Chapter 6

How did bad things come about?

- **If God's original creation was 'very good', why is 'nature red in tooth and claw' now?**
- **Did God create animals with defence–attack structures? Or were they redesigned after the Fall?**
- **Wouldn't there be a population explosion if animals did not eat each other?**

THE world before the Fall had no death, disease, or suffering, as God proclaimed the finished creation 'very good' (Gen. 1:31). Consistent with this, God gave plants to the animals to eat (Gen. 1:29, 30).

Nowadays, many creatures have equipment that seems designed for attacking, hurting, trapping, killing, or eating others, or defending themselves against such things—for example, the poison-injecting fangs of snakes, the great meat-eating cats, and the spider's web, to name just a few. So when and how did these things, which are suited to a fallen world but were unnecessary before the Fall, come to be?

There is no single position that would be agreed upon by all creationists in answer to this, so we will briefly look at the merits of a number of possibilities.

First, we need to look at the clear teachings of Scripture which bear on this question, remembering that the Bible gives us true, but not exhaustive, information. We may then try to fill in the gaps in our knowledge by reasoning, which will have to be somewhat speculative, using what we know about the living world.

Some creatures seem designed to kill and eat others.

The Bible teaches:

- People and animals alike were given plants to eat in the beginning (Gen. 1:29–30). There was no meat eating before the Fall, whether by man or animal. The carnivorous part of the present 'food chain' did not exist. And God appropriately described His creation as 'very good' (Gen.1:31).
- The Bible makes a clear distinction between the status of plants and animals. People and animals are described in Genesis as having, or being, *nephesh* (Hebrew)—see Genesis 1:20, 21, 24, where *nephesh chayyah* is translated 'living creatures', and Genesis 2:7, where Adam became a 'living soul' (*nephesh chayyah)*. *Nephesh* conveys the basic idea of a 'breathing creature'. It is also used widely in the Old Testament, in combination with other words, to convey ideas of emotions, feelings, etc. Perhaps *nephesh* refers to life with a certain level of consciousness. Plants do not have such *nephesh,* and so Adam eating a carrot did not involve death in the biblical sense.
- The world will one day be restored (Acts 3:21) to a state in which, once again, there will be no violence and death involving animals. Whether Isaiah 11:6–9 is taken to refer to a millennial kingdom or a new earth, the point is the same. Lambs, wolves, leopards, children, bears, calves and snakes will all dwell together peacefully. Lions will once again be plant eaters. Clearly, this vision of future bliss reflects the former paradise lost through sin.

- Clearly there was no disease, suffering, or death of animals (*nephesh* creatures) before the Fall. This raises the question of just what is a *nephesh* animal. Do one-celled organisms like bacteria and yeast, or invertebrates like worms, insects, and prawns have *nephesh* life? Scripture gives us some clues. It tells us that *"the life* (nephesh) *of the flesh is in the blood"* (Lev. 17:11. See also Gen. 9:4). If we use this to classify organisms into those with or without such '*nephesh* life', it is helpful up to a point—this would exclude micro-organisms from having *nephesh* life. But there are still difficulties as to what counts as blood. For example, insects and crustaceans have a form of blood, although it is somewhat different from the blood of animals with backbones. The presence of hemoglobin cannot be definitive, as it is found even in some plants.

  Adam's naming of the land animals in Genesis 2 may give us further clues. Adam named *"each living creature* (nephesh chayyah)" (Gen.2:19). What did he name? *"Adam gave names to all the cattle, and to the birds of the air, and to every animal of the field"* (Gen. 2:20).[1] It may be significant at this point that the *remes,* the 'creeping things' of Gen. 1:24, were not included, as Leupold, the respected theologian, noted. If 'creeping things' included insects and worms, for example, then maybe they are not *nephesh* life. However, Scripture is not clear on this, so we should not be dogmatic.

  It can be safely said, however, that there was no violent death, especially that involving bloodshed. In other words, creatures we would normally call 'animals' in everyday speech were not fighting, killing, shedding the blood of others, or eating one another, as many do today.

