"A Timeline of Sound Symbolism"

An Honors Thesis

by

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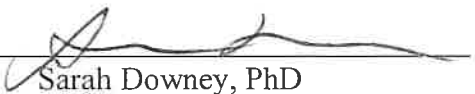We hereby approve the Honors Thesis of

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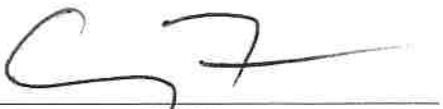Candidate for the degree of Bachelor of Science

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A Timeline of Sound symbolism

An Honors Thesis by Jack Klopcic

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Ever since the Swiss linguist and philosopher Ferdinand de Saussure first proposed the idea of the Arbitrariness of the sign there has been opposition. Despite this, the theory gained widespread acceptance and for many years it was accepted as fact among the linguistic community. In recent years, however, we have seen a rise to prominence of an opposing theory, that of sound symbolism. Where the arbitrariness of the sign states that the sounds of language are arbitrary and do not impact the meaning of a word, sound symbolism presents proof for the alternative. Supporters of this theory have done a multitude of studies in an attempt to prove its efficacy.

Sound symbolism is a theory in linguistics that presents the idea that sounds hold intrinsic meaning in the way they are perceived. For example, the word gruntled is defined in the Merriam-Webster Dictionary as "in good humor" (n.d.). However, most people would agree that the word does not fit the definition. Sound symbolism is the reason for this. Utilizing mainly consonants that are associated with deeper and more serious ideas, the sounds of the word do not appear to fit the meaning of the word (Klink, 2000). In 1995 Hinton, Nichols, and Ohala offered a classification system for sound symbolism which breaks the types into four categories that will be discussed later: Corporeal, Imitative, Synesthetic, and Conventional. Between these four categories, Sound symbolism represents everything from onomatopoeia to the nonuniversal associations that can be seen in English between words such as glimmer, gleam, glint, and glow which all begin with the 'gl' sound cluster and have meanings along the same lines (Hinton et al., 1995).

Even before Saussure proposed his theory of the arbitrariness of the sign, there has been discussion around the concept of sound symbolism. While not using the same

terms to describe it that we use now, Plato discussed the concept in his *Cratylus Dialogues* as early as 360 B.C.E. David Sedley, a Professor of Ancient Philosophy at Cambridge University discussed this text at great length in his book *Plato's Cratylus*. In his text, Plato discusses the correctness of a name, labelling the two different sides as naturalism and conventionalism. The Naturalistic side, presented by the character Cratylus, posits the theory that everything has its own natural name and calling it anything else is not its name. On the other side of the discussion, Hermogenes presents the conventional theory, arguing that names are determined by arbitrary convention almost 2000 years before Saussure wrote about the arbitrariness of the sign.

Plato was not the only one who explored Sound symbolism before Saussure proposed its opposite. John Locke also briefly explores this theory in his work *An Essay Concerning Human Understanding* which was originally published in 1689. This work was split up into four books, the third of which was about words and is of interest in this conversation. He states on the topic, "[Word's] signification [is] perfectly arbitrary, not the consequence of a natural connexion. Words, by long and familiar use, as has been said, come to excite in men certain ideas so constantly and readily, that they are apt to suppose a natural connexion between them" (Locke, 1998, p. 300). The implication of the second section of this quote is the belief that because certain words have been used for so long, those arbitrary sounds can be efficiently used to represent the meaning the speaker intends. Locke then goes on to imply that if there was some inherent significance to words, there would be only one human language (Locke, 1998).

Many of the points that Locke presented were opposed by Gottfried Leibniz in his work, *New Essays on Human Understanding*, which is a systematic rebuttal of *An Essay*

Concerning Human Understanding. Concerning the connection of words and ideas, Locke presents the concept that, while a sighted child when told one thing is gold, will call something with that color in it by the same word, "I have no doubt that a man born blind could speak aptly about colours, and make a speech in praise of light without being acquainted with it, just from having learned about its effects and about the conditions in which it occurs" (Leibniz, 2008, p. 137).

