

The Age Factor in SLA and English Language Teaching

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Abstract: Recently, there has not been an agreement on the age issue in Second Language Acquisition. The controversy centers on both whether there are significant differences in L2 learning according to age, and also on the theoretical explanations for those differences which researchers claim to have found. In this paper, the main discussion will focus on the key elements in this complex issue by first examining effects of age and then looking at various explanations of these effects.

Keywords: age factor, SLA, motivation

1. INTRODUCTION

It has been widely observed that young children seem to learn second language more easily and more proficiently than adults. After settling in another language community, children appear to be very efficient in picking up the new language, whereas their parents often seem as their children. This widely observed phenomenon has led to the hypothesis that there is such a thing as an optimal age, or a critical period(Lenneberg,1967) for L2 learning.

2. THE EFFECTS OF AGE ON RATE OF SECOND LANGUAGE LEARNING

Rate of SLA appears to be strongly influenced by the age of the learner. In the review of the research on the age issue, Krashen, Long and Scarcella(1979) conclude that (1)adults are superior to children in rate of acquisition, and (2) older children learn more rapidly than younger children. That is, if learners at different ages are matched according to the amount of time they have been exposed to the L2, it is the older learner who reach higher levels of proficiency. The study in support of these conclusions is Snow and Hoefnagel-Hohle.

Snow and Hoefnagel-Hohle(1978) observed the language learning of English native speakers all of whom had recently come to the Netherlands and were learning Dutch. Comparing adults and children these two investigators found (1) that older learners are better than younger learners in their vocabulary progress, and (3) there were only small differences in pronunciation. Experimental studies have also shown that adults outperform children in the short time. Olsen and Samuels(1973) found that American English-speaking adolescents and

adults performed significantly better than children after ten 15-25 minute German Pronunciation Sessions.

However, other studies suggest that adults do not always progress more rapidly than children in pronunciation. Cochrane (1980) investigated the ability of 54 Japanese children and 24 adults to discriminate English /r/ and /l/. The average length of naturalistic exposure was calculated as 245 hours and is relatively little, the children outperformed the adults.

These studies give general support to Krashen, Long and Scarcella's generalization that adults learn faster than children. This is particularly true in terms of morphology and syntax, not pronunciation. This is not developed than those of child learners, thus enable them to identify and manipulate structure rules more quickly.

3. THE EFFECTS OF AGE ON LEARNERS' SECOND LANGUAGE ACHIEVEMENT

Where success of SLA is concerned, the general finding is that although the majority of L2 learners fail to reach native-speaker levels of ability, the longer they expose to the L2 the more native-like L2 proficiency becomes. Burstal (1974) constituted a longitudinal study (1964-1974) on the question of earlier versus later second language learning. Its goal was to find out whether a start in a second language at the age of eight was practically feasible in the British school setting and whether it offered any special advantage over a start at the age of eleven. The results of this study did not show that the early starters were overwhelmingly better. The early starters maintained, after two years, a certain but diminishing superiority in speaking and listening and, after four years, only for listening. Those who had started later and therefore had less time to learn were equal or superior on tests of speaking, reading and writing and were inferior only on a test of listening. If there is any advantages for the early start, it is only that it allows more time for second language learning.

However, the result from other school-based study (Harley, 1986) is not supportive of the claim that children's level of attainment is greater than that of adolescents/adults. One possible explanation for this is that formal learning environments do not provide learners with the amount of exposure needed for the age advantage of young learners to emerge (Singleton, 1989)

Studies of learners in naturalistic learning situations provide the most convincing evidence that younger is better and, therefore some support the Critical Period Hypothesis. Oyama (1976), for example, found that the age of arrival of sixty Italian male immigrants in the U.S.A. was a far more potent determinant of the levels of pronunciation they achieved than was length of stay. In other words, learners who start as children achieve a more native-like accent than those who start as adolescents/adults.

