

Creation's Original Diet and the Changes at the Fall

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The declaration of God in Genesis 1:31 was His signal to observe that everything in existence was there by His design. Those who believe God used evolution (or another naturalistic process) as the agent of creation must believe that death, cruelty, suffering, scarcity, and the food chain were a part of that design. If we accept this, then we must say that God was the creator of these evils.

However, one might ask,

'Does the Bible teach that resource scarcity and the current food chain were an essential part of the finished creation?'

There are many who contend that these things were in operation then. They are even so bold to suggest that this is the correct interpretation of the biblical record.

I intend to show here the relationship that resource scarcity and the modern food chain have with the diet of the finished creation. Theistic evolutionists, and those who accept other naturalistic theories, usually assume that animals and man have always eaten meat. Yet the Bible presents to us a vastly different story. Therefore, the diet of the finished creation will be examined to see how it is different from the diet of today.

Finally, this study will venture off into an area of speculation. When God finished His work of creation there was an idyllic, harmonious existence between earth, animals, and man. The world that we observe today is not very idyllic, and it is certainly not very harmonious. The questions of why this came about, and what kind of change resulted will be raised and an answer proposed.

We have very little information concerning the original diet of mankind and animals in the Garden of Eden. If one were to accept a naturalistic theory for the origin of animals, then one must believe that mankind and their animal ancestors have always been carnivorous. Yet God clearly said, in Genesis 1:29–30, that both men and animals were to eat only vegetation. This was certainly part of the creation being [very good], and was God's best for His creation.

SCARCITY AND THE FINISHED CREATION

Many believe that the finished creation possessed a scarcity of resources, and that today's food chain was then

in full operation. They postulate that natural selection was also taking place throughout Genesis 1–2. Yet, these people are not very precise when it comes to the biblical data used to support their position. Their answer normally assumes that natural selection, the current food chain, and resource scarcity have always been a reality of life on planet earth. Foundational to their answer is a philosophical bias, which causes them not to accept the Bible at its face value. One should ask them:

'Does the Bible really support the idea of resource scarcity, the modern food chain, and natural selection being present in the finished creation?'

This answer must agree with Genesis 1:29–30, which reads:

'Then God said, Behold, I have given you every plant yielding seed that is on the surface of the earth, and every tree yielding seed; it shall be food for you; and to every beast of the earth and to every bird of the sky and to everything that moves on the earth that has life, I have given every green plant for food; and it was so.'

STATEMENT TO THE FINISHED CREATION

The Hebrew demands that the reader pay close attention to what follows Genesis 1:29, because the first word God uttered was **Behold**, (Hebrew: *hinneh*). When this word occurs, it is a sign to the reader, to grab his attention. Thomas Lambdin observes its use where,

'most hinneh-clauses occur in direct speech, and serve to introduce a fact upon which a following statement or command is based'.^{1,2}

This word signals that the following is a command, or a statement or purpose, spoken by God.

One can see the purpose of God expressed in four different ways in these verses. First, the aspect of the Hebrew verb *natatti*. The verbal aspect in Hebrew stresses the kind of action that is specified by the verb. We translate this word by the English phrase **I have given**. The Hebrew verb, in the perfect aspect, signifies the kind of completed action in the past, but continuing in its effects into the present.^{3,4} When God said, *'I have given,'* it was His intention that the creation follow His direction from that moment forward in perfect harmony and obedi-

ence. The reader can see the purpose of God for His creation in the aspect of the Hebrew verb.

The second way that one can observe God's purpose is in the choice of the word **I have given**. The Hebrew uses one word as opposed to three words in English. This word, when God uses it in the first person, carries the idea of setting or establishing the rules (Leviticus 10:17, 17:11; Numbers 18:8). God can set the rules (for atonement, government, eating, or anything else) He deems necessary for His people or His creation to obey. Thus when God spoke to His creation using *natatti*, He was establishing the rules by which it would run.

The third way God expresses His purpose is by using the preposition **for**, the Hebrew *le*. This occurs in Genesis 1:29–30 where God first directed man, and then the animals, that they were to eat only the certain specified items 'for food.' One function this preposition has is that it often suggests purpose.⁵ This seems the most appropriate choice considering the purpose context of this passage. So the purpose of the plants and fruit was for the provision of food for the animals and man.

