. e. taken for granted as truth, and how this problem affects our understanding of what science is. Latour's idea is an influential feature of a culture in which “Lysenkoism” has become a synonym for pseudoscience. The important point is not whether Lysenko was or was not a “pseudoscientist,” it is how the notion of “Lysenkoism” undermines Latour's theory. Lysenkoism, as pseudoscience, shows that pseudoscience, like science, can also be black boxed. As I show, framing the Lysenko controversy in terms of death is helpful for deconstructing Latour's deconstruction, and resurrecting the problem of what counts as science. The Cold War was a struggle for survival between two competing world systems — a competition which affected all facets of human culture. Because heritage connects the past to the present, we must examine instances when the former is enlisted on behalf of the latter, and the dead are reanimated to influence the living.

These issues are also central to Lysenko's theories. In a Lamarckian interpretation of evolutionary history, every organism carries physical evidence of the past. Your ancestors were shaped by their environment, and this has been transmitted to you through biological inheritance. But Lysenko also claimed species could be transformed — literally remade into something that had never existed before — by being exposed to new conditions. This concept purges the burden of history, the ghosts of the past, the influence of the dead.

We can go further by exploring how Lysenko articulated his notion of life, as well as his portrayal of genetic research. As Theodosius Dobzhansky pointed out, geneticists tended to focus on lethal mutations. This was not because, as Dobzhansky put it, they had particularly “gruesome

tastes,” but because these were the easiest kind to study<sup>2</sup>. Some might be better than others at spotting bent wings or white eyes, but anyone can tell if something is dead or alive. It takes little effort, however, to see how such methodology could be made to sound morbid. Since, as will be detailed further below, “Lysenkoism” was in many ways a game of associations, “Mendelists-Weismannists-Morganists” were easily portrayed as using science as a pretext for indulging a taste for murder. If that analysis sounds overblown, take into account the extent to which the fear of death composed the context of Stalinism. The fate of Nikolai Vavilov must have been very much on the mind of geneticists across the communist bloc after the summer of 1948.

The difference between life and death certainly influenced Lysenko. In two of his publications I read in Polish translation at the Library of Agriculture in Warsaw, he emphasized the role of the environment in evolution by pointing out that the difference between organisms which were dead, versus those that were alive, should be conceived of in terms of their relationship with their physical surroundings. The same elements — air, water, and warmth — upon which a living body depends, cause a dead body to decompose (Verdery, 1998, p. 3). Elsewhere he pointed out that survival is based upon the ability of live organisms to consume, and be replenished by, dead matter, which they use as energy for transformation (Lysenko, 1950a, p. 9, 72; 1950b, p. 14). Clearly the subject of death and Lysenko gives us much to think about.

## Death Foretells

One would have thought the nadir in Jean Baptiste-Lamarck's legacy would have been reached once George Cuvier delivered a deliberately insulting eulogy at his funeral. Despite colleagues' attempts to persuade him to edit several lines, Cuvier proceeded to dismiss Lamarck's theories as “fanciful notions” wherein “vast edifices” constructed on “imaginary foundations... not unlike those enchanted palaces that, in our old novels, can be made to vanish by breaking the charm on which their existence depends” (Shank, 1982, p. 13). Though Darwin initially referred to Lamarck's theories as “nonsense,” by the final edition of *The Origin of Species* it is clear Darwin had traded in Natural Selection for a more Lamarckian interpretation of evolution. Nevertheless, much Lamarck-associated tragedy would follow in the Twentieth Century and, thanks in overwhelmingly large part to Lysenko, he would become a pariah after World War II.

The most famous casualty of Lamarckism (aside from Lamarck himself) was also possibly the only person whose suicide note has ever been published on the pages of a scientific journal: Viennese zoologist Paul Kammerer. Kammerer achieved international fame prior to the First World War for his experiments which seemed to prove Lamarckian inheritance. Kammerer claimed he could make salamanders change color, blind newts develop eyes, and turn land-loving midwife toads into water-dwellers. Midwife toads get their name from the fact that after mating the males carry the eggs. Since they mate on land, the male toads do not possess the dark pigmented thumb pads that other frogs and toads have for copulating underwater. Kammerer claimed he caused the midwife toads to mate underwater by heating their aquariums. They then acquired dark thumb pads and the next generation of toads had them as well.

