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The dispute over classical sociobiology*

Spór o socjobiologię klasyczną

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Abstract: "Sociobiology: New Synthesis" is a book written by W. O. Wilson, which in l975 started the famous dispute over sociobiology. The dispute is the contemporary version of the old one about the nature of man. The issue concerns the factor, which determines the behaviours of living organisms, especially human beings. Two groups took part in that dispute. On one side, there were sociobiologists under the leadership of Wilson. On other, there were left-wing scientists and students connected with Sociobiology Study Group of Science for the People. In the first stage, the dispute was very intense and political, however, it soon became more content-related. The dispute is not over yet. Both sides agreed to a ceasefire, but they are ready to open it at any time.

Keywords: Edward O. Wilson, sociobiology, ethology, kin selection, debate over human nature

Streszczenie: *Sociobiology: New Synthesis* to książka W. O. Wilsona, która w 1975 roku zapoczątkowała słynny spór o socjobiologię. Stanowi on współczesną odmianę kilkusetletniego sporu o istotę i naturę człowieka. Problem dotyczy czynnika determinującego zachowania istot żywych, w szczególności zaś człowieka. W spór zaangażowały się dwie strony. Z jednej byli to socjobiolodzy pod przewodnictwem Wilsona. Z drugiej strony zaś lewicowi naukowcy i studenci związani z Sociobiology Study Group of Science for the People. W pierwszej fazie spór przebiegał bardzo intensywnie i miał charakter polityczny. Z czasem złagodniał i przybrał charakter merytoryczny. Spór o socjobiologię trwa nadal. Obie jego strony zgodziły się na zawieszenie broni, zachowując gotowość do jej użycia przy każdej nadarzającej się ku temu okazji.

Słowa kluczowe: Edward O. Wilson, socjobiologia, etologia, dobór krewniaczy, spór o naturę ludzką

Introduction

The dispute over sociobiology, which has been going on since the mid-seventies of the twentieth century, is cited here as a contemporary version of the philosophical dispute over human nature that has been going on for many centuries. Focusing on the conditions of human behaviour, the dispute was directly related to the one about behaviourism (Pieter 1959, 144) by William McDougall and John Watson, as well as to the one about ethology by Konrad Lorenz and Wolfgang Schmidbauer (Schmidbauer 1971; Lorenz 1971). In each case, the aim was to determine the factors that determine characteristics of the behaviour of living beings, especially people. This factor is to be either genetic conditions or environment. By means of unambiguous supporting of the idea of human genetic determinism, sociobiologists provoked a dramatic dispute whose attempts to resolve it only led to adjournment (Łepko 1994).

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1. Origin of the dispute

The origins of the dispute over sociobiology go back to sociobiology itself. Its creation was a response to the growing expectation among evolutionary biologists for explaining, mysterious for social ethology, animal behaviour, such as altruism and cooperation. Such behaviours were even a mystery to Darwin himself, who was wondering whether it was possible to agree on the infertility of certain social insect caste with Manifestations of their altruism towards younger litter. The mystery of such behaviour was a first-class research challenge and created a kind of pressure on biologists to explain it quickly. An expression of this aspiration was the New York Scientific Session organized in 1948, during which an attempt was made to reach an agreement among ecologists, physiologists and sociologists for a comparative study of the ways in which living beings socially behave. This interdisciplinary major was called then sociobiology (Wickler, and Seibt 1981).

Unfortunately, this initiative stuck on programme declarations. The historians of science emphasize that the main reason for the unsuccessful use of the first idea concerning sociobiology was the fact that it was not associated with a "carrying theory" extending the existing possibilities for research into the ways in which living beings behave socially. The pursuit of developing such a theory has thus become a major challenge for many researchers. The works of V. C. Wynne-Edwards (1962) and W. D. Hamilton (1964) deserve special attention in this respect.

V. C. Wynne-Edwards saw a chance to reconcile the phenomenon of resignation from one's own offspring in the animal world with the fact of selection for the survival of an individual in the concept of group selection. According to this approach, resignation from one's own offspring is forced by an ecological factor. A possible increase in the size of a given population would limit free access to food resources in a given area and thus reduce the chances of survival of a given population in relation to its competitors. This means that resignation from one's own offspring would increase the competitive effectiveness of such population. According to Wynne-Edwards, such a group selection created an opportunity to explain not only the population's ability to control its size, but also the existence of altruistic behaviour between animal individuals. The concept of group selection, however, was not conducive to explaining how such a population's propensity to resign from its own offspring is perpetuated from generation to generation when reproduction is not involved. This weakness of the concept of group selection decided about its non-Darwinian nature. Thus it did not end the search for a solution to Darwin's dilemma concerning altruistic ways of animal behaviour.