The fourth way we can see the purpose and plan of God expressed is by the concluding words of verse 30, '*and it was so.*' These words appear five other times in this chapter, each of them concluding a command issued by God. These statements occur in verses 7, 9, 11, 15, 25, where God had just created the expanse, the dry land, the plants, the sun, moon, and stars, and the animals respectively. In every occurrence of these words, God had just finished an act of creation by His word. Since the creation went according to the purpose of God, consistency demands we understand this occurrence to be God's concluding command, showing His purpose for the entire creation.

If one wants to understand that the finished creation was one in which resource scarcity, natural selection, and the food chain were a reality, then one must say that this was part of God's original design. But, the Scriptures illustrate that there was no lack of provision in the finished creation at all.

RESOURCES IN THE FINISHED CREATION

If scarcity and the food chain were a reality in the immediate post-creation world, we should detect this from the text of Genesis 1:29–30. Yet, what the text implies is that the resources then were sufficient for both animals and man. A good, loving, and just God would provide what His creation needed, so they could obey what He commanded.

We can see this sufficiency by examining the kinds of food God allowed for consumption. The English word every translates for the Hebrew words *etkol*. The Hebrew language often uses these words in an absolute sense. So these words signify that God meant all the plants that are

on the earth.⁶ These words appear three times in these two verses referring to the food. God told man that he may eat of **every** plant and **every** tree that produces seed. He told the animals that they may partake of **every** green plant. The three uses of **every** suggest that instead of resource scarcity, there existed a sufficient quantity of food for the entire animal creation. This is true because there is no restriction, within each plant group, of what could be consumed.

The locality of this food supply also confirms the lack of scarcity. Observe that man may eat from anywhere on the surface of the earth. The word **surface** has two Hebrew words *al pene*, and they signify the surface of something, typically the earth.⁷ The word 'earth' is modified by 'the whole'. This signifies that any location on the planet is acceptable to God.^{8–10} The directives given to the animals should be taken as concurrent with those issued to man in the opening chapters of Genesis. This can be observed by the connective **and**. Thus God allowed man and the animals to eat their food from any location on the earth, not just from one specific geographical area.

Some might attempt to raise the following objection. Only certain animals were to eat plants, while some might be allowed to eat meat. The words that God chose are clear as they relate to this question. The use of 'every' should be thought of in terms of a universal distribution.¹¹ One should think of this as God looking at the various 'kinds' of animals and pointing to each group while He is issuing this command. This meant that these various groups of animals could consume only plants. So all the animals were subject to the command of God, and none of the animals would eat meat.

Another objection that might be raised relates to the dominion of man. It could be argued that man's dominion included the killing of animals and possibly the consuming of meat. This objection focuses on the Hebrew words, *kabas* and *rada*, translated into English as **subdue** and **rule** (Genesis 1:28). Many assume that some animals were originally ferocious and carnivorous. Douglas Spanner, a Church of England minister and former chairman of Plant Biophysics at the University of London, states:

*'The Hebrew word for subdue is kabas and in all its other occurrences it is used as a term that suggests strong action in the face of opposition, enmity or evil . . . It indicates that Adam was sent into a world where all was not sweetness and light, for in such a world what would there be to subdue? The animals, it suggests, included some that were wild and ferocious, and Adam was charged to exercise a genuinely civilizing role and to promote harmony among them.'*¹²

Westermann observes that these words do suggest some form of domination, and when used of humans ruling other humans can include the idea of cruelty and slaughter.¹³ So it appears, on the surface, that Spanner's

objection is very formidable.

However, this objection can be answered by two points. The first is the meaning of the words *rada* and *kabas* within the context of Genesis 1:28. The term *rada* (English: rule) is

*'readily employed in the Old Testament in contexts of a rule associated with kingship and of justice issuing from that kingship.'*¹⁴

The use of the word *kabas* (English: **subdue**) can be summarized:

'This fact (that the Hebrew usage of kabas represents a narrow spectrum of the semantic range), with the conclusions reached about Old Testament usage, should caution against any view that the mere appearance of kabas in Genesis 1:26–28 requires one to understand a violent subjugation. Such a connotation would be present in the context. Yet in Genesis 1:26–28 the connotation is lacking.'^{15,16}

The appearance of *rada* and *kabas* does not signify violent subjugation, for the context does not suggest it.

