10.3. Natural categorization behavior

Overview

All humans organize information, all the time--that's a large part of what makes them human! Information organization is intrinsic to human thought and communication:

- All cognitive activity requires and inspires intellectual representation and organization.
- Humans are social and symbol-using beings.
- Meanings and levels of meaning are individually and socially determined.

Natural information organization behavior involves a number of related concepts, including language, naming, association, metaphor, categorization, classification, translation, and learning. Most of the following ideas are drawn from Case (1991). Case points out that natural categorization behavior, as it is called, is both intellectual and physical:

Much of our language-related behavior, such as categorization, is grounded in our physical experience. . . . thought is embodied (that is, grounded in bodily perception, movement and physical experience) and imaginative (i.e., it uses metaphor, imagery and other imaginative relationships between ideas and things)

(Case, 1991, p. 658)

This statement is illustrated with a number of examples of metaphors in everyday language. For example, can you think of a way to talk about status that does not involve the spatial concepts of high and low?

In short, we can't stop ourselves from organizing information! This module looks at four situations--including your own--in which people naturally categorize information in surprisingly predictable ways.

Office workers

Anyone who works with information, including students, soon finds papers--filed or not--to be taking over space. It only follows that space plays a major role in how people deal with all their papers. Case (1991) describes studies that found spatial organization to be critical to the way people arrange materials in their own spaces, such as office and home.

Office workers, for instance, typically have three levels of organization:

- Action information (readily at hand on desktop)
- Personal work files (nearby in filing cabinets)
- Archival storage (away from central office).
How does this stack up (pun intended) to the way you do it? Notice any resemblance to the desktop metaphor in Windows software?

Research also shows these six main categories of work as organized by office workers:
  Type, form, volume, complexity, functions, levels of storage

How many of these categories did you identify as important attributes to represent in your database?

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**Scholars**

Think about how historians work. They gather ideas from historic documents and from work by other scholars, synthesize these, and present their own interpretations, often in an atmosphere of discovery and debate. Traditionally they use index cards to record ideas and then sort the cards (a spatial activity) as they decide how to use the ideas.

In his research on historians as a particular user group, Case identified these categories:

- Spatial constraints: office space
- Forms: books, articles, card catalog
- Topics: subjects and chronology
- Treatment, purpose, quality

Do you know any historians or other humanities researchers? Do these categories agree with what you know about how they work?

Now think about how other kinds of scholars work. Social scientists and natural scientists observe and collect data on natural phenomena and use the data to develop ideas and models that build on existing research. Although they may use the same four major categories for organizing information as historians, their specific categories for topics, treatment, etc. are likely to vary.

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**Passersby**

What if you obtained all the versions of a literary work you could find, dumped them in a box, took the box to a shopping mall, and asked passersby to sort them any way they wanted? Would their groupings be based on the same attributes represented in a library catalog record?

That's exactly what Carlyle (1999) did. She asked 50 people to sort 47 versions of *A Christmas carol* into groups (a spatial task), then describe the groups. The most common categories were:

- physical format
- audience
- content description
- pictorial elements
- usage
- language

By conducting her study outside a library or school setting, Carlyle tried to avoid biasing the study participants. She found that most of these attributes were already represented in MARC record fields, but not at all in the way some of these people perceived them. One attribute not represented in a MARC record was usage: it pertained especially to children's materials that could be read aloud or at a certain time, such as bedtime.
Yourself

How naturally organized are you? Not very? The good news is that no matter how disorganized you think you are, you nevertheless must have some natural organization systems in order to function.

Did you ever think about the fact that an apparent lack of organization is an organization decision in itself? Or that casual everyday usage of objects creates a self-organizing system, such as recent papers at the top of the stack or recently worn shoes at the front of the closet floor?

Many people eschew manila folders and knowingly sort papers only in open piles. This approach can be called pile organization, as opposed to file organization! Are you a pile organizer? Has someone ever reorganized your things so you couldn't find them? Infuriating, isn't it? Case has a great quote you can use in your own defense:

[T]he environment in which learning takes place is vital to subsequent retrieval . . . . One of the worst things that could happen to a scholar would be for a stranger to "tidy up" their [sic] office. The act of rearranging things in a "neater" fashion would destroy many important connections, patterns, and associations. (Case, 1991, p. 665)

(By the way, this is one reason we warn you to ask permission before choosing a spouse's or friend's collection to organize for your project!)

Implications for practice

Understanding natural information organization behavior helps professionals:

- Identify users' problems in naming and placing objects
- Suggest spatial metaphors, visual cues, and mnemonics that aid recognition and finding of objects
- Develop more natural systems for cataloging and indexing, mediating, and searching

Cites & sites

References


Recommended reading
