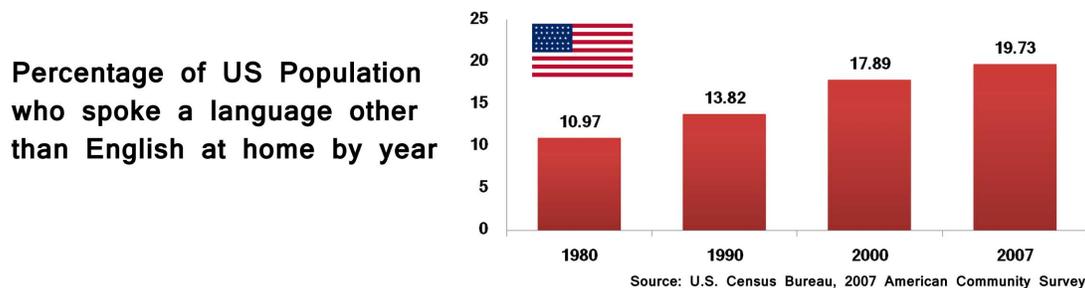
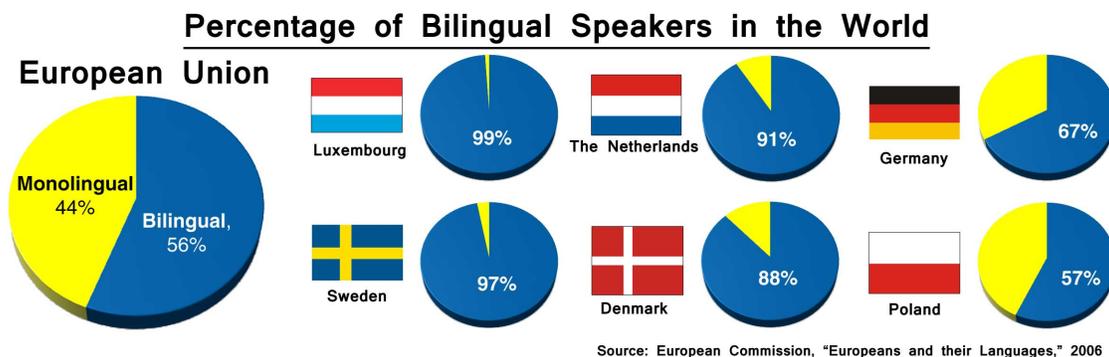


How Motivation Affects Bilingualism and Cognitive Ability

Bilingualism is recently becoming more popular than ever in the world view. According to the U.S. Census Bureau in 2007, since 1980, over the span of 27 years, the percentage of the US population who spoke a language other than English in their home has increased almost 10%. The Associated Press also report that about 66% of the world's population is now being raised bilingually. There are many factors to becoming a bilingual user, and one of the first things that need to be observed are the motivation in a learner. Bilingualism helps give people advantages cognitively, in which a bilingual person can often “outperform” that of a monolingual person in some given areas.



Motivation

Motivation is another word for something that drives a person to want to do something. Many people are motivated by very different contexts, some being the environment in which they live, some may be motivated because of a job they want, or perhaps even motivated by a

family member. No matter what the circumstance, motivation has seen the peak of its days in relevance to second language acquisition.

According to Gardner and Lambert (1972) after concluding a study about a learner's attitude towards the target language which lasted for over 10 years, concluded that there are two broad categories that describe motivation: "instrumental motivation refers to the learner's desire to learn a language for utilitarian purposes, whereas integrative motivation refers to the desire to learn a language to integrate successfully into the target language community" (Gardner and Lambert, 1972). Subsequently, there are many more ways to define motivation, as motivation is a word that can be used freely, such as intelligence; something that cannot be measured. However, integrative and instrumental motivation are two terms used by language acquisition researchers worldwide.

Instrumental Motivation

Instrumental motivation in language acquisition is defined as language learning for more immediate or practical goals (Lightbown and Spada, 2006). People who typically fall under the instrumental motivation category are often times found to be language learners that will utilize the language for a job or task they will encounter in their future. Some people could argue that instrumental learners don't really enjoy learning the language –and that they learn it because they have to, but there are those who could argue against that, as to whether being instrumentally motivated affects the learning process for the target language.

