

## THE HUMAN LINEAGE: DEMURS AND DISARRAY

CHRIS C. HUMMER\*

Received 22 November, 1979

*Evolutionary anthropology is in a state of disarray. Recent fossil finds, biochemical studies and evolutionary models based on living primates are contradictory to one another and to older standard scenarios of human evolution.*

A recent news item cited an anthropologist at the University of Pennsylvania, as saying that: "... we have a handle on human evolution at the moment".<sup>1</sup> I, however, upon considering recent developments, reach an opposite conclusion: that evolutionary anthropology is right now in its greatest state of disarray.

The disarray is evident in at least four areas:

(1) David Pilbeam has just about destroyed the status of *Ramapithecus* as the ancestor from which the human line is said to have evolved. He found an unexpected fossil.

(2) Donald Johanson and Mary Leakey have both announced the finding of hominid remains they claim were bipedal long before the existence of stone tools. This presents a serious challenge to the established view that tool use gave rise to bipedal locomotion.

(3) Vincent Sarich, Adrienne Zihlman and others have dealt another blow to *Ramapithecus* and the rest of the Miocene fossil record. They suggest that biochemical data indicate that man and apes split recently, probably only four to five million years ago. This is in direct conflict with the accepted view, represented by Pilbeam and others, based on the fossil record, that the split occurred probably in excess of 10 million years ago.

(4) Leslie Aiello is proposing a New World monkey as the model primate form from which apes and man diverged. Aiello's contender is thrown into the ring with Johanson's primitive australopithecine and Zihlman's pygmy chimpanzee.

(1) *Ramapithecus*. The status of this ape as the first member of the family of man has never been secure. The entire case since 1961 was based on a handful of fossil teeth and jaw fragments and an erroneous humanlike reconstruction of a palate that almost no one thought to question critically. The error has been exposed because now a complete mandible has been found. Here is David Pilbeam's recantation:

... this new specimen did not conform to our expectations; the mandible was V-shaped, not U-shaped or parabolic; the incisor teeth, judging from their sockets, were tiny; and in its proportions the jaw was unlike almost anything else known. This, together with other data, made it clear that the story of human origins needed rethinking.<sup>2</sup>

And elsewhere in the same article Pilbeam admits that the "jawbone ... shook the established view of human origins" and "radical new ideas about human origins and early evolution are now in the air."<sup>3</sup>

Elwyn Simons said that *Ramapithecus* was "ideally structured to be an ancestor of hominids. If he isn't, we

don't have anything else that is."<sup>4</sup> With *Ramapithecus* out of the running for the ancestor of man there is an incredible gap in the fossil record of more than 10 million years!

(2) *Bipedalism earlier than expected*. Donald Carl Johanson recently put another australopithecine on the books of animals past. His claims make it a very ancient one: 2.9 to 3.8 million years. It is a primitive creature:

The overview of the Laetolil and Hadar remains ... indicates that these forms represent the most primitive group of demonstrable hominids yet recovered from the fossil record.<sup>5</sup>

Johanson has named his new finds *Australopithecus afarensis*. Originally he thought the material included two genera, *Homo* and *Australopithecus*. He published the view in 1976 that the small skeleton known as "Lucy" was an australopithecine, whereas the other material belonging to larger individuals was *Homo* (true man).<sup>6</sup> Johanson has dropped the *Homo* designation, though Mary Leakey is inclined to argue the point. Mrs. Leakey believes her jaws from Laetolil are true human ancestors and are more closely related to *Homo habilis* than Johanson has suggested. She is, in fact, on record as assigning her material to *Homo*.<sup>7</sup>

One of the most important points in all this is that no stone tools have been found with any of the materials. As Mary Leakey puts it:

We have encountered one anomaly. Despite three years of painstaking search by Peter Jones, no stone tools have been found in the Laetolil Beds. With their hands free, one would have expected this species to have developed tools ... But ... we haven't found a single stone introduced into the beds.<sup>8</sup>

Johanson affirms the same thing. The *afarensis* remains are about twice as old as the oldest known tools. This presents a serious threat to the view, thoroughly worked out in 1960 by Sherwood Washburn, that stone tools worked to produce bipedal locomotion.<sup>9</sup>

(3) *The human-ape split*. A radical shortening of the time scale for the branching of apes and man from the supposed ancestral line has been proposed recently by Adrienne L. Zihlman, John E. Cronin, Douglas L. Cramer and Vincent M. Sarich.

The usually accepted scenario based on fossils and radiometric dating suggests that the dryopithecines gave rise to forest apes and hominids, the former splitting off some 15 to 20 million years ago, the latter emerging about 12 million years ago. But now the above mentioned researchers are reporting that biochemical similarities in living primates and man suggest that the splits occurred much more recently: gorillas, chimpanzees and hominids all separated from ancestral stock only about 4 million years ago!<sup>10</sup> *Ramapithecus* in this scenario, say Zihlman and

\*Mr. Chris C. Hummer, M.A., is a teacher of Anthropology and Archaeology. His address is 1211 Rose Lane, Berwyn, Pennsylvania 19312.

