

A Short Analysis of the Reader Variables Affecting Reading and Testing Reading

UNE BREVE ANALYSE DES VARIABLES DE LECTEUR AYANT UNE INCIDENCE SUR LA LECTURE ET LE TEST DE LECTURE

LIU Feng^{1,*}

Abstract: This paper gives a short analysis of the reader variables which affect reading and the test of reading. These include reader's background knowledge, skills and abilities, purpose in reading, motivation, affect, and other characteristics. These variables not only affect the reading process but also affect the reading product and the testing of reading.

Key words: Reading; Testing Reading; Variable; Reader'S Variable

Resum é Ce document donne une br ève analyse des variables de lecteur qui influent sur la lecture et le test de lecture. Il s'agit notamment des connaissances de base du lecteur, leurs comp étences et capacit és, leur but de la lecture, leur motivation, l'affect, et d'autres caract éristiques. Ces variables affectent non seulement le processus de lecture, mais aussi le produit de lecture et le test de lecture.

Mots-cl és: Lecture ; Test De Lecture ; Variable; Variable De Lecteur

DOI: 10.3968/j.ccc.1923670020110702.012

Research has looked at the way readers themselves affect the reading process and product, and has investigated a number of different variables. The state of the reader's knowledge constitutes one significant field of research, as does the reader's motivation to read, and the way this interacts with the reasons why a reader is reading a text. The strategies that readers use when processing text have received considerable scrutiny, in addition, relatively stable characteristics of readers, like sex, age and personality, have also been studied. Those will be discussed below.

1. SCHEMATA AND BACKGROUND KNOWLEDGE

Ever since the work of the Bartlett in the 1930s, it has been clear that the nature of the knowledge that readers have will influence not only what they remember of text (the focus of Bartlett's own research), but their understanding of the text and the way they process it. The development of schema theory has attempted to account for the consistent finding that what readers know affects what they understand. Schemata are a reader's existing concepts about the world, "knowledge already stored in memory" (Anderson & Pearson, 1984, p. 255). Widdowson describes schemata as "cognitive constructs which allow for the organization of information in long-term memory" (1983, p. 34). Schemata are seen as interlocking mental structures representing reader's knowledge. When readers process text, they integrate the new information from the text into their pre-existing schemata, the schemata influence how readers recognize information as well as how they store it.

Research on the theory of schema has had a great impact on understanding reading. Researchers have identified several types of schema. Carrell (1983) distinguishes formal schemata from content schemata. By the former she means knowledge of language and linguistic conventions, including knowledge of language, knowledge of genre and text type, and metalinguistic knowledge. By the latter she means, essentially, knowledge of the world and background knowledge.

¹ School of Foreign Languages, Qingdao University of Science and Technology, Qingdao, China

* Corresponding Author. Email: liufeng7079@163.com

† Received April 8, 2011; accepted May 20, 2011.

Content schemata can also be divided into background knowledge—i.e. knowledge of the general world, which may or may not be related to the content of a particular text—and subject matter knowledge, which is directly relevant to text content and topic. Moreover, some researchers have focused on certain aspects of background knowledge, in particular cultural knowledge, which is common to a particular culture.

1.1 Research on Formal Schema

It may seem self-evident that, if readers do not know the language of the text, then they will have great difficulty in processing the text. And indeed in studies of first language reading the language knowledge of the reader is often taken for granted. Actually, the ease with which the language of a particular text can be processed must depend upon the nature of the reader's linguistic knowledge.

In first language reading, research into linguistic knowledge has concentrated on vocabulary size and metalinguistic knowledge. Vocabulary knowledge has long been recognized to be crucial in first language reading. Having to struggle with reading because of unknown words will obviously affect comprehension and take the pleasure out of reading. On the other hand, earlier second and foreign language reading studies emphasized on the importance of syntactic and lexical knowledge, and only recently has rhetorical knowledge and metalinguistic knowledge been studied in any depth. Research, for example Berman (1984), has shown the importance of a knowledge of particular syntactic structures, or the ability to process them, to some aspects of second language reading. Berman (1984) finds that students had difficulty identifying the constituent structures in sentences with complex or unusual syntax. The ability to parse sentences into their correct syntactic structures appears to be an important element in understanding text, she suggests that successful readers are able to get at the core of more complicated sentences.

