

does not present any positive case of his own, except by vague reference to others. For good reason. The overwhelming weight of the evidence today supports the conclusions of my article.

There are three subsidiary trends to consider here: (i) the number of suits filed, (ii) the probability that a filing will conclude in an award, and (iii) the average award. Each trend must be analyzed line by line: the story for auto insurance is not relevant to the story for product liability. The best studies of the three major trends, broken down by insurance category, have been conducted by the Rand Institute for Civil Justice. An excellent, recent summary of that definitive body of work appears in (1).

The facts are these. Federal tort filings have grown at an average annual rate of about 4% in recent years; state filings have grown at an average annual rate of somewhere between 2.3% and 3.9%. Compounded over the years, these modest growth rates are significant in themselves. But about half of state tort cases involve routine car accidents, and claims of this kind have been steady or declining. Product liability and other personal injury suits have increased moderately in state courts and dramatically in federal courts; mass latent injury cases have grown explosively across the board.

The plaintiff's probability of winning has also risen steadily. The Rand studies show, for example, the likelihood of success rising from 20% to 30% in a product case in the 1960s, to better than 50% in the 1980s, with similar increases in other, nonauto lines.

Awards have increased in size as well. As Hayden states, overall median tort awards have been quite stable. But the picture changes entirely when one separates out auto cases. The median awards in product and medical malpractice cases have risen steeply; mean awards have grown more steeply still. Hayden contends that median awards are more relevant than means, because most cases conclude in settlement. Even if the assertion is correct, the median story is still one of inexorable inflation in nonauto lines, but there is more to the mean-median debate than Hayden acknowledges. Total insurance payouts on cases that go to trial certainly depend on means, not medians. For this reason, both insurers and plaintiffs' lawyers, who are in tort litigation for the long term, will surely negotiate settlements with an eye to mean jury awards, not medians. Risk-averse plaintiffs, however, probably do discount the occasional jackpot awards that pull the means far above the medians. The full story on awards thus requires a look at both, which is what I

provided, although necessarily briefly, in my article.

Any one of these three trends—in the number of filings, the probability of plaintiff success, or the size of the award—would be significant; taken together they represent very drastic change. What insurers pay in claims depends on the product of the three. Total insurer payouts on nonauto lines have in fact risen inexorably.

A standard method is generally used to obscure these facts. One lumps together car-accident cases—which have been notably stable and which account for about 40% of all tort cases—with others, where the real turmoil has occurred. One disaggregates the growing number of cases, the rising likelihood of plaintiff success, and the rising size of awards; this cuts all the numbers on the table by a factor of 3 or so. One dismisses the largest awards as atypical. One sets to one side mass injury claims (asbestos and the Dalkon Shield in particular) as out of the ordinary, not mentioning, of course, other mass claim episodes with formaldehyde foam, the Lippes loop intrauterine device, or Bendectin. And one then records all trends as annual growth rates, which obscures the large compound changes that accumulate over a decade or two. Anyone who wishes to explore the literature, including much of what Hayden cites, can observe the method in full flower.

As I noted in my article, an insurance company can, in theory, operate a cash-flow business, with minimal reserves, using today's premiums to satisfy today's claims and hoping that tomorrow's claims will be covered by future premium receipts. This approach is especially attractive when interest rates are high. The turmoil in financial markets in the late 1970s undoubtedly encouraged some insurer behavior of this character, which helped to mask, for a while, the effects of rising liability payouts on insurance rates.

There is no mystery, however, to the basic numbers on capital inflows and outflows. If an insurer is writing coverage on a line where premiums are collected an average of 3 years before claims are paid, it is trivial to estimate the proportionate contributions of premiums and investment income on that line of insurance. Investment income simply cannot be a large fraction of premium payouts unless we are to assume exorbitant rates of return.

A cycle, by definition, ends where it begins. While interest rates have gone up and down in the last decade, insurance rates on lines hardest hit by tort law inflation have gone only up. Insurance-cycle and cash-flow theories, which all depend on factors extrinsic to the legal system, do not explain why the insurance shocks have hit only specific

insurance lines—products but not car accident insurance, medical malpractice but not fire insurance, environmental coverage but not first-party health. The theories likewise do not explain why the insurance shocks are unique to this country, although capital flows freely across national boundaries, and why many U.S. insurers now refuse to write certain lines altogether (2).

The real debate, Hayden concludes, concerns the courts' acceptance of legal principles antithetical to traditional American values of self-reliance and personal responsibility. Hayden refers here to noncontract civil litigation in product liability and personal injury suits, a body of law that is, overwhelmingly, of very recent vintage. His letter, in short, begins with the suggestion that nothing important has really changed in the law, and concludes with the suggestion that much has changed, in ways particularly unwelcome to certain traditionalists. He cannot have it both ways.

