

Considerations about a theory of the Matthew effect for countries (Überlegungen zu einer Theorie des Matthäuseffektes für Länder)

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The paper starts with a discussion of recent statements which are mainly directed against the impact factors of scientific journals. We believe that this discussion is driven by a certain misunderstanding of the nature of the impact factor. Consequently, we shall make some remarks concerning the essential features of citations and particularly of journal impact factors.

In the research about the so-called Matthew effect for countries, the newly introduced concept of Matthew citations plays an important role. The calculation of these specific citations requires knowledge of the number of observed citations and expected citations, the latter being derived with the help of journal impact factors.

Matthew citations (MC) are not only a tool for the ranking and evaluation of countries in science but also a new indicator for the scientific journal, as the most important scientific journals (Matthew core journals) possess the highest number of MCs. MCs seem to be an indicator of the competition strength of a journal, and as such reflect a dominating feature of the science process, analogous to competition in economics.

In future, MCs are hoped to be the main components of a comprehensive theory of the Matthew effect for countries.

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