Lowenstein, "has faded until nothing is left but his smile."<sup>11</sup>

Richard Leakey comments that "so gross a discrepancy in the apparent timing is more than a little disconcerting. The question still remains to be resolved."<sup>12</sup> The molecular anthropologists claim the best evidence is on their side since independent researchers come up with very similar results. They say the biochemical data can be tested whereas the fossil evidence is too subjective. In their recent article Adrienne Zihlman and Jerold Lowenstein take Pilbeam, Johanson and others to task because of their refusal to recognize the molecular data. They comment regarding Johanson's and White's *Australopithecus afarensis*:

(They) discuss the apelike features of the skull and teeth and—again, without mentioning the molecular evidence—state that this implies a relatively recent divergence of man from the African apes. One begins to detect a groundswell among anthropologists for reversing the molecular argument by claiming that the fossil finds now so strongly suggest a recent divergence that the despised biochemistry may turn out to be right after all.<sup>13</sup>

(4) *A New World connection.* Speculation is rife regarding what creature may serve to be the model for the recent ancestor from which man and ape are said to have diverged. Donald Johanson has proposed *Australopithecus afarensis*. Adrienne Zihlman has been pushing the pygmy chimpanzee (*Pan paniscus*) of Africa.<sup>14</sup> And now Leslie Aiello, a British anthropologist, is suggesting that a new contender must be considered: the howler monkey, a New World primate.<sup>15</sup>

Johanson's position is based on fossils, and Zihlman's on molecular data, but Aiello argues from morphology: how body form and shape vary in similar animals of different sizes. Since she wanted a model that would allow for variation into the living apes and man she ruled out all of the living apes as possibilities. She points out that all living apes are too specialized in their limbs for a tree climbing life. The best candidate, she says, is the howler, which uses all four limbs for both walking and climbing. It was a primate, something like the howler, claims Aiello, that was the common ancestor.

### Conclusion

For nearly eighteen years it was presented as fact that tool use produced the bipedal way of life which, in turn, produced the large brain. That "fact" is no more. It has been recognized for what it has always been: a not very workable hypothesis that must be discarded.

We believe that evolutionary theory will never be able to make sense of the fossil record. Consider two huge problems:

a) There is no ancestral line for australopithecines. With *Ramapithecus* gone there is a period of more than 10 million years for which there are no transitional fossils.

b) There is no ancestral line for modern apes. There are simply no fossils to trace more than 15 million years of supposed evolution. David Pilbeam has admitted this quite candidly: "the fossil record of pongids (modern

apes) is *nonexistent* (emphasis mine), making a glaring deficiency in the whole story."<sup>16</sup>

The traditional anthropologists talk about a split occurring between apes and man. But if there is no fossil record for either one how can you talk about a split?

The molecular anthropologists talk about "molecular clocks".

The proteins of closely related species, such as horse and donkey or dog and fox, are nearly identical, whereas species that diverged more than a hundred million years ago, such as shrew and opossum, have many sequence differences. These differences can be measured precisely, and their number is approximately proportional to the divergence time.<sup>17</sup>

But is this not based on an unproved and unprovable assumption that there is a "clock" running? No one has ever measured "divergence time" across any significant time span. Evolution is here assumed in order to prove itself.

The creation model can be profitably applied to the data of protein similarities. The resemblances are equally (and I think more equal) a workable hypothesis for creative design.

This writer believes that the numerous model offerings for the ancestral form for men and apes that are currently filling the literature are a direct indication of the poverty of the evolutionary position. Anyone may offer and argue and no one can say he's wrong. There are no data.

The current scene in paleontology is confused and fraught with contradictions.

### References

- <sup>1</sup>Shurkin, Joel N., 1979. A far creature proposed as human ancestor. *The Philadelphia Inquirer*. January 19, p. 3-A.
- <sup>2</sup>Pilbeam, David, 1978. Rearranging our family tree. *Human Nature*, June, p. 40.
- <sup>3</sup>*Ibid.*, pp. 38, 40.
- <sup>4</sup>1977. Puzzling out man's ascent. *Time*. October 7, p. 67.
- <sup>5</sup>Johanson, D. C. and T. D. White, 1979. A systematic assessment of early African hominids. *Science* 203(4378): 321-330. See especially p. 325.
- <sup>6</sup>Johanson, Donald C., 1976. Ethiopia yields first family of early man. *National Geographic* 150(6): 790-811.
- <sup>7</sup>Shurkin, Joel N., 1975. Fossil finding hints older origin for man. *The Philadelphia Inquirer*. October 31, p. 2-A.
- <sup>8</sup>Leakey, Mary D., 1979. Footprints frozen in the ashes of time. *National Geographic* 155(4): 446-457. See especially p. 456.
- <sup>9</sup>Washburn, Sherwood L., 1972. Tools and human evolution. (In) *Biology and culture in modern perspective*. W. H. Freeman and Company, San Francisco, p. 143.
- <sup>10</sup>Zihlman, Adrienne L., John E. Cronin, Douglas L. Cramer and Vincent M. Sarich, 1978. Pygmy chimpanzee as a possible prototype for the common ancestor of humans, chimpanzees and gorillas. *Nature* 275(5682): 744-746.
- <sup>11</sup>Zihlman, Adrienne L. and Jerold M. Lowenstein, 1979. False start of the human parade. *Natural History* 88(7): 86-91.
- <sup>12</sup>Leakey, Richard E., and Roger Lewin, 1977. *Origins*. E. P. Dutton, New York, p. 56.
- <sup>13</sup>Zihlman and Lowenstein, *op. cit.*
- <sup>14</sup>Zihlman, *et. al.*, *op. cit.*
- <sup>15</sup>1979. The human-ape common link. *Science News*, 116(13): 215.
- <sup>16</sup>Pilbeam, *op. cit.*, p. 43.
- <sup>17</sup>Zihlman and Lowenstein, *op. cit.*, p. 90.