

Correspondence

ON SCIENTIFIC REASONING

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It would be embarrassing to be asked to explain to a perspicacious layman the curious juxtaposition of the two articles, by Papagiannis (1) and Wilkerson & Worden (2) which appeared in the September issue of the *Quarterly Journal*. On the one hand, we have the proposition that alien beings may not only visit our solar system, but even be resident in it; on the other, we have the assertion that a UFO (a misnomer, under the circumstances) explosion, as the explanation for the Tunguska event, is a 'crackpot' hypothesis which requires no refutation.

An hypothesis could be reasonably (though not politely) termed 'crackpot' only when it is in evident contradiction with well-known facts. If the contradictory facts are not well known, one could only term the hypothesis 'erroneous'. If the contradiction is not with fact but with widely accepted theory, about the most severe qualifier could be 'doubtful'. To use the term 'crackpot' for a hypothesis which violates neither fact nor theory is to resort to sarcasm in lieu of reason – truly deplorable for trained scientists!

My criticism is not directed solely at the authors in question. Another instance of avoiding the problem of UFOs appeared in this journal in an article by Hart (3). This author put forth an excellent case for expecting visits by extraterrestrial craft, and then asserted categorically that UFOs were not such vehicles.

Certainly, we are all entitled to opinions. However, to substitute opinions for facts in any professional discourse is a disservice if not actually an affront to the scientific community. Authors, referees, and editors all share the responsibility to keep such practice from our literature.

REFERENCES

- (1) Papagiannis, M.D., 1978. Are we all alone, or could they be in the asteroid belt? *Q. Jl R. astr. Soc.*, **19**, 277–281.
- (2) Wilkinson, M.S. & Worden, S.P., 1978. On egregious theories – the Tunguska event, *Q. Jl R. astr. Soc.*, **19**, 282–289.
- (3) Hart, M.H., 1975. An explanation for the absence of extraterrestrials on Earth, *Q. Jl R. astr. Soc.*, **16**, 128–135.