The second answer, to *kabas* implying a violent subjugation and the existence of carnivorous animals, can be refuted by Hebrew syntax and grammar. This applies to the understanding of the Hebrew imperative. The rule for the string of imperatives connected by and, as it appears in Genesis 1:28a, is *'the first imperative expresses a condition that carries with it the second as a consequence of the first.'*¹⁷ There are four imperatives in this clause. The first three, *'be fruitful, multiply, and fill'* express the concurrent condition that was to be fulfilled. The human race, in obedience to God, was to grow in population and spread across the earth. The second and third imperatives should be seen as modifying and clarifying the first. It is at this point when the last imperative **subdue** occurs. Man is to *kabas* nature as he is being fruitful, multiplying, and filling. Nowhere is a violent fulfillment of these imperatives ever implied within the text or context.

The imperative **subdue** occurs referring to the earth, that which is non-living as opposed to the living. This is confirmed by the verbal suffix, a third feminine singular. The rule applying to the suffix is that it 'defines the preceding substantive, to prevent any possible misunderstanding.'¹⁸ This means that the word 'subdue' applies to the feminine singular, 'earth', and to nothing else. A second confirmation appears by the contrast of the singular to the plural nouns (fish,¹⁹ birds, living things). Thus the word 'rule' applies only to the world of living animals, and the word 'subdue' applies only to the non-living earth. So the use, context, and grammar of Genesis 1:28 denies that the dominion mandate suggests wild and ferocious animals ever existed on the earth before man's sin.

It must be kept in mind that the entire emphasis of this dominion was to be one of benign productivity and not one of destructive violence.²⁰ It is possible that **subdue** is a reference to the tilling of the ground. So if one wishes to find a violent type of activity this is the place to look

(Genesis 2:15). The context signifies that the animals would have cooperated with man, so there would not have been any need for man to be a violent despot. Although God commanded man to rule and subdue nature, he was to do so in a kindly manner. Thus, the stipulation that the occurrence of subdue suggests carnivorous activity cannot be supported.

It is also noteworthy that the Egyptian, Sumerian, Babylonian, and Greek cultures believed that man and animals ate, at some time in the past, a vegetarian diet.²¹ This is not a major proof, but it does seem interesting that many ancient cultures had such an idea. It seems reasonable, in light of Divine inspiration, that Genesis 1:29–30 is historically accurate. Supporting this is that other cultures reflect a belief that has its origins in truth, although corrupted through time.

DIET AND THE FINISHED CREATION

We saw that God's directive in Genesis 1:29–30 suggests a sufficiency of resources in the finished creation. Man could freely consume plants and fruit from anywhere on the earth. The animals could freely eat from any plant that grew on the earth. What were the exact parameters of the diet of the finished creation? There are three words that give the boundaries of the diet.

The first term is the English word **herb** from the Hebrew *eseb*, which has the idea of some form of vegetation.²² This is the kind of food that both men and animals could partake. God uses the word **herb** in Genesis 1:11–12 in connection with the results of His command to create plants. The use of **herb** in Genesis 1:29–30 signifies

*'The masculine noun 'eseb is one of four major synonyms for "vegetation, verdure, herb, or grass." The English "herb," found in the KJV, is used in the broader and older sense of non-woody tissue vegetation, rather than in the more restricted nuance of seasoning or medicinal plants, 'eseb and its synonyms correspond more closely to the American English use of the word "plant" than to "herb."'*²³

This term would be similar to our word 'grass' or 'greenery'. In using **herb** God stressed that any kind of vegetation on the surface of the earth is available to be eaten. Thus God has supplied the needs for both man and beast with vegetation.

The second term is **seed** (Hebrew: *zera*). This word pictures something that contains a seed.²⁴ The Old Testament uses *zera* in four ways:—

- (1) as a time of sowing,
- (2) as something that is scattered,
- (3) as sperm, and
- (4) as the offspring of the promised line.²⁵

Its use in Genesis 1:29 appears to focus on the issue of reproduction. Man is to eat plants and fruit that can reproduce by seeds. The idea suggested by the word, seed, is that the vegetation was to possess some self-

contained seed.

