

The Topic of This Article is The Relationship Between Literacy and Oral Language Processing and its Implications for Research on Second Language Acquisition (SLA)

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Abstract

As previously stated, the present study anticipates that the examination of oral language processing will have a substantial impact on applied linguistics. This study focuses on the impact of literacy on people's comprehension of spoken language. When it comes to activities involving understanding language structure, there is a clear difference in performance between persons who can read and those who cannot. These findings indicate that the capacity to comprehend and produce written language in an alphabetic script influences the neural processing of spoken language during specific cognitive activities. Recent research on first language acquisition has redirected its attention towards examining the impact of literacy on an individual's linguistic development and skill. This move is motivated by the observation of a favorable association between literacy and the ability to process oral language. This study provides a thorough analysis of current scholarly publications and research, emphasizing their importance in the field of second-language acquisition. More precisely, it examines the implications of these findings for theories and studies that aim to understand the influence of "noticing" on second language acquisition. Lastly, we want to underline the significance of include individuals who have been acknowledged as having low literacy levels in our expanding database of participants for second language studies, both from a theoretical and social standpoint.

Introduction

How knowing how to read and write affects how you process spoken language

Over the past decade, adult literacy rates have risen around the world, and the number of immigrants and refugees learning English in North American cities has reached a tipping point. There are 799 million individuals in the world who cannot read or write. About two-thirds of these are women, and more than 100 million children are not in school (UNESCO, 2004). English language learners in public schools in the United States generally have limited or no academic background. About 12% of middle school and 20% of high school English language learners had missed two or more years of school since the age of six, according to research by Fleischman and Hopstock (1993).

According to Jamieson, Curry, and Martinez (2001), more than a third of Hispanic freshmen are not up to grade level and do not have a working knowledge of Spanish. There may be poor literacy rates overall, but it hasn't stopped people from learning new tongues. Unschooled societies frequently use many languages (Hill, 1970). A valid SLA theory would take into consideration the challenges faced by low-literate and non-literate multilingual learners. We believe there is much to be learned by analyzing these students' speech abilities in their L2. Understanding the connection between learning to read and write in an alphabetic script and comprehending oral language in terms of its formal linguistic components is the focus of this paper, which covers the work of academics and scholars in the field of first-language acquisition (FLA). In this article, we discuss the implications of studies conducted on native speakers for the instruction of second language learners. We focus on those who are completely illiterate and are learning a second language.

Construction of Literacy

The study of literacy is intricate. According to Ravid and Tolchinsky (2002), there are two main components to becoming a proficient writer: (1) an appreciation for writing as a discourse style, which involves knowing that there are many different kinds of writing, and (2) an appreciation for writing as a notational system, which involves knowing how writing works and being able to produce writing. Skills in reading and writing can be broken down into their component parts by Verhoeven (1994): grammar, discourse, (de)coding, strategy, and sociolinguistic competence. Verhoeven is well-versed in all aspects of grammar, from phonology and semantics to syntax and syntax-based sentence construction standards (p. His ability to code and decode is reminiscent of Ravid and Tolchinsky's "literacy as notational system." Literacy as discourse style has been researched by researchers such as Biber (1988), Biber and Hared (1991), and Biber, Reppen, and Conrad (2002), which is comparable to the discourse, strategic, and sociolinguistic competence studied by Ravid & Tolchinsky. The "autonomous" approach, which emphasizes the formal aspects of encoding and decoding text and their cognitive effects on an individual basis, and the "social practices" approach, which views literacy as a social activity rather than a trait, are the two main approaches to studying literacy in research listed by Wiley (in press). First orientation proponents include Ong (1982), Olson & Torrance (1991), and Goody (1987), whereas second orientation proponents include Heath (1983), Street (1995), and Gee (1991, 2001) according to Wiley's listing. In contrast to Wiley's portrayal,

