The theoretical introductions in empirical journal articles have been analyzed looking for factors determining citation habits. Own-country-biases and English—American predominance in citations were not regularly found. Preferred language of the cited publications and absolute citation frequencies were dependent upon both the disciplines and the countries where the journals are published. However, relative citation frequencies (citations related to the length of the text available) have been found to be rather constant across countries (within psychology and psychiatry, respectively) which indicates no such dependence.

Introduction

Citation analysis has often proved to be a useful tool for measuring the scientific impact of scientists and scientific journals and for studying communication structures among scientists (see Ref.\(^1\) for a critical review). One of the problems concerning the use of this method arises from the limited comparability of citation counts carried out in different branches of science and in different countries. Obviously, citation behaviour of scientists is affected by the national and disciplinary origin of publications. Garfield\(^1\) (p. 266) has argued against making comparisons between citation counts generated in different fields. A similar problem arises if we look at nationally produced citation differences. With regard to them the proclivity of authors to favour publications from the own country and the predominance of English written papers, especially from the USA, in citations are well-known phenomena.

Those facts have often been demonstrated with American and West European publications (see, for instance, Becker\(^2\) for a study on West German social psychology). On the other hand, Engelbert\(^3\) who conducted citation counts in the field of philosophy of science from Soviet und GDR publications, has found that
GDR authors clearly preferred Soviet publications to American ones. Soviet scientists conversely often referred to American publications and scarcely to publications from the GDR.

Results like those just mentioned should lead us to consider that historical, political and geographical factors may work differently with different countries and different disciplines. In studying this problem by means of citation counts we use the term “citation habits” to denote the assumed tendency of countries and disciplines to show a typical citation behaviour of their own. This term relates both to qualitative and purely quantitative aspects of citations.

Because of an English—American predominance not only in received citations, but in citation studies too, the application of this research tool to countries which have not yet been within the focus of bibliometric research seems to be desirable.

In designing our research we had to take into account that national and disciplinary factors might interact in citation behaviour. In the first line, we were interested in citations made, not in citations received.

We confined ourselves in our study on publications concerning empirical research and on the theoretical introductions of empirical papers. Within the theoretical introductions authors will formulate the theoretical assumptions underlying their empirical research. The citations within theoretical introductions will therefore be especially instructive for answering the question how authors designing the theoretical background of their research will select relevant information.

We were interested in questions like whether English—American predominance and own-country-biases in citations are generally to be found or whether they vary from country to country and from field to field, and whether countries and fields differ in their general readiness to cite publications, irrespective of origin.

**Method**

We examined citations in empirical articles from journals from three disciplines: psychology, psychiatry and sociology. The journals were selected from various countries, both socialist and capitalist ones. Experts were interviewed to get comparable journals within disciplines. Table 1 shows the journals studied.

Our analysis concerns only articles published in the journals mentioned in Table 1 which have appeared from 1977 through 1981. All the articles were classified either as empirical or as theoretical ones. Only empirical articles were used for our investigation. From the universe of the empirical articles we got a sample of 30 papers per journal (six per publication year) by means of a simple random selection.