ИССЛЕДОВАНИЯ

The Japanese Lysenkoism and Its Historical Backgrounds

Tsuyoshi FUJIOKA

Doshisha University, Kyoto, Japan; jcf10563@nifty.com

Two bases of the rising tide of Lysenkoism in Japan after WW II are Japanese Marxist philosophy influenced by Soviet philosophy and evolutionary biology. Almost all Japanese Marxists left Lysenkoism after Lysenko's downfall, however, a group of biologists continued to support Lysenko's theory. In Japan, Lysenkoism attracted the attention of biologists who were not satisfied with Neo-Darwinism. The delay of the acceptance of the evolutionary synthesis in Japan is closely related to the influence of Lysenkoism on biologists. In this paper, I will explain the philosophical and scientific background of Japanese Lysenkoites. These factors will help to understand why the influence of Lysenkoism continued for as long as it did in Japan, long after it was abandoned in other countries.

Keywords: Darwinism, Marxism, dialectic materialism, genetics, the evolutionary synthesis, neutral theory.

Introduction

The Japanese people were greatly influenced by Lysenkoism. Lysenko's theory was introduced to Japan after the end of World War II. Japanese militarism collapsed after the Japanese defeat in 1945 and the movement for democracy spread on an unprecedented scale. The influence of the Left expanded, and respect and admiration for the Soviet Union increased. This period saw the establishment of the Democratic Scientist Association (Minshushugi Kagakusha Kyokai, MINKA) — a scientific organization consisting of left-wing scientists in the humanities, natural and social sciences — in 1946. Biologists and biological historians created a Theoretical Biological Workshop to promote acceptance of Lysenko's theory (Nakamura, 1967). Many Japanese biologists of the time were dissatisfied with the Mendelian/Morganist theory and thought favorably of Lysenko's theory. Though Japanese geneticists did not accept the theory as completely accurate, they thought that it deserved serious consideration.

The August 1948 VASKhNIL session became a turning point in the Lysenko Controversy in Japan. Japanese geneticists strongly criticized Lysenko and Lysenkoites for purging geneticists from institutes after Lysenko's victory at the VASKhNIL session. Europe and America

contained both Marxists who supported genetics (e.g., J.B.S. Haldane) and Marxists who supported Lysenkoism, in stark contrast to Japan where almost all Marxists supported Lysenkoism. A small number of Japanese Marxists, initially critical of Lysenkoism, also converted to Lysenkoism after the August session (Nakamura, 1967, p. 110–111). The dogmatic understanding that the biology of dialectic materialism is equal to Lysenkoism was shared among all who participated in the Lysenko Controversy in Japan.

A few years later, after Lysenko lost his prestige and geneticists regained their authority in the Soviet Union, the Japanese supporters of Lysenkoism gradually decreased.[1] Japan regarded the failure of Lysenko's theory as a failure of dialectic materialism itself. The majority of Lysenkoists kept silent and some Lysenkoists had even come to regard Lysenko's theory as a false science, unworthily of consideration. In Europe and America, many lively discussions occurred concerning Lysenkoism and the relationship between science and ideology, whereas discussions concerning Lysenkoism disappeared from Japan after Lysenko's downfall. In spite of Lysenko's downfall, though, some other Lysenkoists refused to accept its failure. They did not withdraw their support of Lysenkoism and continued to issue their journal, *Michurin Seibutugaku Kenkyu* (*Japanese Journal of Michurin Biology*, 1964–1983)[2]. These two disparate currents remained in the academic world of Japanese biologists without disputes during that time. Only years afterward in the late 1980s, was the modern evolutionary synthesis, which integrates genetics into natural selection theory, systematically accepted by Japanese biologists. Not until the end of the 1990s was the Society of Evolutionary Studies in Japan established.

