

LUBOŠ BĚLKA

THE SPECIES NOTION IN "SCIENTIFIC" CREATIONISM

"Scientific" creationism is above all a certain view of the world (which is supposed to have been created by a supernatural being), a view intended to unite scientific knowledge and the Christian religion. Both science and religion, however, are treated in such a peculiar manner by the doctrine of "scientific" creationism that its religious implications are not acceptable for Christian theologians and the same can be said of its scientific conclusions, which have nothing to do with modern science. The dominant features of this doctrine include first of all a radical and militant antievolutionism, Biblical literalism (i. e. literal understanding of the Bible) and the effort to form or influence the public opinion. In order to spread, propagate and elaborate theoretically the doctrine of "scientific" creationism, a number of organizations have been established, such as foundations, institutes, libraries and publishing houses producing books, journals, audio and video cassettes, etc. These are mostly concentrated in the United States where, after all, the very phenomenon of "scientific" creationism appeared for the first time.

"Scientific" creationism aspires to become an alternative of evolutionism. As a social religious movement based on evangelical fundamentalism and conservative traditionalism and as a "science" it appeared some seventy years ago; in the last decade it gained an unprecedented and unexpected popularity in the USA and started spreading into other continents, including Europe.

The approach of the "scientific" creationists to species follows directly from their literalist dogmas: they claim that all the present-day living species of plant and animals have remained unchanged since the creation, the others have died out and genetic variability of the originally created kinds is only manifested in a narrow, limited range. Mutation and natural selection are not a sufficient reason for an emergence of the present-day species from simpler primordial organisms. Man and ape have separate ancestors.¹

¹ See D. T. Gish, R. B. Bliss, W. R. Bird: *Summary of scientific evidence*

According to the doctrine of "scientific" creationism, genetic information which determines the species has been supplied or inserted into each individual by a supernatural "designer" or constructor: as a matter of fact, by god. In their opinion this is demonstrated by the uniform formation of vertebrate limbs. All these limbs have a common pattern or plan, which is primary. Thus both the differences and the similarities of particular limbs can be explained not as a homology but as a result of an identical construction plan or god's intention. In a theoretical reconstruction of their origin, limbs do not follow each other in a series (as they were developing in time) because there was no development: they were all created simultaneously, they have all been here since the beginning and originated at the same moment. They remain the same in the course of time. The differences in limbs are not interconnected through metamorphoses in time but only and exclusively through the common plan.² The belief in the existence of a "designer" is rather similar to Schindelwolf's concept of "Bauplan", which, however, is not antievolutionary. In no case is it possible to claim that any concept of a "common plan" is a non-evolutionary or even antievolutionary theory of origins.

Fixism in the theory of species, as interpreted by the "scientific" creationists, says that the origin of species is impossible through evolution or transformation, which is, supposedly, proved by the absence of the so-called transition forms or species (the missing link) in paleontological record. The argument of the missing link is about as old as the evolutionary theory itself.³

The "scientific" creationists also claim that the mathematical probability of the origin of a more complex species from a simpler ancestor through random mutations and natural selection is so small that not even the couple of billions of years (proposed by the evolutionary theory) would be sufficient. They believe the evolutionary theory to be mathematically impossible.⁴

Moreover, most mutations are apparently harmful and thus, in the long term, they can only lead to extinction of species as opposed to their development. The very notion of natural selection is essentially tautological, as it simply claims that the most successful individuals have the greatest number of offsprings, defining at the same time the success as a great number of offsprings. The "scientific" creationist argument of the missing link is most frequently used when speaking of the origin of man, who, according to evolutionary theory, evolved from the same

for creation. *Impact* 1981, Nos. 95—96, p. 2.

² For details see C. Brown: *The pentadactyl plan*. Creation Research Society Quarterly 1983, 20(1), p. 3—7; and D. B. DeYoung: *Design in nature: the anthropic principle*. *Impact* 1985, No. 149, p. 1—4.

³ See for instance D. T. Gish: *As a transitional form Archeopteryx won't fly*. *Impact* 1989, No. 198, p. 1—4.