The final word deserving our consideration is **fruit**, the Hebrew word *peri*. The word can be interpreted in three ways:—

- (1) the kind of fruit that is edible,
- (2) fruit as children, and
- (3) the consequences of actions.²⁶

The word, when used of the plant kingdom, suggests something that grows on a tree or a vine.²⁷ One could ask, 'Why were not the animals told to eat fruit?' The Scriptures simply do not tell us. Yet one would be safe in believing that man and the animals obeyed the directions of God. They would have eaten only those prescribed items for food.

We, in the post-Darwin age, have not readily accepted the idea that God's creation was originally vegetarian. Many scientists tell us certain animals have always been meat eaters. The fossil record, they claim, supports this belief. There are also theologians who treat this statement as the authoritative Word of God. One can observe this posture illustrated by Derek Kidner:

'This statement (of Genesis 1:29–30) is a generalization, that directly or indirectly, all life depends on vegetation, and the concern of the verse is to show that all are fed by God's hand.'^{28,29}

Kidner leaves open the possibility that animals might have been meat eaters from the beginning. Such a position is not in accordance with what God said in Genesis 1:29–30. The command God issued to the finished creation is clear. It leaves no room for debate: there were no carnivores when God finished His work of creation.

Several Jewish commentators have observed that a vegetarian diet will again be reinstated as the diet of creation during the Messianic Age.^{30–32} The commentators take the text for simply what it says, that animals and man were not originally meat eaters. They point to this Messianic Age as a time when God changes many things back to their Edenic state.

So then, according to Genesis 1:29–30, God originally created men and animals to be plant eaters. God's statement in Genesis 9:3 strengthens this restriction placed on man. Here for the first time God gives man permission to eat meat. God has not told us exactly when the animals became carnivores. Yet if man obeyed God, he would not have eaten meat until after the Flood and most certainly not before the fall of Adam.

There is another confirmation that the finished creation was to be vegetarian. We can see this by the change in both the animals and man, and that this change took place at the fall of Adam. Edwin Monsma, who was head of the biology department at Calvin College, suggests this:

'The eating of herbs, seeds, and fruits imply the death of these plant parts from a biologist's point of view because they all contain living protoplasm. But there is no indication here of destructive and natural death of whole living organisms nor of the carnivorous habit

upon which so many animals are dependent. Indeed, nowhere in the Scriptures is there any indication of natural or accidental death before the fall of man. Even immediately after the fall the natural processes that culminate in death seemed to work much more slowly than they do now. This is evident from the great age of men during the antediluvian period. Reformed scholars have generally been of the opinion that the Bible gives no evidence of death among animals before the fall.'^{33,34}

When examining the perfect harmony of the finished creation, one can see no fear exhibited in either man or the animals. This, too, suggests that there was a change in the animals and man after sin entered the world. Leupold says:

*'No beast preyed upon the other. Rapacious and ferocious wild beasts did not yet exist. This verse pictures, very briefly in Genesis chapter one what is unfolded at length in chapter two, that a paradise-like state prevailed at creation.'*³⁵

If we accept this quotation, and the previous also, then belief in the goodness, love, and omnipotence of God is possible. These statements suggest that death, cruelty, suffering and carnivory only came into existence some time after God completed His creative work. If this is true, then a change has come into the world, the results of which we can observe today.

THE CHANGE IN THE FINISHED CREATION

As one currently examines nature and compares this with the biblical record it appears that a change in creation has indeed occurred. The diet of the animal kingdom is one such example. One can see carnivorous behaviour today. Yet the Bible declares that this was not the original diet of creation. Since there was a change, two questions surface: first, 'When did this change take place?' and second, 'What kind of change might have occurred?'

A CHANGE IN DIET

If one believes what the Scriptures teach, then one should believe that a change took place, or at least began, at the fall of Adam. If God completed His creation according to His purpose, then one must acknowledge that God designed creation to eat vegetation, with a change taking place in the creation sometime later.

One might ask what empirical evidence exists for this belief. Yet, if the biblical record is correct, one should not expect to find any fossil evidence of this time period. The biblical record states that God took six days to create and rested on the seventh. The text implies that a short amount of time elapsed between the finished creation and the fall of Adam. If this were the case, then there may have been no occasion for death and fossilization to have occurred. Fossilization requires death, but death would not have

existed before sin entered the creation. In short, such a model would predict that there would be no fossil evidence found supporting it.

