The Hawaiian Prosodic Imprint on Hawaii Creole English

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1.0 Introduction

Hawaii Creole English (HCE), which is referred to in Hawaii as 'Pidgin', is a creole language consisting of a combination of elements from English, Chinese, Portuguese, and Hawaiian and is spoken in the Hawaiian Islands. HCE developed around 1800 as a pidgin language. A pidgin is a simplified language used as a means of communication between groups of people who do not share a common language. In general, once the second generation of speakers learns the pidgin as children, they create a more complex system, filling in linguistic gaps of the pidgin and turning it into a creole (Singh, 2000:13). The pidgin in Hawaii was heavily influenced by native Hawaiian speakers and was originally called Hawaiian Pidgin English (HPE), which later developed into Hawaiian Creole English.

While each of the different languages spoken in Hawaii contributed to the development of HCE, it has been argued by Siegel (2000:211) that of the substrate languages, Chinese and Portuguese dominated during the stabilization of HCE. In this paper, I will investigate the influence of native Hawaiian on HCE intonation and will validate what is anecdotally shared knowledge in the Hawaiian Islands, that native

Hawaiian has made an imprint on HCE. One of the most striking features of HCE is the intonation used in yes/no questions. A yes/no question can be answered with either a "yes" or "no" response. In English, the intonation on the sentence, "Are you going to school today?" rises at the end of the question. The corresponding HCE question peaks at school and falls sharply on today. In Hawaiian, the yes/no question intonation also peaks and falls at the end of the question. This paper examines yes/no question intonation in HCE and compares it to that of Hawaiian. I hypothesize that Hawaiian had a strong influence on HCE and I have developed a formal analysis of HCE and Hawaiian to test this hypothesis.

As noted by Vanderslice and Pierson (1967:156), "[t]he most neglected aspect of Pidgin [HCE] has been its suprasegmental or prosodic features…" This statement is still true today, over 40 years later, which makes the following paper important to the contribution of the body of knowledge of HCE, as well as of creole studies in general by accounting for the influence of contributing languages such as Hawaiian. Siegel (2000:199) also points out that the substral influence in HCE has not been recognized and "virtually discounted over the past two decades." A formal theoretical phonological account for Hawaiian influence on HCE has not yet been conducted and my research will add to the knowledge of HCE and Hawaiian, as well as challenge current creole genesis theories as well as universalist theories.

2.0 The Hawaiian Phonological Imprint on HCE Intonation: Hawaiian and HCE Data

Informally, a comparison between Hawaiian and HCE question intonation was made on the Instant Immersion Hawaiian web help site (to accompany audio CDs):

What makes the Hawaiian especially nice is the fact that you don't need to change any of the wording; only the intonation of your voice changes. And if you already familiar with local "Pidgin" English from Hawaii, then you will already know how the question intonation should sound, since it is used in Pidgin also.

Native speakers of Hawaiian and HCE have acknowledged this similarity, but to date, there is no formal description of Hawaiian Creole English using any current intonation frameworks. In Pidgin Grammar by Siegel and Sakoda, the extent of intonation description of HCE covers barely a page of text. In order to investigate in detail the influences of Hawaiian on HCE in terms of intonation, it is important to place Hawaiian and HCE into a framework that will best suit the process of comparison. Pierrehumbert's Autosegmental Metrical Theory (AM) intonation notation system represents a pitch contour through the use of pitch accents (marked with an asterisk) and edge tones or boundary tones (marked with the percentage sign). Pitch accents are represented through the use of a single H (high) or L (low) tone or a combination of the two. The stressed tone has an addition of an asterisk, i.e., H* or L*.

The examples below also have an instrumental analysis provided which is a graph that represents the fundamental frequency (F_0) of the speaker's voice. The instrumental analysis created in PRAAT (software) provides additional information to support my notation.

2.1 Methodology

In order to gather utterances in a natural state, free from the influence of elicitation, I gathered sound files from sources such as podcasts, YouTube videos and archived interviews as well as online language lessons. Two of the most useful resources I found provided most of my examples up to this point. One of these resources is the Clinton Kanahele Collection through Brigham Young University's online archive. This Hawaiian language resource is a collection of interviews of elders who grew up in Hawaii, all of them born around the late 1800s. The other is the HCE resource, AnyKine Kine podcast. This resource is a public podcast created by two men who were born and raised on Oahu, but have since moved away from Hawaii. They created the podcast while living in San Francisco, but they talk to each other in HCE, embracing their local Hawaii identity. I also interviewed HCE speakers and had them play a game called Guess Who?, where the players ask yes/no questions to try to guess their opponents selected person. Questions that might be asked would be, "Is your person wearing a hat?" or "Is your person a woman?"
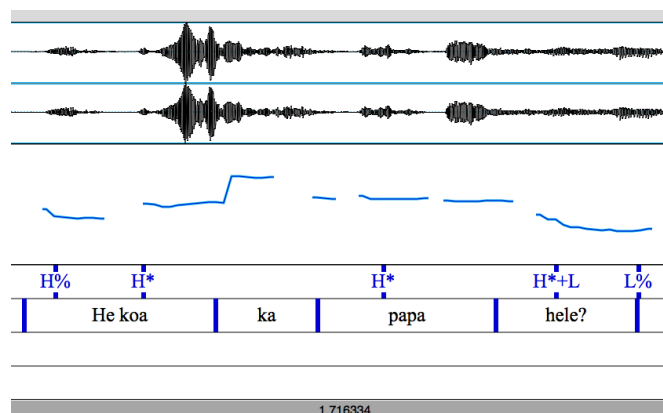
2.2 Hawaiian Data