- Man was permitted to eat meat only after the Flood (Gen. 9:3). This may have been due to the extinction, in the Flood, of many plant species that formerly were able to provide all the protein and vitamin requirements for humans. To be well nourished by a totally vegetarian diet today is difficult, though not impossible. Of course, people may have eaten animals anyway, even before God gave permission. If that did happen, then it was probably not widespread, because Scripture implies that the animals had minimal fear of man before the Flood (Gen. 9:2).

Animals today have certain biological features that they use either to attack others or to defend themselves. Let's group these together and

1. For a discussion of what Adam named, see Grigg, R., Naming the animals: All in a day's work for Adam, *Creation* **18**(4):46–49, 1996; creation.com/animalnames.

call them 'defence–attack structures' (DAS). The first question is, 'Are these created structures designed to do harm, for instance?"

The next, related, question is, "When did they come about?" DAS would seem to have been quite out of place in a pre-Fall world.

Photo by Anne Filip <sxc.hu>

Man and the animals were originally vegetarian.

The following are some of the possible answers, along with a discussion of some of the difficulties.

Position No. 1

Those things that are now used as DAS were not designed for this purpose, and had a different function, pre-Fall. They reached their present function by degeneration—for example, through mutations.

One can point to the fact that some creatures today have sharp teeth that look as if they would be used to rip meat, but we know they don't use them for that. The fruit bat is a prime example. Some species in the piranha group of fish use their jaws and teeth entirely for plants. So, the argument goes, could not the lion's teeth have been used to chew fruit before the Fall? Viruses that today inject harmful genes into their hosts may have had a useful pre-Fall role.[2]

Perhaps other harmful structures had a different pre-Fall function, which has been lost or modified, either by choice[3] or (the explanation usually given) by degenerate mutations. The giant panda has sharp teeth and claws, and yet uses them to rip off and eat mainly plant (bamboo) material. Occasionally they have been seen to eat small animals. If, by

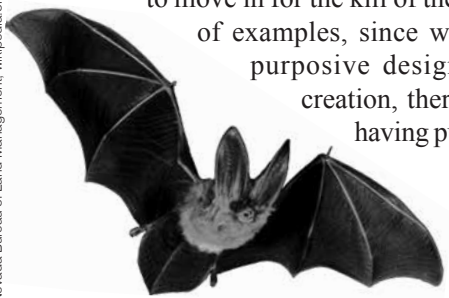
2. Viruses, for instance, could have had a pre-Fall role in transferring genetic information to maintain/increase genetic diversity. It would not take any informational leap upwards in complexity to enable them to cause disease instead. Genes could have been acquired from hosts, even being modified by mutations to make the enzymes less specific (note this is a loss of information due to mutation), thus enabling disease-causing actions. Many disease-causing organisms are even degenerate from their own point of view—they quickly kill their host, thus destroying themselves. Also, the host might have degenerated and lost resistance. See Bergman, J., Did God make pathogenic viruses? *Journal of Creation* **13**(1):115–125, 1999; creation.com/did-god-make-pathogenic-viruses.
3. This raises another problem: how much does an animal choose its way of life, as opposed to having programmed instinct? The only indirect scriptural support for this seems to be Genesis 6:7, 11–13, which has been understood by some to mean that violence in the animal kingdom was one reason for the eradication of the land animals outside the Ark. However, this does not necessarily mean that God attributes any moral responsibility to the animals. Perhaps He was grieved because man's sin opened the door to the whole post-Fall reign of death and bloodshed.

the time man first observed them, most pandas ate animals, we would find it hard to imagine that their teeth and claws originally were for the purpose of eating plants.

Immune systems basically distinguish 'self' from 'non-self', which would be important for maintaining bodily integrity even in the pre-Fall world. Of course such systems became even more important in the post-Fall world, to protect against disease-causing organisms.

Position No. 1 avoids the problem of a good God designing harmful structures.[4] However, difficulties arise if this position is used to explain all occurrences of DAS. Virtually all creatures have some form of DAS, even if only a highly sensitive nervous system for warning of attack. They certainly give every indication of being designed to cope in a fallen world. Most of these DAS show great evidence of complex and specific design.