Ravid and Tolchinsky (2002) suggest that these two techniques are compatible and each address different facets of literacy. In this paper, we focus on just two aspects of literacy—what Verhoeven (1994) calls "(de)coding" and "grammatical competence"—what Ravid and Tolchinsky (2002) call the "notational system." We find it fascinating to consider how oral language comprehension relates to familiarity with notational systems. We also stress the importance of communication skills for second-language acquisition among adults who are illiterate. Studies of Oral Processing in People Who Don't Read Learning to read and children's oral processing Several fields of research have looked at how monolingual children do in spoken language and literacy. Anyone curious about "autonomous" and "social practices" should check out their writing. Studies of language acquisition in youngsters reveal that it is not until around the ages of six or seven that children begin to recognize individual phonemes in spoken and written language. References to Piaget (1979), Vygotsky (1962), and Berthoud-Papandropoulou (1978) can be found in Kolinsky, Cary, and Morais (1987). According to the studies conducted by Olson and his students, pre-reading youngsters perceive words as concrete entities rather than theoretical constructs of language. Pre-reading children, according to his team's research, interpret written signals, rather than words or sentences, as representing events and meanings. When prompted to write "cat," a pre-reader might instead write "one cat," "two cats," or "three cats." It's like waving a pencil and claiming, "I didn't write anything because there are no cats." A card with the story of the "three little pigs" is read to the kid. The child is given one word to interpret once it has been masked. It's the "two little pigs," the kid says. The child reads the book and assumes it's about what happens, not the language. According to Olson, a child who is illiterate cannot comprehend the "word." The direction of the connection between literacy and infant language development and the metalinguistic understanding of "words" and "phonemes." is still up in the air. Is there a correlation between a child's cognitive development and their ability to understand language? Or, does language awareness develop in children who read? We will discuss the "linguistic literacy" model proposed by Ravid and Kolchinsky (2002), which emphasizes the connection between children's oral language awareness and later literacy development but remains neutral on the question of causality. They examine research on phonological and morphological understanding in young readers and writers: No direct correlation between reading comprehension and listening comprehension is

implied. Reading and writing are helped by and encouraged by an understanding of phonology and morphology. Goswami (1999) and others have shown that this is achieved by linking the internal and external representations of phonemes, syllables, and morphemes. Internal linguistic representations are also altered by written representations. On page 432 of Rad and Tolchinsky's 2002 book *Studies of how children learn to speak and read* typically begin with the premise that they have developed phonological awareness. For instance, in his work Verhoeven (2002), *Morphomic writing systems, such as Chinese, rely on the use of voice codes to aid in decipherment*. Therefore, a child's ability to understand spoken language is crucial for learning to read (Snowling, 1998). According to Verhoeven (2002, p. Early phonological awareness is vital for the development of reading ability, according to reading specialists like Thompkins & Binder (2003). They advise making analogies between children and adults who are functionally illiterate because of the strong correlation between phonological awareness and reading ability in kids. Sixty adults who are functionally illiterate are tested alongside 99 similarly able-reading youngsters, and their short-term memory and phonological awareness are compared. Their presentation of the study's findings as a determination of which phonological and memorization skills account for the most variation in reading ability is noteworthy. Reading ability is assumed to be the independent variable in their study, whereas phonological awareness is the dependent variable. While some experts on language acquisition maintain that reading aloud does not enhance phonological awareness, others disagree. Berthoud-Papandropoulou (1978) argues that for youngsters to develop phonological awareness, they need to see printed words. Literacy, according to the "autonomous" literacy experts cited by Wiley (in press; e.g., Olson, 2002), is what enlightens people to the linguistic units encoded in the notational system of written languages. "Children's important discovery is that their own and others' more or less continuous speech may be thought of as a sequence of lexical items or 'words,'" Olson (2002) writes in a description of how literacy affects children's thinking. (p. Since the correlation between age/cognitive development and literacy level is often misconstrued, research conducted exclusively on children may never be able to establish a causal link between phonological awareness and reading comprehension. To further understand the trajectory of this network, studies with adult illiterates may prove most useful.

