adopted by the U.N. General Assembly on 9 December 1975. These principles are a solid basis for providing support for all human beings who are mistreated.

Amnesty International is the paradigm of an organization which assiduously avoids any political stance other than a support for basic human rights in all circumstances. Let us not hold back; let us take a stand on these principles.

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Computer Testing

In his timely editorial on computerized psychological testing (22 July, p. 323), Joseph Matarazzo criticizes automated test interpretations. However, readers might be left with the impression that he is criticizing any use of computers in giving psychological tests.

Matarazzo writes that a computer-presented test has "a spurious appearance of objectivity and infallibility," as a halo effect from the computer. In fact, the appearance of infallibility is closely related to the appearance of precision of numerical test scores, a problem that predates the computer. Matarazzo expresses concern that results of computerized psychological tests can be harmful in the hands of an unqualified person, such as a college admissions officer, but surely this would not apply to computerized cognitive tests of knowledge, such as the Graduate Record Examination or the Scholastic Aptitude Test.

A paper-and-pencil test does not lose its power when it migrates to a computer. A vocabulary test measures word knowledge just as well on a computer as in a booklet. Further, computer presentation has many benefits. For example, in tests of knowledge and cognitive skills, the computer can adapt the level of difficulty of the question to the apparent level of knowledge of the student. The computer also permits new types of tests; memory and response speed are but two of the skills more easily assessed by computer than by test booklets.

Matarazzo does not object to presenting personality tests on a computer console rather than in a booklet, or to using the computer to process the responses and provide the customary profile of test scores for inventories such as the Minnesota Multiphasic Personality Inventory (MMPI). Scores from the paper-and-pencil version of the MMPI have demonstrated validity for many purposes, and the *scores* from the computer version may be presumed to have similar validity.

Narrative interpretations of test scores are another matter. The basis for these interpretations is shrouded in proprietary secrecy and, as Matarazzo states, no evidence has been published in peer-reviewed journals of the validity of any such interpretations. Establishing their validity will not be easy because appropriate methods are not well developed.

Although there is no cause for alarm about computerized testing, much more remains to be learned about automated test interpretations, and here I join Matarazzo in urging caution. Eventually, these interpretations might turn out to be better than those given by the average clinician, but in any case they will be based only on the test responses and must be considered only partially digested information for use by qualified professionals.

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Grain Elevator Safety

As noted in Eliot Marshall's article "Deadlock over explosive dust" (News and Comment, 4 Nov., p. 485), I am counsel for the National Grain and Feed Association in connection with pending proposals of the Occupational Safety and Health Administration (OSHA) to regulate grain-handling facilities.

Marshall asserts that the Office of Management and Budget, "[w]ith advice from" me, has held up the OSHA proposal for extended review. As I informed Marshall, my client and I met on one occasion with officials at the Office of Management and Budget (OMB) and provided them with the same information previously made available to both OSHA and congressional committees. The implication that I could (even assuming I wished to do so) dictate policy

to OMB is incorrect. OMB has received input from many sources and reached its own conclusions for its own reasons. I have no idea what OMB has said to OSHA or vice versa.

We were pleased to see Marshall's reference to the $3-million research program funded by the industry. As OSHA's Barry White says, "the grain-handling industry has probably undertaken more research than any other he has dealt with in safety rule-making." This research reflects the serious commitment of the industry to find meaningful solutions to the problems of dust explosions and fires. There have thus far been 28 studies initiated by the association, utilizing the research expertise of university, government, and private research organizations. A number of additional studies are in the final planning stages. Every study is made available to the public. Nothing has been kept secret. (We offered these research studies to Marshall, but he declined to review them.) Far from causing delays, this massive effort has led to numerous improvements in elevator design. There will be more. We hope that the number of explosions continues to be small, reflecting, at least in part, improvements in elevator design and work habits prompted by these industry studies.

I disagree with Marshall's statements that the study by the National Academy of Sciences is "a classic of its genre" and that the "panel suggested that no more that one sixty-fourth of an inch of surface dust be tolerated inside the elevator building." The 1/64 inch was suggested as a "guideline" applicable to layered dust by a "subpanel." The report notes that it "should be considered as a beginning step in formulating standards by a cooperative action between industry and government." The subpanel report also concluded that "additional research is needed to eliminate the controversy over such questions as the role of metal sparks in dust cloud ignition." The industry is undertaking such research.

Marshall also quotes panel member Albert Townsend, president of a grain elevator insurer, as having chaired a subpanel "that wrote a report spelling out exactly how to build a workable dust removal system." Even when one ignores the fact that Townsend is promoting a device which he designed, that report notes (*1*):

> This report and the conclusions herein are based on testing and techniques that are based on assumptions, therefore the accuracy is uncertain. . . . Further, the conclusions drawn may not be applicable to other equipment or operating conditions.

It would be the height of folly for a government regulatory agency to take such an admittedly preliminary report and base a regulation costing at least $750 million upon it. Among interested persons, only the industry is seeking to ensure the accuracy of the preliminary conclusions. Rather than being criticized, the industry should be congratulated.

Marshall's comments concerning the industry's economic analysis of the proposed rule also require explication. While it is true that the industry has not yet concluded a formal economic analysis, the study prepared by Arthur D. Little Co. for OSHA concluded that the costs of the rule outweighed the benefits, and that, because of an inability to raise prices, "[p]rofits could be substantially reduced for small country elevators." Under a more stringent 1/64-inch dust standard, the study concluded that "small country elevators, including those at small feed mills, become financially unviable." When OSHA's own consultant reaches this conclusion, everyone's concern about the economic impact of the regulation should be heightened.

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References

1. *Pneumatic Dust Control in Grain Elevators: Guidelines for Design Operation and Maintenance* (National Academy Press, Washington, D.C., 1982), p. 103.

The grain industry does not dictate OMB policy, but at least one congressman—Representative George Miller (D–Calif.), chairman of the House subcommittee on labor standards—has concluded that it guides policy in a benevolent fashion. Miller, who is investigating the grain dust decision, wrote on 7 November to OSHA's director, Thorne Auchter: "The extended OMB review appears to have resulted from a series of private meetings between OMB and industry officials . . . OMB's expressed concerns over the proposed grain elevator safety standard are markedly similar to those of its industry visitors." Because opposing views were not aired in these sessions, Miller wrote, the OMB review has been "one-sided."

As far as I am aware, Fleischaker is the only one to imply that there is anything secret in the industry's research. His client, the National Grain and Feed Association, sent me abstracts describing all the projects it is funding, and I read these before meeting Fleischaker.

—ELIOT MARSHALL