

Editorial Comments

Paul DuBois continues his study on the australopithecines. David Kaufmann relates the connection between the concepts of feminism and evolutionism. Wendell Bird finishes his series on the arguments presented to defend evolutionism, woefully lacking as they are. Three more papers are presented in the minisymposium on the speed of light. Barry Setterfield has been invited to respond in the December Quar-

terly. Dr. Dudley J. Benton discusses the implications of the special theory of relativity in the minisymposium.

Several shorter selections will be of interest to you. Many suggested research ideas as well as informational notes are included. I will be glad to hear from you on any subject covered in recent Quarterlies.

Emmett L. Williams

Remarks by the President

Frequently we hear from well-meaning but usually somewhat ill-informed evolutionists some expressions of doubt that creationists carry on meaningful empirical scientific research in ways which could falsify prior creationist conclusions. An answer to these charges are the some 12 dozen field and laboratory papers published in the *Creation Research Society Quarterly (CRSQ)* since its inception in 1964. Many of these reports have involved differences of opinion among the creationist investigators based on their observations. But the CRSQ is only one of the many publications which have reported empirical information from creationist investigators.

A sample case involves "human" footprints in rock. In 1971 W. H. Rusch surveyed this subject in his paper, "Human Footprints in Rocks" [CRSQ 7:201-13]. Some of these footprints were important primarily because they suggested contemporaneity of humans and dinosaurs. Further studies, as reported in various creationist publications primarily in and since 1986, have raised serious doubts that humans made many of the well-publicized Paluxy River tracks in Texas. As a consequence of these studies which have involved creationists, the film *Footprints in Stone* (produced by

Films for Christ) has been withdrawn from the market as has creationist John D. Morris' 1980 book supporting the Texas tracks as human. Also, the Institute for Creation Research in California closed for revision its museum display of the Texas Paluxy prints. Both organizations have suffered financially because of their decisions, but they feel that questions regarding their previous interpretation cannot be ignored. So they urge creationists not to use evidence from the Paluxy as an anti-evolutionary argument until more is known. However, some creationists have maintained research efforts on this subject, and still feel that there is evidence at the Paluxy that dinosaurs existed together with humans.

Even though there may not be a completely uniform position among creationists regarding the evidence for humans and dinosaurs in the same time frame, there is ample evidence that creationists are basing their positions and performance upon data which they have observed in nature. Studies of "the footprints" are continuing, as are many other creationist scientific investigations.

Wayne Frair

CREATIONIST EVALUATION OF AUSTRALOPITHECUS AFARENSIS

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Abstract

Anti-creationist Leon Albert believes that certain problems with creationist treatment of the australopithecines, particularly 'Lucy,' invalidate the creationist position that 'Lucy' is not a prehuman ancestor. This is not necessarily so but the argument on which that position is based is incomplete. The difficulties raised by Albert are discussed with a view to resolving them by completing the argument.

Introduction

In "Lucy' Out of Context," Leon Albert (1985) discusses what he considers out of context quoting by creationists in relation to the australopithecines. As discussed by Albert, these include *Australopithecus africanus* and *A. robustus*, which have been known for a number of years, as well as *A. afarensis*, which was discovered more recently (1974) and includes the specimen known as 'Lucy.' His analysis operates primarily within the context of the evolutionary tree proposed by Johanson and White (1979) placing *afarensis* at the base of both the australopithecine and human lineages (Figure 1). Albert focuses particularly

on creationist use of the works of Sir Solly Zuckerman and Charles Oxnard, two investigators who have studied australopithecine fossils in detail.

Creationist Treatment of Australopithecines

Before *afarensis* was discovered, most evolutionist investigators considered *Australopithecus (africanus, robustus)* ancestral to man. A few lone voices were raised in dissent, notably those of Zuckerman and Oxnard. Each author examined *africanus* and *robustus*, concluding that the degree of humanlikeness attributed to them was overstated and that they were probably not human ancestors. Creationists agreed with these criticisms and extensively quoted them to dispute the supposed prehuman status of the australopithecines.

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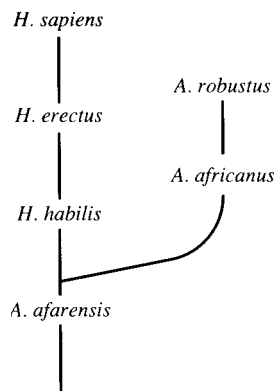


Figure 1. Evolution relationships as proposed by Johanson and White (1979).

