LETTERS

Manufacturer's view of 'Customer's View

In the January 2002 issue there is an article about vehicle fuel efficiency "On the Road in 2020, a Customer's View" by Vince Fazzio. Mr. Fazzio is a leader at Ford Motor Co., and thus does not necessarily represent the "Customer's view". He claims that "although most customers say they want to improve the environment, they are unwilling to make many personal sacrifices for a public benefit." This is clearly untrue. We have taxes, voted by our representatives, which pay for what are perceived as public benefits: roads, education, the military, science research, environmental protection, food and drug safety ...". People are willing to pay for the public benefit if the costs are perceived as fairly distributed among the population. Perhaps what most people are unwilling to do is to sacrifice some of their own desires while others continue to freely despoil the environment.

The improvements in fuel economy and emissions for vehicles over the last decade was because of laws passed for public benefit. The SUV, escaped most of this regulation and now is a major cause of high fuel consumption and additional highway deaths (2000/year according to the next article in the same issue). Increasing the Federally mandated fuel economy standards so that all personal passenger vehicles must meet the same standards and increasing those standards meets the criteria of equitably distributed costs for all. Mr. Fazzio clearly shows in Figure 4 that under his assumptions, if the fuel efficiency of a mid-sized Sedan were doubled, it would save about $4000 in 10 years (150,000 miles) in fuel costs. By his numbers, this would more than match the added costs of producing such a car. However, he then claims that people's economic horizons are very short and only the first two years of savings should be considered. Perhaps Ford dealers only provide new car loans for a maximum of 2 years. Perhaps they no longer try to sell extended warranties for 5 or more years (Honda tries to sell a 7 year plan).

The article claims that American consumers "want their car to take them where they want to go, whenever they want, quickly and inexpensively". However, we do not get that with our present vehicles. Roads in most areas are congested and traffic is slow. Costs are high ($0.35/mile including $0.20/mile for depreciation of a $30K car over 150k miles). Clearly people in big cities like New York choose to take trains rather than cars because they are faster at many times during the day and cheaper. If consumers had those goals, we would all buy smaller, less expensive vehicles which are easier to park. If all we wanted was faster, there would be no speed limits on city streets.

We all may "want" many things, but you do not always get everything you want do to do because of monetary, environmental, safety and other constraints. In his entire "Customer's View" article, there is not a single mention that Ford and other manufacturers spend a lot of money on advertising trying to tell us that what we want are expensive, fuel guzzling SUVs that drive over and trash environmentally sensitive lands. If Ford really wanted to "have the least impact - or the most benefit - for the environment and for society in general" they would stop advertising SUVs, and use their lobbyists to encourage our government to increase the CAFÉ fuel economy standards.

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Criticism of a Criticism

I have often enjoyed reading articles in "Physics and Society" and have considered them a real contribution by the American Physical Society. I also was pleased to read the article by Prof. Cameron in your publication, (P&S,2001,30(4),14) entitled "Is Radiation an Essential Trace Energy?". Cameron is Emeritus Professor at the University of Wisconsin and has been a distinguished contributor to several journals. Cameron is noted for his originality and many contributions to the field of Medical Physics. Among other accomplishments, he is the inventor of the bone densitometer which is used daily in patients in hospitals and clinics around the world to determine local bone density.

I am surprised that you published a letter which was not entirely logical in its criticism and employed the term "obnoxious" to describe an article by an established scholar of radiation effects in man. As Editor of "Medical Physics" for nine years, I would never have published such a letter. Clearly, publication of a reply from Cameron is required for the credibility of "Physics and Society".

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Validity of Epidemiology

I don't believe that John Williams (P&S, 2002,31 (1),21) has a current understanding of epidemiology. See the web site on epidemiology at: http://www.pitt.edu/~super1/main/epi.htm . This is an internet course primarily for students in medical school.

We all know that epidemiology studies have lead to society's efforts to reduce smoking, studies of uranium miners in Czechoslovakia have led to our regulations for control of Radon to reduce deaths from lung cancer. Those studies are not purely statistical but involve investigations into the etiology of disease, with a limited population. I was involved in a small cluster study on cancer in children in our area which used some of these techniques. We used medical, physical and chemical tests for each person/family involved.

Another point of view about John Cameron's hypothesis of receiving a short burst of radiation (equivalent to about 50 x the annual background radiation) to extend one's life is to view it as a type of hormesis, i.e., using a small amount of a substance for benefit which is normally harmful in large doses. For example: one uses a little nitroglycerin to help with the pain of angina. The common blood thinner linoxin, is a rat poison.

How would you prove that a small amount of radiation might be able to extend one's life ? Cameron has given the references in valid studies to that end.

I have had an Oncologist tell me there are about 60-70 cells that develop daily with the possibility of producing cancer. Our body handles those very nicely until for some reason a change occurs and one develops cancer. Certainly a study should be made to determine if this hypothesis is valid.

I ask students in an elementary physics course each semester if John Cameron's hypothesis were found valid, would they want to receive it? Approximately 50 to 60 % of the class, said they would opt for it. Especially those whose family has had a history of illness. So I knowthis topic is of interest to many.

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