

the 2/5 second interval to the 1/5 second interval and, likewise, from the 3/5 second to the 4/5 second interval. There is a considerable net change of actual times from the 1/5 and 4/5 second intervals to the even seconds.

That this marked preference for the even second is peculiar only to "clockers" of horse races and to no one else is improbable.

In view of these extraneous variables, it does not seem possible to establish a definitive time-distance relationship for horse running races.

W. B. TABER, JR.

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Scientific Poetry

For some years now, in discussing the fact that the impact of science on mankind may well lead to misunderstanding and trouble unless scientists can make their discoveries emotionally apparent to people, I have suggested that we need scientific poetry. Now the contribution made by acknowledged poets is very small (a little from Shelley and Milton, but not a vital body of poetry), and it seems to be increasing only trivially. On the other hand, I feel sure that many

scientists are writing verse (I can name three). I would like to suggest that anyone who has any such lines, and who would care to do so, send them to me as a kind of clearinghouse. If enough material arrives, arrangements can be made to mimeograph and circulate it among those who are interested.

I suggest one or two ground rules. The first is that the author give his name, even if the poem is signed with a pseudonym. The second is that poems of epic dimensions be considered a little out of place until means for handling them have developed. The third is, of course, that all classes of poetry, serious and light (even including laboratory limericks), are welcome. My address is Box 2166, Yale Station, New Haven, Conn.

ERNEST C. POLLARD

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Satirical Biology

Lovers of spoof biology (and who is not?) rejoiced greatly in a recent article on "Biological clock in the unicorn" [*Science* 125, 874 (3 May 1957)]. The appearance of a satirical spoof of this

kind inevitably raises general questions of widespread interest. Is any form of satire a legitimate style in which to write serious scientific criticism in a reputable journal? If so, does any particular instance meet a sufficiently high standard of plausible falsehood combined with some sharp truth? Are there any rules for this sort of thing?

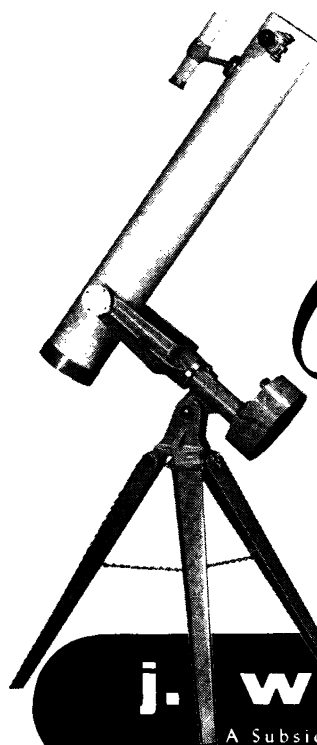
There can be little real question of propriety because satirical spoofs have an ancient and honorable history. The Royal Society of London published its first spoof, designed to administer a wholesome jolt to the credulous, in the 1840's. David Starr Jordan, ichthyologist and university president, taught the gullible the value of suspended judgment in 1896 with his published account of a "sympsycho-graph," which enabled the operator to penetrate photographically into the minds of seven men simultaneously. In more recent years, Egerton Y. Davis, M.D., of Caughnawaga, P.Q., better known as William Osler of the Johns Hopkins School of Medicine, delighted to puncture some pomposities of medical literature with those incredibly solemn and vacuous studies on the perineal muscles.

It is a matter of opinion whether the present investigation into the physiology of the unicorn matches L. W. Sharp's immortal monograph on *Eoornis Pterovelox*, published by the Buighleigh Press (of Ithaca?) in 1928, or G. Albrecht's camera-documented account of the Schuss yucca, which was printed in *The Scientific Monthly* for October 1952. There is no doubt, however, that the "Clock in the unicorn" carries the kind of refreshing laughter which dissolves the lush overgrowths and precancerous verbirosities of the scientific mind.

Spoofs of all kinds involve certain risks, including the risk of being misunderstood. They extend over a broad spectrum, from inconsequential foolery, through high satire, to downright hoaxes intended to deceive for financial gain. The day seems happily past when a scientific idea can be laughed out of court without testing, in the way that Voltaire ridiculed virtually into oblivion the particulate theory of heredity when it was proposed by de Maupertuis, more than a century before Mendel. We can be sure that the question of the nature of any rhythms which may or may not reside in *Drosophila* eggs, fiddler crabs, or slices of New Jersey potatoes will be answered the more rigorously because of the laughter from that incorrigible pedestrian, common sense.

No one, and least of all scientific truth, stands to suffer harm from the well-tempered spoof. Innocence of harm to truth should be the Paris meter by which the legitimacy of a spoof is judged. Other rules? Brevity and rarity—extreme rarity. To specify more would

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be like posting a set of regulations for the appearance of the Loch Ness monster.

If there is any danger inherent in the publication of the recent article, it lies in the faint encouragement given to further investigation of the unicorn itself. The importance of the subject can scarcely be doubted, since it has been known from time immemorial that the animal's horn possess pharmacological properties which combine the attributes of the gonadal steroids, lysergic acid, and the juices of a Mexican toadstool.

GAIRDNER B. MOMENT

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I have received a number of letters and comments about the unicorn, but Moment is the only person who has come to my attention who was misled into thinking that my article was a "hoax" or a "spoof," to be compared with *Eoornis* and the Schuss yucca. If this had been my intention I would have drawn a sine curve instead of troubling to conduct an actual sampling experiment, conforming to a definite model, and I would have invented references published by "Schmutzig-Verlag" instead of trying to guide the reader to some of the most informative literature bearing on the analysis of time series.

In case other readers were deceived, here is the gist of my thesis: One can attach an animal to an instrument which will record numbers representing the amounts of activity that occurred during each hour of the experiment. One can then take these numbers and submit them to arithmetic manipulations and, perhaps, identify "cycles" in the series of numbers. Now, one may ask, were the cycles necessarily present in the animal or could the methods of analysis have led to similar results without the animal, or with an imaginary animal like the unicorn? To answer this question I tried the experiment, which I described in precise detail, so that anyone can repeat it and see that it is no hoax.

Admittedly, my interpretation of the experimental results was somewhat whimsical (as is the last paragraph of Moment's letter), but I gave references that should satisfy those who prefer heavier reading. There was no intent to try to have anyone "laughed out of court," but rather, as I stated the purpose in the article, "to warn the uninitiated that there is a possibility of being misled in the analysis of complicated time series."

LAMONT C. COLE

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Ithaca, New York

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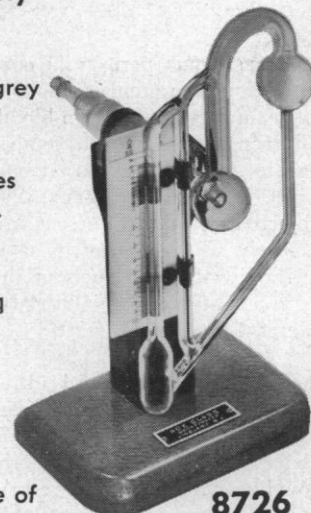
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