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## Standing (and Walking) Alone:

The Vestibular System and Its Role in Theories of Human Evolution

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Balance is one of those "ordinary" body functions we don't think about until it is disrupted. Sit in a violently spinning carnival ride for a few minutes, however, and then try to walk upright. You'll become acutely aware that your vestibular system, located in your inner ear has been upset. The dizziness and nausea you feel are symptoms that the carnival ride disrupted the normal functioning of the system that maintains proper balance.

Unlike all other primates, humans ordinarily walk upright, carnival rides notwithstanding. This posture makes "particular demands on the vestibular apparatus" because humans balance a large body mass "on very small areas of support" (Spoor et al., 1994, p. 645). Although chimpanzees may walk upright for brief periods--using what is called facultative bipedalism--only humans always walk that way. Our obligatory bipedalism is, in part, maintained by the distinctive arrangement of the semicircular canals in our vestibular system.

But what about the vestibular systems of so-called transitional forms between humans and other primates? Are those systems more ape-like, or more human-like? Recently, using a CT scanner, anthropologist Fred Spoor and his coworkers analyzed the inner ears of extinct hominids (in particular, *Australopithecus africanus*) and compared them with the inner ears seen in living primates and modern humans. Spoor's analysis confirms many creationist arguments about the nontransitional status of these hominids, and maintains the distance between hominids and modern man.

For many years, creationists (e.g., Gish 1993) have referred to the studies on Australopithecus by evolutionists Charles Oxnard and Lord Sully Zuckerman. These evolutionists, having analyzed postcranial (body) material of Australopithecus, contend that Australopithecus was not bipedal and transitional to man, but walked rather like a chimp.

Using a completely different approach from that of Oxnard and Zuckerman, and examining a different anatomical complex (the inner ear), Spoor and his coworkers support Oxnard and Zuckerman's conclusions. The "semi-circular canal dimensions" of Australopithecus, they write, resemble "those of the extant [living] great apes" (p. 645).

Once again, Australopithecus is shown to be very ape-like, not a transitional ape-man. The human condition is first found in the inner ear of Homo erectus, but insofar as Homo erectus has a modern human-like vestibular system, it offers no support for evolution. In a careful study, the creationist Martin Lubenow (1992) has demonstrated that Homo erectus does not differ sufficiently from modern man (Homo sapiens) to warrant the status of a distinct species. Rather, the differences between the two forms should be regarded as racial. A gulf exists, therefore, between humans and Australopithecus.

Evolutionists have tried to fill the gulf between by devising a "wastebasket" species, Homo habilis. But Lubenow (1992, pp. 157-166) has convincingly argued that Homo habilis is an artificial species because it combines disparate human and australopithecine remains (akin, perhaps, to mixing dog and cat bones together, giving the result a species name, and proclaiming it a transition between dogs and cats).

The Spoor study provides support for Lubenow's argument about the artificial status of Homo habilis. Two specimens, SK 847 and Stw 53, were long held to belong to the same species, with the former independently assigned to either Homo erectus or Homo habilis, and the latter to Homo habilis. Spoor and his coworkers show that the vestibular systems of the two specimens are so different that they could not have come from the same species. Specimen SK 847 should definitely be assigned to Homo erectus (and, if Lubenow is right, to human beings generally). Specimen Stw 53, on the other hand, has unique semicircular canals, although their proportions tend to resemble those of modern large primates. Spoor et al. argue that Stw 53 (which they believe should be assigned to Homo habilis) probably relied less on bipedal locomotion than did Australopithecus! Clearly, this is a step in the wrong direction (pardon the pun), evolutionarily speaking. As Spoor et al. note (p. 648):

... the unique labyrinth of Stw 53 represents an unlikely intermediate between the morphologies seen in the australopithecines and Homo erectus.

In conclusion, we can reevaluate the supposed evolutionary chain leading up to modern man: Australopithecus ---> Homo habilis ---> Homo erectus ---> Homo sapiens. Australopithecus is again shown to be too ape-like to count as a genuine transition to man. Homo habilis is again shown to be an artificial amalgam of disparate skeletal elements. And Homo erectus is not sufficiently different from modern man to be

recognized as a separate species. Homo sapiens does indeed stand alone, created in the image and likeness of God.

#### REFERENCES

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Topics: human uniqueness, politically incorrect, deconstructing evolution, human ancestry, amazing but true, evidence against evolution, Adam or ape, human origins, human- simian differences