For better or for worse, much has in fact changed in U.S. tort law in the past three decades. The changes have, beyond serious doubt, transformed liability insurance costs and therefore liability insurance rates. Where liability law has expanded most aggressively, so has the price of insurance. Sadly, one cannot blame the barometer for the bad weather.

PETER W. HUBER

*Manhattan Institute for Policy Research,
131 Spring Street,
New York, NY 10012*

REFERENCES AND NOTES

1. D. Hensler, M. Vaiana, J. Kakalik, M. Peterson, *Trends in Tort Litigation: The Story Behind the Statistics* (Special Report R-3583-ICJ, Rand Institute for Civil Justice, Santa Monica, CA, 1987).
2. For further discussion on this subject, see the appendix to Tort Policy Working Group, *An Update on the Liability Crisis* (Department of Justice, Washington, DC, March 1987).

Development in the Guinea Savanna

Merck & Co. is to be congratulated for its decision to give away free its new drug, Mectizan, to Third World sufferers of onchocerciasis (News & Comment, 30 Oct., p. 610). In combination with ongoing efforts to kill the parasite's blackfly (*Simulium* spp.) vector (News & Comment, 23 May 1986, p. 922), this will contribute significantly to rapid elimination of the disease from its endemic area.

Historically, onchocerciasis has been responsible for depopulating a vast region of West Africa, that is, the Guinea savanna, which is the climatic-vegetation zone intervening between the Sudan on the north and

coastal forest on the south. Once cleared of the disease, this zone—with its high rainfall (800 to 2000 millimeters per year) and extensive river system—is expected by development planners and national governments to provide great potential for agriculture and for new settlement. This raises the question of what will happen to the Guinea savanna when population and production increase. Reviews of the World Health Organization's Onchocerciasis Control Program have already expressed concern about problems of environmental degradation in areas opened to new settlement (1).

The expectation that greater rainfall in the Guinea savanna than in the Sudan will provide a more secure basis for agriculture is unwarranted because of the extreme seasonality of the region. Increased production and new settlement are also likely to destroy the remaining wildlife habitat in the area and result in land rights conflicts between settlers and the established populations (2).

It is imperative, therefore, that the planned health measures be combined with region-wide planning, study, and experimentation in order to avoid the catastrophic consequences of overpopulation and overexploitation of a fragile ecological zone.

A. ENDRE NYERGES
6605 NW 32nd Street,
Gainesville, FL 32606

REFERENCES

1. J. Kelly *et al.*, *Impact Review of the Onchocerciasis Control Program—Ouagadougou, August 1985* (AID Project Impact Evaluation Report No. 63, Agency for International Development, Washington, DC, May 1986).
2. A. E. Nyerges, in *Lands at Risk in the Third World—Local-level Perspectives*, P. D. Little and M. M. Horowitz, with A. E. Nyerges, Eds. (Institute for Development Anthropology, Monographs in Development Anthropology, Westview, Boulder, CO, 1987), chap. 15.

The Cognitive Unconscious

I would like to comment on the very important article "The cognitive unconscious" by J. F. Kihlstrom (18 Sept., p. 1445). I could find no explicit mention of the role of the unconscious in discovery or the phenomenon of *The Eureka Feeling* (1). Nor could I find references to a book by Jacques Hadamard (2), who explicitly discussed "The unconscious and discovery"; to W. I. B. Beveridge's excellent book *The Art of Scientific Investigations* (3); or to R. B. Livingston's discussion of "How man looks at his own brain: An adventure shared by psychology and neurophysiology" (4). I have been greatly influenced by these three authors, and I am convinced that advances on large topics like bioethics and the cancer

problem are strongly affected by "the cognitive unconscious."

VAN RENSSSLAER POTTER
McArdle Laboratory,
University of Wisconsin, Madison, WI 53706

REFERENCES

1. V. R. Potter, *Bioethics, Bridge to the Future* (Prentice-Hall, Englewood Cliffs, NJ, 1973), pp. 106–117; *Cancer Res.* 35, 2297 (1975).
2. J. Hadamard, *The Psychology of Invention in the Mathematical Field* (Princeton Univ. Press, Princeton, NJ, 1945), chap. 3.
3. W. I. B. Beveridge, *The Art of Scientific Investigations* (Norton, New York, 1951).
4. R. B. Livingston, in *Psychology: A Study of Science*, S. Koch, Ed. (McGraw-Hill, New York, 1959), vol. 1, pp. 52–59.

