

Technical Writing – Northern Virginia Community College

# Benefits of learning a new language

For Professor Patricia Z. Means

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5-3-2019

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## Introduction

We live now in an era that was built after World War II. The United States aimed to create an international trading system to counterbalance the influence of the Soviet Union in the world. The World Bank, the General Agreement on Tariffs and other international institutions were created under this vision. The system that was created thrived with the Revolution of Information in the 1980s and evolved into the global market and the global village that is known today. This new world structure, empowered by falling costs in communications, allowed people to act, to communicate, to travel and to sell globally, changing forever the way people interact and do business around the globe (Friedman,2000). This new order has made of great importance the acquisition of new languages to communicate with peers around the world. This trend is becoming part of general education background. Still, this fact is not in the top of mind for everybody; in fact, applications like Google Translator have helped to diminish the importance of learning a new language and the underlying benefits. The article published by the Financial Times, “Learning Another language? Don’t bother”, describes these facts clearly and goes further into explaining that people who want to be proficient need to start from a young age, so why bother? However, this same article explains other benefits; being fluent is one of the advantages. Learning a language is a cognitive booster and increases our abilities and understanding of the world from a different perspective (Kuper,2014). There are several studies based on experiments that address the benefits, and it is essential to outline them along with facts.

Many parents believe that it is not essential to learn a new language. Thus, they do not include this type of skills among their plans to educate their children. Around the Loudoun County area there are many after-school programs that include: sports, STEM, music, and arts. The Academy of Sciences and the programs around sports are the most appreciated curricula amongst most parents in the area. Sport is one of the significant investments that many parents make because of the health benefits and maybe because of future scholarships, but in fact, if a student has the athletic abilities to gain a scholarship he or she still has to have good grades. The more the parents invest in their child’s brain development, the more probabilities will increase to get ahead in their academic success. Soriano, D.Z (Oct. 2017) explains very well this fact in her article “4 Myths about athletic scholarships,” the myth number four clarifies that the students must compromise to get good GPA to keep their benefits.

This research will try to describe in detail all the benefits and gains related to each stage of life. The apparent benefit will be learning a new language, but the real value lays underneath the work of learning this new skill. It is the ultimate brain workout. When a person gets into a workout program, the ultimate gain is a fit body. Indeed, there are other more significant benefits, like a healthy heart, increase of dopamines which make people happy, the rise of energy. Thus, this paper will go over several studies and will try to summarize all of these gains and why they are essential and why the findings are reliable and answer the question about how learning a new language is of great value for any individual.

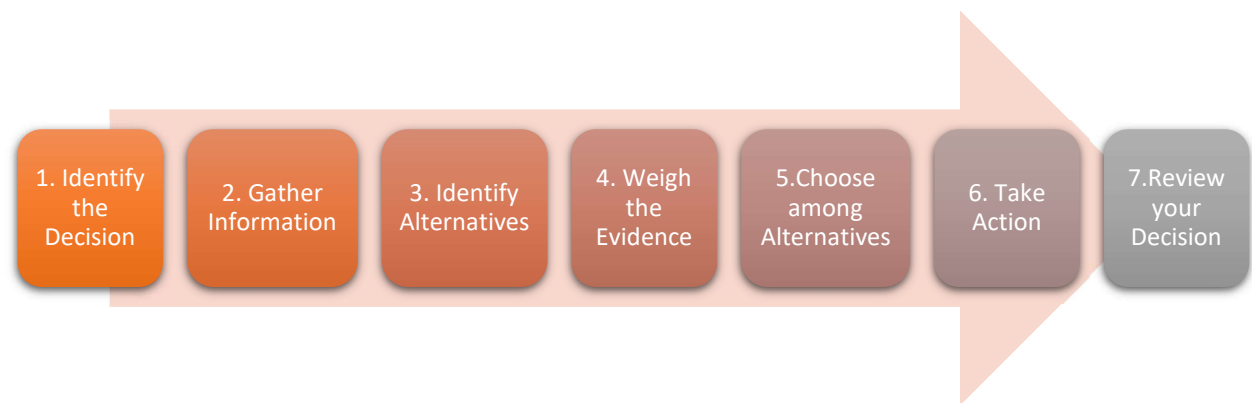
Several advantages can be cited around this subject, but the paper will concentrate around four topics: the reduction of decision bias, the enhancement in the perception of reality, the increase of cognition, and the opportunities of career growth.