When the *afarensis* material was discovered, it was alleged to form another distinct group of fossils and again emphasis was laid on its “prehuman” characteristics. Creationists, unimpressed in the past by similar treatment of other australopithecines, remained skeptical. Some responded to the nomination of *afarensis* as the newest member in the parade of missing links by repeating the criticisms of Zuckerman and Oxnard.

Albert takes exception to this for at least three reasons. (i) One of the most frequently quoted sources—Zuckerman’s *Beyond the Ivory Tower*—dates from 1970, before any *afarensis* fossils were discovered, so Zuckerman could hardly have said anything about them then. (ii) Oxnard’s “Human Fossils: New Views of Old Bones” (1979), another source Albert discusses as a creationist favorite, mentions the *afarensis* fossils only briefly and Oxnard does not specifically include them within the scope of his criticisms. (iii) Neither Zuckerman nor Oxnard had studied the *afarensis* material personally. The following examples are among those on which Albert bases his objections.

Since neither Zuckerman nor Oxnard had studied the *afarensis* material themselves, Albert maintains that creationist claims they had done so are false. He gives the following quote (p. 367), from a debate transcript, as an instance:

Henry Morris . . . claimed, with explicit reference to the “Lucy” fossil, that both Zuckerman and Oxnard “have analyzed this material in detail, measured it in the laboratory . . . and they have taken all of the australopithecine dentition, the skull structure that has been found, the limb bones, the knee bones, and so forth, and they have come to the conclusion that . . . it looks like an ape” (first ellipsis mine, emphasis Albert’s).

A 1981 article by creationists Duane Gish and Richard Bliss quotes Zuckerman (1970) to support the contention that there is no fossil evidence of a transition between ape and man. Albert observes (p. 368) that the article was published several years after the discovery of ‘Lucy’ (1974) but Gish and Bliss nevertheless choose to refer to a statement made well before then, in effect ignoring or denying the possibility that Zuckerman might have revised his conclusion after the *afarensis* fossils were unearthed.

According to a report of a debate between Duane Gish and Steven Shore in *Acts and Facts* (1983), when Shore claimed that ‘Lucy’ was prehuman, Gish “reiterated Zuckerman’s and Oxnard’s conclusions concerning the australopithecines” that they “did not walk upright and were not intermediate between ape and man.” Albert’s position is that since neither Zuckerman nor Oxnard were commenting on the *afarensis* material, their statements do not constitute a rebuttal to claims made about ‘Lucy.’

These examples are persuasive to varying degrees. Albert says creationist claims that Zuckerman or Oxnard had studied the *afarensis* fossils are false. It is true that to whatever extent, if any, Morris intended to include the *afarensis* fossils among the material he mentions, he would be claiming that Zuckerman and Oxnard had studied them, which would be incorrect. But the intent of Morris’ remark is equivocal in the example Albert gives, since he does not reproduce the “explicit reference” to ‘Lucy.’ Morris himself maintains that the scope of the fossil material listed in the quote is too broad for him to have been referring simply to one partial skeleton (personal correspondence).

Albert’s contention that it is questionable to quote Zuckerman’s book in relation to *afarensis* has greater merit. Zuckerman was not specifically writing about *afarensis* and Gish and Bliss do not actually show that Zuckerman’s earlier skepticism about the human-like character of australopithecine fossils extends to *afarensis*.

However, the form of Albert’s argument is no different from that to which he objects. He implies that Zuckerman might have changed his mind when the *afarensis* fossils were discovered, but does not show that Zuckerman would agree with that either. Zuckerman’s remarks could be used more carefully by creationists, but given his antipathy in the ‘60’s and ‘70’s to the usual conclusions reached by other investigators about australopithecines, I doubt very much whether anyone would exactly be astounded if he were also skeptical about *afarensis*.

Significance of Albert’s Criticisms

Despite flaws in several of Albert’s examples of alleged abuses, it would be imprudent to discard his analysis entirely. It is pointless to deny that when considering the question of whether *afarensis* is a prehuman ancestor, creationists have taken statements by Zuckerman and Oxnard that were not made with reference to *afarensis* and generalized them to include that species. Albert correctly observes that little or no basis for doing so has been given. What is the source of this problem?

Albert seems to believe that creationists either simply did not recognize that use of Zuckerman’s and Oxnard’s comments in this manner requires a certain degree of extrapolation or else realized these remarks did not apply directly to *afarensis* but went ahead and used them anyway. I suppose Albert favors the latter possibility for he seems to think that after ‘Lucy’ was discovered, creationists decided to make the best of a bad situation by dredging up anything they could find in an effort to discredit the *afarensis* fossils. He paints a picture in which creationists suddenly start quoting Zuckerman and Oxnard after a description of the

afarensis material was published in 1979 but does not indicate (or know, perhaps?) that their work had been referred to by creationists previously (Bowden, 1977; Gish, 1975).