The introduction of Darwinism in Japan exerted more influence on social thought than biological research

Darwinian evolutionary theory was first introduced to Japan by Chiyomatsu Ishikawa through his work entitled *Evolutionary Theory of Animals (Dobtsu Shinkaron)* (Ishikawa, 1883). Its contents were based on the lecture of a foreign adviser, Edward S. Morse, who was the first professor of zoology at Tokyo Imperial University. After that, Ishikawa published *New Evolutionary Theory* (*Shinka Shinron*) (Ishikawa, 1891). Four years later, Senzaburo Tachibana translated Darwin's seminal work, *The Origin of Species* (*Seimei Shigen*) (Tachibana, 1896). However, none of these three works were much noticed, likely due to their impenetrable academic style. Then, in 1904, animal scholar Asajirou Oka published *Evolutionary Theory Lecture (Shinkaron Kougi)* (Oka, 1904). It was written in a simple and easy style to understand, enabling it to become popular in non-academic circles as well as academic ones (Matunaga, 1988, p. 153). Even so, these new realizations did not inspire Japanese biologists to perform their own research endeavors in the field. Zoology and Botany were still in their infancy in Japan. Even Ishida and Oka, who were responsible for bringing Darwin's concepts to Japan, did not change their own research projects to include Darwinism (Ibid, p. 149–163).

Though Darwinian evolution did not spur biologists to action, it exerted great influence on Japanese social thinkers and social activists. After learning of Darwin's theory, Hiroyuki Kato, the first president of Tokyo Imperial University, published his *New Theory of Human*

[1] The Teiri Nakamura's, book *Ruisenko Ronso* (The Dispute on Lysenkoism) is a detailed document of Japanese disputes on Lysenkoism.

[2] *Japanese Journal of Michurin Biology* was published from 1965 to 1983.

Rights (Jinken Shinsetsu) (Kato, 1882) and advocated social evolution theory (social Darwinism), emphasizing the inevitable struggle for existence in human society. He criticized the burgeoning Freedom and People's Rights Movement (Jiyuu Minken Undo). Conversely, Siusui Kautoku (Denjiro Kautoku), a socialist and Japanese translator of *The Communist Manifesto*, wrote articles on Darwinism, such as "Darwin and Marx" (1904) (Matunaga, 1988, p. 155). In this and other articles, he criticized Kato's theory on social Darwinism, insisting that Darwinism does not contradict socialism (Ibid, p. 155). The well-known anarchist, Sakae Osugi published the third translation of *On the Origin of Species* in 1914, and later his translation of Peter Kropotokin's *Mutual Aid: A Factor of Evolution* (Kropotkin, 1902). Osugi spread the idea of mutual aid as the philosophical base of Anarcho-syndicalism.

Early Japanese geneticists had more interest in utility than theory

In contrast to the advent of Darwinian evolution, Mendelian inheritance incited Japanese biologists and breeders to action, enabling them to conduct pioneering research. In 1906, Kametarou Sotoyama proved that Mendel's law, previously shown in plants, also applies to animals through his research on silkworms. The Breeding Society of Japan was established in 1915 by Sotoyama and other geneticists. In 1920, its name changed to "The Genetics Society of Japan" and "The Japanese Journal of Genetics" was first issued in 1921. Most early papers from this journal addressed the hereditary research of breeding rice plants, wheat, mikan[3], pears, potatoes, silkworms, and so on. There were few theoretical projects that attempted to identify the mechanism of heredity in living things. At that time, geneticists and biologists in Europe, America, and Russia had argued over genetics and evolution (for example, the substance of genes, the role of mutation in evolution, and so on), but this did not occur in Japanese academic society. Young Japanese geneticists and biologists interested in theoretical subjects, such as evolutionary theory, were dissatisfied with the situation.[4] Marxism provided the theoretical framework for their response and critique of the situation.

Marxism's boom in the late 1920's and the influence of Soviet Marxist literature

Siusui Kautoku, who had changed his political stance from socialism to anarchism, was undeservedly considered the ringleader of the Case of High Treason and was executed in 1911 with twenty-four socialists and anarchists. The movement of socialists declined shortly after the affair. However, several years had passed, encompassing Russia's 1917 revolution, the Rice Riots of 1918, and the subsequent creation of the labor movement. These events led to a rapid expansion of sympathy for Marxism by Japanese intellectuals. The great publishing boom of Marxist literature continued from the late 1920s to the early 1930s. During that time, over 70 journals of Marxist literature were published (Seijiro Kubo, 2011) including the complete works of Marx' and Engels'. Marxism penetrated into various new areas, including the social sciences, humanities, natural science, and art. Thus, Japan's intellectuals learned theoretical

[3] Citrus fruits of Japan.

