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Markedness Differential Hypothesis (MDH)

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The purpose of this entry is to describe and exemplify the Markedness Differential Hypothesis (henceforth MDH), as formulated in Eckman (1977). The MDH was proposed to address certain empirical problems with the Contrastive Analysis Hypothesis (henceforth CAH). (Whereas the CAH was formulated by Lado [1957], the hypothesis was given its name by Wardhaugh [1970].) The CAH claimed that structural differences between the learner's native language (NL) and the target language (TL) were both necessary and sufficient to account for difficulty in second-language (L2) acquisition, however, the MDH asserted that NL-TL differences are necessary, but not sufficient, to explain difficulty in acquisition.

One of the most explicit statements of the CAH is the following quotation from Lado (1957, 2):

- (1) "We assume that the student who comes in contact with a foreign language will find some features of it quite easy and others

Further reading

- Eckman, F. (2008). Typological markedness and second language phonology. In J.G. Hansen Edwards and M.L. Zampini (eds), *Phonology and Second Language Acquisition*, pp. 95–115. Amsterdam: Benjamins. (Provides a brief history of typological markedness and an overview of its role in the explanation of facts about L2 phonology, discussing some major issues and counterclaims surrounding the use of markedness

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extremely difficult. Those elements that are similar to his native language will be simple for him, and those elements that are different will be difficult.”

In the decades of research that followed the postulation of the CAH, the results were mixed. Although some studies supported the CAH, many others reported findings that were counter to the hypothesis, leading to the eventual demise of the CAH.

The goal of the MDH, stated in (2), was to remedy some of the empirical counterevidence against the CAH by incorporating the concept of markedness as a measure of degree of difficulty.

- (2) The Markedness Differential Hypothesis (Eckman, 1977: 321)

The areas of difficulty that a language learner will have can be predicted such that

- (a) Those areas of the TL that differ from the NL and are more marked than the native language will be difficult;
- (b) The relative degree of difficulty of the areas of difference of the TL that are more marked than the NL will correspond to the relative degree of markedness;
- (c) Those areas of the TL that are different from the NL, but are not more marked than the TL will not be difficult.

The idea behind markedness, which was pioneered by the Prague School of Linguistics (Trubetzkoy, 1939; Jakobson, 1941), is that some, but not all, structural differences or contrasts between linguistic representations (e.g. voiced and voiceless obstruents, definite and indefinite articles, open and closed syllables) are not simply polar opposites. Rather, one member of the opposition or contrast can be shown to be privileged in that it occurs more widely across languages. Imposing a markedness value on this opposition is one way of characterizing this privileged status: the member of the opposition that is more widely distributed than the other is designated as unmarked. This indicates that the structure in question is more basic and more natural than the other member of the opposition, which is defined as the marked member.

The construct of markedness has been developed and employed in descriptions of languages over the ensuing decades by numerous linguistic schools of thought, and has therefore, depending on the school of thought, been characterized in slightly different ways. The concept of markedness that is incorporated into the MDH is defined as in (3).

- (3) A structure X in some language is typologically marked relative to another structure, Y (and Y is typologically unmarked relative to X) if every language that has X also has Y, but every language that has Y does not necessarily have X.

(Gundel, Houlihan and Sanders, 1986: 108)

As an example of typological markedness, consider the case of voiced and voiceless fricatives in a language (e.g., sounds such as [f], [v], [s], [z], etc.). Voiced and voiceless fricatives are in a markedness relationship, because, across the world's languages, if a language has voiced fricatives in its inventory of sounds, it also has voiceless fricatives, but not vice versa. Therefore, the presence of voiced fricatives in a language implies the presence of voiceless fricatives, but the presence of voiceless fricatives does not necessarily imply the presence of voiced fricatives. Consequently, voiced fricatives are marked relative to voiceless fricatives, and conversely, voiceless fricatives are unmarked relative to voiced fricatives.

The MDH is programmatic with the CAH in that both hypotheses assert differences between the NL and TL are necessary to explain learning difficulty. The MDH is different from the CAH in that the former hypothesis claims that NL-TL differences are not sufficient for an explanation of difficulty; rather, the MDH states that it is necessary also to incorporate typological markedness into the hypothesis as a measure of difficulty. Within the areas of NL-TL differences, marked structures are more difficult than the corresponding unmarked structures.

What follows immediately from the MDH is that not all NL-TL differences will cause equal difficulty. A specific example of this kind of supporting evidence derives from different amounts of difficulty are encountered by learners from diverse NL backgrounds who are all learning the same TL. A study by Anderson (1987) reported that the difficulty in

learning onset and coda clusters in English was different for native speakers of Egyptian Arabic, Mandarin Chinese and Amoy Chinese, and that the degree of difficulty associated with this learning corresponded to the relative markedness of the clusters. The markedness principle employed in Anderson's study came from the work of Greenberg (1976) and stated that the existence of an onset cluster of length N in a language implies the occurrence of onset clusters of length $N-1$ in that language, where N is an integer. For example, a language that allows three consonants in onsets will necessarily allow two-consonant onset clusters, but not vice versa; and a language that allows bi-consonantal onsets will also permit singleton onsets, but not vice versa. The same principle holds also for codas. In short, longer clusters in onsets and codas are more marked relative to, respectively, shorter clusters in onsets and codas. The results of Anderson's study supported the MDH in that the performance of the Chinese-speaking subjects was less target-like than that of the Arabic-speaking subjects on coda clusters, and the difference in performance correlated with degree of markedness associated with the NL-TL difference.

See also: Contrastive Analysis Hypothesis (CAH), cross-linguistic influence, functional-typological linguistics, implicational universals, interlanguage, markedness

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Measuring and researching SLA

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What does the measure of SLA encompass at present and how is expertise in its measurement manifested? A useful starting point is to identify the phenomenon in question which is that human beings are capable of learning multiple languages beyond the one they are exposed to at birth (their L1) and that they vary in the way that they learn that L2 in terms of rate of development and final attainment. L2 research, in fact, started as an extension of L1 acquisition research (because the assumption was that the mental processes were similar). By and large this is no longer the case since current L1 acquisition concern is more with specific learning difficulties, especially in the case