

## MAN, THE UPRIGHT

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*Man's vital organs are preeminently designed to facilitate his existence in the upright position. Because man's bipedal locomotion is unique, he is not a remodeled ape or monkey. A conjectural interpretation is offered that the quadruped position of lower animals and the crawling position of reptiles resulted from the Edenic curse. Man's unquenchable instinct to worship is discussed as the important spiritual counterpart to his upright position. Worship implies that physical act, which is unique in man, of bowing down from the upright position.*

There are many differences between man and the brute creation. However, as Professor George Gaylord Simpson of Harvard University has pointed out, "the most crucial single anatomical point is the acquisition of upright posture and strictly bipedal locomotion."<sup>1</sup>

Anatomically man's body is much like that of other mammals. The intestines in man are fastened by the mesentery to the posterior abdominal wall just as in the quadrupeds. This allows them to hang from above when the individual is on all fours; and this, no doubt, is the ideal arrangement for an animal which goes about in this position.

This fact, therefore, is regarded by some as evidence for evolution of man from the horizontal to the upright position. Similarly, attachment of the breasts in women, and the genitalia in men, might suggest that these organs as well were originally suspended from above instead of being attached to a perpendicular structure as in man.

But it should be remembered that in human beings the heart, which is the most vital organ in the body, is fixed to the upper part of the thorax so that it is suspended from above when one is standing or sitting. This is the ideal arrangement for *Homo sapiens*, as it enables the circulation to function most effectively when the individual is in the upright position. When lying down the heart is suspended in a horizontal manner but the demands on the circulation are minimized under such circumstances.

### Upright Posture Very Important

In man, bronchi emerge from the lungs on either side and unite to form the trachea which lies in the mediastinum or central part of the thorax. This arrangement of the lungs on either side resembles somewhat the attachment of the handle to a pitcher when the pitcher is standing upright.

As a result the individual can breathe most easily in the upright position, and the lungs are

free to expand in all directions. When gasping for breath a patient nearly always tries to sit up. In quadrupeds, however, attachment of the lungs would be analagous to holding the pitcher in a horizontal position with the handle on the side.

Man's vital organs are preeminently designed to facilitate his existence in the upright position. Life in the horizontal plane would be intolerable for human beings. The popular idea that man was originally a quadruped is, therefore, based upon very superficial observation. From an architectural point of view the intestines in man could not possibly be suspended from above except by attachment to the diaphragm which would seriously interfere with the respiration.

It is important to remember that human babies are the most helpless of all off-spring among mammals. As such they require greater protection and care than any other newborn creature. The position of the breasts in women is ideal for the comfort of both the mother and the child when nursing. The newborn of other species usually stand on their feet when suckling which no newborn infant could possibly do. Moreover, the musculature underlying the breasts is ideally designed to support them in the upright position.

The coccyx, or lower end of the spine, corresponds to the tail in other mammals, but it is not a vestigial structure. It is turned inwards in order to provide attachment for the muscles which control the function of elimination. The coccyx also provides support for the pelvic viscera. Some additional support is essential in man on account of his vertical posture and this arrangement enables one to sit down without inconvenience.

### Bipedal Locomotion Unique

Simpson rightly regards bipedal locomotion as man's second chief characteristic. Most mammals have four feet, but the quadrumana have four hands. This order includes the monkeys, apes and lemurs. Man is unique in having one pair of feet and one pair of hands which is, of course, exactly what a creature in the upright position would require. How, then, did it come about that, when hands and feet were "evolving" from fins, man was the only creature to develop one pair of each and not four of one kind or the other?

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All of these characteristics point unmistakably to the original creation of man as an upright animal. Man is not a remodeled ape or monkey. To suggest that the features which separate man from the lower forms could have come about by gradual evolution from one of the lower hominids may satisfy the minds of those who deny the existence of God. But for the believer it will be sufficient to exclaim with the Psalmist, "What is man, that Thou art mindful of him? and the son of man, that Thou visitest him?" (Ps. 8:4)

From the evolutionary point of view it is, of course, claimed that man did originally go on all fours until he learned to walk uprightly. It has been pointed out, however, by Sir Gavin de Beer, who was formerly Director of the British Museum of Natural History, that,

Whereas in animals other than man the axis of the head is rotated during later development so that the animal's head points in a direction which is a continuation of its backbone, in man the cranial flexure is retained so that his head points in a direction at right angles to the axis of his body. . . . Since the direction in which the man's head points, i.e., his line of sight, is horizontal, the position of the body will be vertical; and so man's erect attitude is associated with the retention during ontogeny of a condition which in other animals is embryonic and temporary, as it must have been in man's ancestors. . . . The erect posture in man is, in Bolk's view, a consequence of neotony of the shape of the head.<sup>2</sup>

In other words, this feature in man is due to the retention of a fetal characteristic throughout life, which in all other mammals, including the apes and monkeys, is only a temporary phase of prenatal life. It would be quite reasonable to assume that the ontogeny of man is, in fact, the normal development, and that, in all other mammals the change in axis which takes place during later development is a retrograde step. This change in axis occurs during intrauterine life and could not possibly be the result of acquired characteristics, or mutation. It is common to all mammals other than man.

When the judgment fell in Eden we are told that the serpent was "cursed above all cattle, and above every beast of the field." (Gen. 3:14) The Hebrew text would seem to imply that the curse fell upon all mammals, as represented by the cattle, and upon all reptiles, "the beasts of the field," but chiefly upon the snake. It might be suggested, therefore, that the quadruped position of lower mammals and the crawling position of reptiles is the result of that curse.

