

Determining the Impact of Syntactic Intelligibility on the Recognition of the Emotional Speech Signal

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The survey created for the main study required the use of six voiceover artists; a young group, middle-aged and a mature group, each with one male and one female. Each artist read 24 sentences from three separate stimuli sets; neutral, pseudo and constructed. The first consisted of grammatically correct structures whilst eliminating potential emotive wording. The pseudo set used a similarly neutral lexicon, but followed no such semantic or grammatical rules. The third (constructed) set used words from artistic languages, of which bear little, or no recognition to English. The purpose of these three tiers was to see how the removal of comprehensible syntax impacts on the recognition of aesthetic cues demonstrated by the voice. This was indicated using a Likert scale by the participants having listened to each sentence in turn. The data would then be analysed to see how each set differed in terms of aesthetic influence.



NEUTRAL STIMULI SET

"One edge was
long and near
to the desk"

PSEUDO STIMULI SET

"All land simply
meant it followed
a maker of left
meals"



CONSTRUCTED STIMULI SET

"Norethan
lohshar i' glasui
melin, barad
faroth loo yin"

All of the stimuli sets consisted of five different sentence structures, each with the purpose of testing the aesthetic response. These included short and long syllables, cvc and non-cvc (consonant-vowel-consonant) patterned words, front and back vowel usage, aesthetic and non-aesthetic consonants and syllabic stress. These variables were arrived at through consideration of previous studies which have shown preference towards specific acoustic cues

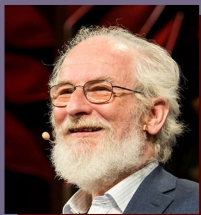
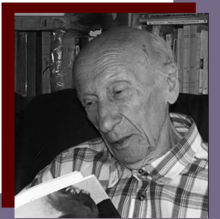
"It is impossible to divorce words from their inherent meaning..." LEONID PERLOVSKY

By using the three tiers of semantically-redundant sentences, an increase of aesthetic/non-aesthetic recognition will be shown in proportion with the change in responses to the respective stimuli.



"Vowel backness determines the innate aesthetic timbre of the word..." IVAN FONAGY

In biasing a greater than average amount of back vowels (or front vowels) in the stimuli, one would anticipate the participants response to reflect Fonagy's hypothesis. This is known as the peak shift principle.



"An aesthetic ideal can be summarised in a matrix of criteria..." DAVID CRYSTAL

A number of factors including syllabic stress, number of syllables and the frequency of nasal phonemes within a word dictates the aesthetic potential. The survey will test this hypothesis against that of Perlovsky's



"Each phoneme has an inherent level of aesthetic meaning..." CYNTHIA WHISSELL

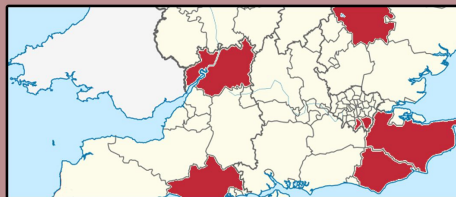
According to Whissell's Dictionary of Affect, each word contains a score based on the sound inherent to the phonemes contained within it. Again, by biasing these phonemes, the same should be replicated.

By using the three-tier stimuli set of progressively reduced grammar and syntax, the hypothesis stands in proving or disproving the above statements depending on whether a linear projection in the results is obtained. By reducing the engagement with the language audited by the participants, the neuro-aesthetic areas of the brain are said to become a greater influence. The following three studies set out to test this hypothesis in a wider population



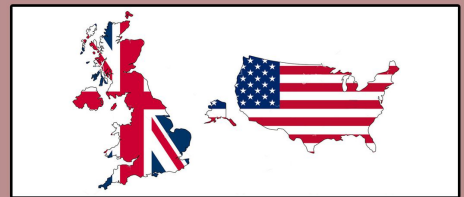
DETERMINING THE EFFECT OF NATIVE PHONEMICS ON THE AESTHETICS OF THE SPEECH SIGNAL

Does the socio-linguistic factors of specific areas within the UK impact on the recognition of the aesthetic cues? Does the length of time subjected to the area have a bearing on the result? And how does the use of an accent which differs from that regularly heard by the participant influence the aesthetic recognition?



ESTABLISHING THE EFFECTS OF NATIONWIDE ACCENTS ON AESTHETIC PREFERENCE OF SPEECH

Following from the results of the first study, a need to establish how similar voices are recognised in other parts of the UK with regards to aesthetic qualities. Do the phonemic qualities alter as a result of familiarity, distance, or more as a result of subjective influence?



THE EFFECTS OF INTERNATIONAL ACCENTS ON THE AESTHETIC PREFERENCE OF SPEECH

Comparative to the previous studies, this final study will address the question of International English accents; again, how the transitional phonemic qualities of American English influences the aesthetic recognition by comparison to a native accent, and by extension a local accent as deemed by the first study

What will be the best way to approach the respective audiences in participating in the surveys, where the criteria is limited?

In what way would it seem most plausible to ascertain the subjective influences towards aesthetic qualities within a given survey participant?