Integrative Motivation

Integrative motivation is the motivation for language learning for personal growth and cultural enrichment (Lightbown and Spada, 2006). Typically, these learners are arguably the best kind of motivated learners for a language because they constantly want to interact with those

of the target language, and perhaps 'join' their society. Due to the motivation style of these learners, compared to instrumental motivated learners, it is perhaps easier for integrative learners to adapt to the learning environment, have a lower affective filter (Hypothesis by Krashen), and overall show a good performance and result in target language learning.

Integrative v.s. Instrumental Motivation

“In some learning environments, it is difficult to distinguish between these two types of orientation to the target language and it's community. Furthermore, early research on motivation tended to conceptualize it as a stable characteristic of the learner” (Lightbown and Spada, 2006). Depending on the type of learning environment, motivation is subject to change. This means that aside from Integrative and Instrumental motivation, we move back towards the idea that of which other factors come into play of learning.

Dornyei (2001a) developed a process-oriented model of motivation that consists of three phases; 'choice motivation', 'executive motivation', and 'motivation retrospection'. These three sub-types of motivation make up Dornyei's process-oriented model of motivation. Dornyei's model of motivation has been used as a tool to help second language teachers provide a more interactive and fun-learning environment, in hopes that these methods will motivate learners to become better learners of the language.

Other Aspects of Motivation

Oxford and Shearin (1994) identified six factors that impact motivation in language learning:

- Attitudes – How much the learner wants to learn the language
- Beliefs about self – Believing in oneself, how much they want to succeed
- Goals –What the person's goal is for learning the language

- Involvement –How much the learner participates in learning
- Environmental support –Teacher and/or student support in classroom
- Personal attributes –Aptitude, age, previous learning experience

These are basic, but very much the attributes of motivation that Oxford and Shearin found to have an affect on the learning process. However, there has not been enough evidence to prove that this is all to motivation. Compared to other theories such as Behaviorism or Innatism, motivation can be classified under the same research level of difficulty as learning styles and intelligence, in a way that it is difficult to find research that directly pinpoints why something happens, why mishaps happen, and how it can indefinitely be fixed in order to improve second language acquisition. Since motivation is more of a psychological aspect, it can easily be affected and turned by the environment, or by anyone.

Jack

Jack stated that he is a learner of Japanese, while nationally an American born Vietnamese. The reason he is learning Japanese is that in the future, one of his hopes is to work in Japan as a pharmacist. “My parents never understood how to speak Japanese, even though it is somewhere lost in our bloodline. I want to recreate the culture our family has lost, utilize it, and make myself someone in Japan” said the Jack. This is an example of instrumental motivation in which the interviewee is learning Japanese to be able to work in Japan, but that is not all.

A person can be mixed motivated, like Jack. No one is “not allowed” to be a motivated learner that is both instrumental and integrative; sometimes it happens. One can learn a language for fun and for personal interest, all the while learning the language to fulfill their goals, or to

become a part of a foreign country's workforce. It all depends on the individual and the goals that they set for themselves.

Jack is currently enrolled at the University of Hawaii at Manoa in the Japanese Language department as a 3rd year learner, moving on to 4th year. "I want to continue to keep learning Japanese through the university system because there is no where else I have to learn until I can finish my degree and head to Japan. I really want to see this dream become a realization."

According to Oxford and Shearin, attitude and believing in oneself is a major key in learning a second language and becoming a bilingual. Because Jack shows promise in language skills, and shows great motivation and signs of success, one can infer that Jack will move on to succeed in his academic career and move on to realize his dream of working in Japan.

Neurological Processing and Simultaneous Bilinguals

Another factor to look at is Neurological Processing, which if tested, could be found happening in those raised as a bilingual. According to the California Department of Education (2009), Simultaneous bilinguals are children who are exposed to more than one language prior to age three, whom of which develop two or more languages equally, or nearly equally through exposure and frequent opportunities to use each language. These learners are those who are highly capable from birth to be using multiple sides of their brains at any time. These are learners who fight to keep bilingualism as a part of themselves, some using them as a source of identity, or some using it as a way to communicate with their loved ones, and not necessarily viewing it as someone as who they are. There are many different types of people in the world with different views on their identity and what they use to associate it with, but it is surely something that people fight to keep living on within them if they can, to be speak two languages, to be bilingual.

According to Marian (2007), researchers have used different brain imaging techniques such as functional magnetic resonance imaging (fMRI) to show the different active brain regions when bilingual perform a task in which they are forced to alternate between two languages (Zhang, 2013). This experiment has yielded results such as there is a heightened level of attention and inhibition. A part of the brain, the left inferior frontal gyrus (left-IFG), also seemed to be in cognitive control. The left-IFG is often referred to as the “language production center of the brain” and the results have shown that it is involved in both linguistic and non-linguistic cognitive control.