[4] *The Japanese Journal of Genetics* had carried extracts from foreign literature since 1924.

and systematic thinking through Marxism. Tomoyuki Ishii, who became one of the leading Lysenkoists after WWII, recollected in his later years that he had fastidiously digested "Dialectics and Natural Science" by Deborin (Tomoyuki Ishi, 1960, p. 63).

The Japanese Communist Party, organized in 1920s, was forced to make the activity illegal, but Japanese intellectuals, who supported Marxism, founded the Proletarian Science Institute (Puroretaria-Kagaku Kenkyusho, PUROKA), a private research institution that began research and propaganda for the development of Marxism in 1929. Soviet Marxist theory was the absolute authority for Japanese Marxists. In 1930, a working group at the institute began publishing the Japanese journal, *Under the Banner of Marxism*. It consisted of translations of papers printed in the Soviet theoretical journal *Под знаменем марксизма* (*Pod Znamenem Marksimzma*, hereafter – PZM). PZM was the highest authority for Japanese leftists, as written in the preface of *Under the Banner of Marxism*.

Certain papers concerning biology were printed in the Japanese version of *PZM*, for example, "Dialectical Materialism and Biology" written by V. Slepkov (Слепков, 1927) and "New Darwinism and the Problem of Human Evolution", written by F. Duchinskii (Дучинский, 1930; Duchinskii, 1931). Those papers were based on natural selection and the inheritance of acquired characteristics. However, it was Soviet geneticists, not Lamarkists, who were the leading influence in schools in the late 1920s Soviet Union. They sought to unify the theories of natural selection and genetics. Though some papers by geneticists, such as those by A.S. Serebrovskii and I.I. Agol, were published in *PZM*, (see for example: Агол, 1930), they weren't translated to Japanese. Furthermore, according to the decision of the Soviet Communist Party Central Commitee concerning the editorial policies of *PZM*, chief editor Deborin was replaced by M.B. Mitin. The change of the Soviet Communist Party made a great impact on Japanese Marxists (Fujioka, 2010, p. 206–210). A series of public documents informing the turn of the policy was translated into Japanese and Japanese Marxists accepted the message. Deborin's group and geneticists were severely criticized in these documents. The opinion that genetics was an idealistic theory of the bourgeoisie had infiltrated the societies of Marxist biologists and philosophers in Japan.

The approach of young biologists to Marxism

The conversation on Soviet philosophy left Japanese Marxists in confusion. The Proletarian Science Institute (PUROKA) shifted its emphasis from theoretical activities to practical activities and finally became extinct. The Society for the Study of Materialism (Yuibuturon Kenkyu-kai, YUIKEN), which consisted of Marxist scholars and sympathizers, was founded in 1932 by Kunio Oka, Hiroto Saegusa, Jun Tosaka, and others. Many thinkers from the Proletarian Science Institute also participated in this society. It was greatly influenced by Soviet philosophy under *M.B.Mitin's* direction and many members of the society emphasized the class ideology and partisanship of natural science. Almost all Japanese Marxists considered M.B. Mitin to be a representative of Soviet Marxist philosophy for a long time. Mitin was invitated to Japan in 1960 and gave a lecture in front of Japanese Marxists (Mitin, 1960). A heavy majority of the biology papers in *The Materialism Research (The Yuibutsuron Kenkyu)*, issued by the Society for the Study of Materialism, emphasized the significance of the principle of inheritance of acquired characteristics and criticized any theory that supported combining natural selection and Mendel's law — for instance, that of philosopher Akihide

Kakehashi (1933, p. 273–274), who emphasized in "The Problem of Darwinism in Biology" (1933) that natural selection demands the inheritance of acquired characteristics principle.

The geneticist Tomoyuki Ishii, who had published a paper "About Chromosome Structure" in *The Japanese Journal of Genetics* (1931) contributed an article titled "Interpretation of life: about substance of biology" to *The Materialism Research* under a pen name Koiti Hosokawa (1932) as soon as the Society for the Study of Materialism was founded. Ishii wrote in the article that though the purpose of biology was the systematic investigation of biological phenomena, present biology researchers worried about trivial details. It is my view that he was dissatisfied with the academic research of genetics in Japan and became attracted to Marxist theoretical activity because it provided fields of free and bold thinking. Subsequently, Ishii (1934) published a paper entitled "A Historical Survey and Prospects of Biology" in *The Materialism Research*. He explained that though change of form and nature must be studied in the change of cells through embryology, reproduction, and heredity, genetics reduced complex biological change to the changing of genes. He also criticized geneticists, writing that evolutionary theory of Mendel was a mechanical or idealistic distortion of Darwinism. Tatsuo Ishihara, a biologist like Ishii, wrote a paper entitled "A Criticism of Mendelism" (1933), also appearing in *The Materialism Research*. Ishii and Ishihara published a book titled *The Biology* as one volume of the Complete Series of Materialism (18 volumes). This book played an important role in the spread of anti-Mendelism in Japanese Marxists before World War II.