⁴ Cf. C. E. Beisner: *Mutation fixation: a dead end for macroevolution*. *Impact* 1987, No. 166, p. 1—4.

ancestors as the apes. The "scientific" creationists say, however, that this has never been proved beyond any doubt by paleontologists and therefore it must be true that man and ape have separate ancestors.⁵ Such an argument is not limited to the relation of man and ape: it is often used for other groups of organisms. For instance, Henry M. Morris says that the greatest difference between organisms (and consequently the most important missing link) can be found between unicellular and multicellular organisms and between marine invertebrate and fishes.⁶

There is also a briefer formulation of "scientific" creationist principles (without an explicit reference to the Biblical source):

1. Universal principle of creation
2. Principle of limited variation
3. Principle of conservation of adaptation.

The author of these principles is Terrace L. Smith, a microbiologist from a university in Illinois. According to him, the unity of these principles forms a satisfactory basis for any "scientific" creationist research concentrated upon biology.⁷ Therefore his opinion should be analyzed in greater detail:

ad 1) The universal principle of creation says that the growing amount of information (or, rather, more specific information) can be expressed by the growing amount of DNA in every cell. This fact becomes apparent when comparing the cells of higher and lower organisms (except for the vertebrate, where the relations between the amount of DNA and the complexity of an organism are rather more complicated). The universal principle of creation can also be applied to the origin of life: as the degree of organization grows, so does the amount of information in aminoacids and nucleocacids. The appearance of a new successful sequence necessarily requires further input of information. The growth of information does not result from a mere growth of organization: a growth of a specific organization is necessary. T. L. Smith concludes his first principle by pointing out that the prebiotic creation can not have followed the paths suggested by evolutionists, adding merely a certain directness. As regards this phase of creation, he says, "scientific" creationists have no more details than evolutionists.⁸

ad 2) The principle of limited variation, first formulated by Frank L. Marsh, says that the process of biological variation can not go beyond

⁵ See C. L. Brace: *Creationists and the Pithecanthropus*. Creation/Evolution Newsletter 1986, 6(3), p. 16—23; E. Conrad: *Creationists and Neanderthal*. Ibid. p. 20—33; N. K. Nickles: *Creationists and the Australopithecus*. Creation/Evolution 1986, 6(3), p. 1—15; N. K. Nickles: *Human evolution*. A challenge for biology teachers. American Biology Teacher 1987, 49(3), p. 143—148; but also E. C. Scott: *Anthropology and "scientific creationism"*. Washington 1984; T. Thulborn: *On the tracks of men and monkey*. Creation/Evolution Newsletter 1986, 6(2), p. 10.

⁶ H. M. Morris: *Evolution — A house divided*. Impact 1989, No. 194, p. 1—4.

⁷ See T. L. Smith: *Principles of creationistic biology*. Creation Research Society Quarterly 1982, 20(1), p. 28—30.

⁸ Ibid.

the limits of the basic created kinds, species (types). In other words, no subspecies can become a new species and the variations of offsprings can not, therefore, exceed the variations of their parents or ancestors. This principle deals both with environmental and genetic variations.

ad 3) The principle of conservation of adaptation says that the variation which, in the population, leads towards a declining survival or reproduction capacity tends to be eliminated in the following generations. In other words, unsuccessful variations have no expectations. This, according to T. L. Smith, may result in two possibilities: either the offsprings of well adapted parents may also be well adapted — the maladaptations may have been eliminated from the gene pool in previous generations, or the mutations of genes or chromosomes may result in a less adapted individual. In nature both cases exist at the same time and it is possible that, due to diploidism, certain harmful mutations can remain masked (in heterozygotes with recessive mutated alleles) in the population for a longer period.

The question arises, what exactly adaptation is. In T. L. Smith's opinion the concept of evolution appears to be entirely tautological, as the result of the statement is already contained in the premise: adapted organisms can only survive because they are adapted. This tautology is, according to him, caused by a methodological mistake: the false assumption that every term or notion must or can be defined. He says that fundamental scientific terms can not be defined: they can only be described. This is apparent when you consider that every term is defined through more basic terms but fundamental terms or concepts (notions) are the most basic of all. Thus, there are no terms at your disposal which could possibly define the fundamental terms. Then you can describe adaptedness as adaptation to the environment, measurable by the survival capacity.⁹

T. L. Smith concludes his paper by saying that the abovementioned three principles of creation allow to re-interpret in the same way all scientific data to fit into the "scientific" creationist doctrine and, furthermore, they make it possible to define the act of creation in a positive scientific manner.