In 1923 Kammerer embarked on lecture tours of Europe and the United States where he was a huge hit. The *The New York Times* hailed him as the next Darwin<sup>3</sup>. When asked what

<sup>2</sup> B: D65 Dobzhansky Theodosius. Reminiscences, Part I. The American Philosophical Society. P. 280.

<sup>3</sup> Kammerer Gives Proof of Theories // *New York Times*. 1923. Dec. 20.

the inheritance of acquired characteristics implied for the future of the human race, Kammerer said our descendants will learn quickly what we already know well, accomplish easily what for us is great effort, and be able to withstand that which would kill us now. They will not repeat our mistakes, they will begin where we end. "Take a very pertinent case," he said, "the next generation of Americans will be born without any desire for liquor if the prohibition law is continued and strictly enforced"<sup>4</sup>.

Kammerer was also a socialist, and the extent to which theories of heredity were mapped out onto political ideologies in this period is evident in an excerpt from his work, *The Inheritance of Acquired Characteristics*. He wrote:

"...the theory of Natural Selection is not unsocialistic, for its war-cry, "let the best man win," eliminates the prerogatives of birth and money, of internal and external inheritance. Class struggle is a veritable struggle for existence: a race with mental weapons, without violence, a bloodless and a positive selection — the survival of the fittest. War is synonymous with negative selection, with the left over of the weak and halt; and alcohol ... very often allows the drink-permeated and alcohol-poisoned ones to survive. But are these corpulent, fatty-hearted, shrunken-kidneyed, generically-rotted examples a suitable basis for the betterment of the race? Such a "selection" may be considered suitable for a punishment of the nation and for a breeding of a race of lackeys that begets worthless gun-fodder, but hardly to build up a "chapter for race-refining" (Kammerer, 1924, p. 263–264).

Such views, as well as his global reputation, attracted the attention of Soviet authorities. Kammerer was offered a professorship at the Timiriazev Institute, and began organizing a laboratory. Kammerer repeatedly refused requests to have his claims verified. But as Kammerer's fame grew the pressure mounted. Finally, as he was packing his bags and shipping his scientific equipment to the Soviet Union, his specimens were examined. It turned out his midwife toads' dark thumb pads were no more than injections of India ink.

Kammerer wrote a letter to the Russian Academy of Sciences which was later published in *Nature*: "I see that I am not in a position to endure this wrecking of my life's work..." The next day he dressed in a dark suit, took a walk in the hills outside a small village, and shot himself in the head. In a note found in Kammerer's pocket he requested that his body be dissected so his colleagues might discover in his brain a trace of the qualities they found absent when he was alive<sup>5</sup>.

Kammerer's story does not end there. Two years after Kammerer's suicide, Anatol Lunacharsky, commissioned and wrote a script for a film, *Salamandra*, which could be read as a eulogy which vastly revised what had happened. In the movie a young scientist succeeds in inducing the inheritance of color, altered in response to the environment, in salamanders. A local priest learns of the discovery and, fearing it will undermine the power of the church and upper-classes, decides to sabotage the biologist's work. The priest meets with a young prince who shares his views of the dangers of scientist's innovation to the established order. The priest is then able to have the prince appointed as an assistant to the biologist. That night the priest and the prince sneak into the lab and inject the salamander specimen with ink. When the young scientist announces his discovery the next day the salamander is dipped into a jar of water. All

<sup>4</sup> Scientist Tells of Success Where Darwin Met Failure // New York Times. 1923. June 3; Biologist to Tell How Species Alter // New York Times. 1923. Nov. 28.

<sup>5</sup> Paul Kammerer Papers. B: K128. The American Philosophical Society. For a defense of Kammerer see Arthur Koestler, 1973, and for a recent reassessment of Kammerer's work see Sander Giliboff, 2006.

the color runs out and the biologist is accused of being a charlatan and kicked out of the university. However just as he is about to commit suicide, the biologist is informed that Lunacharsky has ordered that he be saved from persecution by the bourgeoisie. The biologist is invited to Moscow, and the last scene shows him on a train heading east with a banner reading: "To the land of liberty"<sup>6</sup>.