Such a model, however, would predict that some remnants of this original, finished creation might still exist. If one could find such remnants, then the suggestion that eating meat resulted from a drastic change becomes valid. One could predict that original herbivory is a reasonable hypothesis.

One such prediction is that animals thought to be strictly carnivorous, can and actually do survive on a vegetarian diet. The following discussion will survey several groups of animals. These groups conventional thought says are carnivorous.

The mosquitoes comprise the first group of interest. It appears that only the females of certain mosquito species actually consume blood. The reason blood is needed is because

*'females, at emergence, have only partly developed ovaries. This requires a source of nitrogen to complete ovarian development and reach maturity.'*³⁶

Mosquitoes that do not draw blood find nutrition by feeding on plant nectar.³⁷ So it seems that only a portion of mosquitoes use blood, and it is only mammalian blood. This amount would not include males since they do not consume blood. Nor would it include those few species where the females use nectar. So the percentage needing blood is under 50% of the total mosquito population. This could suggest that at some point in history a change took place that caused only some female mosquitoes to use blood as food.

The second group is the reptile family. Robert Sprackland claims that of the seventeen different lizard families, the Varanidae, is the only group that is strictly meat eating.³⁸⁻⁴⁰ The other sixteen families are mostly herbivores, with some being insectivores. There has also been a recent discovery of a monitor lizard that is a fruitivore.⁴¹ This is most unusual, since the large monitor lizard eats a great quantity of meat. The lizard group possesses very sharp teeth similar to those of the meat eating dinosaurs. Could it be that the modern suggestions of the carnivorous nature of the dinosaurs is a denial of biblical truth? Once again, the rarity of carnivory is consistent with the idea that carnivory is a late introduction to God's creation.

The next group is that of the Canidae or dog family. It is important to observe that most of the smaller canidae are not carnivorous. Yet some of the small canidae who do eat meat survive well on a mixed diet of meat and plants. An interesting point to observe is that most of the coyote diet is fruit.⁴² Even the diet of the domestic dog is mostly meal. A large portion of the dry dog food purchased has cereal as its base. The coyote and other dogs, like the lizards, have teeth that appear to be designed to rip into flesh. Yet much of the diet of the wild coyote is fruit, with the domestic dog existing on a cereal base food. It

seems that the canine family still contains some remnant of the creation as designed by God.

The bat is another interesting creature. Most bats, although they have teeth that can cut flesh, are either insectivores or fruitivores.⁴³ We often think of bats as 'bloodthirsty' creatures similar to those pictured in horror movies. But, the Vampire Bat is the only species which is mainly a blood drinker. The American Leaf Bat, thought to be a close relative, is predominantly insectivorous. The entire bat group has very sharp and ferocious looking teeth. Yet they use their teeth in a manner inconsistent with their appearance. So then, it would appear that one can find in the bat group a vestige of God's original creation.

Biologists call the bear family omnivores. This means they will eat anything they might happen to come across in the wild. Bears are very well known for their eating fish and other animals, including man. Yet they can survive well on just a diet of fruit, berries, nuts, and honey. There is one bear-like creature that is a classification problem for the biologist, the Panda. Until recently this animal was classified with the raccoons, but are now in a family all by themselves.⁴⁴ The design of the Panda's teeth are specifically for eating bamboo shoots. The Panda has flattened teeth that are large in diameter when compared to the jaw. Yet the teeth and jaw structure of the Panda are very similar to the brown bear.⁴⁵ Although it eats only bamboo, the teeth and jaw structure of the Panda, like the other bears, appear to be designed for eating meat. It seems, then, that the bear group can thrive on a vegetarian or meat diet. The bear family in this sense could be the strongest link to the pre-fall world among modern carnivores.

Many believe that lions can survive only on a diet made from the flesh of animals. Yet there is a documented case of a vegetarian lion. The lion's mother seriously injured it just after its birth, and so a human family raised it. They document, that the lion cub, at ten weeks, would take one sniff of a bone. Then *'she immediately regurgitated all the food she held in her stomach'*.⁴⁶ Even at four years old, the lion could not be trained to eat meat. This remarkable story seems to confirm the truth of the Scriptures.