It is at this point in the timeline that Saussure published his book *Course in General Linguistics* (1916). The following quote is the foundation for the theory of Arbitrariness of the Sign:

> "The bond between the signifier and the signified is arbitrary… The idea of 'sister' is not linked by any inner relationship to the succession of sounds… which serves as its signifier in French; that it could be represented equally by just any other sequence is proved by differences among languages and by the very existence of different languages…" (2011, p. 67-68).

After this discussion, Saussure proceeds to lay out potential opposition to his theory and preemptively counters opposing ideas. One of these that he lays out is onomatopoeia. While it seems obviously contradictory to the arbitrariness of the sign, he portrays it as an exception as it is a mimicry of a sound, not truly a symbolic word.

Otto Jesperson was a German linguist who published his work *Language: It's Nature, Development, and Origin* in 1922. While this book was primarily focused on other matters of linguistics, it did dedicate an entire chapter to the discussion of Sound symbolism. He states, "Yes, of course it would be absurd to maintain that all words at all

times in all languages had a signification corresponding exactly to their sounds, each sound having a definite meaning once for all. But is there really much more logic in the opposite extreme, which denies any kind of sound symbolism" (Jesperson, 2016, p. 397). He goes on to discuss that while he does not believe in a one-to-one sound-meaning correlation, he does believe that some sounds do hold symbolism. He goes even further than this in stating that those linguists who discredit the idea entirely are focused on words that have evolved to the point where their original meaning no longer holds relevance (Jesperson, 2016). As an example, he states that, "everybody must feel that the word *roll*, *rouler*, *rulle*, *rollen* is more adequate than the corresponding Russian word *katat,' katit'*" (Jesperson, 2016, p. 398).

In the next several sections of the paragraph, Jesperson splits symbolic words into several different categories. The first two are Direct Imitation and Originator of the Sound. Direct Imitation describes onomatopoeia, words that directly imitate the sounds they describe. The latter is similar, naming things after the noise they make. He gives the example of the cuckoo bird which is named after its distinctive call. He then describes movement. There are many words referring to movement that mimic the movement itself. A tap is lighter than a knock for example and this becomes evident in the word itself, using lighter sounds. Then he describes things and appearances, he specifically refers to the differences in light and dark, giving the example of light using higher pitched sounds while dark often uses lower. Next he looks into states of mind, giving, for example, the similarities in sounds that are used for words such as gloomy and grumpy. He spends more time on size and distance, emphasizing the vowels in words such as 'tiny' and 'petite.' Finally, he discusses the length and strength of words, pointing out how people

shorten and lengthen sounds in order to put their point across better. The majority of his examples for this section were in German and do not translate well to English.

Jesperson draws three conclusions towards the end of his discussion. First, that no language utilizes sound symbolism in totality. He states that there will always be words in a language that do not fall into the symbolic pattern. Secondly, he discusses the fact that words that used to be symbolic may cease to be so through the natural evolution of language. This, he goes on to say, can be either through the sounds themselves changing pronunciation or the words shifting meaning entirely. The last conclusion he draws states that while some words may lose symbolic meaning, others will gain it. He gives the example of 'husky,' stating, "*Husky* may at first have meant only "full of husks, of the nature of a husk" (NED), but it could not possibly from that signification have arrived at the now current sense 'dry in the throat, hoarse' if it had not been that the sound of the adjective had reminded one of the sound of a hoarse voice" (Jesperson, 2016, p. 407).

