The effect of language aptitude and strategy use on ESL and EFL learners’ pronunciation accuracy

Previous studies in second language (L2) research have examined whether factors such as language aptitude (i.e., the innate ability to learn languages) and language strategies use (i.e., techniques employed by student to help learn the L2) play a role in L2 acquisition. However, no known studies have examined whether learners with a higher language aptitude employ different strategies than learners with lower language aptitude, nor which strategies may lead to better L2 pronunciation accuracy. Thus, the purpose of this study was to determine whether language aptitude predicts language strategies use and whether this difference effectively explains individual differences in second language (L2) pronunciation accuracy.

A second goal was to determine whether the relative importance of these factors differed depending on whether learning occurred in a foreign (i.e., learning the L2 in a classroom) or second language (immersion) setting. In the current study we asked 100 ESL (English as a second language) in the United States and 100 English as a foreign language (EFL) students in China to complete the Pimsleur language aptitude test. We asked the top 15 and lowest 15 scorers on this test in each group to complete a test of pronunciation abilities (a spontaneous speech task) as well as complete the pronunciation strategies inventory (Eckstein et al., 2009) both before and after a pronunciation class in which they were enrolled.

Two trained pronunciation teachers rated pre and post tests for each of the students, rating students’ overall global foreign accent, as well as their improvements in segmental accuracy, comprehensibility and fluency. Participants’ language gains in pronunciation accuracy were compared to their Pimsleur test scores as well as their reported use of pronunciation strategies both before and after training. Results of the study indicated that the top scorers on the Pimsleur did not improve in pronunciation accuracy more than the lowest scorers regardless of whether or not they were in an ESL or The effect of language aptitude and strategy use on ESL and EFL learners’ pronunciation accuracy.
Whole Brain Teaching as a method for improving the vocabulary transfer

In this short talk we will give an introduction to Terrell’s model of vocabulary acquisition in second and foreign languages through some of the techniques in Whole Brain Teaching (WBT) that can enhance this acquisition process. We will transmit the theories through practical techniques that can be used in the class. These techniques not only grasp the attention of the learners faster (so they are more prepared for the input we will transmit), they also enhance the understandability of the message and they also increase the amount of output learners can do in the class.

The talk is oriented to teachers of foreign languages and anybody with an interest on Foreign Language didactics. We will not be showing results or any statistical study because we are still in the first part of the design of the PhD study and we can only hypothesize.
Language and Cognition: the effects of Grammatical Gender on Categorisation of Objects

The linguistic relativity hypothesis holds that the language we speak affects how we think and perceive the world. This study focuses on the relationship between Arabic grammatical gender and categorization. In Arabic, all nouns are assigned a gender regardless of whether or not referents have a biological sex. Therefore, this study investigates whether Arabic speakers categorize inanimate objects differently from English speakers who do not have a grammatical gender system. A sample of 80 adults (40 Arabic speakers and 40 English speakers) participated in a non-linguistic gender attribution task. They were asked to assign male and female voices to 44 black and white drawings of inanimate objects. Results from comparing the assignments of both groups showed effects of grammatical gender on categorisation. That is to say, unlike English speakers, Arabic speakers categorised items according to Arabic grammatical gender whereas English speakers’ assignments were arbitrary. Findings of this research suggest that people’s thinking about inanimate objects can be influenced by aspects of grammar of their languages.
Formalised (Weak and Strong) Cut Elimination for Display Logic

We use a deep embedding of the display calculus for relation algebras dRA in the logical framework Isabelle/HOL to formalise the weak and strong normalisation theorems for cut-elimination in dRA. Unlike other "implementations", we explicitly formalise the structural induction in Isabelle/HOL and believe this to be the first full formalisation of cut-admissibility in the presence of explicit structural rules. We also present a new, machine-checked, proof of strong normalisation of cut-elimination for dRA which does not use measures on the size of derivations. We believe this is the first full formalisation of a strong normalisation result for a sequent system using a logical framework. Our formalisations generalise easily to other display calculi and can serve as a basis for formalised proofs of weak and strong normalisation for the classical and intuitionistic versions of a vast range of substructural logics like the Lambek calculus, linear logic, relevant logic, BCK-logic, and their modal extensions.
American English Has Goʔ a Loʔ of Glottal Stops: 
Social Diffusion and Linguistic Motivation

In word-final, prevocalic position (e.g. it is) there are various possible phonetic realizations of /t/ in American English (e.g. [t], [ɾ], [ʔ]). Research by Eddington and Taylor (2009), which used data gathered in an experimental setting, found that glottal stops in this position are more common realizations of /t/ in younger speakers, women, and those from the Western United States. The present study examines the linguistic and social factors associated with the use of the glottal stop in American English, but the data come from recordings of informal conversations.

