

that undesirable. If I were W. H. Henry (or anyone else—such as me), those are the people that I'd be afraid of!

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Astronomical error

An ancient astronomical joke has a little old lady saying, with admiration, that astronomers must be wonderfully wise since among other abstruse things they have even discovered the names of the stars! At least some of us have; unfortunately the reviewer of the Adelmans' book "Bound For The Stars" (August, page 38) erred in stating that Beta and Gamma Centauri are the fainter members of the Alpha Centauri system. They are, in fact, quite respectable stars in their own right, having nothing to do with Alpha.

Incidentally, it is worth mentioning that the separations of the two brighter components of Alpha Centauri at apastron and periastron are considerably overestimated in "Bound For The Stars." The correct values are approximately 35 and 11 AU. Thus its planets, if any, will have somewhat less maneuvering room than might have been thought from the original figures.

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9/82
THE AUTHOR COMMENTS: I had no sooner read the printed version of my review of "Bound For The Stars" (August) than I realized my offhand comment on stellar terminology was quite wrong; alpha, beta, gamma, ... designating typically the brighter stars within a given constellation and not (usually) members within a binary system. This is sufficiently well known (even to me) that PHYSICS TODAY may have to come out with a special oversized edition to contain all the gleeful letters that must be amassing at the editorial offices. I hope that IAU will not have to set up a special commission to set things straight. Astronomical nomenclature has enough problems without my help.

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In defense of GRASER

In August (page 76) Charles Holbrow objected to our using the acronym GRASER for the hypothetical analog of the LASER that might generate coherent gamma radiation by stimulated emission¹ and proposes instead to substitute the word GRAYL. May we presume to ask for equal time to explain why we

cannot endorse his suggestion, even though we appreciate his desire to contribute to this field of research?

► Holbrow's proposal comes somewhat late; the present acronym has existed in published literature for nearly two decades.²

► The structure of the present acronym is consistent with those for other devices that Amplify-by-Stimulated-Emission-of-Radiation; GRAYL would not be (nor, incidentally, would GASER, sometimes proposed, because "gamma" alone may not necessarily imply "gamma-ray").

► The quest for a gamma-ray laser hardly resembles the search for the Holy Grail of antiquity,³ which was well-supported, fully staffed, and encouraged by the highest authorities in the land.

► Said Grail is believed to have emitted only in the visible.

► Those few individuals who have persisted in this frustrating but challenging task bear little resemblance, other than dedication, to the knights of yore.

► Were Holbrow more meticulous in his spelling and as bullish as we in assessing the prospects for eventual success and significant application of the results of this undertaking, he would be less disturbed at what he terms "bovine implications" of the established acronym.

References

1. G. C. Baldwin, J. C. Solem, and V. I. Gol'danskii, "Approaches to the Development of Gamma-Ray Lasers," *Rev. Mod. Phys.* **53**, 687 (1981).
2. G. C. Baldwin, J. P. Neissel, J. H. Terhune, and Lewi Tonks, "On the Possibility of Laser Action Between Nuclear States," *Trans. Amer. Nuc. Soc.* **6**, 176 (1963).
3. Sir T. Malory, "Queste de Saint Grael," in *Monte d'Arthur*, Caxton Press (1485); see also articles "Malory, Sir Thomas," and "Grail, the Holy," in *Encyclopedia Britannica*, University of Chicago (1969).
4. A. Lord Tennyson, "The Holy Grail and Other Poems" (1870).

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10/82

Unemployment dispute

Leonard Ball's "Unemployment: a new solution" (August, page 13) presents a concept for legislating an end to unemployment. However, I find an example that shows that Ball's solution creates more hardship than it relieves and demonstrates that the system is unworkable.

Consider: The gardener at the local state university with many years of

satisfactory employment, reasonably secure in his position and living a lifestyle he can afford. Under Ball's scheme he is immediately forced to live on $29/40$ of his current income! Mr. Gardener can now endure the hardships and lower his standard of living or, unwilling to lower his standard of living, he can find a job opening with the County Park Department doing the same kind of work for which he is eminently qualified and pick up another 12 hours work each week. Of course his counterpart with the County Park Department is hired by the university and, alas, no new jobs are available.

Might we postulate for a given state of the economy that there exists conservation of jobs and workers? Probably not, as the government intervention surely creates more nonproductive paperwork. Oh! A feedback loop that takes our economic state to a lower level. Of course, Ball might argue that we can make it illegal for the Park Department to hire Mr. Gardener without paying him double time, that is, "self-policing." But those laws will probably be as effective as the ones that make the muggers' occupation illegal.

What is needed is not a redistribution of currently available jobs but the creation of more jobs. Will the social engineers never learn that the biggest parasite on the free-enterprise system is government?

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THE AUTHOR COMMENTS: Lanny Reed's claim that the gardener parable "shows that Ball's solution creates more hardship than it relieves" is unfounded. The letter fails to identify any hardship, or illusion of hardship, created by my proposal. My proposal specifically re-distributes pre-existing hardship by transforming unemployment into underemployment, and provides both hope and incentive (which do not now exist) for solving both problems through democratic processes.

The parable is hopelessly flawed. To get his second part-time job the gardener must resolve schedule conflicts and compete with hundreds of unemployed applicants (who have no such conflicts) for a place on a waiting list. Bosses will minimize their inconvenience and overhead by collectively taking measures that reduce the reported unemployment rate. To do otherwise would be stupid. Bosses will actively discriminate against those already employed because it will be in their self-interest to do so, precisely contrary to the situation under present law (which encourages moonlighting and inflationary stealing of employees from other employers). If necessary, such discrimination can be further encouraged