Another writer who wrote very openly opposing the Saussurian philosophy was Edward Sapir who wrote several essays in support of what he called "Phonetic Symbolism." In "A Study in Phonetic Symbolism" (1929), Sapir presents the concept of a twofold theory of language. Within this theory he acknowledges that some words are arbitrary in their connection to what they refer to. In the example he gives while 'boy' and 'man' both imply very different meanings, no part of the individual sounds of the word affect the perception. This type of symbolism he refers to as referential. This is contrasted with expressive symbolism, which Sapir presents can be identified in the distinction between words such as "teeny" and "tiny" where the change in vowel denotes a change in size. Within the article, he lays out the beginnings of a study exploring the

idea with a specific focus on the contrast between 'large' and 'small.' In the first stage of the test fake words "mil" and "mal" were arbitrarily given the meaning of table and participants were asked which word represented the bigger table. In order to remove as much bias as possible, two sets of words were presented. The first set used only sounds that English speakers would be familiar while the second incorporated unfamiliar sounds. The reasoning is that if people are relating meaning by subconsciously relating the sounds to words they are familiar with, there would be a significant drop in the results of the second set. While there was some drop, however, it was only from an 83% in favor of the 'a' vowel being larger to a 73%, still the majority by a large margin. A further study Sapir performed fixed a lot of the issues he found within the first study. Within this new study, he mixed many different phonetic contrasts into the study with one hundred word-pairs in an arbitrary order. These words were presented to five hundred subjects of varying ages and showed similar results to the originals with some variance by age and race.

Thus far the conversation has been focused on the academic study of both sides of the argument. However, it is also important to take into account the mindsets of the community in regard to the concept. J.R.R. Tolkien is famous for his Lord of the Rings Trilogy. Fans of his works, however, may know that the series itself was born from the languages and worldbuilding he did before even thinking about writing it as a story. According to his essay, "A Secret Vice," a key part of the creation of his languages was thinking about the way the words sound (1931). Within this essay, he also talks about a language game he used to play with his friends as a child. He talked about how, even though they had no training in linguistics, the rules of the code they produced mostly

involved the substitutions of linguistically similar phonemes. The title of Tolkien's essay comes from the fact that he saw his interest in linguistics as a whole, and sound symbolism specifically, as a vice that he had to hide from those around him. While there are few academic resources on the topic, this appears to indicate an opposition to the idea of sound symbolism in the early 1900s. This can be further reinforced by the many articles and studies that were done in direct response to those proposing sound symbolism.

One of these, published in 1933, was a response to Sapir's discussion of phonetic symbolism by Bentley and Varon titled, "An accessory Study of Phonetic Symbolism." They conducted two different studies on their own and concluded that, when not presented with two distinct options, and reliant on free association, "'Free association' brought only a few conventional responses, either through a linguistically similar (mel-smell), a completion (saf-sappho), or an obvious onomatopoeia (bah- baa!). No real 'phonetic symbolism' in Sapir's sense appeared" (Bentley & Varon, 1933, p. 83). However, they did notice that when a degree or scale was presented, there were positive reports. Furthermore, they included pure tones, as opposed to speech sounds, into their studies. These pure tones overall showed a higher consistency in responses than similar vocal pairs of phonemes.

Insup Kim Taylor in their article, "Phonetic Symbolism Re-Examined" (1963), systematically reviewed several previous studies done, including those by Sapir, and then gave an account of a study conducted by Taylor and Taylor which, they stated, corrected several of the issues they saw within the other studies. These criticisms mainly involved small sample sizes, biased presentation, and a failure to consider speakers of other

languages while looking for a universal symbolic constant. The study conducted by Taylor and Taylor utilized six vowels and twelve consonants that were constants between the language of English, Japanese, Korean, and Tamil and judged the test syllables on size, movement, pleasantness, and warmth (Taylor, 1963). The result of this test was that, while there was much agreement on meaning between speakers of one language, these results failed to be consistent universally. Sounds that English speakers perceived as larger may have been perceived in an entirely different way by speakers of Japanese.

