PEAR, takes on, therefore, special significance for the
determination of poliomyelitis in man and the monkey.

The virus has not been detected in the cerebrospinal
fluid withdrawn by lumbar puncture from cases of
epidemic poliomyelitis. Since the virus as originally
present in human nervous tissues is of low infectivity
for monkeys, the failure to induce disease in those
animals by the inoculation of the fluid is not conclu-
sive evidence of its absence from the fluid. The virus
employed for the experimental, nasal instillation is
highly potent for monkeys. Hence the altered cere-
brospinal fluid withdrawn from the animals so inocu-
lated was injected intracerebrally into Macacus rhesus
monkeys, and the procedure was followed by an ac-
celerating injection 8 days later.3 No detectable
pathological effects arose in these animals.

The conclusion to be drawn is that in man and the
monkey the virus of poliomyelitis, even in small
amounts, does not pass from the infected nervous tis-
ues into the cerebrospinal fluid. The cellular changes
in the fluid represent, therefore, a reaction of the
nervous system to injury; they are not the result of
the presence of the virus in the fluid itself.

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actual determinations are made by exposing the plant
to a steady source of one portion of the spectrum for
two hours, determining the amount of carbon dioxide
used, followed by exposure to such an intensity of a
second portion of the spectrum that the amount of
carbon dioxide used is the same as in the first case.
Under these conditions the relative efficiencies of the
two radiations are inversely proportional to their in-
tensities. The advantages of this experimental pro-
cedure are that the plant is acclimated to the low
radiation intensities which it receives during a deter-
mination, the exposure to an isolated portion of the
spectrum is short and that, under these conditions, the
amount of photosynthesis in the two determinations
is probably the same.

The limits of photosynthesis were determined in the
following manner. The plants were exposed to radia-
tion well within the limits and then to radiation about

3 S. Flexner, SCIENCE, 74: 520, 1931; 77: 413, 1933.
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