Lysenko's rise to authority in Soviet biology during the 1930s, as well as Stalin and CPSU's motives for endorsing his views in 1948, is obviously far more complex than the relationship between Lamarckism and socialism (Krementsov, 1997; Pollock, 2006, p. 41–71). However Lamarck's theories and legacy were central features of the Lysenko controversy. Lysenko was routinely accused by his opponents of being a Lamarckian, and his allies defended him in these terms. At the VASKhNIL conference I.I. Prezent referred to Lamarck in a way that implied that both his and Lysenko's theories were challenged because they threatened the existence of an antiquated, bourgeois political order.

"As is known, Lamarck's theory arose in connection with the ideas of the French encyclopaedists and the French materialists. It reflected the revolutionary epoch of that time. ... The reaction against the French Revolution also caused a strong reaction against the ideas of Lamarck..." (The Situation in Biological Science, 1949, p. 273).

Lamarck is dead: Long live Lysenko.

## Death and Design

...where the Polish capital once stood, only ruins and cinders remain. Maybe, someday, a new town will emerge in this place, but it will not be Warsaw.

*Warsaw Calendar, 1946*<sup>7</sup>

Warsaw was literally a graveyard after World War II. The "architecture" consisted primarily of shattered buildings, destined for removal. Beneath the wreckage were thousands of bodies in various states of decomposition, and makeshift grave markers dotted the pathways that wound through the rubble. The aura of death was so profound that memorials recounting numerous random executions are still a prominent part of the cityscape. Warsaw was so badly damaged that the proposition of not rebuilding, and relocating the Polish capital elsewhere, was briefly considered. Despite the fact that the Poles did rebuild, many believed that "Warszawa"—as the above quote from the 1946 *Warsaw Calendar* reiterates — was gone for good.

The devastated cities of East and Central Europe proved particularly vulnerable targets for the architects of Socialist Realism. A lot of buildings had to be built, they had to be built quickly, and there was one — and only one — aesthetic style accompanying concurrent policies (industrialization, collectivization, Lysenkoism etc.) designed to create "little democracies." June 20–21, 1949, nearly three months after the March 30 meeting in Warsaw to inform Polish biologists that Lysenko's Michurinism had been officially endorsed by Polish Communist

<sup>6</sup> This plot summary comes from Richard Goldsmith's account published in: *Death of a Science in Russia*. 1949. P. 19–20. See also Gershenson, 1990.

<sup>7</sup> *Kalendarz warszawski na rok 1946* (Warszawa, Kraków: Towarzystwo Gniazd Sierocych, 1946).

Party (PZPR)<sup>8</sup>, another meeting was held to inform architects that Socialist Realism was the only acceptable doctrine for design. The line separating Polish architecture before and after this conference is obvious on the pages of the country's primary architectural journal, *Architektura* (Architecture). The articles published in issues in the first years after the war are what you would expect: They cover immediate repair of infrastructure, the reconstruction of heritage sites like Old Town Warsaw, and reflect architectural trends begun in the interwar period. After the summer of 1949 socialist utopian concerns kick in and pictures of Stalin appear on the pages. At this point the magazines could be used as examples of the extent to which his presence haunted every aspect of professional life during the period.

Five months after the June meeting for architects in Warsaw, Building Minister, Marian Szychalski, was removed from his post, brutally interrogated and imprisoned (Tomasik, 1999, p. 84)<sup>9</sup>. The individual most responsible for promoting Socialist Realism in Poland was Edmund Goldzamt, who had spent the Second World War in the Soviet Union, where he was schooled in its theory and practice. This experience provided him with personal contacts and an attendant authority which could not be contradicted. Goldzamt's contempt for Socialist Realism's perceived aesthetic antithesis — modernist trends of the interwar period — are apparent in a 1949 article in *Architektura*, where he expressed his disdain for Corbusier's notion of the house as a "machine for living." According to Goldzamt, such notions reduced architecture to mere material and structure, empty of anything socially meaningful. Buildings became bodies, without souls (Goldzamt, 1949, p. 187).