Now we can briefly sum up and generalize the conclusions of T. L. Smith: it is only possible to imagine an increasing order in nature (from less organized to more organized forms) if we assume some additional information from the outside. The first principle implicitly presumes a supernatural being as a guarantor and donor of such information. This principle is supposed to explain the past or the history of organisms. The second one (the principle of limited variation) deals with the present and attempts to explain the existence of variety and its importance for the relations among organisms. It is based on the assumption that it is impossible for organisms themselves to originate a new species, which confirms again the fixist theory of a decreasing number of species in

⁹ Ibid.

nature. The third principle (the principle of conservation of adaptation) says that adapted organisms are those which do not exceed the given range of variation and so they are able to survive and produce offsprings.

The "scientific" creationist model has three components, is static and respects only regressive direction (devolution). The additional genetic information from the outside serves to preserve species within the given range of variation. The forms closest to the original type, i. e. above all the forms without mutations, preserve a high degree of adaptation and therefore they can survive successfully. The model is a static one, as the only dynamic element is the starting information, which finally influences all the course of existence of a species: it determines the "form" of a species and the species subsequently only conserves adaptation. The adaptation, however, is constant, given once and for all. The diversity of information (increasing complexity) is not bound with time (which would mean succession or evolution) but with space — all species were created simultaneously. T. L. Smith's statement concerning the increasing information in DNA in more complex organisms is, however, neither a direct proof of creation nor an argument against evolutionism. His logical short-circuit is claimed by "scientific" creationist to be a valid argument in support of creation. They mean creation in the fundamentalist literalist interpretation, disregarding the fact that the increasing complexity, for example, is understood by some scientists in evolutionary biology as one of criteria of progress in nature. This is hardly the right place to discuss whether this is really so or not but it is certainly reasonable to say that Smith's first principle is not essentially antievolutionary.

The same goes for the principle of limited variation. In fact, evolution is not only a process of changes but also of stabilization. The emergence of diploidism in the course of phylogenesis is an example of such stabilization mechanism. Evolution as a permanent process of changes can not work without a mechanism to stabilize the change.

The Bible is explicitly cited as a source of knowledge in a book by F. L. Marsh,¹⁰ where he sketches the "scientific" creationist doctrine of the origin of nature in a series of nineteen topics or issues to consider. He starts by saying that there are two fundamentally different theories of the origin of man and nature, namely special creation and organic evolution (1—5); further on (6) he maintains that both creationists and evolutionists claim to acknowledge all demonstrable facts of nature.

In his opinion, science has two phases: the first consists of demonstrable facts, the second is speculative. The former can be proved beyond any doubt, the latter is a matter of interpretation. For instance, F. L. Marsh says, the similarity of limbs is understood by the evolutionists as a fact resulting from the existence of a common ancestor, while creationists believe it to be an expression of the creative plan of a creator.

¹⁰ See F. L. Marsh: *Variation and fixity in nature. The meaning of diversity and discontinuity in the world of living things and their bearing on creation and evolution.* Mountain View 1976, p. 118—123.

He asks: which hypothesis is correct? The answer depends on which interpretation you believe more. A prudent researcher must always recognize which subject of scientific inquiry is well demonstrable and which is merely speculative and must also respect the right to make one's own decision.¹¹ This would appear to be an objective and honest approach givin equal chances and opportunities to both parties. But that is just the appearance. If an author identifies the creationist concept with the religious belief in the existence of a creator, which, in fact, is what F. L. Marsh is doing here, he is thus introducing an extra-scientific element into a scientific treatise.

Traditional "scientific" creationist answer to the question about the existence of homologies is: this is so because the creator had a uniform plan. In this case, such an argument may be considered a theological explanation of the phenomenon, as opposed to a scientific one. If there are certain manners or ways of treating a problem which are characteristic of science and which do not need or request the hypothesis of god, this hypothesis is useless and redundant to deal with.¹² I do not intend to oppose any concept of a "uniform plan" in nature: such a plan naturally exists, establishing, after all, the unity of nature. I only want to say that it is not proper for natural science to identify this plan directly with the intention of a creator. This lies within the domain of theology and therefore such explanations are called theological.