In fact, most, if not all, of the examples used by creationists to show design in living things involve DAS. If we say that DAS, or at least some aspects of their present function, arose by chance mutations, then we may have seriously undermined the main argument from design. It would mean saying that millions of different, complex, and intricate patterns came about by chance (mutations and natural selection). Think of the sophisticated chemistry behind spider silk and the engineering marvel of spiders' webs, some of which are used to trap birds. All the complex machinery to make these webs is coupled with programmed instincts (programming of which involves coded information) to tell the spiders where to build them for best hunting results, and when and how to move in for the kill of the trapped prey. In literally millions of examples, since we would maintain that complex, purposive design means intelligent, purposive creation, there is *prima facie* evidence of God having purposely designed the DAS as well.



Nevada Bureau of Land Management; wikipedia.org

Different species of bats differ in what they eat, but their teeth are similar.[5]

4. This raises an old and interesting theological question. Would God, being omnipotent, be any less responsible for DAS by allowing them to happen 'naturally' rather than by actively designing them? An analogy is a doctor who, knowing that he could save a patient with the oxygen in his possession, fails to administer it. Is he less responsible than if he had actively killed the patient with cyanide? Some have pointed out that God is frequently actively involved in judgment without there being any ethical/theological dilemma; for instance, the sending of the great Flood that brought death and destruction to millions.
5. Weston, P., Bats: sophistication in miniature, *Creation* **21**(1):29–31, 1998.

Image by Steve Cardno

Pandas have sharp teeth and claws and eat mainly bamboo.

The other problem with this argument is that in each case of an **observed** DAS, the true (pre-Fall) function was something different. It may be argued that our ignorance of the pre-Fall function does not mean that there wasn't one. This is true, of course, but if used for each and every one of the millions of DAS, it risks stretching credulity to the limit. One should also not overlook the full extent of what is involved in any particular defence–attack mechanism. For instance, discussions on the shape of teeth and claws may overlook the fact that the design features for meat eating in the great cats are more than just sharp teeth. A lion has finely programmed hunting instincts, and immense muscular power capable of breaking a wildebeest's neck with one blow. Its digestive system is attuned to a diet of fresh meat (though lions can cope with vegetables in a crisis, and, since meat is easier to digest, degenerative changes could be responsible for dependence on meat). All this makes it overwhelmingly appear to be a highly designed hunting and killing machine.

Such qualities are very common. Before the Fall, what was the function of the cheetah's blinding speed?[6] What did the bombardier beetle use its highly complex twin cannons for (useful now to blast attackers)? If we could think of a purpose, it would still leave open the question of how and when the programmed instincts to fire at beetle-eaters arose.

Charcoal by Robert Smith

The design adaptations for meat eating in the great cats are more than just sharp teeth.

The idea that the snake's fangs may have been used

6. Perhaps it was created to reveal God's glory by running fast (just as an eagle soars at high altitude or a dolphin rides waves, apparently for 'recreation'). Also, many of God's designs have inspired human inventions—e.g. the iris diaphragm in cameras, and Velcro®. This could be part of the providence of God.

to inject a fruit-softening substance pre-Fall has the same problem. That is, why, how and when (if not by direct creation) did snakes change not only their diet but their behaviour, which appears to be programmed in their genetic code and not amatter of conscious choice?[7]

In any case, snake venom contains complex chemicals that appear to be designed for purposes far removed from fruit eating. One of these chemicals is highly specific in its attack on the central nervous system to arrest breathing; another specifically blocks the clotting mechanism so that the prey bleeds to death internally.

Despite the above problems, this may still be the correct explanation in at least some, if not many, instances. The female mosquito draws blood, as it needs hemoglobin to reproduce. However, the male mosquito only sucks sap from plants. Perhaps both sexes drew sap from plants before the Fall, and with the eventual extinction of some plant species, they could no longer get hemoglobin from plants as easily (as already mentioned, some living plants have hemoglobin).