Obviously, not everyone in Polish architecture shared Goldzamt's tastes. A notable attempt to insert modernist notions into Socialist Realist theory occurred in an essay, "*W sprawie rozwoju twórczości architektonicznej*" ("The Evolution of Architectural Creativity") published in another issue of *Architektura* that same year, by Szymon Syrkus (1949). Syrkus and his wife Helena were prominent members of the Polish avant-garde during the 1920s and 30s. From 1911–1920 Syrkus studied architecture in Vienna, Graz, Riga, Moscow and Warsaw. From 1920–1921 he studied sculpture and painting at the Academy of Fine Arts in Krakow, and from 1922–1924 he traveled through Weimar, Berlin and Paris, where he encountered Bauhaus and De Stijl. In 1925 he designed the building for the National Health Service, and in 1926 presented his work at the First International Exhibition of Modern Architecture in Warsaw. In 1926 he also formed the Constructivist group Praesens, which represented Poland at the 1928 *Congrès internationaux d'architecture modern* (International Congress of Modern Architecture, C.I.A.M.). That same year he married Helena Niemirska.

The Syrkus's went on to collaborate on important examples of East European Functionalism such as Rakowiec Siedlung in Warsaw, 1930–1936. They also played an important role in the C.I.A.M. congress in Paris in 1937, and in 1939 Walter Gropius invited them to Harvard University. They chose to remain in Poland, however, during the German occupation, where they directed an office for architecture and planning in the Polish underground, and projected designs for a postwar "socialist Warsaw." These activities were interrupted in 1942 when the Syrkus's, who were Jewish, were sent to Auschwitz (Ockman, 1993, p. 120).

The couple survived the war to witness Poland's resurrection and transformation into a Soviet ally. Whatever their ambitions might have been for a socialist reconstruction of Warsaw, it is clear that Szymon, at least, realized that postwar Socialist Realism meant little more

<sup>8</sup> *Polska Zjednoczona Partia Robotnicza* (Polish United Workers Party).

<sup>9</sup> Szychalski was rehabilitated and released in 1956 at which point he became Minister of National Defense, a post he held until the Gomułka regime was removed from power in 1970.

than a slavish imitation of the Soviet model<sup>10, 21</sup>. According to the formula of Socialist Realism, architecture should be socialist in content, and nationalist in form. This meant, that although all socialist countries must make sure that the economic and political features of a "peoples' democracy" provided the content for design, the form of that design could reflect specific features of national heritage. The extent to which the latter portion of the doctrine could be sincerely followed, is evinced by the fact that the most prominent building in the Warsaw skyline, the Palace of Culture, is virtually identical to its counterparts in Moscow.

Nevertheless, Syrkus gave it a shot. To make it more likely that a Socialist Realist aesthetic would align with visions of leftist architects from the interwar period, he enlisted Lysenko's theory of heredity as a model for developing a specifically Polish Socialist Realist style. He wrote,

"**Socialist Realism** as the antithesis of **cosmopolitanism**. An analogue to the question of inheritance in architecture and urbanism can be found in the theory of **Michurin and Lysenko**. Not mechanistic, fatalistic inheritance—but rather fostering the features best-suited to further development, while eliminating whatever inhibits flourishing.

In terms of the past,  
polish gothic,  
polish renaissance,  
polish neoclassicism,  
in the art of my generation: the work of Jasieński, Czyżewski, Malewicz and Szanajca contain details which must be developed further, because they find in our epoch — like Michurin's ear of wheat — the right climate and soil for yields one-hundred times greater" (Syrkus, 1949).

Syrkus' idea is fascinating for two reasons: One, it is an example of the use of a scientific theory to inform a theory of aesthetics, where in both cases the issue of heredity is central; two, his references to the work of Bruno Jasieński, Tytus Czyżewski, Kazimierz Malewicz and Józef Szanajca belie his refutation of "cosmopolitanism." All four of these men, like Syrkus, had been active members of the Polish avant-garde. Jasieński was the co-founder of Polish Futurism, Czyżewski was among the original practitioners of Polish Expressionism, and also a follower of Futurism and Primitivism. Malewicz was influenced by Russian Postimpressionism, Fauvism, Expressionism, Cubism, and published a Suprematist manifesto. Szanajca was devoted to Functionalism, Constructivism and Bauhaus.