From this study, Taylor proposed a new definition of Phonetic or Sound symbolism. Within this new definition, they state that, as sound associations vary so greatly over different languages, the likelihood is that the associations stem from words themselves. The idea behind this being that English speakers may perceive 'G' is a bigger sound as it is used in words such as 'big' and 'grand.' Taylor then goes on to add, "Once a certain sound has thus become associated with a certain meaning, then within that language a cluster of words of similar meaning may come to employ similar sounds" (Taylor, 1963, p. 207). The example of words that describe rapid movement having a tendency to start with 'fli-' is given with examples such as "flick, flip, flit, fling" (Taylor, 1963, p. 207). Taylor completes this discussion by stating that with studies done in multiple languages, one could create a degree of relatedness between the symbolic phonemes of each language and what they represent.

A year later in 1964, Jonathan Weiss published a direct response to Taylor also titled, "Phonetic Symbolism Re-Examined." This article was a direct response to the original article by Taylor. Weiss disagrees with Taylor's assessment of the articles reviewed and feels that key information was left out or discredited. He gives examples of

studies not referred to by Taylor that found that, "African children who had never been exposed to English tended to assign the nonsense words TAKETE and ULOOMU to angular and rounded pictures in much the same way as did British children" (Weiss, 1964, p. 436). Weiss then states that the theory of phonetic symbolism is such that there is not a single meaning associated with a single sound but rather a hierarchy of meanings related to each sound and proposed that Taylor's findings were as such because different languages may utilize different hierarchies. He acknowledges this does not fully explain the findings but proposes further research is necessary.

Hinton et al. offered a classification system for Sound symbolism in 1995 in the introduction of their book *Sound Symbolism.* This system breaks sound symbolism up into four distinct categories. The first of these is Corporeal sound symbols which are sounds that are express some physical or mental state. These are sounds such as hiccups and coughs. Secondly are imitative sounds. These sounds are what are commonly referred to as onomatopoeia: 'bang,' 'bark,' and 'caw' are all imitative. Synesthetic sound symbolism is perhaps one of the most studied forms. These sounds are those that "consistently represent visual, tactile, or proprioceptive properties of objects such as shape or size" (Hinton et al., 1995, p. 4). Finally, they give conventional sound symbolism. This category is the association of certain phonemes with certain definitions. Hilton et al. give the example of 'gl' at the beginning of words such as glitter, glimmer, glow, glisten, etc. The sounds and sound clusters that fall into this category generally do not cross linguistic barriers putting them closer to the arbitrary associations Saussure proposed.

One of the first in in the realm of marketing research and sound symbolism, Richard Klink published "Creating Brand Names with Meaning: The Use of Sound Symbolism" in 2000. He begins by giving a brief overview of marketing and its interactions with brand names. In particular, he briefly reviews linguistic research in marketing, stating that, "Although the concept of sound symbolism has existed for a while, academic research has largely neglected to empirically investigate its application in marketing. More generally, research has explored, to some extent, the use of linguistics in naming products" (Klink, 2000, p. 8). He then goes on to look at previous research that discusses these linguistic concepts. For example, previous studies have shown that brand names from successful brands tended to begin with certain letters more commonly. Furthermore, brands starting with plosives are "… more easily recognized and recalled than names beginning with nonplosives" (Klink, 2000, p. 7). Expanding on this research he presents a discussion of the commonly accepted ideas of vowels and consonants within sound symbolism. Namely, he presents that it is commonly accepted that vowels produced closer to the front of the mouth tend to be more commonly associated with a smaller size while those produced towards the back tend to be associated with a larger size. This distinction between front and back vowels is also seen in other contrasts such as light and dark, thin and thick, etc. (Klink, 2001). In addition to the contrasts he provides, however, he also presents the idea of femininity vs. masculinity. In terms of consonants, he also presents that consonants with higher frequency also denote femininity.