The following sections will discuss in detail each one of these advantages and how researches have validated the results.

## Reduction of Decision Bias

The process of making decisions is a complicated task. Most people struggle in making the right choices and assessing the information available to achieve this goal. To understand better this mechanism, the University of Massachusetts in Dartmouth presents a diagram with seven steps that help students to make decisions about their careers.

*Figure 1. Steps in the decision process by the University of Massachusetts Dartmouth.*



The graphic above describes in an orderly way how people should approach the problems in their lives, however, this process is tainted by cognitive bias. All the facts are rarely available, and there are holes in the communication and the information that humans tend to fill with perceptions of the world around them. These perceptions are created by previous experiences and concepts of reality that are taught by families and caregivers, which is a significant component of culture and the customs and the ways of the place where people live. Cognitive biases occur when we are trying to process much information; the brain will try to simplify the process using rules of thumb to make quick assessments of the situation. These rules that usually are accurate, but sometimes they will yield poor-decision making. These biases can also be created by social pressure, feelings, individual motivations and inability to process information (Cherry, 2018). Now, how can learning a new language help to minimize cognitive bias? A study made by the University of Chicago showed that when a person is presented with a problem in a different language than the first language, the person will form the base of the decision on facts and will look for more information to fill in the blanks left by the actual data. These rules of thumb that were created during the upbringing will not be there. Thus, the person will follow the process of making a decision thoroughly.

This study states that if a person is presented with a problem the person will decide based on facts, reducing the bias induced by perception and sentiment. This research was done with experiments performed over three different groups, English-Japanese, English-French, Korean-English. Each group was presented with the problem in the second language, and the three groups were likely to choose based on facts rather than intuition. The conclusions of the experiments state that the participant reduced the bias by eliminating the framing that a native language will use when speaking in their mother tongue. Every problem generates sentiments that when presented in another language can be reduced because there is a disconnection between the language and the emotion that is caused by the problem. The final assessment is that by doing this process several times a habit will be created, a practice of good decision-making that will be used even if the person is speaking his native language.

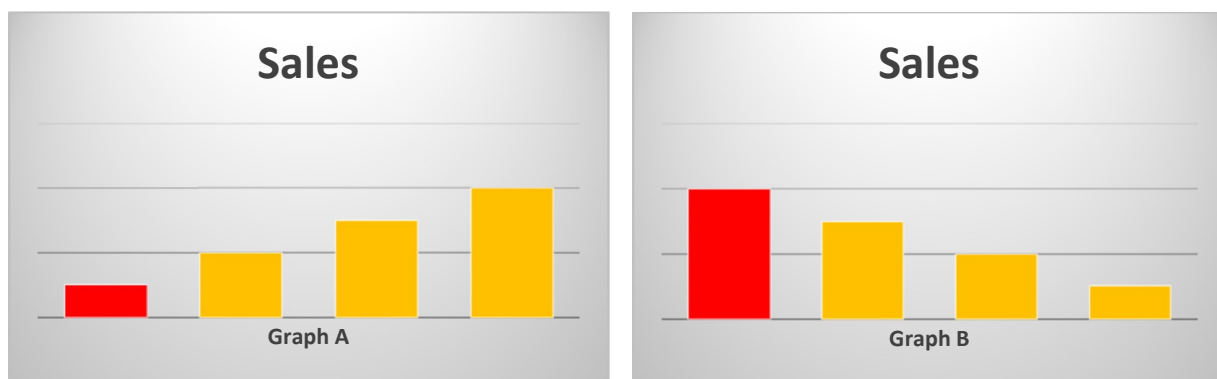
## Enhancement in the Perception of Reality

To approach this topic is essential to understand the meaning of the perception of reality. The neurologist Cytowik, R. in his article “Reality lies beyond what we perceived” published by Psychology Today in 2010, states that reality involves more than we can perceive. Since the beginning of existence, humans had relied on their senses to understand the world around them. The world was flat because the human saw a flat world; the earth was the center of the earth because the stars and the sun were fixed on the sky. The first humans survived by their ability to identify edible by tasting the fruits and the survivors passed this knowledge. As the author clearly explains: “What we see, smell, hear, taste, and feel are merely the gatekeepers to the mind’s reconstruction of reality. How we interpret them contributes another layer of meaning.” The reality that we understand is an incomplete interpretation of our world (Cytowik, 2010). Thus, in this context how can learning a new language help us to maximize our knowledge of the physical world?

