Personal Information Categorization: The Rigid, Fuzzy, and Flexible Categorizers

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Abstract
This research study investigated and identified different styles of personal information categorization based on three types of mindsets in cognitive sociology. To collect data, a demographic questionnaire, a diary study, and two semi-structured interviews were conducted with each of 18 participants. To analyze data, content analysis of the diary and the interviews were conducted. The results show that there are three different styles of personal information categorization: (1) the rigid categorizer; (2) the fuzzy categorizer; and (3) the flexible categorizer. It is critical to understand different styles of categorization as it is directly related to developing and designing personal information management devices and applications that support personal information organization. The findings from this study also broaden our understanding of categorization, personal information management, and information behavior.

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1 Introduction

In our everyday lives, we categorize our personal information items including books, digital files, and pictures (Jones, 2007; Whittaker, 2011). However, the ways we categorize them as well as the ways we view our categorizations often vary. Some people have well-developed organizational structures and make great efforts to strengthen and maintain those structures, while others prefer to have everything in one big category. In a similar vein, some people think there is an exact and right place for an information item, while it does not matter too much for other people. To identify different styles of personal information categorization, this study examined how people categorize their personal information items based on three types of mindscapes in cognitive sociology.

2 Three Types of Mindscapes

The world we live in is fundamentally continuous, and there is no absolute boundary or a physical line that divides things into different categories (Zerubavel, 1996). However, people often create mental lines among both physical and abstract entities, and experience the world as discrete chunks such as "colleagues" and "friends" (Brekhus, 2007; Zerubavel, 1996). Since these distinctions are things that have been created, they often vary across cultures and change over time. In addition, even within the same culture during the same period, people have different ways of making distinctions among things and viewing the world (Zerubavel, 1997). Cognitive sociology identifies three different types of mindsets which inevitably shape how people view and experience the world: the rigid mind, the fuzzy mind and the flexible mind.

2.1 The Rigid Mind

The rigid mind has a strictly compartmentalized view of the world so that those who are committed to a rigid mind perceive clear-cut distinctions among entities and rigorously follow either/or logic (Zerubavel, 1991; Zerubavel, 1997). The rigid mind is preoccupied with boundaries and obsessed with maintaining that structure (Zerubavel, 1997). Thus, when this sharp distinction is violated with ambiguous or hybrid entities, it causes anxiety or even panic (Zerubavel, 1991).

2.2 The Fuzzy Mind

The fuzzy mind is a structure-less mindset, which is the contrasting mindscape to the rigid mind. This mindscape does not accept any structure, boundary or order. Thus, those who are committed to a fuzzy mind are averse to any boundary and encourage ambiguity (Zerubavel, 1991; Zerubavel, 1997). In this perspective, everything is blended with everything else (Zerubavel, 1991).

2.3   The Flexible Mind

The flexible mind stands between the rigid mind and the fuzzy mind. The flexible mind recognizes the boundaries, but those boundaries are dynamic and elastic so that they can be changed or even destroyed when necessary (Zerubavel, 1991). Those who are committed to a flexible mind understand that any entity can be placed into multiple contexts and follow both/and logic (Zerubavel, 1991; Zerubavel, 1997).

3   Methods

3.1   Participants

For this study, 18 participants in a social science field in an institution of higher education in the United States were recruited. Participants included six undergraduate students, six graduate students and six professors.

3.2   Procedures

To collect data, a brief questionnaire elicited demographic information. Also, participants were asked to keep a diary over a week, noting whenever they decided to save a personal information item or organize their personal digital files. Then, a semi-structured interview was conducted and participants were asked to give explanations about how and why they organized their digital items based on the diary. After 2-3 weeks, a second interview was conducted to ask if any changes had been made to the files that were discussed in the first interview. To analyze data, content analysis of the diary and the interviews were conducted while focusing on identifying different styles of categorization.

4   Results and Discussion

Three different styles of categorizations were identified based on three types of mindscapes: (1) The rigid categorizer who makes clear distinctions among categories and keeps strengthening the existing organizational structure; (2) the fuzzy categorizer who does not develop an organizational structure or make distinctions among information items; and (3) the flexible categorizer who has an organizational structure, yet is flexible about maintaining the existing structure.