Clearly, Syrkus invoking their names in his essay in *Architektura* was an attempt to have the work of individuals he liked, be a major influence on the development Polish Socialist Realism. This move was dangerous. "Art for art's sake" was as derisive a term as "science for science's sake." Abstract art was no less abstract than using fruit flies to study humans. Every discipline must serve the people, or at least be able to explain how it does.

If his ideas were rejected, all four might be rounded up and arrested, or at the very least be barred from employment in their profession. Syrkus also could be accused of bourgeois fetishism, and suffer equally grim consequences. Fortunately, however, the only individual at risk was Syrkus, because the other four were all dead by the time the essay appeared. Jasieński had relocated to the Soviet Union in 1929 where, in 1937, he was arrested and shot. Czyżewski died in Kraków in 1945 at the end of the war. Malewicz had died in Leningrad in 1935, and Szanajca had been killed in Poland in the early days after the Nazi invasion, in September, 1939.

<sup>10</sup> Helena Syrkus became a leading apologist for Stalinist cultural policy outside of Poland (Ockman, 1993, p. 120–122).

Syrkus' argument was not only clever, it was strategic. It is noteworthy that his friends were only useful to him because they were dead. Had they been alive he would almost certainly not have drawn attention to their work during the interwar period, given the radical shift to Socialist Realism, and the climate in which it was enforced, in the early years of the Cold War. Syrkus animated the dead for a collaborative project that only he was alive to witness: A design for life.

### The Dead Are Not There to Defend Themselves

Among those who most frequently invoked Lamarck against Lysenko was Conway Zirkle. Zirkle was keenly aware of how the reputations of the dead — usually in gross distorted versions — could be used to slander the living. He called this practice “verbalism,” and discussed it in his 1949 book on Lysenko, aptly titled, *Death of a Science in Russia*.

“The term “verbalism” is used here to denote not only an excessive attention to words but also a usage in which words do not label ideas but are substituted for ideas. ... First, we find that all Communist doctrines, theories, and hypotheses are personalized. ... The second function of Russian verbalism is to obfuscate the issues at crucial points by means of playing a sort of word-game. The object is to separate the words from their meanings. ... In considering the third aspect of this verbalism, we must realize that the crucial words have a definite rank, they are actually in a hierarchy. ... “Dialectical materialism” of course is at the top. ... One final aspect of this subject should be noted. It is that, when words are meaningless, they sometimes become very shifty and alter their rank in the hierarchy with great speed. These changes may be either positive or negative. Terms once derogatory may achieve eminent respectability, or the reverse may happen. Thus “Lamarckism,” a damning label in 1940 ... had acquired ... prestige in 1948” (*Death of a Science in Russia*, 1949, p. 8–11).

The most obvious evidence that Zirkle and other Lysenko critics absorbed this lesson well, is the coinage of the term “Lysenkoism” — a term which has become such a standard part of the lexicon of “pseudoscience,” that it has even spawned the term “neo-Lysenkoism”<sup>11</sup>. In the meanwhile, it is also clear that “Lamarckism” became tainted by association.

Zirkle's antipathy for Lamarck precedes the VASKhNIL conference. In 1946 he published an article, “The Early History of the Idea of the Inheritance of Acquired Characters and of Pangenesis” in the *Proceedings of the American Philosophical Society*, wherein his disdain for Lamarck's theories was clear (Zirkle, 1946). Before quoting the passage from *Philosophie zoologique* where Lamarck described how storks evolved long legs, Zirkle stated Lamarck was “simply asking for ridicule” (*ibid*, p. 92). After quoting Lamarck on the development of horns and tusks, Zirkle remarked, “the story of how the elephant's child got its trunk, however, is not Lamarck's but Kipling's” (*ibid*).

