**Mutational Linguistic formulas**

Have you ever wondered whether certain grammatical or phonetic similarities between two different languages “have arisen purely by chance”[[1]](#footnote-1)? The reasons different groups of people speak different languages might lie in the fact that groups were at some point separated from each other only to exist together later and exchange some characteristics about their language. In a setting such as NYUAD’s, people always express their astonishment and surprise if an Arabic speaker identifies Arabic terms used by their peers who come from India or when someone from France realizes that North Africans adopt certain French terms and integrate them into their specific Arabic dialects. Linguistics is a fascinating field where cultural variations are identified and celebrated.

In the second chapter of *The Atoms of Language*, Mark Baker establishes that there has to be some balance in the way we study both similarities and differences between languages, [should be new sentence now:] he introduces the concept of parameters. Parameters are used to justify and understand the linguistic diversity and its paradoxes. Basically Baker is stating that “maybe atoms can be answers in linguistic as well”[[2]](#footnote-2).

Baker refers to Chomsky's original hypothesis that all human languages can be thought of as composites of a “finite” number of elementary factors; parameters. These elementary factors can be combined and therefore create our different languages. These parameters are the essence of the diversity in the world’s languages. An interesting observation about this hypothesis is that children can study all the parameters and have “an ability to deduce the chemistry of their interactions”[[3]](#footnote-3). This leads us to Chomsky’s principle of “universal grammar”. By extension, any language can mutate to become grammatically similar to another language if a language’s parameters constantly change. A linguistic formula is hence susceptible to change and two different languages that separately exist in two different parts of the world can become the same over a period of time “just as it is not surprising that methane should be formed independently on Jupiter and on Earth”[[4]](#footnote-4)

Ultimately, Baker states that linguistics exists beyond Chomsky [was this ever a controversial statement?] and discusses parameters in more depth. Baker uses sentences from a variety of languages to illustrate how such comparisons may lead to the discovery of basic linguistic similarities. However, with all the possible linguistic formulas there is a limit to the variation found in the human language. There are certain subtle difference between languages can become very common that even native speakers might not notice the mistakes. [I don’t understand this last sentence]

Chomsky’s research is criticized because it relied on the grammar of a “limited sample” of languages[[5]](#footnote-5), specifically English, French and Italian. Using few languages to deduce a universal grammar that applies to all languages might be misleading. Just like in chemistry when learning the compositions of substances, learning a new language means that one should start with the alphabet, then form words and finally, form more complex structures such as sentences. Baker ends chapter 2 with stating that if a periodic table for parameters exists then “we might even be in the position to describe a certain language that no one else has observed”[[6]](#footnote-6).

This leads us to think about a sign language that was developed in Nicaragua. This language was recently invented by a group of Nicaraguan deaf kids who lived in an isolated environment. Before the establishment of a special education school in 1971, deaf people in Nicaragua were isolated and could not survive outside their own community. Therefore, most of them did not learn the language properly at an earlier age and did not have a real language to communicate within their community.

Mrs. Mary, a deaf member of deaf community in Nicaragua, when asked to introduce herself, she fails to do so in any language. She has to show her pictures in order for people to understand who she is. She needs a specific context for her to communicate in a certain language. Mrs. Mary’s language is not complete. She knows how to convey the number three but the number three does not necessarily have a unit- three years or three decades?

In 1971, the Nicaraguan government decided to improve the education pedagogy for kids with special needs and they established a schools that recruited approximately 150 deaf kids in order to teach them Spanish sign language and lip-reading.

The first generation of the sign language learners is mostly the one that is already 7 years old or older; this is believed to be the best window of age to learn language. These school students picked up language too late and missed the opportunity to pick up the universal linguistic structure of sign language. What is your reference for this? This is what I was referring to: <http://www.cbsnews.com/news/birth-of-a-language/> (and then look at the more scholarly articles to see if there is some structural information).

Human’s Humans’ thoughts are influenced by the language that they use. When compared to the younger kids, older kids are able to describe an event, but they do not differentiate between movement and direction for example. In other words, the older kids did not have the ability to separate verbs and actions. In the same way, relatively older kids have no idea what the basic grammar could be or understand the concept of constituents/parameters. Is this your observation or something with a reference?

The Nicaraguan sign language went through three phrases. First, the very invention of a new language, simply a language that has never or could have never existed prior to this invention. It consisted of miming gestures with no parameters or structure. But a little after it having a second generation speaking in this manner, certain alterations took place to make a more substantial grammatical formula language. This related to Chomsky’s hypothesis in the sense that languages tend be broken up into small constituent, which are then used to compose new linguistic formulas. Please go into these formulas

To conclude, languages are thought to be continuously changing organisms since they encounter different people living in a different space and time. In the same way that our ancestors invented languages to solve their need to communicate, newer generations need to identify with each other by changing the parameters of their language to relate with newer cultural, political and socio-economic contexts. Humans and languages are interacting organisms that keep changing each other by changing themselves.

**Citations:**

Trask, R. Larry. "Review of the atoms of language: the mind’s hidden rules of grammar by Mark C. Baker." *Human Nature Review* 2 (2002): 77-81.

1. Baker, 30 [↑](#footnote-ref-1)
2. Baker, 22 [↑](#footnote-ref-2)
3. Baker, 23 [↑](#footnote-ref-3)
4. Baker, 24 [↑](#footnote-ref-4)
5. Baker, 45dvdvf [↑](#footnote-ref-5)
6. Baker, 50 [↑](#footnote-ref-6)