4.1   The Rigid Categorizer

The rigid categorizers believed that there is a right place for an information item to be categorized. For instance, participant 11 (P11) said, "For each class, I should have a folder and a specific place I'm saving things that I need for that class, and there's really no other way". P13 also said, "I'm pretty fanatic about putting things only there". Similarly, P14 said "I always have to structure something to put it in right place". The rigid categorizers often mentioned how they have specific ways of organizing their information items and have developed detailed organizational structures. For example, P3 said, "Over time, I created a very complex set of hierarchical file systems of things that arrive at my desk…so I have very standard set of folders that I go into and store things on regular basis". Similarly, P16 said, "I have very specific structure…it's like I have a template". In addition, when they were asked if there is any other place where certain information item can be categorized, they responded that they cannot think of anywhere else. Also, when asked how it would be like if an information item is categorized into a different category, they said, "It would bother me" (P13) or "It doesn't make sense to me" (P6). Interestingly, when the researcher asked why the participant decided to organize information they way he/she did, one of the participants said, "I really divide my mind that way (P13)" indicating that the way people organize personal information items mirrors their mindscapes.

4.2   The Fuzzy Categorizer

The fuzzy categorizers, who stand at the opposite side of the rigid categorizers, did not have specific ways of organizing information items. For example, P2 said, "The standard of organizing folders, whether I should delete this or not, it's not based on the specific rule… it's really irregular". The fuzzy categorizers often did not make distinctions among information items and did not develop an organizational structure for their personal information items. Thus, often they saved their personal information items without placing them into any category. For instance, P4 said, "That's where I keep all my information about school and everything" while showing one big category where he/she saved every files.

4.3   The Flexible Categorizer

The flexible categorizers had some organizational structure, but were flexible about keeping the existing organizational structure. One of the participants said "I sort of developed a file for every category of my

life…I can pretty easily find stuff because I know my wacky system of filing" (P25). Here, the participant had some organizational structure for his/her information items unlike the fuzzy categorizers, but did not have strict and well-developed structures like the rigid categorizers. In the case of flexible categorizers, when the researcher asked if there is any other place where they would like to save certain information item, they mentioned some different locations while saying that "I probably would save it in 'Documents [folder]'" (P9) showing that they do not regard the category they saved an information item as the only place for the information item, and they are less concerned about keeping and strengthening the existing organizational structures.

5   Conclusion

This study investigated and identified different styles of categorizations based on three types of mindscapes. The results show that one can identify three different styles of categorizations: (1) the rigid categorizer; (2) the fuzzy categorizer; and (3) the flexible categorizer, which reflect the categorizers' mindscapes. This study provides explanations about why we organize our personal information items differently and have different tendencies in developing and keeping the organizational structures. In particular, by using a cognitive sociological perspective in analyzing empirical data, this study offers another way of viewing and understanding categorization. The findings from this study widen our knowledge of information organizing behavior and personal information management, and also have practical implications in developing and designing personal information management devices and applications that support effective personal information organization.

6   References

Brekhus, W. (2007). The Rutgers school: A Zerubavelian culturalist cognitive sociology. *European Journal of Social Theory, 10*, 448-464. doi: 10.1177/1368431007080705

Jones, W. (2007). Personal Information Management. *Annual Review of Information Science and Technology, 41*, 453-504.

Whittaker, S. (2011). Personal information management: From information consumption to curation. *Annual Review of Information Science and Technology, 45*, 3-62.

Zerubavel, E. (1996). The rigid, the fuzzy, and the flexible: Notes on the mental sculpting of academic identity. *Social Research, 62*(4), 1093-1106.

Zerubavel, E. (1991). *The fine line: Making distinctions in everyday life*. Chicago, IL: The University of Chicago Press.

Zerubavel, E. (1997). *Social mindscapes: An invitation to cognitive sociology.* Cambridge, MA: Harvard University Press.