A typical feature of present-day "scientific" creationism is the attempt to treat evolution and creation as two equally plausible hypotheses. This effort is apparent on several levels of "scientific" creationist's activities, both in theory and in practice, namely at schools, in mass media and, last but not least, on the courts. As I have said, it is possible and, unfortunately, often necessary to accept, within the framework of discussions and public campaigns, this false juxtaposition.

In fact, the reason why "scientific" creationism refuses the evolutionary explanation of the origin of man and nature is not of scientific but of religious and axiological nature. According to the Bible, man's position is necessarily higher than that of animals; it excludes any positive blood relationship between the two. The only thing they have in common is the fact that they both came into being through the act of creation during the Biblical week. Thus all "scientific" proofs are based on regarding — primarily and often without saying so explicitly — both religious faith and scientific belief as virtually equal. As a matter of fact, however, they are not really treated as equal — religion is preferred. The logical result of this approach is that special creation must be viewed as a historical event. The methodology of "creation-science" (or "Bible-science") has certain specific features. Only rarely do the "scientific" creationists admit that there is also another science. This is the case of an American philosopher and "scientific" creationist Barry Ferst, who acknowledges

¹¹ Ibid. p. 119.

¹² See R. J. Schadewald: *A question creationists can't answer*. National Center for Science Education Report 1989, 9(2), p. 3.

that in many respects the methodology of "creation-science" resembles that of normal science. "Creation-science" appreciates the usefulness of field research, laboratory experiments, the process of replication and statistical analysis. There are four major differences between the normal scientific methods and "creation-science".

First, "creation-science" views observations and experiments as a limited means of attaining knowledge.

Second, it acknowledges the supernatural as an explanation principle.

Third, it believes science to be a moral matter.

And finally the fourth difference is somewhat paradoxical: it is the acceptance of the Biblical evidence as an indisputable fact.¹³ There is hardly a more apt account of the difference between science and "scientific" creationism written by a "scientific" creationist himself.

B. Ferst does not emphasize the significance of the fourth difference but it is apparent that this very point is of key importance in his concept. Unlike other colleagues of his, he is well aware of the discrepancy between science (the normal science, as he puts it) and "scientific" creationism. He does not attempt to hide the main reason why „scientific" creationism is antievolutionary: its moral, axiological, religious — and therefore extra-scientific — roots.

Subordination of any piece of scientific knowledge to ideological context or background (or a moral, political, philosophical, religious or other paradigm) is a typical sign of a distorted approach to reality and it may often serve as an identifying feature of a pseudoscience. It would certainly be both interesting and useful to compare Lysenkoism and "scientific" creationism: quite probably, a surprising similarity of the two pseudosciences would emerge. The common denominator would doubtlessly be the above-mentioned subordination of science to ideology, the distortion of facts so that they should fit into the Procrustean bed of the Stalinist version of dialectical materialism and the evangelical fundamentalist literalism respectively. Science as a striving after unbiased learning is certainly not, literally speaking, morally neutral; nevertheless, the effort to clear it of any extra-scientific encumbrance will always remain a characteristic dominant of science. Another matter is the interpretation of particular items of scientific knowledge, of hypotheses and theories; these can serve, and often do so, a certain philosophical, moral, religious, political or other aim, or they are being explained through the prism of such extra-scientific activities. It, however, the extra-scientific element is included and incorporated in the very assumptions of a scientific method, such fact is always rather suspicious.

The "scientific" creationists are well aware of the position of evolutionary biology as the center of evolutionism. From their standpoint, a criticism of evolutionary biology as a science is also a criticism of evolutionism in general. In their opinion, each period had its unquestionable

¹³ See B. Ferst: *What Bible-scientists can learn from Bibliscience?* Creation Research Society Quarterly 1983, 20(2), p. 118.

assumptions concerning everyday life. Today such an assumption is evolutionism and the evolutionary ideas are apparently the basis of modern civilization. If this were so, they should undergo a detailed enquiry. If they proved to be incorrect, it would cause catastrophic results for the whole modern civilization.¹⁴ These sentences make quite apparent the extra-scientific motivation of the criticism of antievolutionism; not evolutionism as a particular evolutionary concept (such as Darwinism, neoDarwinism, Lamarckianism, neutralism, Teilhardism, nomogenesis, punctuated equilibria theory, etc.) but evolutionism as such: as a modern approach to the world and to man's position within it.