The last group to be examined will be the primates. Many believe today that man is a descendant of the primates. It is true there are many similarities between primates and man, but there are also many differences. One difference is that the primates are strictly vegetarian in their diet.⁴⁷⁻⁴⁹ It would be very peculiar for man, an omnivore, to have descended from a vegetarian ancestor. The primate jaw and teeth seem to function both for the carnivorous and the herbivorous diet. Should one say that because the primates have such an ability that they were originally meat eaters? The plain statements of the biblical record suggest just the opposite interpretation. Again, the data of the primate group is consistent with the idea that carnivory is a late introduction.

Most organisms are vegetarians. Even among the carnivorous groups there are vestiges of vegetarian diets. This suggests that the Bible is correct when it claims that carnivory was not part of God's original design. This raises the questions: 'When and how did carnivory arise?'

THE MANNER OF CHANGE

Many have thought up theories suggesting how this change might have occurred, but there is no overwhelming biblical support for any single theory.⁵⁰ John Whitcomb suggests that in the Edenic curse God reprogrammed the genetic material of all organisms, and even man. This resulted in such things as disease causing microorganisms, thorns in plants, and carnivory in animals.⁵¹ (There are some recent papers on the supposed evolution of carnivores.⁵²⁻⁵⁵)

One can observe, in Genesis 3, three things that imply a sudden change. First, there is the cursing of the serpent. God told him that he would travel on his belly from that time onward, suggesting that the serpent had locomotive powers through another means before God cursed him. Second, God told Eve that she would have increased pain during childbirth. It appears that God did something within the body of Eve to bring this to pass. Third, God said that thorns and thistles would hinder man from harvesting crops. This suggests that there were very few of these plants or, more likely, they did not exist before that time. One receives the impression, from the biblical record, that God had changed the makeup of these things after sin entered the world.

Some may raise two objections to this manner of biblical interpretation. The first centres on the change itself. They argue that a change of this proportion would create a new and vastly different animal or plant. So, they argue, this could not have taken place since God's creation was finished. They also point out that this view would make, from the finished creation, a world that is vastly different from today.⁵⁶ Yet, we must not consider such changes to have created a 'new' kind of animal or even nature, since Scripture declares that such changes as these will be undergone by the animal and plant kingdoms when Christ returns to set up His kingdom.⁵⁷ Scripture does not call these changes a 'creation' (Isaiah 11:6-9).

The second objection that people raise is that a sudden and catastrophic change violates their philosophical belief in 'uniformitarianism'. They argue that the world which we observe today is how the world has always been. So we can use the present to explain the past. Bernard Ramm illustrates this principle when he states:

'There was disease and death and bloodshed in Nature long before man sinned. . . . Life can only live on life. All diet must be protoplasmic. Are we to believe that the lion and tiger, the anteater and the shark were all vegetarians till Adam fell, and that the sharp claws of the big cats and the magnificent array of teeth in the

lion's mouth were for vegetarian purposes only? One might affirm that such a creation could hardly be called "good", but that is prejudging what "good" means. . . . Outside the Garden of Eden were death, disease, weeds, thistles, thorns, carnivores, deadly serpents, and intemperate weather. To think otherwise is to run counter to an immense avalanche of fact.'^{58,59}

It would appear that Dr Ramm has a belief that prohibits him from a clear study of the Scriptures. He declares that it is inconceivable that God could have created the animals and plants in any other form than as he observes them. Thus his uniformitarian bias adversely affects his examination of the Scriptures.

A clear examination of the biblical record suggests that a sudden change in nature took place. The suggestion that God reprogrammed the genetic material of animals and plants does have support from the text. Such a change would not result in a 'new' creation of the earth, but a change. Animals may have become carnivorous in this event as well. This suggestion is also in complete harmony with the belief in the goodness of God. God did not create the world in the misery observed today, it is the fault of man. William Tinkle says, '*Either we do not know the meaning of "good", or there have been changes for the worse since the creation.*'⁶⁰

A second hypothesis for the origin of carnivory is a combination of genetic reprogramming and learned or acquired behaviour. Gary Parker offers the following analogy from modern times concerning such a theory:

