

‘chair’, for example, elicited the following in some patients: ‘shair’ (similar sound), ‘table’ (association), ‘throne’ (related meaning), ‘wheelbase’ (?) and ‘you sit on it. It’s a ...’ (word loss). As with Broca’s Aphasia, Wernicke’s Aphasia can also cause a severe loss of speech understanding, although the hearing of non-verbal sounds and music may be unimpaired. Steinberg, Nagata, Aline (2001: 333

2.1.5 Other Speech-Related Aphasias

In addition to the kinds of aphasias which can occur from damage to the two main language centres of the brain, Broca's Areas and Wernicke's Area, there are other aphasias which occur due to damage at sites near or between those areas and at other sites in the brain as yet undetermined. Damage to the area which leads into Wernicke's Area from the auditory cortex may result in *pure word deafness*, where one cannot recognize the sounds of words as speech but can hear other types of sound. Steinberg, Nagata, Aline (2001: 333)

A condition known as *conduction aphasia* is characterized by a poor ability to repeat words despite relatively good comprehension. Persons with this aphasia might substitute a closely related sound for the one they actually hear, e.g. for ‘teethe’ (the verb) they say ‘teeth’ (the noun) and for ‘bubble’ they say ‘bupple’ (here inventing a new word but one that conforms to the sound pattern of English).

Anomic aphasia involves problems in finding the proper words for spontaneous speech, even though language comprehension and repetition are good. Typically, such a person has difficulty finding the correct names for objects. This is a

phenomenon which we all experience at times, e.g. 'hand me that uh...uh...uh...thing over there.' In this aphasia, however, the loss is frequent. There are also reported cases of patients being unable, in response to a verbal command, to perform skilled motor movements with their hands, even though they understand the command and their spontaneous hand movements are perfectly normal. This inability to respond appropriately to verbal commands is called *apraxia*. There is also *global aphasia*, a terrible condition in which many or all aspect of language are severely affected, presumably due to massive damage at numerous sites in the left hemisphere or to critical connections between language areas. Steinberg, Nagata, Aline (2001: 334)

2.1.6 Reading and Writing aphasias: Dyslexias

The type of aphasia which involves disorder in reading and writing is called dyslexia. There are many sorts of dyslexia, one category of which is due to damage to the brain, *after* reading and writing have been acquired. With children, however, dyslexia may be observed while they are in the process of acquiring reading and writing skills. Problem of hemispheric dominance or defects in visual perception, for example, may play some role in causing difficulties in reading and writing. Consider the following example:

Deer as reed

Some children may only be able to write backwards (*deer* as *reed*) or upside-down, or in reading may only be able to wrote letters (b with d, p with q, u with n, m with w) and engage in other anomalies. To help

remedy such problem as those with letters, it is best not to present the letters to the child in isolation but in a context. Then, b and d should be shown in words, e.g. *tub*, *dog*. In this way, the child can see the proper orientation of the letter and the word in which it appears.

Dyslexia is a neurodevelopment disorder with a probable genetic basis, and it is generally agreed that more boys than girls are affected (although the gender ratio is higher in referred samples). The core feature of dyslexia is a problem with word decoding, which in turn impacts spelling performance and the development of reading fluency. Dyslexia is persistent across the lifespan, and adult outcomes are variable, although some young people with dyslexia proceed to a university education, others leave school with minimal qualifications. Most adults with dyslexia complain of slow reading, problems of spelling and difficulties with written expression. In addition, problems with working memory, attention and organisation are frequently reported.

Then, right hemisphere is better prepared than the left to appreciate some of the pragmatics aspects of language. Kaplan, Brownell, Jacobs, and Gardner (1990) examined the ability of individuals with right-hemisphere brain damage to interpret conversation remarks. (Carrol, 1994)

Dyslexia may be subdivided into two basic categories, *alexia*, which involves disorder in reading, and *agraphia*, which involves disorder in writing. One may be afflicted by both conditions at the same time, in which case the person is unable to either read or write properly. In *pure agraphia* there is a total loss of the ability to write, even though the hand can be used skillfully for other

variable; although some young people with dyslexia proceed to a university education, others leave school with minimal qualifications. Most adults with dyslexia complain of slow reading, problems of spelling and difficulties with written expression. In addition, problems with working memory, attention and organisation are frequently reported.