The Sapir-Whorf hypothesis states that the perception of reality is shaped by the language that one person speaks. Some studies show that people from Russia can perceive the color blue in different shades than people from English speaking countries. This perception of reality maps the understanding of the world with concepts that translate into specific words in their language. Thus, if there is a concept that relates to the culture or history of any country with a specific language this concept may not be understood fully by other people with a different language. What that means is that if we learn different languages, we can relate to a different point of view about reality. By learning new languages, we can complement our perception of reality by learning new concepts that otherwise we would not have been aware.

We can complement this concept by doing a simple exercise. The graphic A, down below on the left shows the sales; the x-axis does not show a title, so we assume that the sales are incrementing. We make this safe assumption because we, occidental people, read from left to right, which usually means from low to high. However, if we go to the sales department in some Arab country the assumption of the people reading the graph would be the sales are going down because they read from right to left, which means from high to low. The correct way to present the graphic would be Graph B on right. The bars with bigger size on the right and the lowest on the left means in an Arab country that the sales are going up.

Figure 2 Graph of sales over time



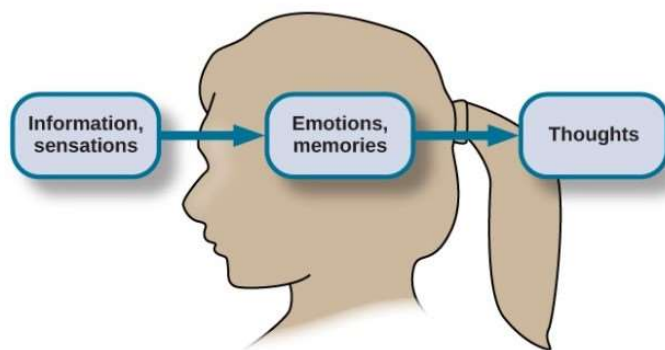
We can assume that in an Occidental country red is a warning. In the first graph above on the left, we could presume that sales are too low, but in China red means good luck, so the correct color would be the graph on the right, which would say in Chinese culture: we are lucky that the sales are up.

This awareness of concepts not only makes us more receptive to other cultures but also helps navigate within several contexts. This navigation or flexibility in the way we perceived the world around us will grant us creativity and a sense of familiarity when we are presented with new concepts and challenges. This flexibility and understanding of the world are an essential asset that will bust creativity and maximize the ability to manage change.

### Increase of cognition

As stated in the course “Thinking and intelligence” by Lumen Learning, cognition is the ability to think and circumscribes the different structures associated with memory, judgment, problem-solving, language, knowledge and perception. Scientists had divided the process of cognition into these components: categories, concepts, prototypes, and schemata. A category is a collection of objects that are related; the category truck, for example, encompasses a type of vehicles with common characteristics. The representation of these categories in our mind is called concepts. Concepts and categories should be strongly related; however, a human interpretation of a category may be wrong in a person’s mind. These concepts are shaped by external stimuli, personal experiences, and emotions when the process of classification is ended the brain categorize the information in the form of ideas, linguistic knowledge, images, and memories, ready to be used when necessary. The figure below shows an example of how thoughts are generated: information is received by the brain, modified by emotions and previous experiences to become thoughts.

