Language is one of the oldest tools used by mankind, describing our connection between the physical and the abstract. Verbal communication makes it possible to "implant a thought from your mind directly into someone else's mind, and they can do the same to you, without either of you having to perform surgery." However, this 'surgery' is not always so simplistic. As soon as we label the world with words, we change the way in which we conceptualize our surroundings. The manner in which language changes how we think separates humans from one another individually and culturally. It is difficult to express abstract ideas in the English language due to its physical nature and constant use of abstracted metaphors. Yet, the more people use language to express nonphysical ideas, the more compassionate they become, and capable of thinking about how others think. Therefore, if the English language had a stronger vocabulary for the intangible and abstract then perhaps humans would be able to connect with each other on a deeper level.

The ability to interpret language takes place in specific parts of the human brain. The two hemispheres of the brain work together in order for us to live. However, the left and right hemispheres have two very distinct "personalities." The two sides guide our actions, perceptions of the world, and reactions to events in different ways. Over thirty years of brain hemisphere research has allowed us to study a few main differences between the hemispheres. One of these is that for most people, language emerges in the left hemisphere of their brains. While the left side handles what is being said, the right side focuses on the context of the language. Another key difference is that the left hemisphere processes information sequentially and recognizes serial events such as talking and understanding the speech of others. Contrastingly, the right hemisphere understands the world simultaneously. One way to think about it is that "the right hemisphere is the picture while the left hemisphere is the thousand words." In addition, the left hemisphere interprets categories and details. At the same time, the right hemisphere focuses on relationships and is able to view the 'big picture.' Overall, the left hemisphere works systematically with details and language while the right hemisphere is more all encompassing and interprets the context of situations.

The hemispheres of our brain view the world in different ways. Jill Bolte Taylor became shockingly aware of the differences between the hemispheres on the morning of December 10, 1996. That morning Taylor had a stroke in the left hemisphere of her brain. As a Harvard trained brain scientist, she was able to study her own stroke as it happened. She could watch her brain functions of motion, speech, memory and self-awareness shut down one by one. The hemorrhage covered two vital portions of her brain: the Broca's Area, which controls the ability to create speech, and the Wernicke's Area, which controls the ability to understand speech. After brain surgery, Taylor woke to silence inside her head. She experienced life without language or memories, predominantly perceiving her surroundings with the right side of her brain. This caused her to focus more in the present moment, using her sense of sight, taste, touch and sound. She was no longer preoccupied with thoughts of her past or future.

Jill Taylor's experience of life without language was eye opening for her and those who have heard her story. During this period of time without language, Taylor felt connected to her surroundings in a way she never had before. "I just had joy. I had this magnificent experience of: I'm this collection of beautiful cells. I am organic. I'm this organic entity." She lost her traditional sense of physical boundaries, not knowing where her body ended and her surroundings began. She felt "at one with the vastness of the universe." She no longer felt like a singular solid, but instead more like a fluid part of the 'eternal flow.' Her various descriptions of this time in her life are fascinating to me because of how a physical tragedy can possibly change something as abstract as how you perceive the world.

Perhaps language is constricting us from perceiving the world in the way that Taylor had when she was language-less. In an NPR Radiolab titled Words, Taylor proclaims that language played a large role in her new connection with the world. "Language is an ongoing information processing, it's that constant reminder. I am, this is my name, this is all the data related to me, these are my likes and my dislikes, these are my beliefs, I am an individual, I'm a single, I am a solid, I'm separate from you." She did not have the portion of her language center that tells her story, so she basically became an infant. According to A Graphic Guide to Post-Modernism, "It is through language that the child enters the social world, the symbolic order as an 'I." While losing language caused Taylor to leave the 'social world' and 'symbolic order,' it also caused her to enter a new realm of compassion in the world. This led her to organically connect with her surroundings in a unique way. Taylor spent eight years recovering from her stroke, but vowed to remember and spread the word about her enlightening experience of life seen through the right hemisphere, untainted by language. During Taylor's 'stroke of insight' she discovered that language has the ability to isolate people from each other and their surroundings.

