

The proposition set up by the modern school of animal psychology, that learning through individual experience is a criterion of intelligence, must therefore be condemned as untenable. It is also incorrect to make "learning through individual sensory experience" a criterion of psychical power.

A further discussion of evidence offered on the psychical life of ants occupies many pages. The fact is brought out that many of the most ordinary of their activities bear directly on the subject, while on the other hand numerous apparently intelligent proceedings may be referred to simpler factors. Dr. Wasmann concludes that ants are neither intelligent miniature men nor mere reflex machines, but are organisms possessed of the power of sensory sensations and voluntary action, and that their inherited instincts may be modified in many ways through sensory perception and circumstances of sensation, as well as through the influence of previously gained experience. An application of the Darwinian factors, he says, fails to explain the development of the relations between ants and termites and their respective guests. The fact that ants, in their symbiosis, often raise their worst enemies, is as irreconcilable with the Darwinian form of the theory of descent as with the acceptance of an animal intelligence.

A supplement follows, describing six new species of myrmecophilous Proctotrupidæ. At the request of many readers, the author has added a list of his published works on myrmecophilism and termitophilism, which counts up ninety-four titles, the present contribution being the ninety-fifth.

No student of ant-life or of comparative psychology should fail to read this memoir. It is to be hoped that it will serve to still further stimulate the study of the mental side of ants, and in this line of investigation it sets a model of careful observation and cautious conclusions.

H. F. WICKHAM.

---

Mailed September 8th, 1899.