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(LANGUAGE ACQUISITION)

JAPANESE COLLEGE STUDENTS AND DYSLEXIA

The signs of language disability

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Two years ago I taught a Japanese medical student who is dyslexic in English (no problems with *kanji*, he said), and I am proposing this subject for a JACET talk, for a predominantly Japanese audience, because I wonder why I do not see more cases of it. Dyslexia is a consequence of the inherent natural physical variation between people, and wherever there is English there will be students who, for reasons beyond their control, are unable to grasp its awkward phonological writing system. Why are there not more of these students in Japanese higher education? Is it that, in the race for university places, such students are filtered out? Is it that their problems are just not recognised?

In Britain and the United States, 1 in 10 of the student population is dyslexic to a some degree, occasionally severely but usually only mildly so. When writing, they omit letters (*lorres*), add them (*whent*), or reverse their order (*Jonh*), and yet see nothing amiss. They may read *left* as *felt*, *emit* as *time*, etc. Characteristically they have difficulty making correspondences between grapheme and phoneme. Their problem is "frequently of constitutional origin" (World Federation of Neurologists' definition), but there is no single cause. It may be purely visual, i.e. an eye problem. Or it may be cognitive, i.e. there is some neurological malfunction, as when the brain has trouble inverting the image on the retina, and *loud* is read upside down as *long* (*jong*), etc. The symptoms are diverse but together they group into a clinically identifiable condition of language disability.

The dyslexia of students in education is developmental (as opposed to the acquired form in adults who have had an accident or a stroke which caused the loss of some brain function (*aphasia*), and as a result have lost some aspect of their ability to process language). There is no actual brain damage. With native-speakers of English it tends to appear in childhood or adolescence when the brain is adjusting to the accelerated growth of the body. It may be a temporary phenomenon which lasts for about three years and then fades away - leaving a small body of vocabulary which has been learned and stored incorrect, e.g. *pilot* invariably written as *pioft* - or it may alternatively have developed at an early age and become a permanent handicap. With my Japanese medical student the problem surfaced only when he started to learn English in high school.

For people not aware of dyslexia as a learning disability, and that often includes teachers of English, poor spelling in a student is taken as an indicator if not of low intelligence, then at least of laziness. However, this is not necessarily so. Some famous high achievers have had the disability, and even famous writers. Scott Fitzgerald, noted for the ease and grace of his prose, was a lifelong dyslexic who had to have his spelling and punctuation corrected by his editor. W B Yeats, another sufferer, had his application for a "*proffesrship*" at Trinity College Dublin, rejected because he misspelled the word three times. Einstein and Edison were both dyslexic and it lost Einstein teaching two jobs. Less exalted examples abound. I have been told of a top surgeon at London's most famous teaching hospital who dare not write a letter. He dictates to his secretary, and then signs whatever she types. These people, however, are exceptions: highly gifted individuals who succeeded despite their dyslexia.

Many dyslexics are not so lucky. Numerous well-documented cases exist of native-speakers of English, highly intelligent students, whose careers have been blighted because their handicap has gone unrecognised. For them, coping with English - a language with a complex phonological writing system and a high degree of irregularity - is a nightmare; and there is no escape because the written word is at the center of the educational system. Their difficulties with English, perhaps starting at an early age, lead to intense frustration and lack of interest in school life, and as the gap widens between the student's intellectual age and the reading/writing age, even to rebellious and anti-social behaviour. Often the English teacher notices nothing. In London I have seen "Improve your spelling" written as a comment on homework week after week, when the student needed specialist help.

And in Japan? Since English here is a foreign language, for Japanese students the consequences of being dyslexic in it are presumably not so serious. (But if so, where are the dyslexic students?) Because dyslexia is such a serious obstacle to language acquisition, to avoid injustice to students we all need to know how to recognise the condition. There are characteristic dyslexic spelling and reading errors: not the same as the occasional slips that we all make. To show systematically what they are, I shall use transparencies of pages from the exercise books of London high school pupils and then from the work of my Japanese medical student. I also expect in September to be able to report on the latest medical position, from the Dyslexic Unit at St Bartholomew's Teaching Hospital in London.

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What dyslexia is and is not:

Dyslexia literally means "difficulty with reading" but the term is generally used also to cover *dysgraphia*, "difficulty with writing". Usually, *dyslexia* refers only to difficulties with the written word. If a child has difficulties with speech production as well, they are referred to separately, e.g.