Even though language is used as a means of connection, it also separates people culturally and individually. The story of the Tower of Babel, in the Bible Genesis 10 and 11, declares that all men on earth once spoke the same language. With this tool of communication, people congregated and used their language to try to create a tower that would take them all the way to heaven. God was angered at their disobedience and attempt to surpass his power, so he destroyed the tower. To ensure that it would never be rebuilt, he divided the people by giving them different languages. Today, there are somewhere around 3,000 to 8,000 languages spoken in the world. Anyone who has tried to communicate with someone that speaks a different language will understand the metaphor "language barrier." Much like a wall, these language differences divide us from one another.

I have experienced the aggravation of language barriers with Spanish. My father grew up in Colombia and moved to the United States when he was eight years old. He was put into the New York school system and forced to learn English immediately. I remember him telling me horror stories of class presentations he had to make, where other students would laugh at his accent or mistakes. Fortunately he became fluent soon enough. My mother also speaks Spanish, however they were never able to fully teach my siblings and I how when we were infants. I remember when I first experienced the frustration of a language barrier. I was around seven years old and I had spent an evening at a restaurant with my parents and their Spanish friends. They spoke Spanish with each other the entire night. They would ask me questions in Spanish and I just could not understand, and felt dense because of it. I spent the past two summers living in Spain with different families and have yet to be fluent. This led to many more language barrier experiences, which always made me feel helpless and embarrassed. I feel especially foolish for not knowing how to speak Spanish fluently since it is part of my heritage. However, I am grateful for what I have learned during my trips to Spanish speaking countries, and by hearing my parents speak it. Even though I do not speak it effortlessly, Spanish is an important part of my life, and I think it does influence how I think about words in both Spanish and English.

People who speak different languages obviously *sound* different from one another, but what is not as clear is that perhaps these people actually *think* differently from each other as well. Theories on linguistic relativity have been argued over since the 19th century. In 1820 Wilhelm von Humboldt declared that, "The diversity of languages is not a diversity of signs and sounds but a diversity of views of the world." Humboldt is suggesting that people who speak different languages also perceive the world differently. The "Sapir-Whorf hypothesis," named for the 20th century linguists who made it famous, proposes that the structure and vocabulary of one's language impacts how one comprehends his or her surroundings. Perhaps this is why the totalitarian Party in <u>1984</u> promotes the depleted language of "Newspeak," which has a reduced vocabulary that does not include words like *freedom* and *rebellion*, in order to make 'thought crime' impossible.

While some believe the theory of linguistic relativity whole-heartedly, some are not as convinced. In Geoffrey Pullum's article *Does Our Language Influence the Way We Think?* Pullman allows that language can subtly change one's view, but he does not believe that your language restricts you to a confined shell of thought or that there are thoughts that only specific speakers can have because they are untranslatable. He uses the example of *schadenfreude*, which in German means to find pleasure in another's misfortune. Pullum argues that just because English speakers do not have a translatable single word for *schadenfreude* does not mean that we cannot relate to or experience this feeling. Fifty years ago the well-known linguist Roman Jakobson reasoned, "Languages differ essentially in what they *must* convey and not in what they *may* convey." Jakobson is suggesting that if language affects our thoughts it is not because of what our language *permits* us to think but instead what it habitually *requires* us to think about.

If speaking different languages also causes people to think differently, then this causes people to be even more culturally divided. One example of different languages separating people culturally is revealed in varying uses of gender descriptors. Languages like French, German, Spanish or Russian oblige its speakers to specify the gender of friends, neighbors, and professionals. Furthermore, these languages require speakers to assign genders to inanimate objects. Psychological experiments have revealed that grammatical genders can mold the feelings and associations a speaker has towards the object he or she is describing. An experiment included Spanish and German speakers who label many objects with reversed genders. When speakers were asked to grade various objects on a range of traits, Spanish speakers described bridges, clocks and violins to have more "manly properties" like strength, while Germans believed them to be more slender or elegant. The effect was reversed with objects like mountains or chairs, which are grammatically masculine in German and feminine in Spanish. Perhaps this linguistic difference actually causes these cultures to design their objects differently, or even have different stylistic tastes.