Apparently Albert never considered a third alternative. It is perfectly conceivable that creationists realize the comments of Zuckerman and Oxnard are not explicitly about *afarensis* but judge the similarities between different species (e.g., *afarensis* and *africanus*) sufficient to warrant the generalization. Even if that is so, however, criticisms such as those by Zuckerman and Oxnard of *africanus* (perfectly proper and surely cogent within the domain for which they were originally intended) have limited applicability to *afarensis* unless a reasonable justification for using them that way is demonstrated.

Objections such as Albert's arise precisely because such a rationale has not been very clearly articulated in creationist literature. The value of his paper is that it identifies this disturbing gap in creationist reasoning, although he has incorrectly evaluated its significance. For Albert, creationist arguments are indefensible because conclusions about *afarensis* that are derived by generalization from other australopithecines are undeniably specious. From his mocking tone and the smugness of his report he evidently considers this point quite beyond dispute.

Nevertheless, extrapolation of statements from one species to another is not always unwarranted. After all, if species did not sometimes have similarities, there would be no generalities (i.e., enlargement of the scope of statements) and therefore no systematics. The supposition that creationist arguments are wrong (rather than simply incomplete) because they extend the scope of a set of statements is best justified by demonstrating the extension to be implausible—something Albert never does.

Albert objects that creationist arguments “blur over the distinctions between the various forms of *Australopithecus*” (p. 368). That is true but misses the point. The problem is not combining of groups, it is the lack of a reasonable justification for doing so. The practice of lumping groups together is after all hardly unique to creationists. Indeed, Oxnard himself sometimes derives conclusions from results of studies that pool together—“blur” in Albert's terms—different australopithecine forms. For example, in assessing affinities of the shoulder and pelvis of groups of primates, Oxnard (1975, pp. 41-42) pools certain australopithecine forms, justifying his procedure as follows:

When we recognize the extraordinary variability that exists within living primates at the generic level, we realize that this a reasonable exercise. For the differences that are known to exist among the individual fossils (for instance, between the robust and gracile forms) are not nearly as large as those found within some living genera. Comparisons may be made for instance, with the genus *Homo*, who displays continuous variations in height within living man that greatly exceed any that are known to have existed among the australopithecines . . . morphologically they tend to fall rather close to one another. It is true that there are considerable differences among the various skull fragments, but certainly not much more than can be seen among

the various macaques, for instance, and certainly less than that existing between the sexes of chimpanzees and of gorillas, for example.

Though not written with reference to *afarensis*, this passage shows the invalidity of blanket objections to combining groups for analysis. The problem remains, however, that while Oxnard takes the trouble to justify his procedure, *creationists do not*. Were this not so, Albert's criticisms would have no force. Do creationists refer to the remarks just quoted (or anything similar) as support for combining groups of australopithecines? I submit that the answer is no. Do creationists address the question of whether the similarities between *afarensis* and other australopithecines really are sufficient to justify generalizing Zuckerman's and Oxnard's statements? Rarely, if ever.

If creationists are going to use sources such as Zuckerman's *Beyond the Ivory Tower* and Oxnard's “New Views” to press the point that *afarensis* should be referred only to *Australopithecus* and is unrelated to *Homo*, the rationale for doing so must be clearly specified. Otherwise, creationist analysis will continue to be undermined by failure to explain why conclusions about *africanus* should be extended to *afarensis*.

An Approach to Solving the Problem

The foregoing is not a counsel of despair. Although evaluation of *afarensis* must of course rest most heavily on analysis of the *afarensis* fossils themselves, studies concerning *africanus* are far from irrelevant. Because of this, I would characterize the way creationists use quotations from Zuckerman and Oxnard simply as inappropriate or unsatisfactorily supported, though Albert describes these uses as “dishonest” or “scholarly felonies” (p. 369). Such terms carry a lot of emotional baggage that obscures the issue. Indeed, though I believe Albert's report should not be entirely dismissed, his own arguments are often without any greater foundation than those he criticises as I have elsewhere discussed (DuBois, 1987).