An example of the arguments of "scientific" creationists in the field of theoretical biology is the way they understand one of the traditional pillars of general biology, namely the problems of the species notion.

A basic definition of the genesis kind has been expressed by F. L. Marsh, who in fact does not consider himself an orthodox "scientific" creationist. In his works he admits a long time period since the creation (like evolutionists he speaks of hundreds of millions of years; unlike them, however, he is by no means willing to accept genetic or blood relationship between "basic kinds" — the species¹⁵ and thus he might be regarded a "progressive creationist". The creation day he views as a whole geological era.

F. L. Marsh has proposed the creationist description and definition of species by means of concept "baramin";¹⁶ this word is composed of the Hebrew terms "bara" = created and "min" = species, kind. Baramin or a created species is a species which was created within the Biblical week and whose main feature is that it cannot be crossed with other created species. The concept of baramin includes both the literalism of evangelical fundamentalism and the traditional hybridization barrier, without drawing any evolutionary conclusion from the latter. F. L. Marsh has further suggested a test intended to prove the impossibility of macroevolution and therefore evolution in general.

The test is based on the fact that in nature it is impossible to find a fertilized embryo which: (1) is capable not only of surviving but also of producing fertile offsprings; (2) at the same time has parents from different species — or, rather, baramins. In other words, the created kinds can not successfully cross between one another or, if so, cannot conceive fertile offsprings.¹⁷ The test does not take into account parthenogenesis, as it cannot be perceived as a "real fertilization" and the offspring is not a "real hybrid". F. L. Marsch also points out that the real hybridization cannot be mixed with the hybridization of DNA, possible

¹⁴ See W. Frair, P. Davis: *A case for creation*. Chicago 1983.

¹⁵ See F. L. Marsh: *Variation and fixity in nature*. Mountain View 1976, p. 128.

¹⁶ See F. L. Marsh: *Fundamental biology. Evolution creation, and science*. Lincoln, Nebraska 1941; F. L. Marsh: *Evolution or special creation?* Washington 1963; F. L. Marsh: *Genetic variation, limitless or limited?* Creation Research Society Quarterly 1983, 18(4), p. 204—206.

¹⁷ For more details see *ibid*.

as it is in laboratory conditions, for in nature it has no direct biological impact.

Another important part of the baramin theory is morphology. In fact the concept of created kinds unites both the basic definitions of species in biology, namely the concept of biospecies and the concept of morpho-species.

"Scientific" creationism treats species as being morphologically different: in live nature baramins are usually very easy to recognize.¹⁸ The reason is the origin of kinds itself — the creation. The supernatural being would create organism so that they should be easy to distinguish and easy to name. Sometimes baramins are also defined as the originally created species — which were demonstrated to Adam, who then could give them names.¹⁹ Marsh's concept allows for the existence of a sort of exceptions or Biblical sibling species (i. e. species extremely similar morphologically); at the same time, however, he claims they are of hardly any practical importance. The ontological status of the baramin is based on the creation and it hardly matters that certain species might possibly be more difficult to distinguish than others. And the fact that the baramins are easily distinguishable constitutes their main advantage. The Biblical kinds are the most apparent, discrete and real entities of live world.²⁰

The concept of baramin is intended as a broad unifying view of species. For instance, it can serve to merge related or similar species into larger groups — kinds, which, however, include groups that can not cross. The explanation of the paradox is, according to "scientific" creationists, simple: from the beginning, certain populations do not cross (because of chemical, mechanical, geographical, time and other reproduction barriers) and in spite of that they were all created at the same time as a single kind. For instance, the question of *Drosophila* — biologists distinguish several very similar species of *Drosophila* — is dealt with in a radical and quite simple way: all these species belong to the baramin *Drosophila* (or *Drosophila*-kind) and, just like in other species, there is infertile crossing here.

The preference of morphological criteria of species is an expression not only of the biological naivety of "scientific" creationists but also of the emphasis they put on empiricism. You might say the concept of baramin is identical with the creationist, fixist concept of genus.

