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**COVER:** A Tomahawk cruise missile launched from a submarine breaks the ocean surface off San Clemente Island, Calif. Together with the neutron bomb, the cruise missile represents the culmination of a series of technical achievements that could change the face of the battlefield. See p. 60. (Photo: General Dynamics)

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# LETTERS

## Chimps and morality

Mary Ann Richter argues (SN: 6/25/77, p. 403) that since chimpanzees may have awareness of self, "We are under moral obligation to treat them as we [ought to] treat human persons." One wonders: By what logical process does one make the leap from self-awareness of the chimp to my moral obligation to treat the creature as human?

Many questions arise immediately as we consider Richter's proposition: Does she advocate Social Security and Medicare for the chimps? What about legal rights? Right to organize a union, right to vote, etc.? Should it be the case that research on a polio vaccine can be done only on chimp tissue—would Richter prohibit such research and deny the rights of human children the prevention of polio?

Whence come our moral obligations anyway? Whence our criteria for what is moral and ethical? It seems fairly clear that philosophers have not yet succeeded in working out a solid theoretical basis for ethics. (I am convinced that such a basis can be found.) Until they accomplish this, they should refrain from telling us what our moral obligations are.

Albert Kaplan M.D.  
Mt. Pleasant, Iowa

## Relevance of rats

Julie Ann Miller raises an old question: "Are Rats Relevant?" (SN: 7/2/77, p. 12). More than a century earlier, Claude Bernard, the father of physiology, answered, "... I shall prove, further on, that results obtained in animals may all be conclusive for man when we know how to experiment properly." (*An Introduction to the Study of Experimental Medicine*, English translation by Henry Copley Green, p. 102). Our National Research Council paraphrases Bernard—including the disclaimer.

Miller notices the confusion surrounding the elusive threshold dose—perhaps illusive is a better qualifier. Each scientist has a different threshold in mind. Individual bias results in whichever observation is desired. For example, Charles Durbin confesses the Food and Drug Administration is paralyzed by reproducible research: "We (FDA) find ourselves in a rather anomalous position when an element which has frequently been characterized as carcinogenic turns up as an essential trace element." (Symposium: Selenium in Biomedicine, Avi, 1967, p. 423). Selenium deficiency is associated with high incidence of cancer. When apologists for FDA declare that no trace of a threshold can be found, which threshold are they excluding from science? Carcinogenesis by chronic toxic doses, good health by moderate doses, or carcinogenesis by chronic deficiency doses? The resulting discussions are worthy of ancient scholasticism. As Miller and Bernard suggest, rats are relevant "... when we know how to experiment properly."

Paul D. Harwood  
Ashland, Ohio

One point needs to be made regarding your article "Are Rats Relevant?" Quoting Robert Hoover of the National Cancer Institute, the article states, "A difference of three cigarettes a day would cancel out the calculated saccharin effect." This is tantamount to saying that all the saccharin a person would normally consume would be about equivalent, in cancer-causing effect, to the smoking of three cigarettes a day.

Yet people remain free to smoke not merely three cigarettes but three packs of cigarettes a day if they so choose (and many do). It appears that we are not to be allowed a similar choice with regard to saccharin.

Rex Remington  
Marion, Mich.

(Sen. S.I. Hayakawa (R-Calif.) made the same point in a Senate hearing on saccharin on July 13. He asked the smoking committee members discussing the cancer risks of saccharin to put out their cigars and cigarettes.—Ed.)

## On Jensen's latest

In your report on Arthur Jensen (SN: 6/18/77, p. 390), it is mentioned that he now recognizes that environment is a factor in IQ. This in no way helps in combatting the increasing attacks on minority people in the United States today. The enrollment of blacks in medical schools is at an all-time low. And recently a court in California held that affirmative action at the UCLA-Davis medical school was "reverse discrimination," setting a dangerous precedent for further erosion of minority enrollment across the country.

While Jensen now acknowledges the possibility of social factors affecting one's intelligence, the theories he put forward were shown to be bankrupt much earlier when it was revealed that the data Jensen used were fabricated by Cyril Burt. Jensen's earlier work attempted to show that blacks have inferior intelligence to whites. This paved the way for attacks on minority programs by promoting the idea that blacks are themselves responsible for their discriminated status. The weight and prestige of "scientific research" is given to such reactionary ideas.

The AAAS recently nominated Arthur Jensen as a fellow. This implicitly legitimizes Jensen's theories. This can have only a negative effect on the status of minorities in the country. I would urge the AAAS to seriously reconsider its action.

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(Member, Science for the People)  
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University of Connecticut  
Storrs, Conn.

## Lightning strike twice?

No, lightning has not struck twice at our printer's computer, as implied by the note in this space last week. We were as surprised to read that as you perhaps were too, since the note, at the last stage of preparation and by a route too circuitous to describe, made its way back into the magazine from a three-week-old issue. But something else has struck at the printer—many of its employees. The strike, which began July 1, is causing some strange happenings. Please bear with us.—Ed.