Explanations based on the use of analogy in one or more areas of cognitive systems

An analogy is a technique that compares two things with the intention of clarification or explanation. This technique can play a critical role with many facets, connecting one particular subject and another. Analogies can mitigate ambiguities within abstract explanations and permit targeted similarities for quicker and easier connections in understanding. In the examples of the Chinese room experiment, concept analogy in science, and similes used in everyday language, analogies have aided in a successful ability to provide explanation at a specific level.

The Chinese room argument exemplifies a use of analogy for the explanation of the depth of AI cognition. In this argument published by John Searle, a person in a room follows English instructions for translating Chinese symbols. The person appears to understand Chinese by following the English instructions, but does not understand Chinese themselves (Chalmers, 1992). This thought argument is an analogy to explain the way AI intends achieve genuine intelligence, but merely is a simulation of language comprehension. Analogy used in this manner helps provide a way to pointedly understand intentions of AI, while clarifying its downsides.

Concept analogy utilized in explaining non-visual components of the world have aided in teaching basic level science. The connections are especially useful in things like microscopic scientific concepts, such as stating “a cell membrane is like an Oreo cookie”, the two layers of lipids are the cookie wafers separated by the white cream center (Glynn, 1991). Mastery of this type is important for academic development so that microscopic explanation can succeed at the basic level. The conceptual understanding that comes from these analogies make quick and efficient complex connections to build off of rather than presenting a confusing abstract version.

Conversationally analogies are utilized all of the time. For example, “like nails on a chalkboard” is an analogy used for a very specific pointed sound that most everyone can associate with and requires almost no further explanation. This use of simile analogy in a conversational setting is an effective way of describing an incredibly specific, unpleasant sound that gives the need to “shake it off”. While there isn’t a word in English to describe this particular feeling, “like nails on a chalkboard” quickly mitigates any need for further elaboration.

Analogies continue to aid our everyday lives as well as provide specific understanding that would otherwise get lost in a web of confusing ambiguities. By providing such a particular paralleled example, explanations can be understood based on subjects that would otherwise seem inapplicable, and thus broaden our depth in understanding of a wide range of topics.