Interest in evolutionary theory spreads in the Genetics Society of Japan

Reports of abridged translations of foreign papers began appearing in the Japanese Journal of Genetics after 1924. Simultaneously, theoretical studies concerning the structure and mechanism of genes, performed by T.H. Morgan, R. Goldschmidt and others, were introduced to Japan (Tanaka, 1925, p. 191–192). Taku Komai, who had studied abroad with Morgan at Columbia University from 1923 to 1925, returned to Japan with American genetics interests, such as the study of fruit flies. The genetic studies in the Soviet Union, concerning hybrids between different species of cultivated plants, were also introduced to Japan at that time. Isao Hirayoshi introduced a paper, "Hybrids between wheat and couch grass", by S. Verushkine and A. Shechurdine (1933) in 1934 and he wrote that the institutes in the Soviet Union concentrated their main power on extensive and practical application of hybrids between species of distant relation. He claimed that the Soviet Union society led the world in plant breeding (Hiroyoshi, 1935, p. 295).

Mitoshi Tokuda, from Komai's group at Kyoto University, introduced evolutionary studies to Japanese geneticists. In 1935 he presented a paper on the differentiation of species by F.B. Sumner (1932) and developed his argument concerning the differentiation of animals on the basis of his studies about mutants of mice. Yoshimaro Tanaka, a geneticist who gave the first lecture on genetics in Japan, spoke on the the subject of "How did life evolve?" at a workshop of the Genetics Society in the next year.[5] In 1937 Tokuda introduced the paper "Genetic nature of species differences" by Th. Dobzhansky (1937a) and emphasized the significance of separations for the theory of evolution. Komai praised the genetic studies of rodents

[5] A news item about academic meeting // The Japanese Journal of Genetics. 1936. Vol. 12. № 2. P. 122.

by Tokuda in the book review (Komai, 1937, p. 130). In 1938 he introduced Dobzhansky's new book *Genetics and the Origin of Species* (1937b), and wrote

> "The readers can know that the theory of evolution made new rapid progress standing on exact physical evidence from old philosophical arguments. The geneticists can get great knowledge and suggestions no matter what the subjects of their experiments, and the evolutionists will recognize the necessity to study again from the beginning" (Komai, 1938, p. 101).

Thus, the possibilities to integrate genetics and evolutionary theory were opened up in front of Japanese biologists. However *The Japanese Journal of Genetics* was forced to stop carrying abridged translations of foreign papers from 1939 onward because all academic exchanges with Europe and America were prohibited by the Japanese military regime. The Society for the Study of Materialism (YUIKEN) was also forced to disband by the militaristic government in 1938. Some leaders of the society were imprisoned and Jun Tosaka, the central figure, died in prison before the Japanese defeat.

Japanese Lysenkoites after WWII and the two trends

After the Japanese defeat in WWII, the Democratic Scientist Association (MINKA) was founded in 1946. Lysenko's theory was introduced in earnest to Japan by biologists, agronomists, biological historians, and philosophers who gathered at the association. Tomoyuki Ishii extolled their theoretical activities in a paper printed in The Materialism Research that was reissued after the war (Tomoyuki Ishii, 1948). He wrote "I often criticized Mendelism before. But my criticism was not only inconsistent but also unproductive of a new theory" (Nakamura, 1967, p. 37). Ishii and his coworkers, who had criticized genetics as a mechanical theory, were convinced that Lysenko's theory was actually a dialectical theory. Ishii recollects in his book the deep impression he gained upon understanding Lysenko's theory for the first time (Tomoyuki Ishii, 1960, p. 66). He played an important part in the first activities spreading Lysenkoism, and the leaders of the Lysenkoites, Ryuichi Yasugi, Youichi Takanashi, Mitoshi Tokuda and others, followed him. Thus, the theoretical activities for anti-Mendelism by Japanese Marxists in the Society for the Study of Materialism before the war created the philosophical conditions for the appearance and continued existence of Lysenkoites after the war.