Position No. 2

This essentially looks at complex design as requiring the direct hand of the Designer, whether for DAS or not. There are different possibilities within this, however. For example,

1. There were no creatures with DAS pre-Fall—these creatures were all created afterwards.

This would mean that most creatures alive today would not have had a pre-Fall representative. The Bible makes no mention of such a new

7. Based on the premise that the pre-Flood world had no desert or cold environments, some have queried the design features in many animals that are only useful in such conditions—e.g. the anti-dehydration equipment of a camel, or the special insulating features of a polar bear's fur. However, the Bible nowhere says that there were no deserts or cold areas before the Flood. In any case, such adaptive design features could have been present in the genes of more generalized created kinds of these creatures. For example, polar bears, which have special adaptations for the cold and are almost exclusively carnivorous, hybridize with brown bears, which do not have special cold adaptations and are mainly vegetarian (75%), suggesting that both derived from an original created bear kind.

creation, and Exodus 20:11 directly contradicts the idea. Not surprisingly, this view is not widely held.

2. The design information for DAS was already present before the Fall, perhaps in latent or masked form.

This implies that the Fall was foreknown by God, which of course reflects His omniscience, and also is clearly stated in various Bible passages which speak of such things as God choosing us *"in him before the foundation of the world"* (Eph. 1:4). This information was allowed to become expressed, either through direct unmasking at the Fall or through the natural processes of recombination and selection. If the latter were the case, this would again involve the foreknowledge of God, this time that there would be only a short time between creation and the Fall. Otherwise, these DAS would have come to the fore in Eden eventually.

However, it is not easy to imagine genetically how such self-activation could take place for such a vast number of creatures, which must also interact ecologically (the appearance of a defence structure must take place very smartly after one's enemy has a new weapon).

3. No new creatures were created, but many existing ones were 'redesigned' after the Fall, with the addition of new design information into their DNA.

This position has some indirect scriptural support. The Curse placed upon the creation at the Fall involved biological changes to people—they would now die (Gen. 3:19) and pain in childbirth would increase (Gen. 3:16). The ground was also cursed such that thorns and thistles would spring forth (Gen. 3:18)—suggesting that biological changes occurred in plants. And the serpent, at least, appears to have been radically and permanently redesigned by God with the Curse (Gen. 3:14). So changes occurred in man, animals, plants and the soil because of the Fall. The sense suggests that these things resulted from a sovereign directive as a result of Adam's sin; they did not result from something just being 'let go'.[8] This understanding agrees with Scriptures such as Romans 8 where the 'whole creation' is described as subject to the Curse and awaiting redemption from the consequences of sin.

8. In a future restoration, to get meat-eating lions (ML) to become grass-eating lions (GL) would seem to require supernatural rearranging of the DNA so as to make the change permanent. Since ML→GL requires this, and since this is a 're'-storation (i.e. a reversal of the results of the Fall), perhaps this indicates that GL→ML happened by the same route (supernatural DNA reprogramming), only in reverse.

Conclusion

Scripture simply does not provide enough information for Christians to insist dogmatically that one or other of these possible explanations is totally right or wrong. Several of them may apply together.

As fallen creatures in a fallen world, we have difficulty imagining what a pre-Fall world was really like. We are also finite creatures lacking all the information. We therefore need to be particularly careful about arguing from the present to the past.

What is clear from God's Word is that the present 'reign of tooth and claw', of violent death, cruelty, and bloodshed, had no place in the world before Adam sinned, and will have no place in the restored creation.

APPENDIX
Population Explosion?

We see in today's post-Fall world that death, and animals eating others, are useful ways of avoiding overcrowding of the earth by any one type. Some, therefore, ask how, if there had been no Fall, such overcrowding could have been avoided without death and bloodshed.

This may be a non-question, since Scripture indicates that Adam's rebellion (and thus the need for the shed blood of God's Lamb, Jesus Christ) was foreknown before creation. Even if this were not so, it is surely presumptuous to suggest that the all-powerful Creator would have been unable to devise other means of avoiding such a problem. God gave the command to reproduce to 'fill the earth' (Gen. 1:22, 28), and once that was completed, the command would no longer apply and the filling would stop.

One natural mechanism already exists for limiting population growth, and is well known. Some animals, when subjected to overcrowding, drastically reduce their reproductive rate, only to increase it again if the population density should drop once more.