

If a judgmental task is not amendable to the actuarial approach, then there is no possible conflict between alternative approaches, for only the clinical approach remains. For the great majority of everyday decisions made in the clinic, however, actuarial methods are either available or could be constructed with relative ease. Individuals often overestimate the difficulty or expense involved in developing actuarial methods. Even so minimal an effort as collecting clinical staff opinions about predictive factors, pooling these ratings, perhaps with iterative feedback to convergence (Delphi method), and then compiling an unweighted, unvalidated linear composite may well equal or exceed the accuracy of those same clinicians.

The question of generalization to other fields and problem domains and the possibility of exceptions within clinical psychology and psychiatry raise complex issues that resist simple treatment [which is one reason the topic was covered at such length in Meehl's 1954 book (1)]. As our article indicated, we agree with Kleinmuntz that humans show certain unique capabilities, such as visual pattern analysis, and thus can provide potentially useful input for decision purposes. Nothing, however, prevents a clinician from recording perceptual impression, such as those gleaned in interviews, in a form conducive to actuarial analysis. The question, then, is how these or other data, once gathered, are best combined or integrated. Almost all of the available evidence suggests the same answer—the actuarial method—and none of the literature that Kleinmuntz cites provides a contrary research demonstration. However, in most of the problem domains Kleinmuntz mentions, such as medicine and engineering, research comparing the judgment methods is limited at best, and theorists are often reduced to educated guessing or forecasting.

We three authors in fact have somewhat different views, or forecasts, about possible exceptions and generalization to other problem domains, as detailed in our individual publications (1, 2). For example, one of us (P. E. Meehl) is the most sympathetic to the conjecture that some clinicians in some contexts can integrate some things in a (at present) "non-programmable" way. Meehl conjectures that some psychoanalytic inferences, especially those made from dreams and free associations in a "good" psychoanalytic hour, have sufficient probability to warrant analytic interpretation suggested by them. No actuarial or computer program exists for doing so. Meehl also shows the greatest leaning toward the conjecture that some clinicians in some circumstances can be sufficiently selective in countervailing actuarial

conclusions that these departures pay off.

However, as Meehl pointed out in 1954 (1), and as all of us agree, even if such conjectures are accurate, that concession would have negligible impact on the main clinical-versus-statistical issue as we have formulated it. Complex psychoanalytic inferences made during psychoanalysis involve a mass of material collected in a unique manner by a specially trained clinician, and more than 99% of all clinical decisions are not of that kind. Kleinmuntz quotes Meehl as conceding more than is intended, for Meehl's quoted remark was to deny that from a premise about psychoanalytic inferences it is possible to conclude anything about the usual clinical process. Moreover, research shows that when clinicians countervail actuarial conclusions they err more often than not in doing so, for if their countervails were correct over half the time they would exceed the actuary, which they do not. This is a simple truth of algebra, not a theory of clinical cognition or a debatable thesis of epistemology.

In the areas in which our conjectures or forecasts diverge, none of us is confident that he is correct, for if there is anything the judgment research demonstrates it is the difficulty of prediction. All of us agree, however, and we suspect Kleinmuntz does

as well, that questions about generalization, application, and optimal match between problem realm and judgment strategy should be less a matter of speculation and more the subject of continuing study.

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2. ———, in *Testing Scientific Theories in the Philosophy of Science, Minnesota Studies*, J. Earman, Ed. (Univ. of Minnesota Press, Minneapolis, MN, 1983), vol 10, pp. 349–411; D. Faust, *The Limits of Scientific Reasoning* (Univ. of Minnesota Press, Minneapolis, MN, 1984); R. M. Dawes, *Behav. Sci. Law* 7, 457 (1989).

Erratum: In the News Briefing "Will John Deutch or Dr. X lead MIT?" (5 Jan., p. 25), the California Institute of Technology is incorrectly referred to as the "California Institute of Applied Technology."

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