In order to support these hypotheses, Klink conducted two different studies with a group of 265 participants. As with most studies on the topic of sound symbolism, he

presented word-pairs to the participants, asking which fit a certain metric better. He found that brand names containing front sounds were more commonly perceived "… as smaller, lighter (relative to darker), milder, thinner, softer, faster, colder, more bitter, more feminine, friendlier, weaker, lighter (relative to heavier), and prettier" (Klink, 2000, p. 14). Similarly, brands containing fricatives instead of stops were found to be perceived as "… smaller, faster, lighter (as opposed to heavier), and more feminine" (Klink, 2000, p. 14). However, this did not hold true with softness. Voiceless stops were much the same although there were no results found on a significant difference between voiced and voiceless when it came to softness. Finally, voiceless fricatives were perceived as "faster, softer, and more feminine" (Klink, 2000, p. 14) and no significant difference was found concerning weight.

The second study he conducted focused more on the direct impact of these ideas on marketing utilizing two different groups of participants and presenting one with brand names with high frequency sounds and the other with minimal pairs of those names containing low frequency sounds instead. Participants responded to a series of prompts about these brand names by utilizing a five-point scale stating whether they agreed or disagreed. This study failed to produce statistically significant results although the majority of the results did have a slight skew in favor of Klink's hypotheses.

Shortly after Klink in 2001, Margaret Magnus published perhaps the most comprehensive work on Sound symbolism to date. This was her doctoral thesis, "What's in a Word? Studies in Phonosemantics." The dissertation begins by presenting an overview of the results of several studies conducted. Then a thorough review of the literature is given starting with Socrates and extending through to research in the 90s.

Next, Magnus outlines her purpose: to present experiments which have the potential to either support or disprove the Phonosemantic Hypothesis, the Arbitrariness of Reference, Phonosemantic association, and True Iconism.

Section four of the dissertation is dedicated to explaining the fourteen experiments that Magnus conducted. For the first experiment, monosyllabic words were taken from a dictionary and divided into twenty-four classes dependent on consonants. A tentative classification system was applied. Magnus found that only 3% of the monosyllables did not fit into the classification system that was devised. These exceptions were all concrete nouns. Magnus states that the experiment gave:

"…a general idea of the preferred semantic domains for each phoneme and the percentages of words containing a given phoneme that can be characterized by these semantic domains. It also allows us to observe the semantic effect of phoneme position. Finally, it allows us to observe the relative nature of those words which do and do not easily submit to Phonosemantic Classification, namely that they are Concrete Nouns" (Magnus, 2001, p. 46).

The second experiment also involved the classification of phonemes, with all monomorphemes containing an 'r' sound in the second position being classified by the initial consonant. These subclasses were then given a Phonosemantic classification. This experiment was designed to give a look at the potential role phonemes can play within a given context albeit in a limited range of phonemes. The next experiment was designed to produce a control group of sorts, taking every 10th word in alphabetical order and organizing them into a Natural Classification. The results of this experiment showed that, as compared to a group of words starting with 'b,' the randomly selected words fit into a

broader range of classes. The next seven experiments also focused on different ways of classifying phonemes and pushing the boundaries of those classes. The last four experiments, however, were more akin to those done by Sapir and others, utilizing participants to test perceptions (Magnus, 2001).

Experiment eleven asked participants to provide definitions for nonsense words. It was found that despite there being no limit placed on the definitions, 80% of the definitions provided fell into an average of four semantic classes. In defense of the idea that these distinctions were primarily affected by the phonetics of the word and not the full-word similarity to other dictionary words, Magnus found that, "… certain words similar to the test word were consistently imitated, and other equally similar words were not" (2001, p. 52). The next experiment was similar with participants being asked to define nonsense words. However, this time they were limited to a specific semantic domain with prompts such as, "If 'nem' were a size, what size would it be" (Magnus, 2001, p. 52).

