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CS-Colloquium

Analogy as the Core of Cognition

Douglas Hofstadter

Center for Research on Concepts and Cognition
Indiana University

Wann? 3. Oktober 2017, 17:00 Uhr (sine tempore)

Wo? Carl Auer von Welsbach-Hörsaal
Boltzmannngasse 1
1090 Wien

Abstract

We have been taught by our culture that analogies are Grand Intellectual Achievements, and analogies can indeed be very grand. But we all make non-grand analogies all the time, day in, day out, minute in, minute out, second in, second out. The ubiquity of analogies in thought is nonetheless extremely hard for most people to appreciate, and some people (including most cognitive scientists) strongly resist the idea, because the smaller or humbler an analogy is, the less it feels like a Grand Intellectual Achievement, and therefore not meritorious of the label “analogy” as it has been imposed on us over the course of our lives. And thus the common conception of “analogy” as a Grand Intellectual Achievement keeps on reinforcing itself, but unfortunately that conception excludes 99 percent of the analogies that are made (if not even more than that!).

The purpose of this talk is to show how analogies are everywhere around us, almost invisible, yet blatant once one starts to become aware of them. Once one realizes that analogy-making pervades every nook and cranny of our thinking and every single moment of our cognitive lives, then one can develop a radically different perspective on what thinking’s essence really is.

Bio

Douglas Hofstadter (New York, 1945; B.S., mathematics, Stanford, 1965; Ph.D., physics, University of Oregon, 1975) is College of Arts and Sciences Distinguished Professor of Cognitive Science and Comparative Literature, Indiana University, Bloomington. He discovered the first fractal in physics (“Hofstadter’s butterfly”); in number theory, he invented meta-Fibonacci sequences. His research involves computer



models of analogy- making in microworlds (*Fluid Concepts and Creative Analogies*), viewing analogy as cognition's core (*Surfaces and Essences*). Aside from penning the column "Metamagical Themas" for *Scientific American* (1981–83), he has explored "I" and consciousness in *Gödel, Escher, Bach* (Pulitzer Prize, 1980), *The Mind's I*, and *I Am a Strange Loop*, has done literary translation (e.g., Pushkin's *Eugene Onegin*), written on translation (*Le Ton beau de Marot* and *Translator, Trader*), and had expositions of his script-influenced line drawings, including ambigrams. He calls himself "pilingual", his strongest foreign languages being French and Italian.