

# SCIENCE.

EDITORIAL COMMITTEE : S. NEWCOMB, Mathematics ; R. S. WOODWARD, Mechanics ; E. C. PICKERING, Astronomy ; T. C. MENDENHALL, Physics ; R. H. THURSTON, Engineering ; IRA REMSEN, Chemistry ; JOSEPH LE CONTE, Geology ; W. M. DAVIS, Physiography ; O. C. MARSH, Paleontology ; W. K. BROOKS, Invertebrate Zoölogy ; C. HART MERRIAM, Vertebrate Zoölogy ; N. L. BRITTON, Botany ; HENRY F. OSBORN, General Biology ; H. P. BOWDITCH, Physiology ; J. S. BILLINGS, Hygiene ; J. MCKEEN CATTELL, Psychology ; DANIEL G. BRINTON, J. W. POWELL, Anthropology.

FRIDAY, MARCH 8, 1895.

## CONTENTS :

<i>Current Notes on Anthropology (IV.)</i> : D. G. BRINTON .....	253
<i>Current Notes on Physiography (II.)</i> : W. M. DAVIS .....	257
<i>Laboratory Teaching of Large Classes—Zoölogy</i> : HERMON C. BUMPUS .....	260
<i>Notes on the Biology of the Lobster</i> : FRANCIS H. HERRICK .....	263
<i>The Newark System</i> I. C. RUSSELL.....	266
<i>Death of George N. Lawrence</i> : C. HART MERRIAM.....	268
<i>Scientific Literature</i> :— .....	269
<i>Greenhill's Mechanics</i> : R. S. WOODWARD.	
<i>Bechhold's Chemische Dynamik</i> : H. C. JONES.	
<i>Bernthsen's Organic Chemistry</i> : FELIX LENG-FELD.	
<i>Haeckel's Phylogenie</i> : GARY N. CALKINS. <i>Geology</i> .	
<i>Notes and News</i> :— .....	275
<i>Forestry and Economic Botany; Entomology; Russian Science; The Cold Spring Harbor Laboratory; Washington Lectures; A Proposed National University; General</i> .	
<i>Societies and Academies</i> .....	279
<i>Scientific Journals</i> .....	280
<i>New Books</i> .....	280

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Prof. J. McKeen Cattell, Garrison on Hudson, N. Y.  
Subscriptions and advertisements should be sent to SCIENCE, 41 N. Queen St., Lancaster, Pa., or 41 East 49th St., New York.

## CURRENT NOTES ON ANTHROPOLOGY (IV.)

### THE SIGNIFICANCE OF VARIATIONS IN THE HUMAN SKELETON.

IT is a little odd that two papers on the same subject, with almost the same title, prepared independently at the same time, should agree in defending a new view of the significance of variations and anomalies in organic forms.

The one of these is that which I read before the American Association for the Advancement of Science in August last, published in the *American Anthropologist* for October, entitled *Variations of the Human Skeleton and their Causes*; the other was the Shattuck Lecture, delivered before the Massachusetts Medical Society by Dr. Thomas Dwight, Professor of Anatomy at Harvard University, with the title, *the Range and Significance of Variation in the Human Skeleton*.

The two papers, although drawing their material from wholly independent sources, and reasoning along different lines, reach quite the same conclusion, to wit: That variations, which in the human skeleton resemble forms in lower animals, are not to be interpreted as 'reversions' or 'atavistic retrogressions,' but that other laws should be invoked to account for them, such as nutrition, mechanical action, etc.

Dr. Dwight adds the following significant words: "The opinion is growing daily stronger among serious scholars that if man's body came from a lower form it was not by a long process of minute modifications, but by some sudden, or comparatively sudden transition."

This is the opinion which, under the name *heterogenesis*, I have defended for many years (see my *Races and Peoples*, pp. 80, 81). It has lately received strong support from some of Bateson's admirable studies in variation.

# Science

1 (10)

*Science* 1 (10), 253-280.

**ARTICLE TOOLS**

<http://science.sciencemag.org/content/1/10.citation>

**PERMISSIONS**

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

---

*Science* (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.