It is perhaps difficult to distinguish between readers' knowledge of how texts are organized, and their metalinguistic textual knowledge. In other words, readers might know how texts are organized, yet be unaware of this knowledge, and be unable to state it explicitly. Studies of first language readers have investigated directly the effect of metacognition on reading. Research has revealed the relationship between metacognition and reading performance. Poor readers do not possess knowledge of strategies, and are often not aware of how or when to apply the knowledge they have. They often can not infer meaning from surface level information, have poorly developed knowledge about how the reading system works, and find it difficult to evaluate text for clarity, consistency and plausibility. Evidence suggests that comprehension monitoring operates rather automatically and is not readily observable until some failure to comprehend occurs. Older and more proficient readers have more control over this monitoring process than younger and less proficient readers. Good readers are more aware of how they control their reading and are able to verbalize this awareness. They also appear more sensitive to inconsistencies in text. They tend to use meaning-based cues to evaluate whether they have understood what they read whereas poor readers tend to use or over-rely on word level cues, and to focus on intrasentential rather than intersentential consistency. However, the ability to talk about the language of a text is not equal to the ability to understand the text—the latter is likely to be possible without the former.

1.2 Research on Content Schema

Studies have shown that readers need knowledge about the content of the passage to be able to understand it. Moreover, and arguably more importantly, such knowledge does not simply need to be available—it needs to be activated by the reader or the text, if it is to be used in accurate understanding. Studies have indicated how readers can learn how to activate their own schemata, and performance on reading tasks can improve as a result of such training.

All language processing or reading requires background knowledge. If readers know absolutely nothing about the topic of a text, they will find it difficult to process. They will find it easier to read texts in areas they are familiar with, for example those they have studied.

In a classic study, Bartlett (1932) showed how British informants, when reading a North American Indian folktale, consistently altered it to conform to their own cultural assumptions about the world. Since then, numerous studies have examined the effects of background knowledge, subject matter knowledge and cultural differences on reading.

In another classic and much quoted study, Steffensen & Joag-Dev (1984) explored differences in cultural knowledge between Indians from the subcontinent and North Americans. Each group read two accounts of wedding, one in cultural setting familiar to them, and one in an unfamiliar setting. Subjects were able to recall more, and more accurately, from the familiar setting than the unfamiliar one, and they reported greater difficulty in processing the unfamiliar one. In addition, in the unfamiliar setting the subjects' recalls of the text showed distortions of the information in the text—distortions towards their own cultural expectations.

One problem that studies of content and cultural knowledge face is distinguishing between knowledge of the content/culture and knowledge of vocabulary. Much more research is needed to tease out whether empirical effects are due to formal knowledge, or content/cultural knowledge, this is of course crucial to testers of reading in a second language

who may wish to avoid content bias, yet may be prepared to accept that lack of relevant vocabulary has caused lower reading test scores.

2. READER'S SKILLS AND ABILITIES

Readers not only have knowledge, they have abilities: abilities not only to learn new knowledge, but also to process information. Researchers have long been concerned that readers may have relevant knowledge but they may not possess, or have learned, the ability or skill to process text. It is possible that what distinguishes good readers from poor readers, or good understanding from poor understanding, is not so much the existence of relevant schemata or even the ability to activate them, but a more general cognitive ability.

Researchers have long tried to establish what skills or abilities are essential to text comprehension and what is involved in being a good reader. As is discussed before, much controversy surrounds such research. There is contradictory evidence as to whether these skills are separately identifiable. Despite the fact that the skills view lacks empirical support, some descriptions of skills have become established in syllabuses and teaching materials. This issue is crucial to the assessment of reading: if test constructors are not able to define what they mean by the ability to read, it will be difficult to devise means of assessing such abilities. The operationalization of such abilities may be imperfect, and the very act of analyzing skills might falsify the real world, where such skills, even if they exist separately, might operate dynamically in parallel or compensatory fashion.

One of the causes of the variation in readers and reading might be that readers have different amounts of knowledge relevant to the text in hand, as discussed earlier. Such differences might result in some readers having to call upon certain skills, e.g. lexical inferencing, whereas readers with the necessary knowledge do not need to use such skills. However, lack of knowledge or skill in one area might be compensated by abilities or knowledge in other areas.

3. READER'S PURPOSE IN READING

Another possible cause of the variation between readers and reading which needs to be considered is that different readers read texts with different purposes. Wallace (1992) defines three different reading purposes: reading for survival, reading for learning, and reading for pleasure. Readers need different skills to suit these different purposes. The reason readers are reading a text will influence the way they read, the skills they require or use, and the ultimate understanding of the text.