Albert's failure to consider possibilities other than “scholarly felonies” stems from his definition of out of context quoting: “the use of an authority's published words against evidence that was *not even available* at the time of the publication of those words” (p. 364). This sounds reasonable at first but actually means that all publications apply only retroactively and that anyone who quotes a previously published report to interpret new evidence is using it out of context. At the extreme, it implies that under no circumstances should work on *africanus* published prior to the discovery of ‘Lucy’ be cited with respect to *afarensis*.

I disagree. It is an entirely orthodox principle of scientific investigation that new evidence routinely is and should be interpreted by reference to older work. The manner in which this principle may be applied to the matter at hand is evident: statements made about, say, *africanus* are legitimately open to extension to *afarensis* to the extent that affinities exist between the two forms.

Consider Oxnard's work on the *africanus* shoulder (1968), from which he was led to suggest tree-dwelling behaviors. His work has recently been complemented by that of Stern and Susman (1983), who find similar structural characteristics in the *afarensis* shoulder. The

similarity between the two forms leads one naturally to suppose that *afarensis* also may have engaged in arboreal activity. The relevance for creationists is that since arboreality and bipedality are often viewed as unlikely to both occur in well-developed form in the same organism, indications of arboreality in *afarensis* tend to mitigate the effectiveness of attempts to assert its prehuman status that stress its potential for bipedality.

Perhaps Albert, as Oxnard's defender against the wiles of crafty creationists, would object to such reasoning, for instance on the grounds that Stern and Susman would very likely disagree with it. (They are among those who believe that arboreality and bipedality may both have been significant in *afarensis* locomotion.) But the fact is that the connection between Oxnard's *africanus* findings and the results of Stern and Susman on *afarensis* was pointed out by Oxnard himself (1983b, pp. i-iii) and taken as evidence against prehuman status for *afarensis*.

Or perhaps Albert would object that this single example is insufficient to establish any general argument against bipedality in *afarensis*. Quite true, but Oxnard also discusses other parallels between *africanus* and *afarensis*, e.g., for the hand, arm, pelvis and foot. That lends additional weight to the argument and illustrates how links may be drawn between *afarensis* and other australopithecine forms and shows—Albert's definition of out of context quoting notwithstanding—that work on *africanus* is highly relevant to consideration of the *afarensis* fossils. Because these affinities exist, statements about *africanus* are not automatically invalid when applied to *afarensis*. Taken with reasonable caution, studies of other species of australopithecines form an important part of the evaluation of *afarensis*.

Ironically, Albert's analysis suffers a lack of justification parallel to that found in creationist arguments. Creationist claims rely implicitly on the validity of pooling various australopithecine forms but Albert's argument depends just as much on the validity of the distinction between them and he, like creationists, fails to justify his premise. The whole of his rationale for accepting the distinction is that 'Lucy'-like fossils are "generally recognized as a distinct form of early hominid . . . sufficiently different from any previously named category to place them in their own taxon" (p. 365). That is simply an argument from authority, entirely unconvincing except to those who already believe it and who therefore need no convincing anyway.

Nowhere does Albert even hint at the considerations weighing against acceptance of the distinction between allegedly different forms—perhaps because were he to acknowledge them, much of the basis for his objections would be obviated: statements made about other australopithecines would be applicable to *afarensis*, and the creationist position might be strengthened as a result. Horrors! The present classification may be endorsed by several investigators, but there are reasons for questioning it.

McHenry (1983, p. 187) points out that *afarensis* and *africanus* are very close post-cranially—"strikingly similar." 'Lucy's' pelvis is in his opinion "astoundingly similar" to some specimens of *africanus* (p. 196).

Suzman (1982) too says that aspects of the pelvises of *africanus* and 'Lucy' are "strikingly similar." He finds that the differences between them are within the range of variation found in human samples and entertains the possibility that 'Lucy' may be *africanus*.

The history of the australopithecines is littered with shifts of genus and species attribution and coalescence of "different" species into one. The *afarensis* fossils have not been immune to this kind of taxonomic flux: currently referred to *Australopithecus*, some of them were initially identified as *Homo*. Given this change in genus, it is hardly wild speculation to suggest that time may also bring to *afarensis* a change of species, e.g., to *africanus*.

Oxnard (1975, p. 41) points out that studies estimating the similarities or differences of the australopithecines in relation to man or the apes typically fail to compare these estimates to known variability in existing groups of primates. The fact that certain groups display marked variation among their members is an observation of considerable importance. Species distinctions based on morphological variation between fossils which is exceeded in extent within some living species may well be spurious.

