obtained in a Compton-scattering experiment are related correctly by quantum mechanics to the results of an ideal linear polarization analyser. Although this assumption is reasonable, it could be challenged by an advocate of local hidden-variable theories who wishes to account for experimental results favoring quantum mechanics.

[17] C. A. Kocher and E. D. Commins: *Phys. Rev. Lett.*, **18**, 575 (1967).
[18] This discrepancy is exhibited in detail in Horne's thesis (ref. [15]) by a quite different method from the one used here.
[19] Calculations by R. A. Holt, to be presented in his thesis, Harvard University, 1972, show that there is no discrepancy between the quantum-mechanical predictions and Bell's inequality in the case of cascades from atoms having nuclei with nonzero spin.
[20] A. I. Akhiezer and V. B. Berestetsky: *Quantum Electrodynamics,* Sect. 4 (Washington, D.C.).
[21] The assumption of a point source is also an idealization. For a discussion of the more realistic case of a line source, see Holt's thesis, ref. [19].
[22] See ref. [6] and ref. [15].
[23] L. de Broglie: *Nonlinear Wave Mechanics* (New York, 1960); also *Ondes électromagnétiques et photons* (Paris, 1968), and other publications.
[24] For example, D. Bohm: *Phys. Rev.*, **85**, 166, 180 (1952).

COMMENT

The question raised in the third paragraph of Section 1 was cleared up by a conversation with Prof. Peter G. Bergmann around 1980. He recalled a discussion with Einstein and Valentine Bargmann around 1938 at the Institute for Advanced Study, during which Einstein took von Neumann's book from the shelf and pointed to premise B′ of von Neumann's theorem (in Section 1 of Chapter IV): "If $\mathcal{R}, \mathcal{S}, \ldots$ are arbitrary quantities and $a, b, \ldots$ real numbers, then $\mathrm{Exp}(a\mathcal{R}+b\mathcal{S}+\cdots)=a\,\mathrm{Exp}(\mathcal{R})+b\,\mathrm{Exp}(\mathcal{S})+\cdots$." Einstein then said that there is no reason why this premise should hold in a state not acknowledged by quantum mechanics if $\mathcal{R}$, $\mathcal{S}$, etc. are not simultaneously measurable. Einstein's criticism is essentially the same as those of Siegel, Jauch and Piron, Bell, and Kochen and Specker nearly thirty years later.