Studies have attempted to manipulate reader purpose by a variety of means, and they have shown that reading purpose does have an effect on reading process and product. One of the problems with much research in this area is that the reason the informants are reading texts is that the researcher is paying them, or because they have to take a test (Alderson, 2000). Their purposes may not be their own, but somebody else's. The process and product may be very different if the reader reads for self-generated reasons. Test developers need to consider carefully the tasks they set readers, or the purposes with which their test-takers read, in case there might be biasing effects.

4. READER'S MOTIVATION

Studies of poor first and second or foreign language readers have consistently shown that poor readers lack motivation to read or to spend time improving their ability to read. The dilemma of the need to avoid imposing a purpose on the reader has long been recognized in studies of motivation. A distinction is frequently made between extrinsic and intrinsic motivation, and the latter, generated internally by the individual is generally thought to be superior to extrinsic motivation. Reader motivation has been shown to relate to the quality of the outcome of reading, in that extrinsically motivated students seem to read at a surface level, paying attention to facts and details rather than to the main ideas. Intrinsically motivated students pay more attention to what the text is about, how ideas in the text relate to each other, and how the text relates to other texts. These latter types of understanding, often called higher order levels, are held to be educationally desirable, and so there is considerable interest in how higher levels of understanding can be achieved.

Research has been carried out to see whether intrinsic motivation can be induced. However, Fransson (1984) finds that it is very difficult to induce intrinsic motivation—it has to come from the readers, who are reading for their enjoyment or satisfaction.

5. READER'S AFFECT

Emotional responses in reading have long been the subject of research. Fransson (1984) compared readers who reported state anxiety—i.e. who were anxious during the experience—with those who reported trait anxiety—i.e. who were

habitually anxious people. He found that students with high state anxiety tended to read at a surface level, and that high trait anxiety led to readers ignoring the expressed purpose of the reading, and expecting threats never intended by the experimenter, whereas students who had low trait anxiety tended to read at a deep level. Other studies, for example (Miall, 1989; Goez et al., 1992, cited in Alderson, 2000) have drawn the same conclusion.

The implication of this for the testing of reading is that informal assessment might result in qualitatively better performances than test based assessment. Those who interpret test scores should bear in mind that the score may be an underestimate of unpressured normal reading.

CONCLUSION

The distinction made above between state and trait anxiety leads one to consider the effect of reader variables that might be considered to be stable over time, such as sex, personality, social class, ethnicity. These have been extensively discussed in the testing literature, and more research needs to be done in the field of reading.

Nevertheless, it is important to know, for example, that girls generally are thought to perform better on first language reading tests than boys, and Bügel & Buunk (1996) show a similar effect for foreign language reading. Spurling & Ilyin (1985, cited in Bachman, 1990) found that language background, age, and high school graduation leave school have small but significant effects on reading as well as cloze and listening tests.

When designing reading tests, test designers need to take care not to bias particular group, though this still needs further empirical support.

REFERENCES

- Alderson, J. C. (2000). *Assessing reading*. Cambridge: Cambridge University Press.
- Anderson, R. C., & Pearson, P. D. (1984). A schema-theoretic view of basic processes in reading comprehension. In P. D. Pearson, R. Barr, M. L. Kamil, & P. Mosenthal (Eds.), *Handbook of reading research*. New York: Longman.
- Berman, R. A. (1984). Syntactic components of the foreign language reading process. In J. C. Alderson, & A. H. Urquhart (Eds.), *Reading in a foreign language*. London: Longman.
- Bartlett, F. C. (1932). *Remembering*. Cambridge: Cambridge University Press.
- Bügel, K. L., & Buunk, B. P. (1996). Sex differences in foreign language text comprehension: The role of interests and prior knowledge. *The Modern Language Journal*, 80 (i), 15-31.
- Bachman, L. F. (1990). *Fundamental considerations in language testing*. Oxford: Oxford University Press.
- Carrell, P. L. (1983). Some issues in studying the role of schemata, or background knowledge, in second language comprehension. *Reading in a Foreign Language*, 1 (2), 81-92.
- Fransson, A. (1984). Cramming or understanding? Effects of intrinsic and extrinsic motivation on approach to learning and test performance. In J. C. Alderson, & A. H. Urquhart (Eds.), *Reading in a foreign language*. London: Longman.
- Steffensen, M. S., & Joag-Dev, C. (1984). Cultural knowledge and reading. In J. C. Alderson, & A. H. Urquhart (Eds.), *Reading in a foreign language* (pp. 48-61). New York: Longman.
- Wallace, C. (1992). *Reading*. Oxford: Oxford University Press.
- Widdowson, H. G. (1983). *Learning purpose and language use*. Oxford: Oxford University Press.