This conclusion may not hold true for the acquisition of reading and writing skills by 273 Japanese children in grades two to eight in Toronto. They found that the older students have much stronger L2 reading and writing skills than the younger students. One possible

explanation is that the older learners they bring to the learning task more literacy experience in Japanese and greater cognitive maturity, which enable them to apply themselves to the task of learning an L2. This is likely to give them an initial advantage over children, but may not be sufficient to guarantee high level of L2 proficiency.

Generally speaking, whenever those who began to learn the L2 at an older age and those who began at a younger age have been compared with one another after several years of L2 study, or several years of living in the L2 environment, those whose L2 studies started early have reached a higher level. Thus whether we consider formal learning or natural acquisition, it seems that those who start to learn another language when they are children are at an advantage.

4. POSSIBLE REASONS FOR THE EFFECTS OF AGE ON SLA

In addition to the empirical research summarized above, various more or less interconnected reasons have been offered to account for the effects of age on SLA. There is to date no agreement as to which reason is the most influential.

4.1 Biological Explanation ---- the Critical Period Hypothesis (CPH)

The critical period hypothesis states that there is a period when language acquisition takes place naturally and effortlessly. The neurologists Penfield and Roberts argued that the child's greater ability to learn a language could be explained by the greater plasticity of its brains. This brain plasticity was found to decrease with age. Penfield and Robert (1959) cited evidence that children have a remarkable capacity for relearning language skills after injury or disease destroys the speech areas in the dominant cerebral hemisphere, usually the left hemisphere. That is, they transfer their language functions to the opposite hemisphere. Adults often do not recover normal speech. They suggested that this was the result of the lateralization of the language function in the left-hemisphere of the brain. That is, the neurological capacity for understanding and producing language, which initially involves both hemispheres of the brain, is slowly concentrated in the left hemisphere for most people. It is also argued that the reason for adult's unrecovery is loss of brain plasticity. From this capacity of the young brain to compensate for the loss of the speech function Penfield inferred that the brain of a young child is much more receptive for the development of speech mechanisms than the adult's. This conviction led him to the view that the massive exposure of young children to different languages would be in accordance with biological time table.

However, the Critical Period Hypothesis is usually associated with Lenneberg(1967). Lenneberg found that (1) injuries to the right hemisphere caused more language problems in children than in adults, and that (2) in cases of children who underwent surgery of the left hemisphere, no speech disorders resulted, whereas with adults almost total language loss occurred.

Lenneberg's evidence suggested that the neurological basis of language in children and adults was different. He assumed that language acquisition was easier for children. But this assumption is controversial. Because much evidence show that when pronunciation is concerned, children are more successful than adults, but adults progress faster than children when it came to morphology and syntax. The Critical Period Hypothesis needs to be recast to account for why loss of plasticity affects pronunciation but not other levels of language.

One possibility is that there exist many Critical Periods(Seliger,1978), successive and perhaps overlapping, lasting probably throughout one's life, each closing off different acquisition abilities. Such a 'multiple Critical Periods Hypothesis' could explain why adolescents outperform adults in grammar acquisition--around sixteen a critical period affecting grammar may be reached. Walsh and Diller(1981) argued that children may be superior in the area of pronunciation, because 'lower-order processes such as pronunciation are dependent on the early maturing and less adaptive macroneural circuits', whereas 'higher-order language functions, such as semantic relations, and more dependent on the late maturing neural circuits...'

However, Krashen(1982) believes that the cerebral dominance theory is no longer supported by the evidence. Children do not acquire better because they have greater brain plasticity, for Krashen maintains that left-brain dominance is established well before puberty. If it is true, that should cast considerable doubt on the strong position that the acquisition of cerebral dominance at puberty is the principal differentiating factor in child-adult SLA. Because Lenneberg maintains that there is a direct link between the CPH and the development of lateralization. After age 4 successful language learning should not be possible. Krashen prefers to believe that the older child and adult.