The next two experiments both reversed this concept. Instead of being asked to provide a definition, in experiment thirteen, participants were asked to invent a word when provided with a definition. She found that some participants preferred phonemes that appeared in the definition itself. However, the majority did not. Most notable was the fact that there were four identical pairs of answers out of the 325 total responses. The results in terms of phonemes used not only included some phonemes from the definition but also conspicuously avoided others. For example, "…words for 'to scrape the black stuff off overdone toast' used a much greater percentage of the /s/, /k/ and /r/ in 'scrape' than one finds in the language overall. The phoneme /p/, however, did not occur any

more frequently in the quasi-words than in the language in general" (Magnus, 2001, p. 153). The final experiment Magnus describes is much the same except for one key difference, the participants were asked to create words when given a set of images as opposed to definitions. With this experiment as well, Magnus found two pairs of identical words as well as two that were nearly identical but used different suffixes. Additionally, she found many examples of near pairs that contained the majority of the same phonemes (Magnus, 2001). The remainder of the dissertation is comprised of a more in-depth discussion of her findings.

In 2004, Yorkston and Menon wrote an article titled "A Sound Idea: Phonetic Effects of Brand Names on Consumer Judgements." This article strives to work from where Klink (2000) started. Yorkston and Menon present four distinct hypotheses. First, that consumers will perceive the "ah" sound as heavier than the "ee" sound. The second tests the automaticity of consumer perception, looking at how perception changes when context is given. The third hypothesis is concerned with how the timing of information effects perception and whether it changes dependent on context being provided before or after the brand name. The final hypothesis is concerned with how perceptions change based on cognitive capacity. Two studies were then conducted to investigate these hypotheses. The first of these had their participants read a press release containing the different brand names and evaluating the proposed product on the grounds of richness, smoothness, and creaminess (Yorkston & Menon, 2004). The results were analyzed and the authors concluded that "when information regarding the diagnosticity of the brand name is provided at the time the name is encountered, consumers can control whether or not to process the underlying sound symbolism" (Yorkston & Menon, 2004, p. 48).

Furthermore, they found that the use of sound symbolism does have an unconscious aspect with an average below the midpoint when participants were asked whether brand names had influenced their evaluations.

The second study functioned much the same with participants presented with the information on ice cream brands. However, this time some were told that the name was the real name of the brand while others were told that it was a placeholder that would not be used for the actual ice cream brand. Additionally, some participants were given mentally stimulating tasks to complete while reading to lower their cognitive capacity. Yorkston and Menon found that when cognitively impaired, participants were unable to actively discount information suggesting that the effects of sound symbolism filter straight through to judgements in an unconscious process.

In 2013, Bremner et al. investigated the universality of sound symbolism using bouba and kiki as example words in Namibia. They utilized a sample group of thirty-four Himba participants who had had very little contact with western artefacts. These participants were then presented with different stimuli and asked to identify the stimulus with one of two shapes, one that was more rounded and the other with many points. In the bouba-kiki task, 28 out of 34 participants associated the round shape with bouba and the pointed shape with kiki. This mimicked results found with the same set of words in western populations (Bremner et al., 2013).

Barton and Halberstadt (2017) also work off of the concept of bouba and kiki using it as inspiration to investigate people's perceptions of names that match faces. Five studies were performed each with a slight variance in goal. The first was an introductory study which the second repeated with a greater participant sample. These studies

presented a face with several possible names and had the participants choose which they

felt was the most accurate. The third functioned much the same with the additional

measure of how much the participants liked the individual on a scale of 1-9. The fourth

broadened these ideas, collecting more information on the participants' individual

preferences before presenting them with options. Another key change in this study was

that the participants first rated the faces on likeability without a name and were then

given the opportunity to change their answer once a name was presented. Names that

were both determined to be congruent and incongruent in previous studies were used. The

final study applied these concepts to real people, testing asking participants to give

feedback on the faces of 158 political candidates. Overall, Barton and Halberstadt (2017)

concluded that people do make an association between people's names and their faces

and goes as far as to propose that when these two do not match up, there may be

unconscious negative social repercussions.

     In 2020, a comprehensive review of the literature was completed by Yaran Ögel

and Bayraktaroğlu, two Turkish researchers. This study reviewed forty-six articles about

sound symbolism in marketing. They examined several different factors of these studies.

