

proved,\* then there would be, it would seem, justification for the term 'isolation' in evolution theory, with a meaning not already pre-empted. This Professor Hutton claims, with Romanes and Gulick.

J. MARK BALDWIN.

PRINCETON, April 26, 1898.

#### A VIEW OF THE OHIO VALLEY IN 1755.

APROPOS of the interesting historical essay by Mr. Baker (SCIENCE, April 22, 1898), allow me to refer to an early and highly appreciative account of the Ohio valley by Lewis Evans, a clear headed contemporary and townsman of Franklin's, and the author of a 'Map of the Middle British Colonies in America,' with a descriptive text published in 1755.

Among other praises, he wrote: "Ohio is naturally furnished with salt, coal, limestone, grindstone, millstone, clay for glass-houses and pottery, which are vast advantages to an inland country, and well deserving the notice I take of them in the map. \* \* Were there nothing at stake between the crowns of Britain and France but the lands on that part of Ohio included in this map, we may reckon it as great a prize as has ever yet been contended for between two nations; but if we further observe that this is scarce a quarter of the valuable land that is contained in one continued extent, and the influence that a State vested with all the wealth and power that will naturally arise from the culture of so great an extent of good land in a happy climate, it will make so great an addition to that nation which wins it, where there is no third state to hold the balance of power, that the loser must inevitably sink under his rival."

While thus urging His British Majesty to dispute with the French the acquisition of the great Ohio country, Evans argues curiously against any dangerous influence that such an increase of possessions might have on the loyalty of the colonies. "Supposing the Colonies were grown rich and powerful, what inducement have they to throw off their independency? \* \* \* Each colony having a particular form of government of its own, and the jealousy of either

having the superiority over the rest, are unsurmountable obstacles to their ever uniting to the prejudice of England upon any ambitious views of their own. But that repeated and continued ill usage, infringements of their dear-bought privileges, sacrificing them to the ambition and intrigues of domestic and foreign enemies, may not provoke them to do their utmost for their own preservation, I would not pretend to say, as weak as they are. But while they are treated as members of one body and allowed their natural rights, it would be the height of madness for them to propose an independency, were they ever so strong."

Evans must have had a sharp eye for topography, as his geographical descriptions are still good enough to quote, and are indeed much better than many accounts of later date. He recognizes the fall line—"this rief of rocks, over which all the rivers fall." The great Appalachian valley is held to be "the most considerable quantity of valuable land that the English are possess of; and runs through New Jersey, Pensilvania, Mariland and Virginia. It has yet obtained no general name, but may properly enough be called Piemont, from its situation." Of the Alleghenies, he says: "The Endless mountains \* \* \* come next in order. They are not confusedly scattered and in lofty peaks overtopping one another, but stretch in long uniform ridges scarce half a mile perpendicular in any place above the intermediate vallies. \* \* \* The mountains are almost all so many ridges with even tops and nearly of a height. To look from these hills into the lands is but, as it were, into an ocean of woods, swelled and deprest here and there by little inequalities, not to be distinguished one part from another any more than the waves of the real ocean."

Can any of the readers of SCIENCE give me a clue by which to reach some of the descendants of this early American geographer.

W. M. DAVIS.

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MRS. PIPER, 'THE MEDIUM.'

TO THE EDITOR OF SCIENCE: Your reference to my name in the editorial note in SCIENCE for April 15th, entitled 'Mrs. Piper, the Me-

\* At present it is far from being proved. Cf. Professor Cockerell's review of Romanes in this JOURNAL, April 29, 1898.

dium,' justifies me in making some remarks of my own in comment on your remarks upon Mr. Hodgson's report of her case. Any hearing for such phenomena is so hard to get from scientific readers that one who believes them worthy of careful study is in duty bound to resent such contemptuous public notice of them in high quarters as would still further encourage the fashion of their neglect.

I say any hearing; I don't say any fair hearing. Still less do I speak of fair treatment in the broad meaning of the term. The scientific mind is by the pressure of professional opinion painfully drilled to fairness and logic in discussing orthodox phenomena. But in such mere matters of superstition as a medium's trances it feels so confident of impunity and indulgence whatever it may say, provided it be only contemptuous enough, that it fairly revels in the untrained barbarians' arsenal of logical weapons, including all the various sophisms enumerated in the books.

Your own comments seem to me an excellent illustration of this fact. If one wishes to refute a man who asserts that some A's are B's, the ordinary rule of logic is that one must not show that some *other* A's are *not* B's—one must show him either that those first A's themselves are not B's, or else that no A possibly can be a B. Now Mr. Hodgson comes forward asserting that many of Mrs. Piper's trances show supernatural knowledge. You thereupon pick out from his report five instances in which they showed nothing of the kind. You thereupon wittily remark, 'We have piped into you and ye have not danced,' and you sign your name with an air of finality, as if nothing more in the way of refutation were needful and as if what earlier in the article you call 'the trivial character of the evidence \* \* \* taken under the wing of the Society' were now sufficiently displayed.

If, my dear sir, you were teaching Logic to a class of students, should you, or should you not, consider this a good instance by which to illustrate the style of reasoning termed 'irrelevant conclusion,' or *ignoratio elenchi*, in the chapter on fallacies? I myself think it an extraordinarily perfect instance.