Equating Lamarck's theories with *Just So Stories* is obviously insulting, and indicative of the overall tone of Zirkle's account. Though trained as a botanist, Zirkle was a well-published, and well-respected, historian of science. In addition to the official journal of the oldest scientific society in the U.S., his articles appeared in the *American Journal of Botany*, *The Virginia Law Register*, *Botanical Gazette*, *Agricultural History*, *Journal of the History of Biology*, *Isis*, *Science*, and several others. It strikes the reader that it should have been possible to evenly discuss Lamarck's ideas, without sarcasm — despite their lack of currency. Zirkle's characterization seems at best, immature, and at worst, cruel.

<sup>11</sup> See: <http://en.wikipedia.org/wiki/Lysenkoism>.

Zirkle's views vis-à-vis Lamarck and Lysenko coincided in the 1961 entry on the former in the *Encyclopedia Britannica*. Most readers consulting the 1961 *Encyclopedia* to learn about Lamarckism probably did not notice the entry had been heavily revised from previous editions. That it would be updated is not surprising. Zirkle's name now appeared in the writer credits, next to T.H. Morgan, who had previously been listed as the sole author. Individual scientists are bound to interpret the history of their disciplines quite differently, and new collaborators often bring new ideas. What is striking in this instance however, is the nature of the edits, what is not discussed, and one detail many readers were probably unaware of.

Morgan's entry had focused exclusively on the persistence of belief in Lamarckism, as well as the scientific evidence against it. After reviewing popular examples (the blacksmith's son who inherits stronger arms thanks to his father's repeated use of heavy hammers; the musically-gifted child who has talent results from the hours their parent spent practicing), Morgan described Lamarck's influence upon Darwin, and later attempts to prove the inheritance of acquired characters by Kammerer, Dürken, Pavlov, and McDougall. Morgan concluded with a paragraph attributing the persistence of the doctrine to the fact that social evolution occurs thanks to the transmission of information from one generation to the next, and it is therefore natural that we would apply this to the inheritance of physical features<sup>12</sup>.

In the 1961 edition a few new sentences appear amidst the discussion on Darwin, wherein the Soviet Union is mentioned for the first time. The text reads,

“In the Soviet Union, for example, where the inheritance of acquired characteristics is accepted and where it has an official standing, it is presented as a part of the Darwinian theory and is referred to generally as “creative Soviet Darwinism,” distinct from the “reactionary Darwinism” of capitalist countries”<sup>13</sup>.

This point is elaborated further on in text, inserted between what had been the penultimate and final paragraphs of the entry. The new section describes how a “prolonged and bitter scientific controversy raged in the Soviet Union from 1936 to 1948”, which resulted in Lamarckism being “revived rather violently by the Communist authorities”. According to the “authors,” Marx and Engels were “staunch Lamarckians” because they believed “this type of inheritance would guarantee the future improvement of the human race”, Soviet biologists supported it because it put them in a “strong tactical position in the socialist competition for status” and the outcome of the 1948 conference at the Lenin All-Union Academy of Sciences (VASKhNIL) where genetics was banned was a “boon to the communist theoreticians”<sup>14</sup>.

While most of Zirkle's analysis reflects his superficial views of the controversy, what is most interesting about the entry is something most readers would probably not have recognized: Morgan was dead when the entry appeared. Once again, there is not necessarily anything unusual about this. Very often authors' and editors' names remain attached to updated versions of works they no longer have a hand in writing or editing. In this case though two things are important. One, T.H. Morgan's name and reputation vastly exceeded Zirkle's, and gave the definition far greater authority than it would have were Morgan's name removed; Two, Morgan, had he been alive, would never have agreed to have his name attached to the version containing Zirkle's revisions.

It is obvious Zirkle must have been conscious of the first point. What did he need Morgan's name on the entry for anyway? He had published an article on the history of the inheritance of

<sup>12</sup> Lamarckism // *Encyclopedia Britannica*. Vol. 13 (1958). P. 607–610.

<sup>13</sup> Lamarckism // *Encyclopedia Britannica*. Vol. 13 (1961). P. 607.

<sup>14</sup> *Ibid*. P. 609.

acquired characteristics for *Isis*, among the leading journals in the field of history of science. It would have been no problem at all for him to entirely revise the entry and make it his own work. That, however, would give it less credibility among those for whom Morgan's name rang a bell.