Some of what difference there is between *afarensis* and other australopithecines may be due to sexual dimorphism (sex-related structural differences). It is noteworthy that although the general differences between *africanus* and *robustus* may well be greater than those between *africanus* and *afarensis*, it has been suggested from time to time that even *africanus* and *robustus* should be classified as a single species on the grounds that they constitute sexually dimorphic segments of a single group. If *africanus* and *robustus* may be conspecific, what of *africanus* and *afarensis*?

Furthermore, the possibility of sexual dimorphism is not easily ruled out as it is not a simple property. Oxnard finds among living primate groups seven distinct types of sexual dimorphism (1983a; Oxnard *et al.*, 1985) and cautions against assuming that all dimorphisms are of the same type, since that may impede accurate fossil assessment. Significantly, Oxnard (1983a, p. 20) names Johanson—'Lucy's' discoverer and one of those responsible for the current classification of *afarensis*—as one making this erroneous assumption. To rule out dimorphic variation between *afarensis* and *africanus*, one must establish that the fossils do not fall into any of these seven types. Even if that were shown, it remains a possibility that they are of yet another type. Since each living hominoid genus has its own unique pattern of differences, according to Oxnard, it is not unlikely that extinct groups will also.

The basis for a species distinction between *afarensis* and *africanus* rests partially upon a difference in geological time between the two sets of material. The dating has been a matter of some controversy. For instance, Boaz *et al.* suggest that the time gap between *afarensis* and *africanus* be narrowed and note that this has "implications for interpretation of the early hominid fossil record" (1982, p. 633). One of these implications is discussed, somewhat impatiently, by Rak (1985, p. 281): "Some authors [he names Boaz *et al.*] have carried their argument so far as to imply that with the diminishing of the time gap, there remains no obstacle

to lumping the *A. africanus* and the Hadar hominid samples together." Rak takes the position that the distinction is legitimate; his tone shows that a shrinking time gap represents a challenge to that position.

The basis for taxonomic differentiation of *afarensis* from other australopithecines may stand the test of time but if so, it will not be without challenge. Considerations such as those above illustrate that until the issue is settled, Albert's alleged broad consensus about the distinctiveness of *afarensis* and its prehuman status remains questionable.

Conclusion

Albert's article is valuable in that it brings up an issue that deserves to be treated with greater care by creationists, i.e., the basis for drawing conclusions about *afarensis* from the results of investigations done on other australopithecine forms. Albert is nonetheless incorrect in supposing that because this basis has not been made explicit one does not exist and my sympathies with his objections do not extend so far as to agree that creationist conclusions about *afarensis* (not prehuman; may not even be a distinct species) are essentially incorrect.

It is sometimes reasonable to link *non-afarensis* studies to *afarensis* but the evidence suggesting the connection needs to be pointed out. Creationist analysis has left unspecified part of the chain of reasoning leading to the conclusion that *afarensis* is not prehuman and has been correspondingly weak at that point. The preceding discussion shows that this is unnecessary, suggests briefly how work on *africanus* pertains to evaluation of *afarensis* and strengthens the applicability of criticisms such as those of Zuckerman and Oxnard.

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AJP—American Journal of Primatology
AJPA—American Journal of Physical Anthropology

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Editor's Note: For those readers interested in one of the more recent Oxnard books see Oxnard, C. E. 1987. *Fossils, teeth and sex: perspectives on human evolution*. University of Washington Press. Seattle.

FEMINISM, HUMANISM AND EVOLUTION

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Abstract

Feminism is an ideology based on the anti-Christian philosophy of humanism. Evolution, through genetic, embryological and DNA evidence along with the bizarre technological possibility of male pregnancy and childbirth, has become the scientific framework on which feminism rests. This has resulted in the individual replacing the family as the functional unit in secular society. In contrast, the doctrine of creation establishes the divine order of the sexes with the family as the functional unit in a Christian society.

Introduction

When history of the U.S.A. is finally recorded, it will be said that the decades of 1971-80 and 1981-90 were the decades of feminism. It is during these time spans that females have gained much equality with males in the family, the church and society. A comprehensive definition of feminism is given by Schlafly (1985):

Feminism is an ideology which teaches that women have been mistreated since time began, and that even in America women are discriminated against by an oppressive male-dominated society.

Feminism is a political movement which teaches that a just society must mandate identical treatment for men and women in every phase of our lives, no matter how reasonable it is to treat them differently; and that gender must never be used as the criterion for any decision.

Feminism is an economic movement which teaches that true fulfillment and 'liberation' for women are in a paying job rather than in the confining repetitious drudgery of the home, and that childcare must not be allowed to interfere with a woman's career. Feminism is a psychological outlook on life which is basically negative; it teaches women that the odds are stacked so

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