*'Chimpanzees are mostly vegetarian; they eat fruits and stuff like that. But she (Dr Shirley Strum) was reporting observations of a large male chimpanzee that took off after a little animal, a Thompson's gazelle, or something similar. Much to the chimp's own surprise, he caught it. Well, in playing around with it—like a cat will play with a bug sometimes—the chimpanzee killed it. Sure enough, he just went right on, took a swipe at it and sampled the flesh, and he sort of liked it. The other males in the group gathered around and began eating on the carcass of this Thompson's gazelle. Sure enough, they liked it. So, a behavior that started kind of playfully became a practice for that particular tribe. They would go off in groups and hunt some of these Thompson's gazelles.'*⁶¹

This is a new topic being taken up by biologists, and so the data are presently incomplete. There are also many disciplines involved in this kind of study.⁶² Yet from these disciplines, studies are suggesting that learning and cooperation can be traced in animal evolution.⁶³⁻⁶⁹ These biased authors present such evidence so that it strongly favours evolution. However, some of their arguments are useful in trying to understand how learning could have affected carnivorous behaviour since the fall of Adam.

A third model for a change in diet could be known as

'variability within structure'. What this means is that these physical characteristics were in existence at the time of the original creation. It was the Edenic Curse that caused the animals to use these structures in an alternative manner. This view would say God created razor-sharp claws and teeth that can cut flesh. Yet the animals did not use them for carnivory until after the fall of Adam. Those animals that might have had a mixture of characteristics, the latter could, through time, have displayed themselves as those same carnivorous traits observed today.⁷⁰

A combined position stating that genetic reprogramming, learning, and variability within structure all occurred at the time of the fall of Adam seems reasonable. Some recent studies showing how learning effects evolution might even imply this view. One article on taste aversion and learning suggests that similar diet behaviour is a learned response, though many animals may possess different physiological structures.⁷¹ Although that article dealt with taste aversion, the converse might be true. Taste acquisition might be a learned behaviour, such as in the chimpanzee learning to eat meat instead of the usual vegetarian diet. B. F. Skinner often writes about the relationships between genetics and behaviour. He tells the following story about a wasp providing food for her eggs:

*"It is highly unlikely that the entire process was "due to a gene" in the sense that it appeared in that form as a single variation and was selected by its obvious consequences for the survival of the species. Simpler forms must have evolved first and have been selected by appropriate contributions to survival, the final pattern being "shaped" by along series of contingencies of selection."*⁷²

Complex behaviour could be the result of learned behaviour that could be passed down to other generations. Still, those animals learning to eat meat would have to possess certain physical characteristics simultaneously. So it would appear that all three suggestions working together may have caused carnivorous habits in animals. Our knowledge of how God actually changed the creation, and what He changed in creation, may never be certain.

SUMMARY AND CONCLUSION

If there were a scarcity of resources and if the modern day food chain were in operation, then they must have been there by the design of God. Yet the biblical record does not suggest this at all. The Bible records that the finished creation did possess a sufficient amount of resources. God allowed the animals to eat from anywhere on the surface of the earth, so could man. He told the animals to eat from any 'plant'; man could eat from any 'plant' or 'fruit' that had seeds, the one exception being the Tree of the Knowledge of Good and Evil.

In the finished creation animals were to eat only vege-

tation. The studies of **herb**, **seed**, and **fruit** confirm this fact. There is no other option as one examines the biblical record. All the animals and every human were to eat from the plant kingdom; they were not to eat flesh. Even those animals who today eat insects, then consumed only plants.

If the biblical record is true, then it appears that a great change occurred within creation. The biblical models proposed suggest a sudden, and even catastrophic, change that would have left no fossil evidence behind. The diet of the present day animals suggests that the traditional association of teeth and jaw structure might be flawed. Indeed, the animal kingdom appears to support the idea that herbivory is the original condition of creation. This also suggests that God introduced carnivory into His creation only after man fell into sin.

One thing is certain; God intended His animal creation to be vegetarian. He communicated this fact clearly in Genesis 1:30. This raises an interesting problem for anyone who believes that God used evolution, or any other naturalistic means, as His creative process. He must call God a liar. He must declare that God did not mean what he said about the diet of man and animals. He must assert that the type of world that we observe today has always existed in its present form with the same processes in effect. Such a position denies what God says plainly through His Word. One must, in humble obedience, simply believe God at His word. God, through His Word, clearly shows that the original, created creatures were to eat only plants.

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