As for the second point, as Morgan's biographer, Garland Allen, has described, Morgan loathed political activism. He believed scientists must remain apolitical, because involvement in social causes had no place in scientific practice. In fact, it is likely that among the contributing factors in Morgan's fractious relationship with one of his most famous students, Hermann J. Muller, was Muller's eagerness to engage the social and political controversies surrounding his work whenever possible. Morgan, we might say, would roll over in his grave had he known.

### Life, Death and Lysenkoism

Thanatology is the study of death, and biology is the study of life. As I have described, the tension between these two opposites is an as yet unanalyzed feature of the controversy. This dichotomy provides another way of thinking about Lysenkoism within the broader context of Cold War science. As Nikolai Krementsov has noted, biology is an understudied topic in this framework, because most researchers are interested in weaponry and technology, the areas where most energy was focused towards defeating the "enemy." However Lysenko's anti-genetics campaign shows us how U.S.-Soviet rivalry placed pressure upon scientists of all disciplines and, because the issues under discussion — genetics, evolution — were not "top secret", the nature of the controversy was far more public than in other areas (See Krementsov, 2009). A thanatology of Lysenkoism also reiterates the extent to which the meaning, goal and role of scientific practice in human societies, had changed after the Second World War. The phenomenon whereby scientific and technological "progress" came to seem like ends pursued for their own sake, rather than benefitting humanity, gained serious momentum by the end of World War II. As historians of the arms race have documented, science became a source of fear, rather than hope. My analysis can be read as a contribution to research in this area as well.

As for what I wrote above about broadening our understanding of what "Lysenkoism" means: Science haunted people during the Cold War. The unqualifiedly positive notions of the late 19<sup>th</sup> century were buried in the trenches of the Somme and Verdun, and radiated landscape of Hiroshima and Nagasaki. Lysenko was a Frankenstein monster, animated by Stalinist-Marxist science, to wreak havoc<sup>15</sup>. Again, if that sounds like a stretch, think about the fact that Mary Shelly, the author of *Frankenstein; or the Modern Prometheus*, is considered a Romantic author, and Karl Marx, the co-author of the *Communist Manifesto*, is considered a Romantic philosopher. Shelly's novel is often read as a dystopian account of science run amuck, and Marx is often portrayed of the founder of a science-based philosophy, whose utopian ambitions went badly astray. Within this framework, Lysenko can be seen as the uncontrollable creature let loose among biologists in the USSR. Just as Victor Frankenstein's Frankenstein was a "fake" human pieced together from dead parts brought to life by electricity, Lysenko was a "pseudo" — scientist whose power to impose a theory as un-biological/un-scientific/improbable as the body of Frankenstein's creation, derived from Stalin; and he destroyed genetics.

This gets to the relationship between the dead and the living. Syrkus was a member of the inter-war avant-garde. This identity was premised upon a rejection of old ideas about what counted as art,

<sup>15</sup> By "Stalinist-Marxist" I am referring to Pollock's analysis of Stalin's role in Soviet science (Pollock, 2006).

beauty etc. — and their replacement with new ones. At various points in the 1920s and 30s this was a free-wheeling environment, in which attitudes and behaviors such as receptiveness and open-mindedness were highly valued. At the point when Syrkus made his address invoking Lysenko, however, it was clear that revolutionary aesthetics had been hijacked by party planners, with their own ideas about what art was, and what purpose it should serve. Syrkus attempted to resurrect members of his generation to continue the mission their deaths, and a radically different milieu in East and Central Europe, had interrupted. He invoked the dead to serve a purpose in the present.

This notion of generations was also fundamental to Zirkle. In a 1959 letter to L.C. Dunn, a geneticist who played a notably active role, albeit with entirely different motives than Zirkle, in the Lysenko controversy, Zirkle wrote,

"Most historians of science are convinced that the periodic changes that occur in the orientation of scientists are not due to any conversion of any scientist, but to the replacement of one generation of scientists by another. What has fascinated me in this is that often the changes occur in the complete absence of argument. One generation succeeds the other apparently without having made any intellectual contact. I cannot go into the whole problem here, but can only say that I hoped to stimulate some of my contemporaries into giving me data that, historically, is very scanty.

I may have ultimately to ask forgiveness from a great many of my friends"<sup>16</sup>.