In my view, the two foundations of Japanese Lysenkoites are Japanese Marxist philosophy influenced by Soviet philosophy and evolutionary biology. A representative of the latter is Mitoshi Tokuda, who had studied an evolutionary theory based on Mendel's law. He was a pioneer of this field in Japan before the war, but was not satisfied with an explanation for evolution based only on an application of Mendel's law to quantitative inheritance. After the war, Tokuda criticized more and more Dobzhansky's theory as Neo-Darwinism because he disliked the almighty character of natural selection. He thought the concept of natural selection in Neo-Darwinism as a mere sieve of mutants and he came to regard the relation between mutation and ontogeny as important to understanding the progressive evolution of life. He became a lecturer of evolutionary theory and continued studying it at Kyoto University. Soon he came to know Lysenko's theory of phasic development and began to support Lysenkoism. Thus, Tokuda approached Lysenkoism not from ideology but from biological theory. Furthermore, he took part in the Michurin Movement, rising

among farmers, agronomists, technical experts and students, as a biologist and came to have sympathy for Marxism and the Soviet Union.

The difference between people approaching Lysenkoism as Marxists and those approaching as dissatisfied Neo-Darwinst biologists became clearer after Lysenko's downfall. The former kept silent and left Lysenkoism slowly, whereas the latter did not leave readily. Some of this group later organized "the Society of Agrobiology" in 1961, with Mitoshi Tokuda as chief secretary. They, moreover, issued the *Japanese Journal of Michurin Biology* after 1964 and maintained the idea that Michurin biology was the correct biology because it was based on Darwinism, and philosophically based on Dialectical Materialism. They argued for the end of Neo-Darwinism because it simply reduced Darwin's theory to studies of mutants. In 1967, Tokuda wrote a report on his visit to the Soviet Michurin biological research facilities, writing that "If Lysenkoites participate in some politics and agricultural policy, we need to remove the political side from the theory of Lysenko and inquire into the contributions of Lysenko on pure studies of biology" (Mitoshi Tokuda, 1968, p. 184). This view was common to all biologists joining the Society of Agrobiology. Their journal was issued for twenty years influenced the Japanese biologists who were critical of Neo-Darwinism.

Conclusion

The theoretical activity of the biologists influenced by Marxist philosophy before WWII was one of the underpinnings of the rising tide of Lysenkoism in Japan after the war. In addition Lysenkoism absorbed the attention of biologists who were not satisfied with Neo-Darwinism and tried to overcome it. The synthesis theory was still in its infancy and had the defect that every evolution of life was attributed solely to natural selection. In Japan, many biologists disliked the "almighty" natural selection theory and therefore the influence of Lysenkoism remained even after Lysenko's downfall in 1964. The evolutionary theory of Imanishi Kinji, an anthropologist at Kyoto University, was popular among Japanese people in those days as a rival theory to the European and American one.

Motoo Kimura, from Kyoto University, also strongly opposed the "almighty" natural selection theory. He proposed the neutral theory of molecular evolution in the late 1960s. Many people mistook Kimura's molecular biology-based theory as an opposition to the evolutionary synthesis theory. However, considering that Kimura was a pupil of S. Wright, who was one of the originators of population genetics, and that neutral theory succeeded to Wright's idea of "genetic drift", the neutral theory should have been seen in the frame of the evolutiomary synthesis. As molecular biology developed, neutral theory was verified and Kimura, in the late 1980s, expressed his view that neutral theory was not opposed to synthesis theory (Kimura, 1988). Thus, the evolutionary synthesis became free from natural selection and strengthened its integrational character more and more. The power of Lysenkoism to attract people's interests as Anti-Neo-Darwinism was no longer felt. The *Japanese Journal of Michurin Biology* was discontinued in the mid-1980s and its influence faded. In early 1990s Japan, a systematic textbook of evolutionary biology based on the evolutionary synthesis was published for the first time (Futuyma, 1991). Many young biologists were taught using this textbook and finally, in 1999, the Japanese Society of Evolution was organized. Thus, Lysenkoism as an academic school vanished completely from Japan.

