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**COVER:** Less than 3.5 years after man's first footsteps on the moon, the Apollo lunar landing program came to a triumphal conclusion this week with the successful splashdown of Apollo 17. It may have been the most scientifically productive of the six moon landings. See p. 404. (Photo: Wide World)

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# to the editor

## Drug paradox

An item in your journal (SN: 11/18/72, p. 323) comments upon the paradoxical effect of amphetamines" in the treatment of hyperkinetic children, and in that instance of such an adult. Amphetamines when used with such persons have a calming effect as opposed to the irritating, anxiety producing, energy stimulating effect that drug has upon normal persons.

The explanation for this lies in Joseph Wilder's law of initial value (LIV) (see *American Handbook of Psychiatry*, Vol. III, Chap. 22, pp. 333 et seq.). "Beyond a certain range of initial values there is a marked tendency to reversal of the original direction of response (paradoxical reaction)." As an illustration of this Wilder stated: "The hypertensive response to adrenaline decreases with higher initial values of blood pressure; at still higher initial values one observes with increasing frequency a hypotensive response to the same dose of adrenaline." (See *EXPERIMENTAL MEDICINE AND SURGERY*, 15, 1957, 47.) In hyperkinetic persons there is probably present a great deal of hormonal adrenaline or thyroxine or both; these are sympathetic stimulants. Amphetamine is also a strong sympathetic stimulant so that its ingestion by hyperkinetic persons leads to a reversal of effect, to wit, a parasympathetic response.

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## Geological ethics

Your article, "Geologists and the public" (SN: 11/25/72, p. 340), was intriguing, particularly that part reporting the conviction of some geologists at the annual meeting of the Geological Society of America that their role is to provide raw data and make no value judgments.

It is important to remember, it seems to me, that value judgments do not have to be either/or. Most situations lend themselves to choices from "a" to "e."

The geologist's job then is to provide raw data, present problems, offer alternate solutions, and thus make choices available to those who do the judging. It is also useful if the geologist can add a smidgeon of personal concern for the public welfare. In which case, he would rank his alternate solutions from "most beneficial environmentally" to "least beneficial."

In the field, on the municipal level,

decisions about the use of land are now being made after the input of the planners, the social scientists, the real estate experts, the developers, the bankers, the construction foreman, the League of Women Voters, and more and more frequently by the lawyers as cases are taken to court.

All of these individuals have ethical obligations just as geologists. They testify before planning boards, boards of adjustment, and the courts, saying that a proposed project is or is not, in the legal phrase, "the highest and best use of the land." It is out of this conflicting testimony, which provides alternatives, that a decision is made.

My experience has been that a developer can and will hire a geologist to state those arguments beneficial to his cause. So the real ethical question is not: Should not a geologist refrain from making value judgments, but rather the question is: Should not an ethical geologist be concerned that all aspects of a proposal, that is, a dam, a highway, a reservoir, a high-rise, be examined and weighed?

Unfortunately, municipal budgets are not liberal to environmental commissions. Those serving on the commissions are not experts in geology. They do, however, recognize the need for geological advice which they are unable to buy. Therefore, before geologists allow themselves to be stuck like flies in the molasses of ethics or alternately take themselves off the hook of obligation, I suggest they review this checklist:

- \* Have I asked any questions about the construction projects in my immediate area?
- \* Have I joined a local environmental group and contributed by pointing out problems?
- \* Have I organized an environmental group if none exists?
- \* Have I written a letter to a newspaper about a project in which I presented facts citizens should know?
- \* Have I ever gone to a public hearing and voiced my opinion as a private citizen supported by facts from my field?
- \* Did I ever offer any service to my local environmental commission free of charge?

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