It's possible that the two subject groups in these Brazilian research had different backgrounds, experiences, and perspectives beyond only grapheme-phoneme correlation. This is a possible criticism of these studies. It's possible that the different social support systems of the two groups impacted their relative oral processing speeds. Read, Xhang, Nie, and Ding (1986) explore two groups of educated adult Chinese participants in similar social practice contexts in order to investigate this possibility and the consequences of employing a non-alphabetic script. Because their school had not yet adopted Hanyu Pinyin, one group (n = 18) learned to read and write only in Chinese characters. The second group (n = 12) was also educated and literate in both the Chinese alphabet and characters. Historical and societal changes rather than innate differences accounted for their varied exposure to alphabetic scripts. In order to complete the Chinese oral exercises, both groups were asked to either add or remove one consonant (d, s, or n) from the beginning of a spoken syllable. It's possible that every single syllable and object in Chinese is a word (like /an/ or /san/), but many of them aren't. Adults who scored higher on the test were those who had learned the alphabet. When the targets were words, illiterate adults scored at a 21% accuracy rate, while literate people scored at a 93% accuracy rate. The authors draw the conclusion that learning to read and write using the alphabet aids in the separation of spoken words. Read et al.'s findings were corroborated in a 1993 research of Chinese readers by de Gelder, Vroomen, and Bertelson. Later studies compared the capabilities of the literate and the illiterate in Spain, Portugal, and Brazil. In 1995, researchers Adrian, Alegria, and Morais compared the oral abilities of 15 Spanish speakers who were illiterate to those of "poor readers" and "readers." Even when asked if they could tell the difference between /me-me/ and /sa-ta/, illiterates performed similarly on a phonological discrimination test. Phonological awareness was unaffected by reading ability. Only around half of the functionally illiterate performed adequately on tests of rhyming ability. All four phoneme-related tests (matching, monitoring, deletion, reversal) were poorly completed by illiterate participants. In oral word and syllable inversion tasks, they likewise performed worse than literate adults. Two groups of women in a fishing hamlet in southern Portugal were analyzed in what is arguably the best-designed and most-reasoned study on the topic (Reis and CastroCaldas, 1997). The women were similar in terms of intelligence and socioeconomic background; the only thing that set them apart was their ability to recognize the phonemic value of

graphemes. Illiterate people, according to Reis and Castro-Caldas, rely more on semantic than phonological processes to get things done. To learn to associate graphemes with phonemes, one must first learn to associate visually structured verbal information with information presented in a temporally ordered aural fashion (p. 445). According to Reis and Castro-Caldas, literacy allows for the visual-graphic significance of non-word units. These segments, each with unique visual experience material, are displayed progressively by a working memory system. Letters must be seen in order to spell correctly. Pseudowords devoid of meaning are then constructed by fusing together textual symbols and noises. Visual formal lexical representations, conscious phonological processing, and their connections can all be used by both literate and nonliterate individuals. Reis and Castro-Caldas conducted three experiments to test this overarching hypothesis: (a) a word/pseudoword repetition task, (b) a word-pair memory task where some pairs were related phonologically and semantically, and (c) verbal fluency tasks triggered either phonologically (e.g., /p/) or semantically. The results showed that both groups performed similarly on tests measuring their ability to repeat frequent phrases, but the illiterate group suffered more with tests measuring their ability to repeat pseudowords. In terms of semantic verbal fluency and semantic word pairs, the illiterate group outperformed the phonological group. Literate respondents used strategies that were effective for both semantic processing and phonological analysis, while the illiterate used strategies that were only beneficial for phonological analysis. When compared to the literate group, they performed significantly worse on semantic and phonological tasks in Experiments 2 and 3. According to Reis and CastroCaldas, phonological processing becomes explicit and semantic processing remains implicit during the process of learning to read and write. Adults' explicit phonological processing of oral language is hindered when they lack the ability to link phoneme and grapheme. To paraphrase the authors, "the lack of a single skill (grapheme-phoneme association) significantly hinders language system development" (p. 449). The research of Alice Moro at the University of Calgary demonstrates that the illiterate list words on a page in the same way that young infants do, according to Olson (2002). When read aloud "three wild horses," half of the illiterate individuals in the sample said "two wild horses." Half of these Calgarian individuals avoided the same blunder, even though their social and physical settings are indicative of partial illiteracy. Their success at avoiding oblivion contradicts the

