From SURFACES AND ESSENCES, ANALOGY IS THE FUEL AND FIRE OF THINKING by Douglas Hofstadter, p.20

... What we will mean by "making an inference" is simply the introduction of some new mental element into a situation that one is facing. Basically, this means that some facet of a currently active concept is lifted out of dormancy and brought to one's attention. Whether this new element is right or wrong is not the point, nor does it matter whether it follows logically from prior elements. For us, "inference" will simply mean the fact that some new element has been activated in our mind.

Thus if one sees a child crying, one infers that the child is distressed. If one sees someone shouting, when infers that the person is probably angry. If one sees that the table is set, then one infers the meal may well soon be served. If one sees a door is closed, one infers that can be opened. If one sees a chair, one infers one could sit on it. If one sees a dog, one has the ability to infer (though one does not necessarily do so) that it barks now and then, that it might bite someone, that it has a stomach, a heart, two lungs, and a brain – internal organs that one doesn't strictly perceive but that category membership allows one to infer. Inferences of this sort are a crucial contribution to thought and they come from categorization through analogy, for we rely ceaselessly on resemblances perceived between the present situation and ones we encountered earlier. If we did not do this at all times, we would be helpless.

(Explanatory notes available upon request.)