DETERMINISM AND RESPONSIBILITY

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There is an old saying concerning the Christian ministry. “Every man must be an Arminian when he preaches, and a Calvinist when he prays.” That is, in the first case he must emphasize free-will; and in the second, divine providence. This is far more than an epigram; it is an effective statement of an intellectual difficulty which besets religion, philosophy and science alike. Even the most case-hardened mechanist of the old nineteenth-century school had no qualms about asking his neighbor at table to pass the butter.

It is bold to attempt even a partial resolution of this ancient antimony; but I am convinced that it may be very considerably clarified with the aid of concepts derived from physical science. In a round-table discussion, voices of protest would rise here. “Have you forgotten Heisenberg?” “Has not modern physics abandoned determinism, and committed itself to a principle of indeterminacy?”

Some ground must be cleared here before the discussion can proceed. It is not only in past centuries that mischief has been done by the unfortunate choice of a name. If the great physicist who discovered the “uncertainty principle” had only called it the “Principle of limited measurability” (as Max Born did a few years later) we might have been spared a great part of the “awful outbreak of intellectual licentiousness” which Bridgman all too truly foresaw among the half-informed.

The principle is of the type which Whittaker has recently called Postulates of Impotence. 1 Like New-
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