This would imply that in Eden all the animals, including the reptiles, must have originally been upright in position. This, of course, is conjecture

only and there is always danger in going beyond the limits of revealed truth. But such a concept of retrogression or devolution is at least as plausible as the reverse supposition of the upward and onward evolution of reptiles into mammals, and into man.

As a consequence of retaining the early prenatal axis of the head, the skull of *Homo sapiens* rests firmly on top of the spinal column instead of being suspended in front as it is in the quadrupeds. A few years ago, when "the world's most perfectly preserved specimen of a Neanderthal skull" was discovered at Monte Circeo in Italy, Professor Sergi<sup>3</sup> demonstrated that even these early men must have "walked erect," just as we do today, "and not with an ape-like posture with the head thrust forward as previously believed." The skeletons of Neanderthal which had been discovered earlier were poorly preserved and this led to the supposition of an "ape-like posture" in these remains.

Man's line of vision in the upright position is at right angles to his body and this places him in a position of oversight, anterior and superior to all other creatures. When God created man in His own image He gave him "dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth." (Gen. 1:26)

Anatomically man retains the general bodily arrangement of the quadruped, but spiritually and positionally he has been placed above the rest of the animal kingdom to which he belongs. Men's upright position symbolizes his supreme authority over the brute creation. This position is lost in sleep, in all conditions where there is unconsciousness, and in death.

The Divine mandate given to man was that he should "Be fruitful, and multiply, and replenish (fill) the earth, and subdue it." (Gen. 1:28) *Homo sapiens* was ideally constructed to accomplish this purpose. This mandate has now been fulfilled for every part of the earth has been occupied and subjugated. It has taken man nearly 6000 years to fulfill the purpose for which he was designed.

### Important Spiritual Counterpart

But man is much more than just an animal. Man's upright position has its spiritual counterpart in his unquenchable instinct to worship. As Dr. Arthur Pool has said, "No animal has ever yet shown any desire to worship whereas the most primitive man even in the most debased society always retains this fundamental urge and instinct."<sup>4</sup> Here we have the negative and positive aspects of man's unique position from a spiritual point of view. "God hath made man

upright; but they have sought out many inventions" (Ecc. 7:29).

Living in innocence, man was upright physically and spiritually and he was in communion with God. But "many inventions" of the mind, that is to say, the evil imaginations of his heart, have separated man from God.

Nevertheless, in spite of his "total depravity" man, the upright, still retains his instinctual desire to worship. "The heathen in his blindness bows down to wood and stone," knowing not the invisible God Who is revealed to us in Jesus Christ. But for them, as for us, there is no excuse as we all have the revelation which God has given to us in His creation. (Rom. 1:18-32) "Therefore thou art inexcusable, O man." (Rom. 2:1)

The instinct to worship on the part of man implies first of all the ability to communicate with others, and man alone has the supreme gift of speech which enables him to communicate abstract ideas to his fellow men and to have fellowship with God. As Dr. Gertrude Himmelfarb has pointed out, in the orangutan "the tongue and all the organs of voice are exactly the same as in man and yet this animal does not speak."<sup>5</sup>

Perhaps the loss of speech in the lower animals may have been part and parcel of the curse. At any rate we know that the serpent spoke to Eve in the Garden of Eden (Gen. 3:4) and this faculty was restored to Balaam's ass (Numbers 22:28-30) by Divine authority. The serpent and the ass are representative of the reptiles and the mammals referred to in Gen. 3:14.

### Only Man Can Worship

The instinct to worship on the part of man also implies the physical act of bowing down. There are several words in Hebrew which mean "to worship" and the majority of them also mean to prostrate oneself or bow down. And that is the essential physical element in the ascription of honour and reverence to God, or man, or to any material object.

We, as believers, worship the invisible God (Col. 1:15) Who is unseen (1 Peter 1:8) and we are forbidden to bow down to or worship any material object. "Thou shalt not make unto thee any graven image. . . . Thou shalt not bow down thyself to them, nor serve them." (Ex. 20:4) To bow one's head to a material object is, therefore, an act of idolatry.

We are not, of course, forbidden to bow down to those in authority or to women as an act of

courtesy. This commandment in the law is restated in the New Testament (1 John 5:21 and I Cor. 10:14) so that it is equally wrong today to bow down to a material object or to worship the same.

In order to bow down, however, one must be in the upright position and, as we have seen, this posture characterizes man's unique position anatomically. Man is the only animal with the instinct to worship and, in a physical sense, he is the only one who is capable of bowing down. Although some other animals, such as monkeys, apes, chipmunks, bears, etc., are able to stand or walk erect on their hind legs their normal position is on all fours with the head pointing forward, in which position it would be difficult to recognize bowing down as such.

When the curse fell upon the serpent God said, "Upon thy belly shalt thou go" (Gen. 3:14). In this position, of course, worship in the physical sense of bowing down would be even more impossible. It is, therefore, the lowest position in the zoological scale from a spiritual as well as from a physical point of view.

George Gaylord Simpson has said that man "is the only ethical animal."<sup>6</sup> And how true it is that man alone experiences a feeling of guilt when he sins, and man alone is conscious of the judgment to come, for man alone enjoys the hope of immortality beyond the grave. These characteristics are part and parcel of our Divinely appointed heritage, for man is unique in his origin and destiny. How true it is, however, that even today man still prefers to worship the creature rather than "the Creator, Who is blessed forever" (Rom. 1:25).

"O come, let us worship and bow down; let us kneel before the Lord our Maker" (Ps. 95:6).

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