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Addons and Catchons

I wish to announce the discovery of a new particle. It has none of the properties of a boson, meson, operon, or even a solon. For reasons that will become apparent, I will call it an addon. The properties of this particle were predicted by applying the Schroedinger equation to the law of supply and demand. The particle has highly interesting properties in that it is fully visible to one fraction of the population and invisible to another. The particle is both contagious and addictive. Its mass is between 10^7 and 10^{10}, measured in dollars.

Evidence of addons has been described in such reputable journals as the *New York Times*, the *Wall Street Journal*, and the *Chicago Tribune*. Funded by Congress with no peer review, certain addon particles (such as a chemistry building in New York, a supercomputer in Florida, and a Science Park in Illinois) are a source of pride to the local communities. According to their proponents, they are invisible to budget-makers at the Office of Management and Budget and in Congress because they qualify as "add ons" and are not in competition for funds with other science projects.

Unfortunately for addons there is an antimatter particle, called the catchon, which has the capacity to make addons visible to everyone. Catchons have the property of gaining momentum over time and become critical when funding crunches arise. At that time budget designers "catch on" to the fact that a decision that they made several years before is more expensive than expected and in fact should be reevaluated in terms of present circumstances. [One example of a catchon is visible in Europe, where a committee headed by Sir John Kendrew is reevaluating past commitments to the European Laboratory for Particle Physics (CERN), in particular, and high energy physics, in general. The committee, in a report released in June, suggested cutbacks as high as 25 percent because previous funding decisions in this area were impairing developments in other areas in science.] Catchons can even cause addon visibility to be exaggerated in regard to original understated costs or overstated scientific values.

Addon aficionados have a defense against catchons. It is the destroyer. Destroyers, as everyone knows, are (i) unlovable, (ii) in vast surplus, and (iii) costly, ranging from 10^7 to 10^{10} dollars. I have not checked out the accuracy of these figures, but individuals whom I respect always explain that the pet project they are championing can be easily funded if the government would build just one less destroyer. As favorite projects become more extravagant—for example, space stations, supercolliders, and orbiting telescopes—the cost of destroyers appears to increase conveniently.

Some individuals who are most indignant at the evasion of peer review for the relatively low-priced chemistry building are among the leading advocates of the supercollider, the Big Bang of budget busting, which they see as an addon. This forces us to reexamine what we mean by peer review and addons. If a group of chemists decides that there must be more money for instrumentation, if a group of biochemists says that the number of grants must be increased for the National Institutes of Health, if a group of high energy physicists says that we need a new particle accelerator, are they peer reviewers or diligent lobbyists for their own areas of science? Are they different from university presidents who are trying to help their institutions, or congressmen watching out for their districts?

In the case of addons, the question is one of facts. Will there really be a net increase in the total budget for science (true addons), or will costs be added initially and then frozen into an inflexible budget that prevents growth in other areas? Right now it cannot be shown convincingly that many of the projects mentioned above fall into either category. New procedures may be needed to evaluate the large projects and to increase funding for scientific research. *Science* expects to contribute to this crucial policy debate in the future. At the moment, I am off to check on the current price of destroyers.—DANIEL E. KOSHLAND, JR.