References

Агол И. Проблемы эволюционного учения // Под знаменем марксизма. 1930. № 4. С. 180–201.

Дучинский Ф. Неодарвинизм и проблема эволюции человека // Под знаменем марксизма. 1930. № 2–3. С. 208–218.

Слепков В. Диалектческий материализм и биология // Под знаменем марксизма. 1927. № 10–11. С. 249–262.

Dobzhansky Th. Genetic Nature of Species Differences // The American Naturalist 1937a. Vol. 71. P. 404–420.

Dobzhansky Th. Genetics and the Origin of Species. New York: Columbia University Press, 1937b. 364 p.

Duchinskii F. Shin-Dainshugi to ningenshinka no mondai (New Darwinism and the Problem of Human Evolution) // Marukusushugi no Hata no Moto ni. 1931. № 3. P. 103–128.

Fujioka Ts. (Tsuyoshi Fujioka). Ruisenko-shugi wa Naze Shutsugen sitaka (Why did Lysenkoism Arise? The Achievement and Failure of an Attempt to Dialecticize Biology). Tokyo: Gakujutu Shuppankai, 2010. 218 p.

Futuyma D.J. Shinka Seibutugaku / transl. by Yuji Kishi et all. Tokyo: Soujushobo, 1991. (The original work: Evolutionary biology, 2nd ed. (Sunderland, Mass.: Sinauer Associates, 1986).

Hiroyoshi I. (Isao Hiroyoshi). Komugi to couch grass tono zasshu // The Japanese Journal of Genetics. 1935. Vol. 11. № 5. P. 295.

Hosokawa K. (Koiti Hosokawa, a pen name of *Tomoyuki Ishii).* Seibutsu no Kaishaku: Seibutsugaku no Naiyo ni tsuite (Interpretation of Life: about Substance of Biology) // Yuibuturon Kenkyu. 1932. № 2. P. 108–121.

Ishikawa Ch. (Chiyomatu Ishikawa). Dobutsu Shinkaron (Evolutionary Theory of Animals). Tokyo: Kyodoshobo, 1883.

Ishikawa Ch. (Chiyomatu Ishikawa). Shinka Shinron (New Evolutionary Theory). Tokyo: Keigyosha, 1891.

Ishii T. (Tomoyuki Ishii). About Chromosome Structure // The Japanese Journal of Genetics. 1931. Vol. 7. № 3. P. 128–139.

Ishii T. (*Tomoyuki Ishii).* Seibutsugaku no Rekishiteki Gaikan to Tenbou (A Historical Survey and Prospects of Biology) // Yuibuturon Kenkyu. 1934. № 17. P. 5–24.

Ishii T. (Tomoyuki Ishii). Gendai Idengaku to Ruisenko Gakusetu (Modern Genetics and the Theory of Lysenko) // Yuibuturon Kenkyu reissued. 1948. № 2. P. 96–109.

Ishii T. (Tomoyuki Ishii). Shinkaron no Hyakunen: Dauin kara Michurin e (A Hundred Years of Evolutionary Theory: from Dawin to Michurin). Tokyo: Shin-Dokshosha, 1960. 63 p.

Ishihara T. (Tatsuo Ishihara). Mendelizumu no Iti Hihan (A Criticism of Mendelism) // Yuibuturon Kenkyu. 1933. № 3. P. 71–78.

Kakehashi A. (Akihide Kakehashi). Seibutugaku ni okeru Dauin-teki Kadai (The Problem of Darwinism in Biology) // Yuibuturon Kenkyu. 1933. № 5. P. 273–274.

Kato H. (Hiroyuki Kato). Jinken Shinsetsu (New Theory of Human Rights). Tokyo: Taniyamarou, 1882.

Kimura M. (Motoo Kimura). Seibutu Shinka o Kangaeru (Consideration of Life Evolution). Tokyo: Iwanami Shoten, 1988.

Komai T. (Taku Komai). Gesshirui no Iden // The Japanese Journal of Genetics. 1937. Vol. 13. № 2. P. 130.

Komai T. (Taku Komai). Genetics and the origin of species // The Japanese Journal of Genetics. 1938. Vol. 14. № 1–2. P. 101. (Review of Dobzhansky, 1937b)

Kropotkin P. Mutual Aid: A Factor of Evolution. London: Heinemann, 1902. 348 p.

