

As human psychology became more precise, as careful and critical observations on animal activities increased in number, and as reflex actions began to be generally understood, the idea of arranging vital activities in a series became clearer.

The Inclined
Plane of
Activities.

Beginning at the top, we recognize some *rational* activities in ourselves,—activities which we cannot explain psychologically without postulating general ideas. Whether it be making an engine or guiding an empire, the activity implies certain abstract conceptions, or conceptual inferences.

On a distinctly lower plane are ordinary *intelligent* actions which demand inferences but not necessarily abstract ideas. To cultivate one's garden cannot be the whole duty of man, as the French philosopher maintained, for while it demands intelligence it does not necessarily cultivate reason. So far as we know, the animal does not rise above this level of intelligence, or perceptual inference, or concrete judgment. That is to say, the most brilliant illustrations of animal intelligence may be explained psychologically as involving perceptual but not conceptual inference, concrete but not abstract judgment. If we allow the cogency of the logical law of parsimony we must abide by the simplest adequate hypothesis. This is the position of those who allow that animals have intelligence, but maintain that man has a monopoly of reason. But this has no meaning unless a definition of the terms, as above indicated, be agreed upon.

It is well known, however, that activities originally demanding intelligent control may in the individual lifetime become *habitual*. Being often performed, they bring about, it is supposed, a modification of cerebral structure, the establishment of "habit-tracts", as some would say; at all events, there is no doubt that they become habitual, whatever that may exactly mean.

Now, beginning at the lower end of the scale, we recognize in our own life some very simple *automatic* activities whose psychical side is unknown, such as the physiological rhythms of the heart and lungs, which go on without conscious control, and without external