Rosana (2009: 251) said that Dyslexia is a language disability, affecting reading, writing, speaking and listening. It is a dysfunction or impairment in the use of words. Consequently, relation with others and performance in every subject in school can be affected by dyslexia. It can be found around the world principally among boys. It exists in learners of slow, average and superior intelligence. The dyslexic child can come from any background or any income level and dyslexia may occur in any child in a family regardless of order in which he is born.

2.1.2.2 The Types of Dyslexia

Every linguist has his/her own view and opinion about types of dyslexia. There are several types of dyslexia as follows the genetic/biological level, the cognitive level and behavioral level. In this research, the discussion is focused only on three parts of dyslexia based on Uta Frith (1997) theory.

2.1.2.2.1 The Biological Level

A range of new and intriguing findings have emerged, indicating that dyslexia is likely not to be caused by a single gene but through the interaction of multiple genes, with possibly different gene sets being involved with different

phenotypes (behavioural symptoms). It is not clear what bearing these genes have directly on behaviour or even on the development of the brain. It is, for instance, possible that one gene might lead say to birth complications, and so it would have only an indirect effect upon the child's brain. Another gene might lead to sinus problems or 'glue ear' in infancy. The poor quality auditory input during the critical period for development of speech-related auditory cortex might lead to poorer quality auditory representations of speech, and thus phonological deficit – again an indirect effect. Angela J. Fawcett (2001: 11)

New theories have been suggested, both in terms of magnocellular deficit (Stein) and cerebellar deficit (Fawcett and Nicolson), as discussed in this volume. Both theories have a good deal in common, and both suggest that problems will be more widespread than just phonological deficit. A good deal more research is needed to establish the extent to which these theories account for dyslexia and, in particular, we need to establish the ‘prevalence’ of the different subtypes that might be expected under the different accounts. Angela J. Fawcett (2001: 12)

2.1.2.2.2 The Cognitive Level

In addition to the automatization deficit and phonological deficit account, the major newcomer to the cognitive level accounts is the ‘double deficit’ hypothesis (Wolf and Bowers, 1999) that suggests that dyslexic children suffer not only from a deficit in phonological processing but also in central processing speed. A particularly striking finding is our ‘square root rule’, that dyslexic people

2.1.2.2.4 Primary Dislexia

2.1.1.2.5 Phonological (auditory) Dyslexia

Phonological (auditory) dyslexia refers to the specific learning disability termed auditory processing, or the more severe condition termed Auditory Processing Disorder (OPD). This form of dyslexia involves difficulty with sounds of letters or groups of letters. When this form of dyslexia is present, the sounds are perceived as jumbled or not heard correctly. And just as with visual processing, the brain correctly interprets information that it correctly received. (14

mei 2015. TYPES OF DYSLEXIA <http://www.understanding-learning-disabilities.com/types-of-dyslexia.html>)

2.2 Review of Related Studies

1. Reading, dyslexia and the brain (Centre for Neuroscience in Education, University of Cambridge, UK), (Received 17 August 2007; final version received 8 November 2007)

This research was written by Usha Goswami, the purpose is focused on the different neuroimaging technologies available offer complementary techniques for revealing the biological basis of reading and dyslexia. Functional magnetic resonance imaging (fMRI) is most suited to localisation of function, and hence to investigating the neural networks that underpin efficient (or inefficient) reading.

- ## 2. A Study Of Dyslexia Among Primary School Students In Sarawak, Malaysia

This research was written by Rosana Bin Awang Bolhasan, The purpose of this study was to determine the degree of dyslexic reading problem among primary school students and the relationship between the degree of dyslexia and the demographic factors. Eight demographics factors, according to gender of age, class, parents' income, parent education, parents' occupation, students' position in the family and the number of brothers and sisters in the family are chosen for the study. There are 32 characteristics of dyslexic student listed in the questionnaire "Dyslexia Screening Instrument". 250 dyslexic students from 7 primary schools in

There are two related studies that the writer founded. About reading dyslexia and a study of dyslexia among primary school student. After read the analysis of dyslexia above, the writer more interesting to analyze about dyslexia. The writer takes other object in this analysis, the writer use movie for the object. The writer analyzes kind of dyslexia and how to overcome, also help child who had dyslexia. Then, the writer want to know dyslexia more deeply and want to help child who had dyslexia if someday meet them.