And what name should you assign to the fallacy

by which you quote one of those five sitters as saying that he himself got nothing from the medium 'but a few preposterous compliments,' whilst you leave unquoted the larger part of his report, relating the inexplicable knowledge which the medium showed of the family affairs of his wife, who accompanied him to the sitting? I am not sure that the logic books contain any technical name for the fallacy here, but in legal language it is sometimes called *suppressio veri*, sometimes something still less polite. At any rate, you will admit on reflection that to use the conclusion of that sitter's report alone, as you did, was to influence your readers' minds in an unfair way.

I am sure that you have committed these fallacies with the best of scientific consciences. They are fallacies into which, of course, you would have been in no possible danger of falling in any other sort of matter than this. In our dealings with the insane the usual moral rules don't apply. Mediums are scientific outlaws, and their defendants are quasi-insane. Any stick is good enough to beat dogs of that stripe with. So in perfect innocence you permitted yourself the liberties I point out.

Please observe that I am saying nothing of the merits of the *case*, but only of the merits of your forms of controversy which, alas, are typical. The case surely deserves opposition more powerful from the logical point of view than your remarks; and I beg such readers of SCIENCE as care to form a reasonable opinion to seek the materials for it in the Proceedings of the Society for Psychical Research, Part XXXIII. (where they will find a candid report based on 500 sittings since the last report was made), rather than in the five little negative instances which you so triumphantly cull out and quote.

Truly yours,

WILLIAM JAMES.

MY note in SCIENCE was not 'editorial,' but was placed in that department of the JOURNAL for which editors take the least responsibility. I gave my individual opinion, Professor James gives his, and I fear that our disagreement is hopeless. I could not quote the 600 pages compiled by Dr. Hodgson, but I gave the concluding sentences written by *all* the men of

science whose séances were reported. Professor James blames me for not quoting the knowledge that the medium showed of the family affairs of Professor Shaler's wife, but Professor Shaler himself says, "I am \* \* \* absolutely uninterested in it for the reason that I don't see how I can exclude the hypothesis of fraud." I wrote the note with reluctance and only because I believe that the Society for Psychological Research is doing much to injure psychology. The authority of Professor James is such that he involves other students of psychology in his opinions unless they protest. We all acknowledge his leadership, but we cannot follow him into the quagmires.

J. McKEEN CATTELL.

#### SCIENTIFIC LITERATURE.

*Report of Naval Court of Inquiry upon the destruction of the United States battleship 'Maine,' in Havana harbor, February 15, 1898, together with the testimony taken before the Court.* Washington, Government Printing Office, 1898. 8vo., pp. 293; illustrated by exhibits, drawings and photographs.

A message to Congress from the President of the United States, dated March 28th, accompanied the transmission of the report of the Court of Inquiry appointed to ascertain, if possible, the cause and the method of destruction of the U. S. S. 'Maine,' by an explosion, in the harbor of Havana, February 15, 1898. The message is short and merely restates in brief summary the essential conclusions of the Court; that the ship was destroyed by an explosion of a submarine mine, on the port side of the hull, well forward, and that no clew had been obtained to the train of circumstances leading to this great disaster, resulting in the death of two officers and two hundred and sixty-four of the crew, nor any evidence indicating who were the criminals guilty of this act of assassination.

The report, now before us, is a very long and intensely interesting paper, mainly given up to the simple stenographers' reproduction of the testimony of witnesses.

The testimony of the commanding officer of the ship and his staff is positive in declaring the ship to have been in good order in all respects,

her crew in not only an excellent state of discipline, but also in the best of spirits and with absolutely no sign of discontent or of insubordination. Captain Sigsbee stated that 'A quieter, better-natured and apparently better satisfied crew I have never known on board any vessel in which I have served.' The executive officer testified to the maintenance of order and the compliance of all officers and the crew with the regulations which are considered essential to the morale and safety of a man-of-war, and gave positive evidence of the facts that there was no dangerous heating of coal-bunkers or other known source of danger within the vessel. Other witnesses testified to the character of the explosion, and still others, from other vessels in the harbor and from the shore, testified as to the appearance of the explosion from their various points of view. Divers gave testimony, in great detail, regarding the condition of the hull as found after the explosion, and the officers entrusted with that duty showed by means of carefully drawn sketches and diagrams the position of the ship and of its now separated main and bow sections, and gave expert testimony regarding their condition, as furnishing proof of the nature, origin and effects of the explosion, and especially as settling the question as to whether the explosion was exterior to the ship or within. This portion of the evidence is extensive and minute, and the Court was evidently determined to secure every scintilla of evidence obtainable bearing upon this vital question. The photographs and drawings appended to the report are reproductions of those presented in evidence.

According to the verdict of the court, the sworn testimony suffices to establish the following main points, to which its members subscribe under oath: The ship was on a friendly visit to Havana, as is customary among nations at peace; she was assigned a berth in the harbor by the regular harbor master; ship and crew were illustrating, at the time, a most creditable condition of excellence; there were no known interior sources of danger, and every usual precaution, and some unusual care, was taken in the internal menage of the vessel; danger from without was recognized and special watches set.