claim that education generates "word." Research by Dellatolas, Willadino-Braga, Souza, Filho, Queiroz, and Deloche² (2003) analyzes the effects of illiteracy on reading comprehension, vocabulary growth, and spatial and phonological awareness. Dellatolas et al. looked at 97 people who were illiterate and 41 Brazilian youngsters (ages 7-8). A standardized exam of reading comprehension and numeracy was administered, consisting of reading aloud and recognizing 16 common terms. In this scenario, the "readers" could read, while the "nonreaders" could not. Each participant was given 20 separate tests to complete as part of the research. Word and non-word repetition tests, phonological and semantic fluency tests, rhyming recognition tests, first phoneme deletion tests, and memory span tests were all on the menu. The results of many of the investigations mirrored one another. Both initial phoneme deletion and phonological competence were improved with reading. Results from a stepwise regression analysis of digit span (with opposite sign), visual identification, first phoneme deletion, and phonological fluency indicated that 86.8% of people were readers or nonreaders. There was a strong correlation between illiterate people's phonological competence and their ability to delete starting phonemes from words. Other studies showed that while illiterate persons did well with oral repetition, they struggled with the repetition of extended non-words. The authors argue that the ability to recall and recite long non-words demonstrates the ability to store words in working memory, which can then be used to form questions or look up definitions.

Conclusion

It is vital to include individuals who lack literacy skills in SLA research in order to thoroughly investigate the human capacity for second language acquisition (SLA) and to properly manage second language (L2) education for those who do not have literacy abilities. This research will equip educators who work with adults and adolescents who have less formal schooling with significant insights that they may use in their work. It will improve their capacity to accurately judge the capabilities and constraints of these learners, which will ultimately lead to major consequences and outcomes. It is vital to investigate the efficacy of instructional methods that offer oral and contextual aid for the acquisition of grapheme/phoneme and other linguistic segmentation abilities in order to improve the efficacy of L2 pedagogy among senior students who are illiterate. This is necessary in order to enhance the efficacy of L2

pedagogy among senior students who are not literate. It is abundantly clear that the aforementioned does not preclude the utilization of methods that either take into consideration the requirements of students for improved literacy beyond the constraints of the educational setting or that create an environment that is conducive to the training of literacy. Researchers in the field of Second Language Acquisition (SLA) should devote more time and effort to studying the learning processes of people who are illiterate in order to advance their discipline. When trying to expand the scope of their research outside university-affiliated intensive English centers or undergraduate foreign language programs, certain researchers working in the field of Second Language Acquisition (SLA) could run into challenges. Because of the substantial challenge posed by the issue of giving access to adult learners who have inadequate reading skills, it is necessary to build relationships that are both long-lasting and reliable. In addition, obtaining informed consent from those who are only able to provide verbal agreement might be difficult at times because of the restrictions placed on them. Instances in which potential participants become aware that the focus of the study refers to areas of personal weakness, such as limitations in reading or writing skills, could present difficulties when attempting to recruit volunteers for research activities. These situations could present obstacles. Bigelow and Tarone's forthcoming article provides a full review of the issues that were discussed earlier. It is essential for our discipline to broaden its focus, both for theoretical and practical reasons, in light of the research and academic work that has been covered in this paper, as well as the probable consequences that it may have for people who are learning a second language. The extension of our knowledge base through the research of a wider variety of second language acquisition contexts is necessary before we can make the claim that second language acquisition theories are applicable to all students of languages other than their native one.

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1 We point out here that this is not the same thing as arguing, as Ong and Goody have done, that mastery of an alphabetic script is essential to logical thinking! Awareness of the boundaries of linguistic units in the stream of speech is one thing; logical thinking is quite another.