If prevocalic glottaling is uncommon word-internally in American English, why is it apparently spreading word-finally? We provide evidence that word-final /t/s are more often followed by word-initial consonants than vowels, which places them in a glottalizing context. Instances with a glottal realization are stored in the mental lexicon and are available as possible pronunciation choices even in prevocalic position.

We extracted 1,101 instances of word-final, pre-vocalic /t/ from the Santa Barbara Corpus and determined their realization impressionistically. The glottal stop occurred in 24% of the cases. Logistic regression analysis was used to identify factors that favor glottaling of /t/. Our findings concur with the previous research in that age and region were significant: Westerners in their teens and 20s glottalized more than non-westerners in the same age groups. This contrasts with speakers who are 30 and older, both Westerners and Non-westerners, who glottalize to a much smaller degree. We also found that glottaling is favored by a following stressed syllable; however, gender and following vowel quality were not influencing variables, which contradicts the previous experimental findings. We suggest that glottaling of /t/ initially arose word finally because /t/ is more commonly followed by stops than vowels. The glottal pronunciation has then spread to prevocalic position. This change is being diffused in the U.S. and is more commonly used by younger speakers from the Western states.
Licensing of prosodic features by syntactic rules: The key to auxiliary reduction

This paper will discuss the phenomenon of auxiliary reduction, a topic which has been treated by many syntacticians and phonologists. We will show that traces do not exist and that any theory assuming traces is gravely flawed and must be abandoned. We will propose that in the morphology, every auxiliary has two shapes, one when the auxiliary is completely deaccented and one when the auxiliary is accented. (There may be more than two shapes for the auxiliaries.) Constructions such as VP ellipsis and *wh*-movement in which auxiliary reduction is impossible are ones in which only the accented form of auxiliaries may appear, due to syntactic conditions on accent patterns and on what may serve as the host for a clitic. This also handles comparative subdeletion and pseudogapping, which have been claimed to involve dislocation in order to preserve the generalization that when there is an empty category next to the auxiliary it cannot reduce, which is not necessary with our proposal. It may also be noted that our solution will account for the impossibility of auxiliary reduction before emphatic *too* or *so* in rejoinders and in comparative constructions with subject-auxiliary inversion. In conclusion, the results of this paper will have profound effects on linguistic theory in general.
The preaspirated stop: a perceptually suboptimal phonological structure?

The contribution of perceptual biases to phonological typology has been vigorously discussed in recent literature, e.g. Moreton (2008), Wilson (2006), Silverman (2003, 1997), and Bladon (1986). While the former two scholars have argued that much of typology must be attributed to cognitive biases, the latter two have argued instead that phonetic or aerodynamic features of certain phonological structures render them perceptually “suboptimal” in comparison with more abundant structures, thus rarer. For instance, preaspirated stops are scarcer than postaspirated stops because aspiration is a less viable cue before the stop closure than after the stop release. Preaspirated stops are certainly rare and postaspirated stops commonplace (Silverman 2003, Ladefoged and Maddieson 1996, Maddieson 1984), but the strength of the “suboptimality” hypothesis of Silverman and Bladon as an explanation for this rarity has not been empirically tested. A perception experiment was duly designed to perform this test. We expect that preaspirated [hp ht hk] will be harder than postaspirated [ph th kh] to distinguish from unaspirated [p t k].

Gaelic-like non-word stimuli were recorded with the assistance of 3 Gaelic speakers from the Isle of Lewis: in Lewis Gaelic, voiceless unaspirated [p t k] contrast with voiceless postaspirated [ph th kh] in initial position, and with voiceless preaspirated [hp ht hk] medially and finally. Stimuli featured the target stops [p t k], [ph th kh], or [hp ht hk] in initial, medial, or final position. Stimuli were presented in pairs of three types: the first featured one post- or preaspirated token and one unaspirated token in the target position; the second type featured two identical preaspirated, postaspirated, or unaspirated tokens; the third consisted of distracters. Participants were asked to respond “same” or “different” to each stimulus pair.

To control for L1 effects on perception, three participant populations were recruited: 9 native speakers of Scottish Gaelic; 12 native speakers of Polish, which lacks an aspiration contrast (Gussman 2007, Ruszkiewicz 1990); and 11 native speakers of English, to whom postaspiration but not preaspiration is familiar. Participants were equally distributed by gender and age.