Historians of science assume that attempts to solve this dilemma were successful in the mid-sixties of the last century (Wickler 1990, 178). In 1964, W. D. Hamilton noted that the possibility of explaining the social behaviour of living beings created the assumption that the unit of natural selection was not a population or an individual, but a single gene. This led to the concept of kin selection, i.e., one that works for the benefit of a group of relatives with the same genes that are conducive to reproductive success. In the light of this concept, it turned out that altruistic behaviour in animals was always self-interested. Their goal is the reproductive success of altruistic genes regardless of where they are located (Bielecki 1993). An important role in this success is therefore played by an effective, that is, a behavioural strategy adequate to the existing environmental conditions, proceeding in accordance with the rules of the theory of games (Smith 1982). The concept of relative selection was thus completed by the concept of an evolutionarily stable strategy that is more conducive to survival than others (Łomnicki 1987).

Created by Hamilton, population-genetic theory of kin selection was the "carrier theory", which allowed for the use of born in 1948 idea of sociobiology. This idea was

successfully approached by E. O. Wilson, publishing a book "Sociobiology - a new synthesis" (1975). It was its message that became the topic of a violent dispute (Urbanek 1984; Szacka 1978).

2. Subject of dispute

E. O. Wilson defined sociobiology as "the systematic study of the biological bases of all forms of social behaviour (including sexual behaviour and the behaviour of parents towards their children) of living organisms, including a man" (Lumsden, and Wilson 1983a, 45). He stressed that it treats communities as populations functioning according to the laws of organised systems, superior to the plane of isolated individuals. Each such population has a specific size, a common genetic structure, a specific numerical ratio between female and male individuals, a communication system, etc. Wilson argued, that temporal variations in those guilds could be studied in the same way as chemical and anatomical data (Lumsden, and Wilson 1983a, 65-66). This makes sociobiology completely faithful to natural science, and its research programme, identified as scientific materialism, should be based on the "uncompromising application of the theory of evolution to all aspects of human existence" (Wilson 1978a, 24). The aim of its research is to strive to create a synthesis of social and natural sciences Wilson considered, that "sociology, as well as other social sciences and humanities, are the last branches of biology that await inclusion to modern synthesis"(Wilson 1975, 4).

Through this synthesis, Wilson understood neo-Darwinian theory of evolution, where each biological phenomenon is assessed according to its adaptive value and is linked to the principles of population genetics. Therefore, one of the main tasks of sociobiology, as per Wilson, was to reformulate the foundations of social sciences so that they could be incorporated into this modern synthesis. This means that the goal of sociobiology is ultimately the natural science theory of human society. According to Wilson, this approach is necessary because of the inevitable genetic planning of human societies in the future. In this way, Wilson presented a sociobiological version of E. W. Count's reduction thesis, that "culture is an expression of bio of vertebrates bio that is typical for a man" (Count 1958, 1049).

3. The course of the dispute

Wilson's general thesis, that regularities, that apply well to animals can be successfully exploited by social science, shortly after its publication, it gave rise to the controversy which started a violent dispute over sociobiology Wilson argues, that it is a new version of an old dispute over establishing the determinant of the behaviour of living beings (Lumsden, and Wilson 1983a, 63-76). This factor is supposed to be hereditary equipment or environment. Sociobiologists have taken an unequivocal stance on this from the start. They concluded, that this factor was hereditary equipment.

The dispute over sociobiology concerned, first of all, the idea of genetic determinism of the social behaviour of living beings, in particular a man. The dispute was attended, on the one hand, by socio-biologists, and on the other hand, by left-wing scientists and students who were part of, set up in 1975 in Boston, an organization under the name *The Sociobiology Study Group of Science for the People*. Over time, a special study group was created, as part of it, to study the social repercussions of socio-biological theories (SSGSP 1976). Wilson speaks of the violent nature of the dispute and points out two stages of it: the political dispute stage and the substantive dispute stage (Lumsden, and Wilson 1983a, 63-76).

At the first stage of the dispute, Wilson's opponents emphasised the political dangers of applying general sociobiology to descriptions and analyses of the functioning of human societies. Such a procedure would be a return to the idea of social Darwinism and would, by implication, justify the status quo of capitalist societies maintaining privileges according to class, race

and gender. So they postulated the abandonment of socio-biological speculation in favour of true science for the people, that is, a science serving the poor and oppressed. Wilson responded, that the weakest point of his opponents' argument is imposing scientific criteria on political science. Agreeing to those criteria must inevitably lead the research astray. According to Wilson, the best illustration of this is the pseudo-genetics of the recent past, practised in Germany during Hitler time, and Lysenkoism, popular in the Soviet Union. In this situation, Wilson recognised, that for non-scientific reasons, substantive discussion with representatives of "Science for the People" was impossible. They seek to "burn Darwin at the stake - in order to save Marks" (Lumsden, and Wilson 1983a, 73).

The second stage of the dispute was, according to Wilson, of substantive nature (Lumsden, and Wilson 1983a, 74-76). At this stage, the critics have admitted that sociobiology, when it comes to the social behaviour of animals, refers only to a limited extent to the social behaviour of humans. Thus, while it is possible to point out the compatibility of animal sociobiology with certain specific phenomena occurring in human social behaviour, such as nepotism, territoriality, or the prohibition of incest, it is not possible to accept attempts to relate sociobiology to the totality of phenomena that affect human morals. A man is not an automaton, functioning according to the orders of the genes, because he has free will and a mind that is the principle of the autonomous life of the culture. Hence, the whole sphere of human mental life clearly eludes Darwinian and socio-biological descriptions and analyses.

