Psychology 430
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People all over the world are beginning to understand the importance of being bilingual. If anyone were to just take a look in the newspaper, it would be obvious that being bilingual can earn a person higher wages or maybe even be the deciding factor in whether or not a job is landed. The world itself is becoming a smaller place with the ever present internet. A person from Missouri can now speak to someone from India just as easily as they can speak to someone who lives across the block.

Because of all this, it is no wonder that parents are beginning to ask questions about bilingualism and language development. Should parents teach their children a second language early in life? Will it be easier for a child to acquire two separate languages when he or she is young? If the child does not learn a second language while still very young, will the child still be successful in learning another language later on in life? All of these questions have been asked by researchers who have set out to find some answers.

Researchers that have studied second language acquisition have come to many different conclusions, but the most prevalent is the idea that there is a critical period where language acquisition occurs most easily. And, this critical period is during the early years of life. Two studies will be examined, one that supports the notion of a critical period only in learning processes and one that reveals evidence for no period clearly definable enough to be considered critical. With the evidence presented by these two studies, parents will be able to understand that learning a second language is easier when a child is young because of the learning process used, but it is by no means impossible to learn a second language later in life.

Robert DeKeyser designed a study to test this idea of a critical period in second language acquisition. He set out to test the Fundamental Difference Hypothesis, which predicts "that only adults with a high level of verbal ability are expected to succeed fully at second language acquisition. Children, of course, all learn their native dialect completely, regardless of their level
of verbal ability because they rely on language-specific mechanisms of implicit learning" ( $p$. 500). A secondary goal of the study was to replicate findings from Johnson and Newport's (1989) study that found a correlation between age of acquisition for those who started learning a second language before the age of 17 and the success of acquisition (p. 501). That particular study found evidence that supported the idea of critical period; adults mostly scored below the level of early childhood acquirers (p. 501).

DeKeyser's participants were all native speakers of Hungarian. Forty-two of the participants had immigrated to the United States after the age of 16 , and fifteen of the participants were younger than 16 when they immigrated. All of these participants had lived in America for at least 10 years when the study was conducted. One important aspect that was taken into consideration when choosing participants was the fact that none had reported any significant exposure to English before moving to the United States (p.508). To test the hypothesis, the participants were given a Grammaticality Judgmem Test and a Language Learning Aptitude Test as well as a background questionnaire about their language background, education, and age of arrival in America (p. 510).

The results showed that "a strong negative correlation between age of acquisition and score on the grammatically judgment test was confirmed" (p. 512). Also, it is important to note that the overlap between those who acquired the language as adults and the acquirers under age 16 was very small, thus making it clear that this is not just a small effect.

This study also set out to test the hypothesis that no adults would score within the same range as those who acquired the second language as a child unless they had high verbal aptitude (p. 514). It was concluded that the results of the study supported the notion that an adult learner can achieve the same level of competence as a native only if they are proficient in using
analytical, problem-solving abilities, because the learning mechanisms used by children are no longer available (p.514-515).

Ultimately, DeKeyser concluded that children and adults simply learn language in
 different ways. Children are better than adults at acquiring language implicitly; adults are superior in learning explicitly, especially the structure of the language. DeKeyser, most importantly, states that implicit learning requires total immersion, not a program that consists of a few hours of teaching per week (p. 520). The study also shows that explicit learning processes are necessary to achieve a high level of ability when learning a second language after childhood Programs that teach adults to learn a second language must focus on an analytical approach to the structure of a language (p. 520).

Hakuta, Bialystok, and Wiley designed a study to determine whether or not there is a clear- cut, definabl period that is critical when learning a second language. The researchers believed that a clear discontinuity that is necessary to consider a period critical does not exist. Rather, there is simply a declination in learning proficiency across the entire life span (p.31) Hakuta, et al, also noted the fact that there are many other factors not specific to language learning that can determine how well a second language is acquired. Factors such as socioeconomic status, education, and cognitive aging may all play a part in the success of acquiring a second language.

The data used to test this hypothesis came from the 1990 U.S. Census. Only those who were identified as native speakers of either Spanish or Chinese were chosen as participants ( $p$. 32). This was done because of the difference in structural similarity to English (p.32). As with DeKeyser's study, each participant had resided in the United States for at least ten years. The census form asked the respondents to describe their English ability, educational background, and
age of arrival in the United States. Those answers were then examined to determine if there is any specific age related decline in second language learning ability.

When the data was examined, there was no evidence to support the case for a critical period that ends at age 15 or age 20. The decline in learning ability was not significant enough to mark the end of a critical periodgtherefore supporting the notion that success in second language acquisition simply declines during the course of life (p. 35).