Marsch claims that the evolutionists, when observing real entities in live nature, have limited their attention to much too low a level.²¹ He means that instead of taking a greater notice of the whole — such as the baramin *Drosophila* — they pay a great attention to minute details and differences lacking importance. If they claim there is a succession

¹⁸ See *ibid.*

¹⁹ See B. Ferst: *What Bible-scientists can learn from Bible-science?* Creation Research Society Quarterly 1983, 20(2), p. 118.

²⁰ See F. L. Marsh: *Variation and fixity in nature.* Mountain View 1976, p. 39.

²¹ *Ibid.* p. 40.

of related species, an objection can be raised that this is not so, as these species often live one beside another at the same time — e. g. the above-mentioned drosophilas — and there is no evidence to prove that a certain species existed before another one. The explanation is simple and convincing once you realize that all species were created simultaneously. Fossil records claimed to be extinct evolutionary species are not an evidence of evolution as these species were also created at the beginning. The only difference between them and the recent species is that the former do not exist any more, having died out during the Flood or somewhat later. What the evolutionists, through their speculative theory of macroevolution, suggest to be a succession of species in time (the evolutionary species concept) can be explained in a simpler and more natural way by means of the concept baramin. All drosophilas simply belong to the original broad Biblical kind named drosophila by Adam, which leaves no room for evolution.

The diversity of species, which the neo-Darwinists often relate with microevolution, is, according to the “scientific” creationists, but the original diversity, fixed from the beginning within the original baramin.

The fundamental characteristic relation between Biblical kinds is discontinuity, which is manifested by the fact that particular baramins are discrete and empirically concrete. On the other hand, continuity as the fundamental characteristic of evolutionism tends to blur the objective boundaries between species and to contest their discrete nature. Forms of life, species, cannot be perceived as following one after another in evolutionary lines (i. e. evolutionary succession) — they stand side by side in clearly separated rows (i. e. instant special creation). Therefore evolution is a useless speculation. Fixism as the opposition to transformism has the advantage of being able to work with such terms as visibility, transparency, demonstrability, etc., i. e. with terms empirically oriented. Everyone can see that a cat is a cat and it can never ever become a dog. Evolutionism is unprovable, undemonstrable, illogical and above all nonsensical and preposterous. Basic types, created kinds — baramins — are manifested in nature by a clearly and distinctively defined appearance and reproduction behavior. Such is approximately the logic and the arguments of the “scientific” creationist concept of species in nature.

F. L. Marsh's concept of baramin has been widely discussed in “scientific” creationist literature and it has not been accepted unanimously.²² A “scientific” creationist Hilbert L. Siegler, without knowing Marsh's

²² C. f. H. R. Siegler: *The magnificence of kinds as demonstrated by canids*. Creation Research Society Quarterly 1974, 11(3), p. 94—97; H. R. Siegler: *Some thoughts on kinds*. Creation Research Society Quarterly 1983, 19(3), p. 24—27; A. F. Jones: *The genetic integrity of the “kinds” (baramins): a working hypothesis*. Creation Research Society Quarterly 1982, 19(1), p. 13—18; A. J. Jones: *A creationist critique of homology*. Creation Research Society Quarterly 1982, 19(3), 156—175; F. J. Arduini: *Design, created kinds, and engineering*. Creation/Evolution 1987, 7(1), p. 19—24.

concept of baramin, conceived a similar concept of species he called "genus-concept". It is a more precise term for what the "scientific" creationists understand as the Biblical kind. His approach openly admits that what god created within the Biblical week were not, in fact, species in the narrow sense of the word but, in biological terms, something like genera. As a matter of fact, it is not a contradiction to the Bible because the Scriptures do not mention a "species" but a "kind", which is a broader term, coming close to a "type". H. L. Siegler says explicitly that the Biblical kind is the only valid biological scientific concept to express the real existence of groups of organisms in live nature. All the other categories, including the "species", have been artificially invented by taxonomists to make their work easier. He also says that as soon as taxonomists accept the Biblical kind as the only natural biological category, the concept of evolution may come to collapse. The term phylogenesis as it is used now will become nonsensical.²³

The notion of evolution is substituted by a new notion — "devolution".²⁴ It might be explained by the following example: the originally created baramin of dog can be compared with a genus which has gradually fallen apart — devolved — into simple species and races, as they are known from fossils and recent forms. None of present-day living forms is any more perfect than the original one: all of them have only been derived from it. They correspond to the Biblical description as they can cross with one another — within their kinds; the concept of devolution claims to disprove the evolutionary explanation by saying that none of the above-mentioned forms has led to a new baramin (or Siegler's genus-concept).