4. Attempt to resolve the dispute

Criticism emphasising the incomplete adequacy of sociobiology to human social behaviour, Wilson found valid. In this sense, a violent dispute over sociobiology initiated in 1975 was, at least in the community of Harvard University, formally closed. This dispute was summed up by Wilson's precise lecture on classical sociobiology included in a book from1978 entitled *On human nature* (Wilson 1978b). Thus, however, the question of human sociobiology has not been closed. Wilson saw the possibility of solving this problem in his analyses of the human mind, consciousness, free will, and the multiplicity of cultures, and thus anthropological peculiarities that elude direct Darwinian and socio-biological analyses. He analysed those problems in collaboration with Ch. J. Lumsden, and presented the results of their attempts to solve them in two other books: *Genes, Mind and Culture* (1981) and *Promethean Fire* (1983b).

In both of those works, Wilson stated, that adequately to the present state of affairs, the approach to mind and culture needs to take into account the phenomenon of genetic - cultural co-evolution, understood as a model of reconstructing the way to the mystery of human nature, that is, to the sources of human moral and cognitive talents. According to this view, genetic-cultural co-evolution is a new model - a postulate, that "in the way of modern science will capture the great process of cause and effect, leading from genes to brain architecture and further from epigenetic rules controlling mental development through culture, finally through natural selection and other acts of evolution back to gene evolution" (Lumsden, and Wilson 1983a, 237). Those sources were identified by Wilson with the physical basis of moral thinking, and the discovery of them, according to Wilson, became the foundation for the possibility of an intellectual agreement between representatives of different types of cognition on the functioning of human nature. It concerns representatives of such areas of human knowledge as brain physiology, computer science, psychology, linguistics, anthropology, ethology, genetics, neurophysiology, sociobiology and philosophy. Wilson argues that all of those domains of human cognition focus on the study of the human mind, making them effectively a single cognitive discipline, resulting from their implosive convergence. According to

Wilson, this is how the new anthropology, or the new humanities, is created (Lumsden, and Wilson 1983a, 236).

The intellectual consensus of scholars within the framework of Wilson's postulated new anthropology should be accompanied by the spirit of materialism, appropriate for classical sociobiology, which is updated in the "uncompromising application of the theory of evolution to all aspects of human existence" (Wilson 1978a, 24). This agreement should also aim at an objective examination of human nature, enabling an agreement on the extent of its operation. An agreement on human nature must consistently lead to a united effort to make the best use of scientific findings to plan human societies. The aim of the new anthropology is, therefore, ultimately, the perfection of forms of social engineering that touch the deepest layers of human motivations and moral judgements (Lumsden, and Wilson 1983a, 255-257). In this way, Wilson returned to the guiding thought of classical sociobiology, pursuing the natural science theory of society, based on which it would be possible to actually construct human societies in the future.

Conclusions

Wilson's attempts to resolve the contentious issues of human sociobiology turned out to be unsuccessful. On important matters, Wilson remained faithful to the research program of classical sociobiology, which was adequate only to the homogeneous ways of living creatures. Meanwhile, it is known that heterogeneous programs are also revealed in many behavioural phenomena Therefore, W. Wickler (1986) points out that, for example, many parasites affect the behaviour of their hosts in a certain way, at times bringing them losses, other time bringing profits. It is also known, that a large amount of the animal behavioural program is not genetically conditioned; it, therefore, requires learning and references to "tradition." The type of singing of many species of birds is composed, for instance, of learned "dialects". Those types of singing are ways of social behaviour based on messages passed from a generation to generation. Thus what we do not have, is research methods that would help us determine whether those songs are adaptive. It is certain, however, that bird singing, as a means of communication passed down from a generation to generation, influences the choice of a sexual partner, and therefore determines the possibility of reproduction. This means, that those songs influence genetic evolution. Based on that, it can be assumed, that with the increasing importance of traditionally conditioned behaviour, genes may become dominated by tradition. Based on that, W. Wickler rejects the belief of E. Wilson, that genetic programs will always dominate tradition (Wickler 1990, 184).

Although classical sociobiology has shed new light on behavioural phenomena, and thus extended the possibilities of learning and understanding how living beings behave, however, when confronted with the subjective richness of nature, it also revealed its cognitive limitations. Effective in describing and analysing homogeneous behavioural programs, sociobiology has remained helpless against heterogeneous programs. Attempts to incorporate socio-biological inquiry into heteronomous ways of behaviour must therefore remain questionable and, in specific cases, should be regarded as methodological usurpation. This means, that the socio-biological judgment of a human, having the widest range of heteronomous ways of behaving among living beings, it will continue to initiate new variations of the old dispute over sociobiology. Today, for example, it could take the form of a dispute over evolutionary psychology (Buss 2001).

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