In addition to separating cultures, language can separate genders. Many languages require people to associate with one gender. Earlier in the semester I underwent an experiment to become gender-neutral for a week. One challenge that quickly became

apparent was what pronoun to use for me in this state, since I was neither a 'he' nor a 'she.' Some people referred to me as 'it.' This offended me on some subconscious level, since I became more like an object than a person. During my research I came across Sweden's new gender-neutral pronoun *hen*, which has caused a great deal of controversy. Some argue that the Swedes are being overly sensitive and politically correct. They also reason that it will cause a great deal of grammatical confusion. Additionally, critics view it as a controlling 'progressive overload' that 'suffocates individualism' especially when used in schools on children. Proponents of *hen*, however, believe that gender-neutral language could potentially promote gender equality. "The active separation of sexes has negative consequences for both individuals and society. A more relaxed attitude with a less prominent gender indoctrination would lead to a better future," reasons Karin Milles, a lecturer at the Södertörn University College in Sweden. This leaves me to wonder, if more languages had gender-neutral pronouns, would society be less gender oriented? Would there be less emotional or cultural separation between males and females?

Language is notorious not only for disconnecting people culturally, but also for disconnecting individuals from one another. Jill Taylor described this division in My Stroke of Insight when she discusses language as constricting people to solid individuals with their own specific story. Language makes people more self-aware: 'this is me and that is *you*.' Thomas Dumm also explores the isolation created by language in his philosophical book Loneliness as a Way of Life. He explains the etymology of the word 'alone' as coming from 'all' and 'one.' "The 'all' is the absolute containment of the inside on the outside, the 'one' is the absolute containment of the outside on the inside." Alone appears to be a paradox of power and powerlessness. In one sense you are the entire world and the world is you, while in another sense you are only the one single self in a vast world. "Floating through undifferentiated space, and yet pregnant with a sense of self." Taylor seemed to experience the 'floating through undifferentiated space' aspect when she was immersed in her right brain hemisphere, and had lost touch of her left hemisphere. She also described the language-filled left hemisphere as similarly to being 'pregnant with a sense of self.' Dumm continues to describe the isolation that occurs due to the limits of language, "That loneliness is an experience of pathos reveals it, paradoxically to be rooted in the most explicit and social and cultural structures of ordinary life. The pathos of loneliness is its path through language and the limits of language." Dumm is blaming the tragedy of loneliness on language, even though it is a tool whose purpose is to connect us. Dumm appears to be stating that loneliness is caused by what language cannot convey.

The limits of language usually become apparent when discussing the intangible and abstract. In the animated film *Waking Life* writer Kim Krizan ponders over the restrictions of language. She describes language as inert, dead symbols and explores what occurs when we try to use these symbols to describe emotions:

What is 'frustration'? Or what is 'anger' or 'love'? When I say 'love' the sound comes out of my mouth...And they register what I'm saying and they say yes they understand, but how do I know? Because words are inert. They're just symbols. They're dead...And so much of our experience is intangible. So much of what we perceive cannot be expressed. It's unspeakable.

Krizan reveals the uncertainty in expressing abstract ideas. It is virtually impossible to know if you are understood, since words are symbols and can be interpreted differently from person to person. She reasons that a majority of what we experience cannot be conveyed properly through words, which leads to our essential loneliness as individuals. While watching *Waking Life* this segment felt particularly significant to me because I have always had difficulty expressing my thoughts into coherent words. Ever since I was little, those around me have deemed me quiet or shy. I have trouble talking about my emotions or discussing ideas, especially ones I feel passionate about. Perhaps it is because I feel limited by language and I fear being misunderstood.