"Emma was diagnosed as severely dyslexic, and having severe speech and language difficulties." (*Guardian* UK, 20 June 1995)

Dyslexia is not a sign of laziness or low intelligence in the person who has it. It is a learning disability, and among the sufferers have been some of the greatest scientists (Einstein, Edison) and writers (W.B. Yeats, Scott Fitzgerald).

The two basic types of dyslexia:

- 1) *Acquired dyslexia*: disorders of comprehension and production attributable to brain injury, e.g. a stroke or bullet wound.
- 2) *Developmental dyslexia*: disorders of comprehension and production which appear during childhood or adolescence. These may be temporary and disappear after a few years or develop into a permanent disability. The causes are constitutional in origin, i.e. eyesight problems or cognition problems in the brain; but are exacerbated by the complex phonological writing system of languages such as English.

This talk is concerned only with Japanese college students who have difficulties with reading and writing English words, and whose *dyslexia* is presumably only *developmental*.

The two basic types of developmental dyslexia:

- 1) *Deep developmental dyslexia*, with the causes deep in the brain or visual recognition system, e.g. words reversed; derivational errors (*child* read as *children*); semantic errors (*chair* read as *table*, *down* read as *up*, *seven* as *eight*), etc.
- 2) *Surface developmental dyslexia*, to a large extent attributable to the complexities and irregularities of English spelling, e.g. homophone confusion errors; also visual recognition errors.

Because the causes of *dyslexia* are various, the two are not always found separated. Reference is sometimes made to a third type: *phonological developmental dyslexia*, but there is no agreement that it constitutes a separate type.

World Federation of Neurology Definition of (Developmental) Dyslexia:

"[*Dyslexia*] is a disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence and socio-cultural opportunities. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin."

Dyslexia is a clinically identifiable condition of language disability, and in some countries dyslexic children are sent to a hospital Dyslexic Unit for medical diagnosis (e.g. eye tests) and, later, treatment.

Signs of dyslexia in a student:

- (1) A standard of written work below the student's general intelligence;
- (2) A student who produces poor work, and complains: "I hate English";
- (3) A student who is generally disorganised;
- (4) Dyslexic errors (see next page).

Dyslexic errors in written work*

(a) severe dyslexia

1. Letters inverted: *n* as *u*, *w* as *m*, etc.
2. Mirror-writing of words: noim 2 for *Simon*
3. Letters reversed: *brive* for *drive*
4. Bizarre spellings: *last* spelled as *lenaka*, *may* spelled as *mook*.
5. Mirror writing of letters and figures: *nl*, *γ*, *♯*

(b) moderately severe dyslexia

1. Letters in the wrong order: *jhon*, *thrid*, *chidl*, *saw* for *was*, etc. (May also occur with numbers.)
2. Words spelled as they sound: *bizzy* for *busy*, *hows* for *house*, *capasaty* for *capacity*, etc.
3. Letters omitted: *lip* for *limp*, *sing* for *string*, etc.
4. Letters added: *whent*, *woulde*, etc.

(c) mild dyslexia

1. Failure to grasp the conventions in English of phoneme-grapheme correspondence: *cryed*, *writter*, *umbrela*, *nomal*, etc.
2. Failure to see the whole-word shape of words of unusual shape: *alchole* for *alcohol*, *how* for *who*, etc.

Most people make occasional errors, and there are English words commonly mis-spelled across the world, e.g. *goverment*, *neccesary*. They do not indicate the presence of dyslexia, nor do the slips we make when tired. Dyslexic errors are systemic.

Why are there so few dyslexic students in the Japanese college system?

Dyslexia is a consequence of the inherent natural variation between people. Wherever there is English there will be people who, for reasons beyond their control, have difficulty with reading and writing it. Dyslexia is believed to affect 1 in 10 of the population worldwide, nearly always males, and though this proportion may well vary according to the challenge presented by the writing system of a particular language, one should expect to encounter dyslexic students in the Japanese college system. Where are they?

[I have one certain dyslexic at the moment (and possibly one other), and two years ago taught a medical student whose was moderately dyslexic. My sum total is three.]

An introductory textbook:

Most books and articles on dyslexia are highly technical. However, the head of the Dyslexia Unit at St Bartholomew's Teaching Hospital, London, wrote a simple, easy-to-read guide for British parents who are worried about their children. It is an excellent introduction to the problems dyslexic students have with English:

HORNSBY, Dr Bevé: *Overcoming Dyslexia*. London: Dunitz, 1984. ISBN 0-906348-56-0

* There is another set of errors which appear in reading.