

treatment before the Darwinian era. In fact, the problems of the psychical life of animals were in most cases deliberately left alone by many of the most competent pre-Darwinian biologists, <sup>Biology and Psychology.</sup> who pretended to regard them either as quite outside their province, or as altogether beyond solution. Not a little of this assertion of "intellectual preserves" still remains. Of late, however, biologists have begun to rescue the subject from the credulity of the amateur and the frequent dogmatism of the philosopher. This has been prompted partly by the recent advances in regard to the physiological aspects of human psychology, and partly by the development of the evolution-theory, which has not only convinced us of the unity of nature, but has directly raised many psychological questions. A discussion of Darwin's theory of sexual selection, for instance, necessarily demands some psychological analysis, as Darwin himself recognized by his work on the *Expression of the Emotions*.

Following Prof. Groos, we may distinguish a theological, a metaphysical, and a more or less consistent scientific stage in the history of opinion in regard to the mental life of animals.

The theological mood found a short and easy method of getting rid of all difficulties by leaving the mental life of animals directly in the hands of the Creator. Of that as an ultimate statement <sup>Theological Interpretation.</sup> the scientific investigator has no criticism, for he himself ventures no ultimate explanations; it amounts, however, to a refusal to consider the problem scientifically, and it is to be feared that this sort of piety has often served as a cloak for intellectual indolence.

H. S. Reimarus, a shrewd observer, who published a large work on Instincts in 1760, may be taken as an early representative of theological interpretation; and Romanes quotes a typical sentence from Addison: "I look upon instinct as upon the principle of gravitation in bodies, which is not to be explained by any known qualities inherent in the bodies themselves, nor from any laws of mechanism, but as an immediate impression from the first mover and the divine energy acting