A REGISTER APPROACH TO ANALOGY IN SCIENCE TEXTS: POPULAR VS. SPECIALIZED TEXT TYPES

Christoph Haase

Abstract

In this paper, a comparative approach was pursued to show differences but also remarkable similarities between the application of analogy in popular science texts and in specialized science texts. Setting out from an initial hypothesis that popular texts use forms of analogy that lend themselves to direct interpretation and high accessibility, we try to show that actual specialized science discourse could benefit from simpler and more versatile analogy. For this end, the current state of the art in analogy research was evaluated and a corpus of academic texts was queried. Further, a number of approaches and findings could be contributed as a direct outcome of the international Analogy – Copy – Representation workshop held at Bielefeld University in November 2014, which was co-organized by the author. In consequence, a more comprehensive picture of analogy in cognition, language and scientific discourse is sketched in this contribution. Especially the domain-dependence of the use of analogies showed surprising results.

Key words
analogy, analogical reasoning, academic English, English for Academic Purposes, corpus linguistics, corpora, genre

1 Introduction

The modern study of analogy begins with Gentner’s seminal 1983 paper but of course the phenomenon is in use since ancient times when rhetoric was more relevant than today. It is rooted in the human ability to recognize analogy as a foundational mechanism of human cognition. Itkonen says this very clearly: “Analogy is generally defined as ‘structural similarity’” (Itkonen 2005:1) but recognizing this similarity is a higher cognitive function. Extending from this we can state that analogy is defined as the similarity relationship that persists across different domains. Setting out from this similarity, Gentner (2001) uses analogy as the extension of this primary relationship (one aspect of one phenomenon is similar to a second aspect in a second phenomenon) to describe a secondary relationship: If the primary relationship holds, then other aspects of the one phenomenon may be similar to the second phenomenon too. Necessarily, the phenomena are not restricted to visual or linguistic phenomena but also to abstract or logical phenomena as our initial example from the SPACE corpus (sample 0034AX, physics component, to be described in Section 4 shows: