

Lloyd Morgan's works on *Animal Life and Intelligence*, *Comparative Psychology*, and *Habit and Instinct*, cannot be too strongly recommended to the student of the mental life of animals.

The first task of the inquirer is to make sure of the data, to distinguish observation from inference, to sift out precise evidence from the carelessly anecdotal, and to give prominence to cases in which some simple experiment was used to check the impressions of the observer. The second task is to give the simplest psychological interpretation that is adequate to cover the facts. Although there is still great room for improvement, it must be allowed that there has been of recent years marked progress in regard to both accuracy of observation and criticism of interpretation.

With the data before him the naturalist has then to inquire into the psychological interpretation, and there are three questions which are naturally raised by each case. (1) Is the behaviour such that, if it occurred in man, its psychological aspect could be legitimately expressed without postulating general ideas, abstract reasoning, or conceptual judgment? Does it imply intelligence, or more than that—reason? It may be safely said that the majority of naturalists who have given attention to the subject are agreed in the conclusion that there are no certain cases of animal behaviour which necessitate the assumption of a conceived, as contrasted with a perceived purpose.

(2) A second question is, whether the instance of animal behaviour under discussion shows any sign that the creature is utilizing its individually acquired experience, or is modifying its mode of action in reference to what it has learned, or in relation to some quite novel situation. If this question be answered in the affirmative, then one must allow that the animal is in such behaviour *intelligent*. And of this there are endless illustrations among the higher animals. On the other hand, if the behaviour, however marvellous and effective it may be, does not show profiting by experience nor adaptation to quite novel ends, the probability is that