CIN	POIN
1. The thematic boundaries are clearly defined.	1. The thematic boundaries are not defined.
2. The request is put into exact words, that is, it corresponds exactly to the CIN thematic limits.	2. As a rule, the request does not conform to the POIN.
3. To satisfy a CIN only one good document is needed.	3. As a rule, the POIN cannot be satisfied, even with all good documents existing in the system.
4. As soon as the good document is found, the CIN disappears.	4. As soon as good documents are delivered, the thematical limits of POIN may change and the POIN itself remains for a long time.

Figure 2.2
Comparative characteristics of CIN and POIN.

ine that other types of IN distinct from these exist (i.e., types having properties that neither the CIN nor the POIN have).

The characteristics given in Figure 2.2 (contrasted point by point) describe the differences between the two types of IN.

The relationship between a query and a need is particularly interesting, especially in the case of a POIN where this psychological state, as noted earlier, does not have precise thematic boundaries. Lancaster (1979), one of the most authoritative experts in this area, studied this relationship. He noted that the lack of precise thematic boundaries not only hampers the formulation of a query, but also may lead to situations in which the formulated query does not coincide with the thematic boundaries of the POIN. Either the query does not intersect with POIN, or it coincides with POIN only partially, or it is entirely included in the POIN (it is a part of it), or it exceeds the thematical boundaries of the POIN by including it entirely. Thus, the same query asked by different users can reflect (represent) a different POIN. Figure 2.3 illustrates the indicated relationships.

It is not unusual for a user who is trying to express his or her POIN more precisely to formulate not one but several queries. Strictly speaking, this is pos-
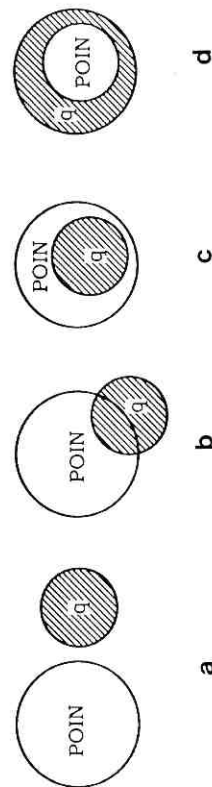

Figure 2.3
Possible relationships between need and query.

sible when two different users have absolutely the same POIN, but this does not mean that they will ask the same query or collection of queries.

When discussing the relationship between a query and a need, one should especially emphasize that the query does not always uniquely indicate the type of IN that is expressed by this query. This occurs when the same query can represent different types of IN. For example, the second query of the IN of first type (CIN) at one time was a query representing a POIN (until melting temperature of lead was determined). However, event today it can represent a POIN, if for some reason the user is interested in the melting temperature with a precision up to 27 places, for example. The same can be noted in consideration of queries representing POIN. For example, if an exhaustive answer can be given to the query (to the second query of POIN)—for example a pill is indicated that has no negative side effects and cures 100% of those affected—then this query will represent a CIN. In other words, the presence of different type of IN depends on the way the user views the information required and the user's obtaining of the information, a transformation of one type of IN to another can occur.

It is also of some interest to consider the relationship between an IN and information. For example, different types of IN require their own most "suitable" information. It is also possible to classify different types of information connected with specific type of IN. In fact, for that humankind has strived for standardization and unification, even today we deal with different types of documents. Moreover, a tendency toward replacing existing types by any one universal type is not evident. This can be explained by the fact that one type of information is most conveniently represented in the form of a scientific article, another in the form of a table, a third in the form of a dictionary, a fourth in the form of a graphic, and so on. Thus, the availability of different types of information leads to different types of documents. However, information is only a product of the satisfaction of an IN. This means that for different types of IN, different types (forms) of documents are required. In fact, to satisfy a POIN, scientific articles, books, and other documents are used. To satisfy a CIN, reference books, tables, dictionaries, encyclopedias, and other sources are used. As with different types of IN, types of information have a definite set of properties specific to each type. Thus, it is impossible to represent the material included in this chapter graphically or in the form of a dictionary, for example.

Some argue that there are differences in the IN for, say, physicists, chemists, mathematicians, biologists, and so on. But in reality, these differences are no greater than the differences in the IN of two mathematicians asking queries from different areas of mathematics. In other words, these are the typical differences in the thematic boundaries of an IN. An information need (mental state) of mathematicians, chemists, and biologists is identical in nature, types, and properties.

In some cases, investigators speak about a collective need for information in a particular field, business, or other specific area, and it is often believed that