People who have visited an eye doctor before and have received eye diagnostic tests may have done something like this during their appointment. The eye doctor, to test your vision, will give you a series of tests that have the patient read a color such as red, in the color red, and maybe blue, while the text blue is painted green. Although not intended to confuse people who are receiving eye appointments, this is a daily life test that everyone goes through, and if the brain can function in a way that helps bilingual people see tests like this better, it is assumable that bilingual people have heightened cognitive abilities (and perhaps vision).

Bialystok and Martin (2004) argued that it is the experience of controlling two languages to keep them separate and using them appropriately is what enhances the development of control processes in bilinguals. Bialystok found that this ability is mainly evident in those who have high levels of proficiency in both languages, and use both languages on a day-to-day basis (Genesee, 2009) In the next study, this will be evident since this study involves a student who has grown up learning English and Chinese from childbirth and is now a senior in High School.

Guy

Guy is a native speaker of English, born in the United States, and has grown up learning Chinese simultaneously from the time of birth. According to Guy, from what he can remember, the language he remembered being brought up with was both languages, but were separated depending on what the subject was. For example, if the subject were academics, his parents would speak to him strictly in English, for the sake of having him succeed in school and anything academic related. However, this would change if the subject were, for example, daily life; things like dinner or taking either the car or bus to school, all of those would be done in Chinese.

The reason this being is that even though the contents of the talks are not the same, it is believed by his parents that even though he is only using English as the medium for academic purposes, that the Chinese that he learns through daily interaction in the home will somehow influence his way to learn more Chinese indirectly in the academic field.

An interesting fact to note here is that Guy can indeed use both languages at a high proficiency level, and be able to translate the content he learned in school in English back to Chinese. Although it is of no importance since he understands what is being said in English, being able to translate back into Chinese is something that was not expected, since most of his Chinese exposure was to daily life situations. This was tested by bringing in a 3rd party native speaker of Chinese to test the abilities to see if he could translate the academic English back into Chinese. Some parts of the translation were somewhat misleading, and could be taken multiple ways, but it was able to be done in a prompt manner and was relatively accurate.

These results prove the fact the Guy has had control over both languages from since he was a child, and still holds the ability to work with both languages even as a high school student.

This is a perk of Simultaneous Bilingualism and will be something of high benefit in the future to him.

Alice

Alice is a little different case. Alice began learning Japanese as a middle school student, because she was motivated to become a Japanese speaker in hoping to converse with her grandmother whom of which is living in Japan. She studies everyday for 5 hours, because her grandmother is bound by sickness and she has not much more time to live according to Alice, and she wants to make the most of the time that there is left, and fulfill her dream of being able to speak to her grandmother who is a monolingual speaker of Japanese.

“I began learning Japanese in middle school in hopes to speak with my grandmother, who is currently being hospitalized. When I found out she was diagnosed with cancer, that gave me the motivation to learn Japanese faster than the schools could teach me. This was and still is a life changing moment for me, and to be able to reach this goal would be of great bliss for myself. This is the goal that I have set for myself and I plan to achieve it no matter what. It is what makes me who I am”.

Alice, who currently studies Japanese everyday for 5 hours, seeks help from her friends from Japan to practice speaking with her for about 2 hours a day, whether it be in person or online. This is an example of involvement from Oxford and Shearin’s (1994) factors for motivational learning. Alice involves herself with the Japanese community as much as she cans, as it not only helps her to fulfill her goal, but rather shapes her identity as a person, and who she believes that she is. “If my friends hadn’t been here to help me practice my Japanese, I wouldn't be able to speak any Japanese at all I think”.

Conclusion

Motivation can be anywhere, and in any form, even in the form of other people. Not one person can define motivation for a single person, which could make it very difficult to study. This is what makes research on motivation very difficult, since one can only define different types of motivation, but hardly can apply them to a scientific term or case that can universally be used to understand a single person, whether it be one kind of motivation like instrumental, or motivation that is integrative.

Bilingualism helps give people advantages cognitively, in which a bilingual person can often “outperform” that of a monolingual person in some given areas, and help drive people to learn or keep a second language. With a second language, people can communicate with their loved ones, with others who live in other parts of the world, and gain abilities such as meta-linguistic awareness., and overall just a better functioning brain. Given the advantages of being a bilingual speaker, who in modern society would not want to be?

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