The hypothesis was not confirmed: there was no indication that preaspirated stops were harder for subjects to distinguish from unaspirated stops than postaspirated stops were. Rather, significant differences in confusion rates were a function of position, not aspiration type: for all three participant groups, confusion rates were highest for tokens in final position (preaspirated vs. nonaspirated). For two of the three participant groups (Gaels and Poles), the lowest confusion rates actually occurred in medial position (again, preaspirated vs. nonaspirated).

The hypothesis offered by Silverman (2003, 1997) and Bladon (1986) that preaspirated stops are rare due to suboptimal perceptibility is untenable. Instead, other explanations for the rarity of preaspirated stops must be sought. For instance, it may be that there are relatively few phonetic precursors from which preaspiration develops (Myers 2002). Alternatively, it may be that there are cognitive biases favoring postaspiration at the expense of preaspiration, as for other typological phenomena (Moreton 2008, Wilson 2006).
**Capitalistic versus Militaristic: Paradigm Uniformity and Analogy**

In American English, the first /t/ in *capitalistic* is generally flapped while in *militaristic* it is not. This has been explained as due to the influence of *capi[r]al* and *mili[tʰ]ary*. Steriade (2000) discusses the influence a base word has on the phonetic realization of a word derived from that base as Paradigm Uniformity. In her experiment, speakers who produced a flap in the base form also pronounced a flap in the derived neologism.

Riehl (2003) replicated Steriade’s experiment, but found some variability between the tap and untapped varieties of /t/ between the base and derived form, which Riehl adduces as evidence against Paradigm Uniformity. However, using Riehl’s data I found a very significant correlation between the phone in the base word and the phone in the derived form, which actually supports Steriade’s analysis contra Riehl.

According to Steriade, the default allophone of /t/ in the *capitalistic/militaristic* context is the flap while the occurrence of [tʰ] in *mili[tʰ]aristic* is due to analogy. Davis (2003), on the other hand argues that [tʰ] is the default in this context and that the flap in *capitalistic* is caused by analogy. To support his assertion he points to the lack of flap in *Mediterranean* and *Navratilova*.

My contention is that all allophonic distribution may be explained in terms of analogy to stored linguistic experiences. This contrasts to Steriade and Davis’ idea of analogy as a process that interferes with the application of general rules. In my simulations, the pronunciation of 3,738 instances of the allophones of /t/ was taken from natural speech and is taken to approximate a speaker’s experience with the phoneme /t/. The pronunciation of a word is determined based on analogy to the instances in this database rather than on rules. Analogical outcomes were calculated using the Analogical Modeling algorithm (Skousen 1989).

Given this database and computer model I demonstrate how the allophones of /t/ may be assigned by reference to items stored in the mental lexicon. The influence of base forms such as *capital* on derived forms such as *capitalistic* is explained as due to the same process of analogy. Moreover, the differences between flapping and lack thereof in words such as *militaristic*, *capitalistic*, *Mediterranean*, and *Navratilova* may be attributed to analogy without assuming that analogy overrides a more general rule of flapping as David and Steriade assume. These findings are especially interesting because the simulations included only surface-apparent phonetic variables; there was no representation of morphological relationships (*capital / capitalistic*), nor of abstract features such as prosodic licensing, syllable boundaries, foot structure, constraints, or derivations as are commonly assumed in rule-accounts.
What are the contextual phonetic variants of /β, ð, γ/ in colloquial Spanish?

Amplitude ratios were used to measure the degree of lenition of the voiced approximants /β, ð, γ/ in various contexts in order to contrast them with /b, d/ and /g/ and the contexts in which they are traditionally thought to appear. 3,011 instances were taken from telephone conversations of eight native Spanish speakers from seven countries. The influence of phonetic context (post-pausal, post-nasal, post-lateral), stress, and word frequency was determined using multiple regression. In line with traditional analyses, the results show that the voiced approximants are most lenited intervocalically and least lenited after a pause. However, post-nasal and post-lateral instances fall between these extremes. In addition, /β/, /ð/, and /γ/ are also more stop-like when following [s] or [h].

Traditional analyses do not factor in the influence of stress, word frequency, or word boundaries, yet these emerge as significant predictors. Although the distribution of the variants of these three approximants is generally thought to be due to a unitary rule, significant differences between the three suggest otherwise. When followed by a stressed syllable, /β/ and /ð/ exhibit more constriction, while all three phones are less lenited when they fall between two stressed syllables. /β/ and /ð/ are also more constricted when they appear intervocalically in word-initial position when compared to word-internal intervocalic tokens, while the same is not true for /γ/. Contra traditional descriptions, /ð/ is no less lenited than /β/ or /γ/ following a lateral. Instances of /ð/ are also more lenited when they appear in high frequency words and less lenited in low frequency words. On the other hand, frequency is not a factor for /β/ and /γ/.