Kubo S. (Seijiro Kubo). Nippon Marukusushugi Bunken to Taisho to Showa Shoki no Marukusu Bumu (The Japanese Literature concerning Marxism and the Boom of Marxism in the Taisho Period and the Early Showa Period) // The transaction of the 75th annual conference of the Japanese Society for The History of Economic Thought, 2011. (http://jshet.net/docs/conference/75th/kubo.pdf)

Matunaga T. (Toshio Matunaga). Nippon no Shinkaron // Kindai Shinkaron no Naritati (Japanese Evolutionary Theories // The History of Modern Evolutionary Theory). Osaka: Sogensha, 1988. P. 149–163.

Mitin M. Sanju-nen Mae no Tetsugaku Ronso (The Dispute on Philosophy Thirty Years ago) // Yuibuturon Kenkyu (Tokyo: Aoki Shoten). 1960. № 1. P. 105–109.

Nakamura T. (Teiri Nakamura). Ruisenko Ronso (The Dispute on Lysenkoism). Tokyo: Misuzu Shobo, 1967.

Oka A. (Asajiro Oka).Shinkaron Kougi (Evolutionary Theory Lecture). Tokyo: Kaiseikan, 1904.

Puroretaria-Kagaku Kenkyujo (ed.). Hakkan ni Saisite (On the Occasion of the Publication) // Marukusushugi no Hata no Moto ni (*Under the Banner of Marxism*). Tokyo: Tetto Shoin, 1930. P. 1–2.

Sumner F.B. Taxonomic distinctions viewed in the light of genetics // American Naturalist. 1932. Vol. 68. P. 135–149.

Tanaka Y. (Yoshimaro Tanaka). Inshi no souzoteki okisa (Expectative size of gene) // The Japanese Journal of Genetics. 1925. Vol. 3. № 4. P. 191–192.

Tachibana S. (Senzaburo Tachibana). Seimei Shigen (The Origin of Species). Tokyo: Keizai Zasshisha, 1896.

Tokuda M. (Mitoshi Tokuda). Shu no bunruigaku teki tokucho (Taxonomic features of species) // The Japanese Journal of Genetics. 1935. Vol. 10. № 3–4. P. 258–260. Review of Sumner, 1932.

Tokuda M. (Mitoshi Tokuda). Shu no identeki kousei to kakuri (The hereditary structure of species and its sepsration // The Japanese Journal of Genetics. 1937. Vol. 13. № 6. P. 334–335.

Tokuda M. (Mitoshi Tokuda). Houso Houkoku: Michurin Seibutugaku no Genjou Sisatu (The Report of the visit to the Soviet Union: An Inspection of the Present Situation of Michurin Biology) // Japanese Journal of Michurin Biology. 1967. Vol. 3. № 1. P. 93–99.

Tokuda M. (Mitoshi Tokuda). Futatu no Idengaku Dai 3-kan (Two Studies of Heredity) // Rironsha. 1968. Vol. 3. P. 184.

Verushkine S., Shechurdine A. Hybrids between wheat and couch grass. Fertile Triticum-Agropyrum hybrids of great scientific and practical interest // Journal of Heredity. 1933. Vol. 24. P. 328–335.

Японский лысенкоизм и его исторические корни

Цуёши Фудзиока

Дошиша университет, Киото, Япония; jcf10563@nifty.com

Подъём лысенкоизма в Японии после Второй мировой войны объясняется двумя факторами: развитием японской марксистской философии под влиянием советской философии и развитием эволюционной биологии. После упадка лысенковщины в Советском Союзе лишь немногие японские марксисты остались сторонниками лысенкоизма. Однако ряд биологов продолжал поддерживать теорию Лысенко. В Японии теория Лысенко привлекла большое внимание ряда биологов, которые не были удовлетворены неодарвинизмом. Медленный темп внедрения синтетической теории эволюции в Японии был тесно связан с влиянием лысенкоизма на биологию. В статье сделана попытка объяснить, какие философские и научные факторы содействовали подъёму лысенкоизма в Японии и почему влияние лысенкоизма продолжалось так долго, несмотря на отказ от теории Лысенко в других странах.

Ключевые слова: дарвинизм, марксизм, диалектический материализм, генетика, эволюционный синтез.