Zirkle was referring to "Marxist" scientists. He believed that many of his colleagues in the U.S. were essentially communists, who had been heavily influenced by Marxist philosophy. As a "cold warrior" Zirkle believed such individuals were an anathema to the profession, however he was not worried. Someday they would die off, and their ancestors would think differently than they did. According to Zirkle, the history of science — whether it be theory or ideology — proved the beliefs of the dead were replaced the living.

A final point is the relationship between "Lysenkoism" and "pseudoscience." As I mentioned, the former has become a synonym for the latter. It has been — to use Bruno Latour's phrase — "Black Boxed" — as that which science is not, as proved by the fact that Lamarck's ideas suffered from guilt by association. The irony is that though Latour's goal was deconstruct the appearance of objectivity, Lysenkoism shows he did the opposite: he reified it. Latour's strategy requires he presume there is such a thing as "normal" science which we must analyze. But what happens to this analysis when we prove "pseudoscience" can also be a Black Box? At this point the Black Box becomes a coffin in which we must again bury attempt to define science, once it has shown to be no different from what, supposedly, it is not.

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## Использование мертвых в науках о жизни: танатология лысенкоизма

**ВИЛЬЯМ ДЕ ЙОН-ЛАМБЕР**

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Статья посвящена анализу лысенкоизма как явления научной, общественной и политической жизни эпохи холодной войны. Автор предлагает взглянуть на изучаемое явление под новым, достаточно необычным углом зрения. Опираясь на работы известного американского антрополога, специалиста по Центральной и Восточной Европе Кэтрин Вердери, автор ставит вопрос о том, какую роль играли имена и творческое наследие ушедших из жизни ученых и деятелей культуры в утверждении лысенкоизма в науке, а социалистического реализма — в искусстве конца 1940-х — начала 1950-х гг. в странах советского блока, а также в параллельном процессе превращения лысенкоизма в синоним лженауки на Западе в эти же годы. Как полагает автор, сами понятия жизни и смерти, разложения и возрождения, наследственной передачи не только биологических, но и социальных признаков, культурной традиции, проблема смены поколений в науке и политике играли ключевую роль в борьбе противников и сторонников Т. Лысенко. Поэтому углубленный анализ использования этих понятий может существенно продвинуть наше понимание лысенкоизма в целом. С этой целью автор анализирует три эпизода из истории противостояния лысенкоистов и антилысенкоистов.

**Ключевые слова:** лысенкоизм, Кэтрин Вердери, науки о жизни, покойные ученые.

## ВОСПОМИНАНИЯ И ИНТЕРВЬЮ

### Опасная профессия<sup>1</sup>

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### Кубанская земля

Наша семья встретила войну в Ростове-на-Дону. Мне было тогда 15 лет. Но уже через три месяца немецкая армия захватила Таганрог, в ста километрах от Ростова. Мы, бросив все, уехали в Тбилиси — город, где я родился. Когда пришла повестка из военкомата, предписывавшая явиться 1 февраля 1943 года с вещами и документами, я еще учился в десятом классе и мне лишь недавно исполнилось 17 лет. В войне уже произошел поворот. Советская армия, освобождая Северный Кавказ, приближалась к Краснодару. Армии срочно требовались пополнения и срок призыва был сдвинут на год вниз и два года вверх.

Молодых новобранцев отправили на обучение в Кутаиси. Здесь за городом была территория резервного полка, в котором шло ускоренное обучение военному делу: стрелять, бросать гранаты, ползать по-пластунски, колоть штыком, бить прикладом, орудовать саперной лопаткой. Я попал в первую маршевую роту нашего призыва, которую отправляли в действующую армию в конце апреля.

Военный эшелон двигался из Кутаиси до Краснодара через Баку и недавно освобожденный Северный Кавказ. На станциях местные жители приносили нам молоко и хлеб, иногда и сало. Из Краснодара на машинах мы доехали к станции Крымской

<sup>1</sup> В настоящем номере мы приводим первую часть воспоминаний Жореса Александровича Медведева, которые он начал писать в прошлом году. К настоящему моменту почти готовы еще три части этих воспоминаний. — Прим.ред.