

Memo from  
JOSHUA LEDERBERG

To: Martin

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Many thanks.  
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Why was Hershey and Chase such a hit?

Because it was a first class theory, which a great deal of face validity, that tied together many miscellaneous facts (see, obviously, PATOOMB) concerned with the faddish material; and also there was an experiment that was quite elegant, and did not contradict the theory, even if it did not constitute the sharpest possible test of it.

We have to recall what a dogmatic, abstract model of phage that Max had been promulgating; this was being nibbled around the edges by things like 1) lysogeny, 2) recombination -- contra a mysterious influence from without, and 3) Seymour Cohen's and other heretics' chemical studies. The time was ripe for a revolution (into biochemistry); and the Hershey-Chase expt. gave a push of just the right ~~xxxxx~~ dimensions to allow a reconciliation of old and new ideas through the transition. It would have been merely confusing if some protein had still been identified with ~~xxx~~ the phage injectate; it could still have been shown that this was progressively diluted, in proportion to DNA, in further cycles.

See PATOOMB p. 102 for Herriott's letter, typifying how DNA transformation gave courage to ideas of a separate genetic substance.

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