

## BOOK REVIEWS

### BEAU TEMPS

Les écrivains français et la météorologie de l'âge classique à nos jours

By L. Dufour. Pp. 122. (Bruxelles: Institut Royal Météorologique de Belgique, 1966.) n.p.

METEOROLOGY has been called by some the physics of the atmosphere and by others the science of the weather. As soon as we bring in that splendid word, with its Norse affinities, we are conscious of a subject that touches our emotions; something we have to live with. Earlier French poets, like the British, were thrilled by the simple emotions of springtime; Charles d'Orleans was writing his rondeaux when William Langland was enjoying his May mornings. Sixteenth-century Caliban's instinctive knowledge led him to roar: "All the infections that the sun sucks up on Prosper fall". Attitudes change; four centuries later, the meteorologist prefers to examine the extent to which limited convection can develop in the lower layers of the essentially stable atmosphere surrounding a small island in early summer, bearing particulate matter for but a short distance. From the seventeenth century onward, literary expression has seen the rise of logical prose at the expense of emotional poetry; but within this frame, the literature of Western Europe has continued to abound in expressions of those responses that the variable westerly weather that we all share continues to provoke.

It is entertaining to find a work such as this appearing from an official meteorological service, but, after all, meteorology and Molière came in together. M. Dufour is a doctor of science whose agreeable purpose is to discuss one aspect of the relationships between science and literature. He concludes by suggesting that the authors who have best described the phenomena of the atmosphere are not the scientists, but those who have been moved to do so by physiological, aesthetic or other considerations. Here he begs the question. What, after all, is satisfactory description? Can feelings be adequately conveyed in the words of a scientist to anyone other than a scientist?

M. Dufour has much to say about Bernardin de Saint Pierre and his imaginative descriptions of the weather at sea, no doubt influenced by accounts of the voyage of Bougainville. We can counter with Coleridge and Cook. He finds the first lively comments on French weather in the letters of Mme. de Sévigné; we have to seek Evelyn's diary, or wait for Horace Walpole's prolific output. Early in the nineteenth century Chateaubriand reveals a lively regard for the weather at a very proper period, when Gay-Lussac was ballooning above Luke Howard's clouds. Dorothy Wordsworth and Stendhal displayed their sensitiveness to the moods of the weather at very much the same time; and perhaps we might offer Meredith as a counter to Victor Hugo. We are brought down to the descriptions of Saint Exupéry, who was an air pilot before he took to writing.

Thoughtful scientists who like to observe the phenomenon of literature, as well as liking it, will find the author's comments and extracts interesting, for France and England have shared many fashions in common. Meteorologists will see in them that background of regard for the weather that the countries of Western Europe must share; even as the "ciel lumineuse" of the Ile de France, the clear light of East Anglia and the grand mobile skies of Holland towards the edge of the prevailing track of Atlantic

depressions have enlivened their painters. Englishmen can reflect on how long they have continued to express so much of their feeling in poetry. Is this because too many Frenchmen have been led to seek the town, while we still battle to keep our hold on the land, our little patch of suburban garden in Surrey or Cheshire where the west wind can still be felt? GORDON MANLEY

### PROBABILITY OR SUPPORT?

Logic of Statistical Inference

By Ian Hacking. Pp. ix + 232. (London: Cambridge University Press, 1965.) 40s. net; \$7.50.

THIS book is a philosophical discussion of statistical inference, better informed than most others on the subject by professional philosophers, and written in a lively and provocative style.

The book is based on a notion close to that of subjective probability but which the author calls "support", by analogy with Carnap's equally misleading use of the word "confirmation". He says (page 221) that he has not defined "support" but has used it in its familiar English usage. He does sometimes, and the double meaning leads him to deny himself one of the axioms of (partially ordered) intuitive probability. Therefore, as he says (page 208), his theory cannot reach as far as existing theories of (either logical or) subjective probability. He cites (pages 32-33) some axioms of intuitive probability due to Koopman, calls them "axioms of support", and says they are indispensable to the rest of the work, but cites one of them incorrectly (as he has since noticed). The argument at the foot of page 33, in which he disputes one of Koopman's axioms, is wrong when the axioms are concerned with intuitive probability, as Koopman intended them to be.

On page 41 Nelson Goodman's riddle is said to "combine precision of statement, generality of application, and difficulty of solution to a degree greater than any other philosophical problem broached in this century". The riddle is: "Let 'blight' mean 'black until the end of 1984 and white thereafter', . . . Goodman argues that every shred of evidence which supports the claim that most balls in an urn are black . . . equally supports the claim that most are blight . . .". The reviewer thinks that, from the point of view of subjective probability, there is no riddle: the initial probability of blight is very much less than that of "black" and, therefore, so is its final probability. A riddle does arise if "support" in the sense of probability is confused with its English meaning, best explicated by "weight of evidence", defined as  $\log \{O(H|E)/O(H)\}$ , where  $O$  denotes "odds",  $H$  a hypothesis, and  $E$  an experimental result, evidence, or event.

In the discussion of fiducial probability the author tries to salvage something from Fisher's fallacious arguments. I find the discussion obscure here, but, as far as I can understand it, it seems to me to depend on an assumption (page 141) that relative support is proportional to relative likelihood. Since the author's interpretation of "support" is also that of  $P(H|E)$ , this assumption is essentially the same as a principle of indifference, in spite of protestations (page 207) to the contrary.

From the standpoint of the sociology of philosophy it is interesting that so many philosophers should have been misled by the misuse of the single word "confirmation"—albeit by a famous philosopher. The author, in spite of his undoubted intelligence, is among these, although, to distinguish his work from that of Carnap, he uses the word "support". Inherently lucid in style, he is driven into complications and obscurities in his attempt to defend a position that is basically untenable. "If the first button is buttoned wrongly, the whole vest sits askew."

Although he starts on the wrong foot or button, there are many stimulating passages, and even some opinions