The great variability of created kinds of plants and animals naturally has also a time dimension; the changes in time, however, have only a degenerative impact and the original wide variety of forms is permanently decreasing.²⁵ An evidence of this is the ratio of recent and fossil species. There are substantially fewer of the former and, as it is impossible that a new species might arise either as the result of crossing between different species or in any other manner and as the existing species keep dying out, we can only acknowledge that the number of species has decreased since the creation. As regards the question of the regressive nature of biological changes, the "progressive" creationists share to a great extent the opinion of the "scientific" ones, such as Henry M. Morris or Duane T. Gish.

The question of the position of the creationist category of kind within the classification system is solved by H. R. Siegler by interposing this category between family and order; the category of genus remains intact.

²³ H. R. Siegler: *A creationistic's taxonomy*. Creation Research Society Quarterly 1978, 15(1), p. 37.

²⁴ See H. R. Siegler: *The magnificence of kinds as demonstrated by canids*. Creation Research Society Quarterly 1974, 11(3), p. 94—97.

²⁵ H. R. Siegler: *Evolution or degeneration — which?* Milwaukee 1972.

As early as in 1958 Wayne Frair expressed his opinion that the Biblical kind comes close to what is called "circles of races" (Rassenkreis) in taxonomy.²⁶ Along with F. L. Marsh, he also uses the term "min". The circles of races are known geographical lines of forms, which can successfully cross between one another in the places where the two areas overlap. In this manner, special chains of forms arise, in which the neighboring forms are able to cross; in the area of secondary contact, however, there is a hybridization barrier.

W. Frair suggests two possible interpretations of this fact: (1) the forms observed have been created in their present-day forms; (2) the existing groups have been derived from parental forms, i. e. the variations observed are the result of certain changes in time. The first is a fixist explanation, the second a transformist one. W. Frair tends to accept of them, as he believes they are not entirely incompatible and may even supplement each other in a single concept. According to him it is hardly conceivable that all the forms paraded in front of Adam's eyes, and, moreover, there could not possibly have been enough room for all of them in the Noah's ark later on. Therefore, the originally created species must have been something like a basic form which, in the end, fell apart into other forms with limited capabilities of crossing between each other. It is possible to call such diversification microevolution, however much the "scientific" creationists may dislike the term, in no case, however, can it be related or identified with evolutionary macroevolution. As W. Frair refuses to acknowledge the very notion of natural selection, microevolution in a limited range is, according to him, but a variability lacking any macroevolutionary consequences. He claims that macroevolution is unobservable and unprovable.

Finally W. Frair identifies baramin with Kleinschmidt's original concept of "Formenkreis". He says that baramin, the Biblical kind, is a Formenkreis — a basic unit which was modified into the present-day forms. In certain cases (such as man) baramin is monotypical, in other cases it is polytypical. For instance, variations like foxes, dogs, and hyenas form a single polytypical group. The concept of these three basic types was created by god. Due to small genetic changes this group diversified into more than seventeen dozens of sorts of dogs, foxes, wolves, jackals, coyotes and hyenas living today. This concept truly corresponds to the realities in nature, corresponding at the same time with the inspired records in Genesis. The production of hereditary changes depends on genetic mechanisms, such as crossing-over, independent divergence of alleles, segregation, chromosomal aberrations, gene mutation.²⁷

Thus the concept of baramin excludes evolution for two reasons: (1) inter-species crossing is impossible or, rather, it does not provide fertile offsprings so that a new hybridization species could arise (reproduction

²⁶ W. Frair: *What are scientific possibilities for original kinds?* Journal of American Scientific Affiliation 1958, 10(1), p. 12—16.

²⁷ Ibid. p. 14.

barrier); (2) there are no transitional forms either among the recent species or among the fossil ones.

The "scientific" creationists have been attempting to use all kinds of means to discredit evolution. The basically extrascientific reasons why they strain to disprove the theory of evolution are masked by concepts similar to the aforementioned baramin.