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BILINGUALISM

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INTRODUCTION

The present state of understanding about bilingualism can be traced to three principal areas of research. The first is the question of the relationship of bilingualism to intelligence, a literature that dates back to the origins of psychometrics and extends to present-day cognitive approaches. The second is the study of second language acquisition as defined by a combination of questions from language teaching (e.g., how much attention to give to the native language of the learners) and inspiration from rationalist approaches to language that followed the collapse of behaviorist accounts. The third is a level of analysis issue on whether to conceptualize bilingualism as a psycholinguistic or a sociolinguistic phenomenon.

BILINGUALISM AND INTELLIGENCE

The question of whether bilingualism resulted in a "language handicap" on standardized tests of intelligence can be found in the literature from the early part of this century (Hakuta, 1986). The key tension in this literature was whether bilingualism caused the poor performance of immigrant children. Those who favored "nature" explanations claimed that the language handicap itself was the result of hereditary factors (Goodenough, 1926). On the other hand, advocates of the "nurture" explanation saw the experience of bilingualism as causing mental hardship and

linguistic confusion (Smith, 1931).

More recent researchers have found positive effects of bilingualism, and pointed to methodological and sociological problems associated with the early research. On the methodological side, Peal and Lambert (1962) noted that the selection criteria for the early research did not assess for bilingualism, and that a fairer assessment of bilinguals can be made by selecting for "balanced bilinguals", i.e., those with equivalent proficiencies in the two languages. On the sociological side, it has been noted that the early research focused almost exclusively on immigrant and lower-status bilinguals, excluding populations for whom bilingualism results in enhanced social status (Fishman, 1977).

Recent research has also expanded the dependent variable, moving away from narrow conceptions of intelligence to a wide array of measures such as specific thinking skills, creativity, social cognition, and metalinguistic awareness (see Reynolds, 1991). A clear generalization is that when subjects are selected on the basis of being balanced bilinguals, they perform at a level at least equivalent to monolingual controls, and in many cases, the results show a positive effect of bilingualism although the effect sizes are small to moderate. These effects are demonstrable even in low-status bilingual children as long as their degree of bilingualism is controlled (Diaz, 1985).

The major challenge to this field of knowledge is more theoretical than empirical. The emphasis thus far has been on

demonstrating the effect with a corresponding lack of attention to providing an explanation of the effect. Aside from the area of metalinguistic awareness in which there is a hypothesized link to automatic vs. controlled processing (Bialystok, 1988) and to Vygotsky's theory of word-object separation (Ianco-Worrall, 1972), there has been very little activity in the field. Now that fears about the negative consequences of bilingualism have been put to rest, the field would be well served by strong linkages to more general theories of language and cognition that might explain the positive effects obtained.

SECOND LANGUAGE ACQUISITION

The main questions surrounding second language acquisition are (1) the role of the native language, and (2) determinants of individual differences in successful acquisition.

Up until the 1960's, second language acquisition and teaching were defined by the contrastive analysis of grammatical structures of the native (first) and the target (second) language in which potential sources of positive and negative transfer were identified (Lado, 1964). This view of second language acquisition was rooted in empiricist accounts of language and learning, and became discredited in the face of the popularity of the rationalist views of language acquisition that followed Chomsky (1957).

Studies of second language acquisition followed the path of studies of child language acquisition, in which the errors

produced by the learner were considered an important window into the developmental process. Studies of second language learner errors conducted in the 1960's and 1970's supported the general move away from contrastive analysis, in that a remarkably small proportion of errors observed in corpora of learner speech could be traced to the native language (Larsen-Freeman & Long, 1990). The majority of errors were similar to those found in child language learners, including the simplification of structures (e.g., omission of grammatical inflections) and overgeneralization of rules (e.g., past tense -ed added to irregular verbs as in "eated").

Although it is clear that source language errors are rare in second language learners, this does not mean that the source language is unimportant. First, there are persistent reports of difficulty in specific areas of grammar that are related to the source language, such as the English article system for speakers of many Asian languages (Hakuta, 1983). Second, within the framework of linguistics known as "universal grammar" that is distinctly rationalist in orientation, predictions are made that certain abstract linguistic parameters that distinguish among groups of languages are "set" in the process of first language acquisition. This setting may have consequences on second language acquisition depending upon whether the parameter in the target language is the same as or different from the native language. Although the empirical tests of this theory are still being worked out (White, 1989), it is a strong theoretical

attempt to revive the role of the source language within a rationalist framework. And third, as trainers of foreign languages know, different languages take vastly different amounts of training to master. The Foreign Service Institute, for example, offers intensive language courses of very different lengths depending on the language, ranging from 20 weeks for French, German, Italian and Spanish to 44 weeks for Arabic, Turkish, and Urdu (Odlin, 1989). Much of these differences have to do with similarities to the properties of English. These are clear influences of the native language that are obscured when one only pays attention to the process of language acquisition.