Regardless of the difficulty in overcoming the limits of language, that does not mean it never happens or that it is impossible to connect with one another. Krizan ends her discussion on a positive note; "And yet, you know, when we communicate with one another and we feel that we have connected and we think we're understood I think we have a feeling of almost spiritual communion. And that feeling may be transient, but I think it's what we live for." There are few moments and people that I have experienced this feeling of connection with, but I agree with Krizan in the sense that when it happens, it does feel unexpectedly spiritual. Therefore, language can connect people to one another in vital ways, however rarely or temporarily this may occur.

One solution for prevailing over the restrictions of language could be as seemingly simple as expanding one's vocabulary. In the same Radiolab featuring Jill Taylor, there was also a segment about a deaf school started in the 1970s in Nicaragua. Until then, deaf people in Nicaragua had never been collected together in one place. The students were then inspired to create their own language since they were surrounded by others like themselves. This was the first time people were able to observe the birth of a language. Their sign language thrived, and was passed on to younger generations. Psychology professor Ann Senghas, linguist Judy Kegel, and collaborator Jennie Pyers visited the school to observe the language over a series of years. They ultimately conducted an experiment to compare the use of the language in different generations; in these studies they found that the younger generations were better at thinking about thought and what other people think. They discovered that a reason for this could be that while the older generation had merely two words for thinking ('to know' and 'to not know') the newer generations had somewhere around twelve. "Thinking about thinking. Understanding how other people understand. That's something that having language makes you better at." The Nicaraguan study seems to show that the presence of words that signify the intangible strengthens the human ability to empathize with one another.

Since we find describing abstract ideas so difficult, we usually use metaphorical aids to make these ideas more physical and easier to discuss. Steven Pinker explores the metaphorical quality of language when we try to describe abstract ideas. He reasons that our intelligence consists of objects, space, time, causation and intention. We then use 'metaphorical abstraction' to apply these concepts to new abstract domains. The example he uses is, "We *gather* our ideas to *put* them into words and if our words aren't *empty* or *hollow* we might get these ideas *across* to a listener who can *unpack* our words to *extract* their content." The italicized words objectify ideas and words, revealing the metaphor that ideas are something you send. Some common metaphors Pinker listed are: events as objects, states as locations, knowing as having, communicating as sending, helping as giving, time as

space, and causation as force. It is difficult to find any abstract language *not* originating from some concrete metaphor. "...if we dig even deeper to the roots of words, we unearth physical metaphors for still more abstract concepts." For example, 'event' comes from Latin *evenire*, meaning 'to come out.' 'Nature' comes from the Latin for 'birth' or inborn qualities like prenatal, nativity and innate. Ever since I read about this theory I have found it surprisingly true in everyday conversation. We treat abstract ideas like physical entities incredibly often.

The strongest advocates of physical metaphors dominating our language were George Lakoff and Mark Johnson in the 1960s. Johnson proposes that human's prepositional realm of the body and its physical environment is all that humans have to think with, and that all conceptual thinking grows out of physical metaphor. According to Lakoff, metaphor lets the mind use a few basic ideas like substance, location, force, and goal to comprehend more abstracts fields. Pinker does not entirely agree with the forceful proposals of Johnson and Lakoff, however he does allow that metaphor is a crucial part of studying thought and language.

It is clear to me that language has a strong influence on how we think. After realizing how physical our language is presently, and reading about how the Nicaraguan sign language evolved, I have a speculative theory that if we were to make our language less physically oriented, than we would be able to connect with one another on a deeper level. Presently, people seem to relate to each other on a bodily and superficial or external level. This could possibly be a product of the physicality of our language. Yet, the newer generations of deaf students in Nicaragua were able to empathize with each other mentally as a result of their expanding abstract vocabulary. Maybe this expansion of nonphysical words can be applied to language even further. If new words were integrated into our vocabulary to describe nonphysical ideas, then perhaps we could understand each other better intellectually rather than solely on the surface. Perhaps our moments of 'spiritual connection' would not be so rare or transient.

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