First, they looked at the scopes of the studies, concluding that the majority of them

looked at testing the effects of vowel sounds with a focus in Western languages. They

also examined the methodological aspects looking at sample size, age of participants, and

analytical approach. The third aspect they examined was the conceptual themes that the

reviewed articles laid out. These included investigation into alpha numeric brand names,

luxury appeal, overall willingness to purchase, and gender targeting. Yaran Ögel

and Bayraktaroğlu found that, overall, studies had worked to prove that sounds had

effects on meanings "… such as size, speed, gender, shape, width, weight, color and other several dimensions such as taste" (2020, p. 13). The ultimate conclusion that was made, however, was that sound symbolism in marketing is a developing area that, while it has strong promise in the realm of product naming, still has room for significant research. Key areas that were identified for further research included focus on languages other than English, studies that include less homogenous participants, and more studies in the area of corporate branding on alpha numeric names.

Returning to the concept of Bouba and Kiki, ĆWiek et al. in their article "The *bouba/kiki* effect is robust across cultures and writing systems," explore the universality of the bouba/kiki phenomenon across cultures. They conducted a study of 917 participants who were native speakers of one of twenty-five languages from nine different language families. Participants were then given the spoken words bouba and kiki and instructed to pick which of the shapes (taken from the Bremner study) corresponded to each word. There were several conclusions that were drawn from an analysis of the studies. Overall, 17 out of 25 languages showed a preference toward bouba as the rounded shape and kiki as the pointed one. Only three languages, Romanian, Mandarin Chinese, and Turkish had results below 50%. There was a weak trend for languages that utilized the Roman alphabet to have a higher chance of following the bouba/kiki pattern than those that did not (by a margin of 75% to 63%). The overall affect of the study was to show that there is significant cross-cultural evidence of the effect.

While there are many more studies that could be included, the ones presented here, by the authors' judgement, provide a good overview of the change and

developments that have occurred in the area of sound symbolism. When considering all of the information as a whole it seems clear that sound symbolism is in effect in the words we use daily. While some have proposed that it is universal and innate, Jesperson's theories are more likely the truth: the sounds of language are not, in their totality, symbolic. Instead, pieces of language have gained associations and others are influenced to match the sounds of the original. This is not the sum of it, however. With recent studies into cross-cultural effects of sound symbolism, it is evident that some sounds do hold meaning across different languages which is not explained by Jesperson's conclusions. In these cases, it can be accepted that the physical production of sounds is reminiscent to the characteristics of the sounds they represent and, for this reason, an association is made even across languages. Additionally, while much study has been done concerning the links of sounds to ideas, the studies concerning the bouba-kiki effect provide an additional component, proving that sounds can be linked to visual stimuli as well.

With all of this research, we have an answer for why the word gruntled may never enter the common vernacular. The majority of the phonemes contained within it having an association with deeper, more serious ideas, the word itself seems in direct contrast to its definition. On the other side of this, perhaps it is the sound symbolism of the word yeet, which utilizes lighter sounds and front vowels one might associate with the movement it represents, that allowed the word to join the pop culture lexicon so quickly. A brief review of the other words that have recently achieved success within the common vernacular of younger people shows that this may be a trend. For example, the utilization of the name "Karen" to refer to anyone who exhibits certain types of behaviors has

become increasingly evident in online conversations. These negative implications fit with the phonemes of the word in a way supported by the above research. The 'a' and the 'k' are both produced further back. As with gruntled, these sounds are associated with more negative and dark connotations. This theory provides some explanation for why Karen became popular over other names common within that age group such as Susan which features mainly sounds towards the front of the mouth.

Utilizing this information as a basis for looking at the acceptance of words into the common vernacular is just one, albeit fascinating, direction in which further research could be done on this topic. Other directions include marketing, language creation, and even politics. As is evident from the scope of this paper, there has been a significant amount of research done in the area. However, it is also that there is still a significant amount of research yet to be done to unravel all of the potential that this concept has to offer.

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