With respect to the question of individual differences, there is a clear role for language aptitude (Carroll, 1981). In addition, attitude and motivation play an important role (Gardner, 1985). The role of the social psychological variables is especially evident in the case of language learning that occurs in settings where the second language is not a prominent feature of the sociolinguistic landscape, such as in the learning of French in the English-speaking parts of Canada or the learning in most foreign language classrooms in the United States. There have been speculation about the relevance of other features such as personality and cognitive style, but these effects are far from established.

Another important source of individual variation is the age at which second language learning begins. In a recent review of the literature, Long (1990) concludes that there is sufficient

evidence to conclude that there are maturational constraints on second language acquisition, i.e., the younger the better, particularly in the areas of phonology, morphology and syntax. It is difficult, however, to interpret this age effect as due to biological constraints such as a critical period, as hypothesized by Lenneberg (1967). First, age effects are generally linear in nature, and appear both before and after the supposed end of the critical period at puberty. Second, there is considerable within-age variation and many documented instances of highly successful adult second language acquisition. Third, there are no documented instances of qualitative differences in the grammatical development of child and adult second language acquisition.

PSYCHOLINGUISTIC AND SOCIOLINGUISTIC PERSPECTIVES

A psycholinguistic definition of bilingualism results from the question: what is the relative proficiency of the individual in the two languages? On the other hand, a sociolinguistic definition results from the question: to what speech communities does the bilingual individual belong?

The psycholinguistic perspective has resulted in the classification of individuals into compound vs. coordinate bilingualism (Weinreich, 1953), balanced vs. unbalanced bilingualism (Peal and Lambert, 1962), and early vs. late bilingualism (Genesee et al, 1978). Although each of these classifications result from different sociolinguistic

experiences, they are thought to result in distinct psychological organizations that would have measurable consequences in psycholinguistic behavior. The compound vs. coordinate distinction has been subjected to considerable empirical scrutiny. According to this distinction, the lexicon is organized either as a single concept associated with the corresponding words in the two languages, or as separate concepts for each language. None of the evidence produced thus far validates the distinction. The null hypothesis holds, that if one is bilingual, it does not matter how one got there.

The sociolinguistic perspective has produced distinctions along the lines of the social status of the languages involved. These include elite vs. folk bilingualism, referring to whether bilingualism is a marker of elite or plebeian social status (Fishman, 1977); additive vs. subtractive bilingualism, referring to whether the second language enriches or threatens the native language (Lambert, 1975); and elective vs. circumstantial bilingualism, referring to whether bilingualism is a consequence of individual choice or an accompaniment of social reality such as immigration or annexation (Valdes, 1992). Such distinctions help account for whether bilingualism is valued and maintained or allowed to shift into monolingualism. They also explain the language policies adopted by the government and educational systems toward bilingualism.

Psycholinguistic and sociolinguistic dimensions of bilingualism are in principle separable from one another. For

example, many individuals in the United States with proficiency in English and another language spend most of their lives as practicing English monolinguals (Veltman, 1983). In a sense, these individuals are psycholinguistically bilingual but sociolinguistically monolingual. This distinction is especially useful in understanding what is happening to the native language of minority communities in the United States and other immigrant countries. There is strong evidence of rapid shift toward preference of English among immigrants as indicated by census information. This shift, however, is not a psycholinguistic phenomenon, i.e., the result of individuals who lose their bilingual proficiency in the course of their lifetime. Rather, it is a sociolinguistic phenomenon where the low status immigrant language is no longer used, and then fails to be transmitted from one generation to the next (Hakuta & D'Andrea, 1992). The psycholinguistic perspective, then, tells us how languages are learned, but it is the sociolinguistic perspective that tells us how it is lost in the community.

CONCLUSION

The concept of intelligence has undergone major changes since the early days when the question of the language handicap was raised. Likewise, the concept of bilingualism has become far more complex than the simple measurement of vocabulary or grammar in the two languages. The issue is no longer whether the theories need to bring social factors into account, but rather

the manner in which linguistic and cognitive theories interact with social theories. At this point, there is little evidence to suggest that the linguistic and cognitive aspects of bilingualism are affected in any qualitative ways by the social factors involved.

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