genetic information as a conceptual metaphor

Tomoko Ishida[*][†][1]

[1]Keio Universiy – Japan

Abstract

What is genetic information? Many biologists and philosophers have been trying to answer this question, presupposing at least tacitly that genetic "information" exists. However, is it plausible to use the term "information"? Isn't it just a metaphor without which we can also do quite well?

Many thought that the answer is obvious. For them, genetic information is a kind of genuine information, not a metaphor. Yet, the answer is not, in fact, obvious, because there are some differences between genetic information and everyday information. For example, information transmitted by newspaper has a sender, the publishing company. In contrast, it's quite unclear what is the sender of genetic information. So, should we admit such incomplete information to be genuine information?

It might seem that whether we permit to use the term "information" to describe DNA or not is just a matter of deninition. If we adopt loose definition of "information", then genetic information is genuine information, if not, just a metaphor. However, it's not a productive way to discuss. So, I ask a different question, "what is the role of the concept of 'genetic information' in life science?"

In this paper, I'll suggest that the concept of "genetic information" functions as a conceptual metaphor. Then, I show that this idea will eliminate the problem "whether 'genetic information' is genuine information?"

[*]Speaker
[†]Corresponding author: ishida.tmk@gmail.com