Advantage in early language acquisition is a direct result of cognitive superiority. But how may one explain the fact that eventual acquisition success is much greater for those who begin SLA at a younger age? Krashen (1982) claims that language learning difficulties after puberty may be related to the social and psychological changes an individual undergoes at that age.

4.2 Cognitive Explanation

One obvious difference between the young child and the adolescent/adult is that the latter has the ability to comprehend language as a formal system. That is, older learners can learn about language consciously. In contrast, language for the young child is a feel for expressing meaning.

Tosansky(1975) and Krashen (1975) are exponents of the cognitive argumentation. It is argued that the onset of the stage of 'formal operations', in Piaget's sense, marks the beginning of the end of the critical period. At the onset of formal operations, the adolescent develops a capacity for abstract thought and is able to reflect on the linguistic rules he uses. He is able to step back, and look at his own linguistic behavior from a distance. This meta-awareness allows the learner to create abstract theories of language. Also he is likely to develop strong social

attitudes towards the use of his own language and the target language. These may serve as blocks to natural language acquisition. Thus the adult cannot learn an L2 automatically and naturally.

In contrast, the young child lacks abstract thinking and does not know that he is acquiring language because of his absence of meta-awareness. Furthermore, the young child has not developed social attitudes towards the use of his own language and the target language. Although Rosansky's arguments are based on the controversial assumption that younger learners are more efficient and more successful than post-puberty learners., it is still possible that cognitive development can help to explain why adolescents/adults learn more rapidly than children. That is, the meta-awareness may facilitate more efficient learning.

4.3 Affective Explanations

The differences in affective states of young and older learners account for age differences in SLA.

Taylor(1974) and Schumann (1975) link the notion of a critical period with the affective changes that occur in the learner at the onset of puberty. It is argued that children have a greater empathic capacity than adults, that children have not yet developed inhibitions about their self-identity, and are, therefore, not afraid to sound ridiculous and prepared to take risks when experimenting with their as yet far from perfect L2 knowledge. Very young children are not yet hampered in their L2 learning by negative attitude towards speakers of that language and children generally have a strong integrative motivation to learn the language.. This means that children characteristically approach the task of learning with a low 'socio-affective filter' (Dulay and Burt, 1978).

In a cross-national study of children's views of foreign people, Currann(1961) feels that children acquire second languages more easily than adults because they are less threatened by the sounds of the new language and because they are willing to depend on others for support in learning. The adult, on the other hand, has acquired a basic security in his own language and is not ordinarily threatened by rejection when he speaks it, but when he attempts to communicate in the new language his normal linguistic securities are undermined, and he finds himself in a dependent state which he may resist.

Krashen(1982) agrees with Schumann (1975), who, after a review of literature on affective development, claims that language learning difficulties after puberty may be related to the social and psychological changes an individual undergoes at that age. He hold that adolescents and adults have affective filter made up, at least in part, of suspiciousness and concern for identity. This filter removes comprehensible input from older learner's experiences and eventually causes them to lag behind the child.

On the other hand, it can be argued that adults have some cognitive and affective advantages over children, especially when languages are learned in classroom situations with much emphasis on formal correctness. Adults have a greater memory storage capacity, a greater

capacity for analytic reasoning and can develop a strong instrumental motivation, qualities which can lead to very effective learning in such situations. Successful adult second language acquisition might be explained by the fact that under certain conditions adults can overcome the social and psychological barriers of their learning.

All these positions suggest that psychological maturation may be as important or even more important than neurological maturation in accounting for differences between children and adults in the second language learning.

5. CONCLUSION

All in all, children generally enjoy an advantage over adults in L2 learning because of their age, particularly in pronunciation. However, this will only become evident after substantial exposure to the L2. In the short term, adults may learn faster because of their greater cognitive abilities. The exception to this will be pronunciation, because of the difficulty of consciously manipulating this aspect of language.

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