*Figure 3 Information and sensation processed in the brain to generate thoughts.*



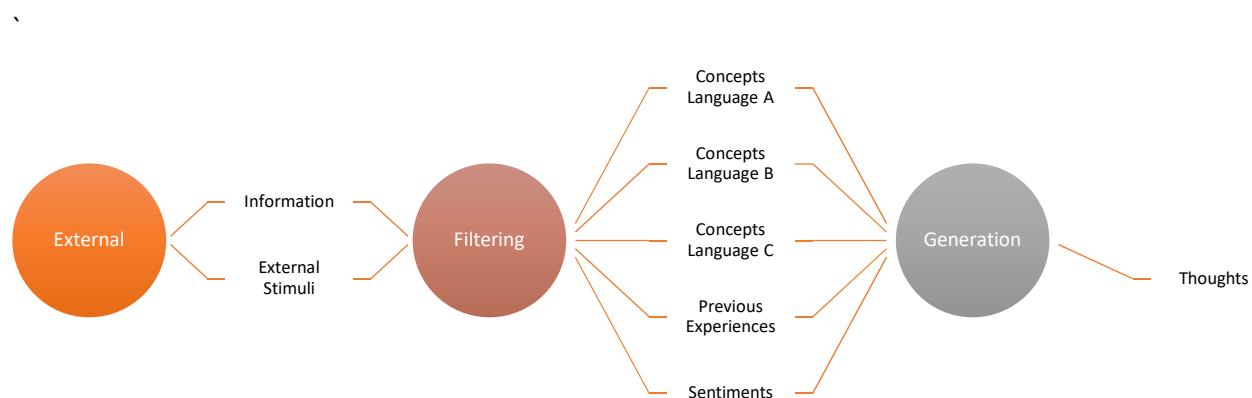
We can say prototype, in a broad sense, is an interpretation of a concept, for example, civil rights is a concept, but Martin Luther King is a prototype of the fight for civil rights. This persona emboldens the characteristics of the civil rights concept. This technique is used by the brain to organize ideas and process information rapidly. On the other hand, schemata are collections of concepts that are related. There are two types of schemata: role schema and event schema also known as cognitive script. The first type of schema refers to the assumptions made about roles that should be applied to a persona. If we say that

Mike is a firefighter, we will inherit all the characteristics from a firefighter to Mike, for example, we will assume that Mike is brave because our concept of this role tells us that, even though Mike may not be so courageous. The second schema refers to a series of actions that are triggered upon the occurrence of an event. A relatable example is the ringing of a phone; when we hear the phone, we are triggered immediately to look for it and answer it, even if we are driving a car. It is an automatic reaction that it is tough to avoid once a habit has been acquired. Those are broad descriptions of how cognition works, but they give us an excellent foundation to explain how learning a new language can bolster this critical function of the brain.

Bak, T. (2014) in his study: "Does Bilingualism Influence cognitive aging?" found out that bilingualism has a protective effect on cognitive aging. The positive results were higher in the reading, verbal fluency and general intellectual abilities, which are the competencies related to verbal reasoning. The study suggests that bilinguals stimulate their executive brain functions by always selecting, monitoring and suppressing linguistic concepts. It is interesting to note that, the researchers found out that the results were consistent amongst the participants even if they were passive bilinguals. The suggestion is that bilingualism has long-lasting effects on cognition capabilities. They also found out that the impact was higher in people who learned more than two languages which suggest that the exercise from moving from three or more linguistic concepts increases the cognitive abilities.

MacWhinney, B. (2015) explains how a monolingual speaker has to rearrange their conceptions of language to a new set of rules related to the grammatical constructs imposed by other languages. The highest difference in the structure of the language, the most considerable adaptation that needs to be done in the cognitive mind. This author also explains that the primary purpose of sentence understanding and sentence construction is to align the language to the conceptual structures linked to the perspective of the speaker, which we already state previous experiences and sentiments have modified. Here, we introduce another factor: the underlying concepts associated with the culture behind each new language. We can observe, in the figure down below, the dynamics associated with the election of concepts when there is more than one language in the long-term memory.

Figure 4 Dynamics of Thoughts Generation associated with multilingualism



We can observe in this graphic that the amount of work needed by the brain to generate thoughts



increases with the addition of new languages. If these languages structures are widely different from the native language structure –Chinese Vrs. English— the mind will go through much more work to generate thoughts. We can infer that this regular exercise will sharpen our cognitive abilities.