This study concludes that there is no overwhelming evidence to support clear cutoff points necessary in determining a critical period in second language acquisition (p. 37). Makuta, et al, explain: "These data show that in addition to age of immigration, socioeconomic factors, and in particular, the amount of formal education, are important in predicting how well immigrants learn English. The linear decline in proficiency across age of immigration was similarly confirmed in both groups. Although we could not directly test an explanation for this decline, the factors implicated in normal cognitive aging appear to be plausible sources of this effect" (p.37)

Both studies tried to determine whether or not a critical period exists for second language acquisition. DeKeyser's study showed that the only critical period that exist ind processes. Hakuta, et al, demonstrated that there is no sharp decline to mark a critical period, only a declination in cognitive abilities across the life span which affect second language acquisition. Regardless of the differences, both studies give an optimistic view of learning a second language later on in life. Both also stress the importance of research on this topic because it can potentially affect when, how, or if at all a second language is taught in school.

Parents must realize that learning a second language can be extremely beneficial for their children. It allows for increased communication among those who speak either language. Bilingualism also gives a person a definite edge in the job market. Even with this knowledge, it
seems that the common consensus among most people is the belief that children must learn a language very early on in life in order to achieve near-native speaking abilities. This is just not the case. A mother who is concerned about her child may worry that she made the wrong decision to hire a nanny who speaks only one language. Another mother may feel that hiring a bilingual nanny who speaks both English and Spanish is the best decision she can make for her child. Both mothers must understand that, as DeKeyser's study demonstrated, only total immersion in both languages will result in native speaking abilities for a child. Because of this, that child must be exposed to both languages constantly for implicit learning to take place.

For those parents who want their child to learn a second language, but do not have the ability to hire a bilingual nanny, it should be known that all hope is not lost. As Hakuta, et al, demonstrate in their study, there are many factors that affect second language acquisition. The most important one, education, must be taken in to consideration. Give the child a good education, along with lessons to learn the second language, and near-native speaking ability becomes just as possible as before.

Overall, it must be understood that learning a second language is not something that is next impossible for adults. The learning processes are just different for adults and children. If an adult decides to learn a second language, he or she must use problem-solving and analytical abilities to learn the language. Children, on the other hand, learn much better when immersed in both languages. If it is possible to have a child immersed in two languages when he or she is very young, any parent should fully use this opportunity. However, parents must never lose sight of the fact that successfully learning a second language, even as an adult is very much a possibility when effort and the right type of learning tasks are applied $i l$

## References

Bialystok, E., Hakuta, K., \& Wiley, E. (2003). A test of the critical-period hypothesis for second-language acquisition. Psychological Science, 14, 13-38.

DeKeyser, R.M. (200). The robustness of critical period effects in second language acquisition. Studies in Second Language Acquisition, 22, 499-533.

## Paper Grading Rubric

|  | Exemplary | Good | Limited | Unsatisfactory |
| :---: | :---: | :---: | :---: | :---: |
| Points: | 11 | 8 | 5 | 2 |
| Introduction |  | Thesis is clear; provides some direction for paper | Thesis is inappropriate, unclear, or incomplete | Ineffective or missing introduction |
| Study 1 <br> Description | $\begin{gathered} \text { Accurate, } \\ \text { (appropriate lye of } \end{gathered}$ | Sufficient and accurate | Partly inaccurate, incomplete, or unclear | Missing, inappropriate study |
| Study 2 Description | Aerirate, $\begin{gathered}\text { appopriate level of } \\ \text { detail }\end{gathered}$ | Sufficient and accurate $\qquad$ | Partly inaccurate, incomplete, or unclear | Missing, inappropriate study |
| Synthesis/ Comparison | $\qquad$ |  | Inaccurate, incomplete, or unclear comparison; summarizes previously stated information | Missing comparison of 2 studies |
| Conclusion/ Recommendations | Extends and connects ideas; insigetful comments. | Satisfactory: <br> Purposeful; <br> appropriate <br> comments | Unclear, incomplete, or inappropriate; Summarizes previously stated information | Missing |
| Total Points Earned | $11$ | $8$ |  |  |
| Points: | 42 | 3 | 2 | 1 |
| Paragraph Order | Contrubutes to effective arguments, reinforces content | $\begin{gathered} \text { Demonstrates a } \\ \text { plan } \end{gathered}$ | Ineffective or inconsistent | Random |
| Transitions | Effective and varied | Clear and functional | Mechanical | Absent |
| Sentence Structure | Complete and | Complete and correct | Some ertors are evident | Repetitious; fragments and runons are frequent |
| Word Choice | Fhigaging, powerful choice of words | Appropriate to task | Uneven | Inappropriate or incorrect words are frequent |
| References | Complete list of references; studies are clearly referred to in text | Complete list of references; studies not always clearly referred to in text | Reference list is incomplete | Reference list is absent |
| Total Points Earned | 20 |  |  |  |
| Overall Points Earned: |  | out of 75) | Letter Grad | de: $\qquad$ |