Kihlstrom's informative article contains one statement that may be misleading. The author writes that newer work reveals "a tripartite classification of nonconscious mental life that is quite different from the seething unconscious of Freud . . ."

While an argument can be made that this description applies to the earliest "topographic" psychoanalytic model, the cognitive unconscious became an explicit part of psychoanalytic thinking and model building (with the "structural" model) in 1920 (1). Freud emphasized that the ego appears as largely unconscious. This assertion was borne out by clinical experience, and in particular by unconscious resistances during treatment (2). Also, some experiments with tachistoscopic techniques demonstrate convincingly "nonconscious" psychoanalytically conceptualized defensive operations (3).

JOHN S. KAFKA
Washington Psychoanalytic Institute,
Washington, DC 20007, and
Department of Psychiatry,
School of Medicine and Health Sciences,
George Washington University,
Washington, DC 20037

REFERENCES

1. J. Laplanche and J.-B. Pontalis, *The Language of Psychoanalysis* (1967), D. Nicholson-Smith, Transl. (Norton, New York, 1973), p. 476.
2. S. Freud, *Standard Edition of the Complete Psychological Works of Sigmund Freud*, vol. 19, *The Ego and the Id and Other Works*, J. Strachey, general editor, in collaboration with A. Freud, assisted by A. Strachey and A. Tyson (Hogarth, London, 1961).
3. G. J. W. Smith and A. Danielsson, *Psychol. Issue* (monograph 52) (1982); B. Westerlundh and G. Smith, *Psychoanal. Contemp. Thought* 6, 597 (1983).

Response: Regrettably, considerations of space required that I omit from my article descriptions of several highly interesting lines of experimental research on nonconscious mental processes, including work on cognition during sleep (1) and during general anesthesia (2).

Potter is right, I think, that the "eureka feeling" reflects the operation of noncon-

scious mental processes, which work on the problem at hand outside of awareness, and then (as it were) present the solution to the thinker. Many writers, composers, and artists also report this kind of experience. In the literature on problem-solving, the eureka feeling is technically known as incubation—a phenomenon in which people achieve a solution to a difficult problem only after putting it aside (and presumably out of mind). Unfortunately, this phenomenon has proved extremely difficult to tame and to bring into the experimental laboratory for study (3). Bowers (4) has recently had some success in this regard, but we still have a long way to go before we understand this particularly interesting aspect of creative thought.

Kafka is right that references to the cognitive unconscious occur in some later writings of Freud and that this theme was later taken up by Heinz Hartmann, George Klein (who also did some experimental work on the subject), and others in the psychoanalytic movement known as "ego psychology." At the same time, it is sometimes forgotten that there was considerable philosophical and psychological work on unconscious mental life *before* Freud (5). Freud's unique contribution was a description of nonconscious mental life in terms of sexual and aggressive drives and defenses against them. Scientific validation of these particular claims of classic psychoanalysis has proved extremely difficult to come by, in part because of the theory's reliance on clinical evidence. Some investigators have produced some very interesting experimental findings (6), however, and I hope we may look forward to more in the future.

JOHN F. KIHLOSTROM
Department of Psychology,
University of Arizona,
Tucson, AZ 85721

REFERENCES

1. A. M. Arkin, J. S. Antrobus, S. J. Ellman, Eds., *The Mind in Sleep: Psychology and Psychophysiology* (Erlbaum, Hillsdale, NJ, 1978).
2. H. L. Bennett, in *Consciousness, Awareness, and Pain in General Anesthesia*, M. Rosen and J. N. Lunn, Eds. (Butterworths, London, 1987), pp. 132–139; L. Goldmann, in *ibid.*, pp. 140–148.
3. J. R. Anderson, *Cognitive Psychology and Its Implications* (Freeman, New York, 1985), pp. 228–230.
4. K. S. Bowers, in *The Unconscious Reconsidered*, K. S. Bowers and D. Meichenbaum, Eds. (Wiley-Interscience, New York, 1984), pp. 227–272.
5. H. F. Ellenberger, *The Discovery of the Unconscious: The History and Evolution of Dynamic Psychiatry* (Basic, New York, 1970); L. L. Whyte, *The Unconscious Before Freud* (Basic Books, New York, 1960).
6. H. Shevrin and S. Dickman, *Am. Psych.* 35, 421 (1980); L. H. Silverman, *ibid.* 31, 621 (1976).

Erratum: In Deborah Barnes' article "New questions about AIDS test accuracy" (News & Comment, 13 Nov., p. 884), the prevalence for the HIV infection rate in civilians applying for service in the U.S. Army is incorrectly stated. The correct rate is 0.15%, or 1.5 infected people in 1000 tested.