### Increasing the chances of Career Growth

Career growth is the most direct and recognizable benefit of learning a new language. As we stated at the beginning of the paper the world has evolved into what is called the village — a place where communications and transportation have allowed to commerce and interact with people around the world. Learning a new language has become a necessary skill and is already boosting salaries for those who possess this competence. According to the article “6 Benefits of Learning a Foreign Language for Career Growth” , published by the site Bilingual in October of 2017, the resources to learn new languages are more available than before, and multinational companies are ready to pay extra for those people that are ready to travel and communicate abroad. One of these corporations is the Army, these institutions according to this site, already pay an extra thousand dollar each month for fully bilingual people. This article states that 60% of companies are limited by foreign trade, according to a British Chamber Commerce study which translates into an extra advantage for bilingual people over other candidates and commands for better salaries in general. Speaking a new language can also broaden your relationships with people around the world; these relationships can generate opportunities to travel and postings in other countries. Detractors of learning a new language state that people abroad already speak English and it is not necessary to learn a new language, but the understanding of a culture and the language in other countries definitely will open doors and create opportunities to grow within global companies which usually have good salaries due their standing in the worldwide market.

### Conclusion

We can conclude that learning a new language carries several advantages. A career growth advantage which can be translated into better salaries, promotions, and opportunities. Boosting of cognition which leads to a better understanding of the world and over time a reduction of mental aging. Reduction of decision bias which would allow us to make better decisions, thus having a better outcome in life from our choices. Finally, an enhancement of the perception of reality which will give us advantages over our peers, since we will have more information about the world that will be translated into the creation of new products, effectiveness in communication, and achievement of sustainable results.

Below is a list of benefits by age based on the studies presented in this paper, the increase in ability from multitasking comes from the increment in cognition, the more languages that we learn, the more work our brain has to do to change from the concepts of the different languages.

*Table 1: List of Benefits by Age Group*

Young Children	Teen and Young Adults	Adults
<ul style="list-style-type: none"> <li>• Increase of Cognition</li> <li>• Cultural Gain</li> <li>• Ability to multitask</li> </ul>	<ul style="list-style-type: none"> <li>• Increase of Cognition</li> <li>• Cultural Gain</li> <li>• Ability to multitask</li> <li>• Reduction of Bias</li> <li>• Career Growth</li> </ul>	<ul style="list-style-type: none"> <li>• Increase of Cognition</li> <li>• Cultural Gain</li> <li>• Ability to Multitask</li> <li>• Reduction of Bias</li> <li>• Reduction of mental aging</li> <li>• Career Growth</li> </ul>

Age plays an essential part in the total gains. The sooner a person starts to learn a new language the better are the final results. Nevertheless, no matter how old the person is when he or she starts to learn a new language there is always a gain as we have seen. Although there are detractors about learning a new language, the benefits presented here are supported by serious research, there is no deniability about the underlying advantages of learning a new language. Parents and educators have the means to promote and discuss these benefits with their detractors and their children. Planning unique curricula for their studies can be enhanced by including a new language. Even for parents that never thought about learning a new language is an option. In the long run, it could diminish the effects of aging in their brains. This new world order requires this skill, but the outcome of acquiring this competence goes beyond the practical purpose of getting better wages. Mental wellness in a time where the years of living have increased is a capital gain. Flexibility is other outcome, that is mandatory in a fast-moving environment where machines and technological development requires fast adaptation and creativity.

Learning a new language could be a mandatory course in elementary schools. If this skill is taught to children in the first years of the schools, the benefits are more significant. People around the world already have included an additional language in their curricula. India, China, and Korea are some of these countries. Let us remember that bilingual immigrants founded many of the top companies in Silicon Valley. Can be this advantage be an essential part of their success? American parents should look out for these signals around their neighborhoods, in the Loudoun County area more children from Asian families go into STEM programs than any other race, and they already speak two languages when they enroll in new languages courses in high school which make them tri-lingual. There are evidence and cues around that lead us to think that acquiring this skill is essential for our children success; thus, why would parents deny this benefit to their children on purpose? Let us educate the community and promote in our educational institutions this valuable skill for the advancement of our kids in this new world.

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