The following example is taken from Living the Aloha Spirit, online Hawaiian Lessons on YouTube created by Ahonui Mims.

(1) Hawaiian Yes/No question

Hawaiian: He koa ka papahele?

English gloss: Is the flooring of koa (wood)?

This example of a Hawaiian yes/no question demonstrates a falling intonation pattern. The utterance starts at a high tone and remains high throughout the entire question. The fall occurs on the last stressed syllable, ending on a low tone.

The following example is the statement, 'Yes, the flooring is of koa (wood).' Note that the question and the statement have identical structure, it is the intonation that differentiates the statement from the question. The statement starts at a low tone and then peaks at the first stressed syllable and the remaining parts of the utterance continue at a low tone, ending at a low tone.

(2) Hawaiian Statement

Hawaiian: Ae, he koa ka papahele.

English Gloss: Yes, the flooring is of koa (wood).
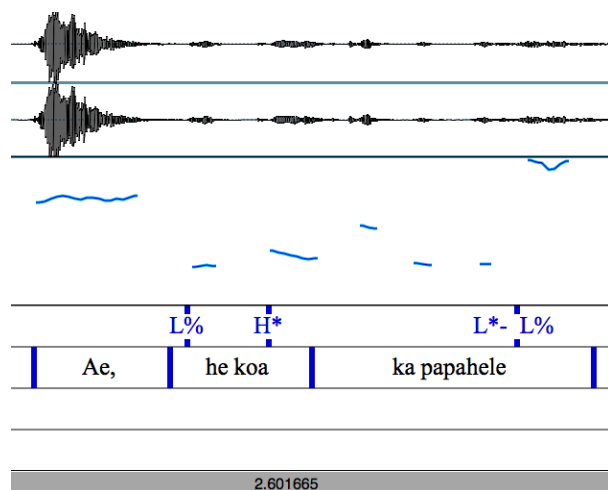
Displaying the Hawaiian yes/no question next to the statement demonstrates the striking contrastive falling pattern in the yes/no question that is not present in the statement. The following example represents two speakers, taken from the Clinton Kanahele Collection at Brigham Young University online archives. The first speaker asks the question and the second speaker answers.

(3) Hawaiian Yes/No Question and Statement

Hawaiian: No Niihau no oia?   Ae, No Niihau no oia.

English Gloss: Is he from Niihau? Yes, he is from Ni'ihau

	H*		H*-L			H		L*-L%	
No	Niihau	no	oia?			Ae,	No	Niihau	no oia.
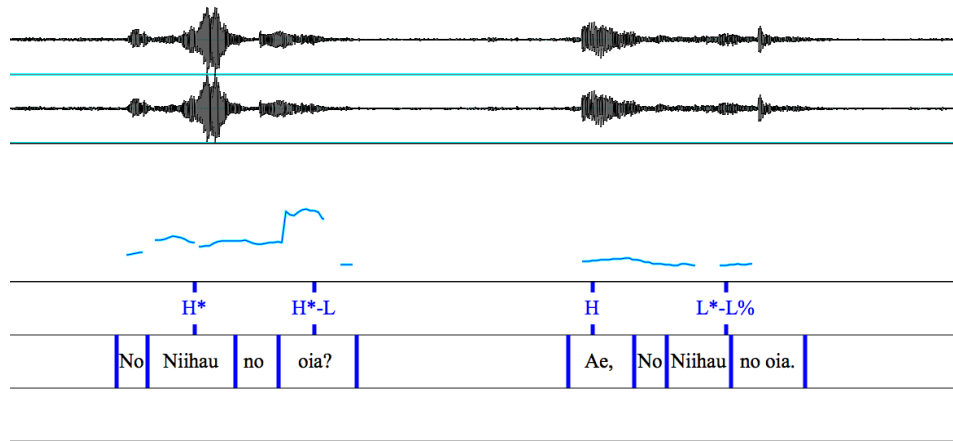
This falling pattern can also be seen in the HCE data.

2.3 HCE Data

The next example is an HCE yes/no question taken from the *Guess Who* game interviews I conducted. The utterance starts at a high pitch, continues high and then the fall occurs on the last stressed syllable of the utterance.   This pattern is consistent in both Hawaiian and HCE in yes/no questions.

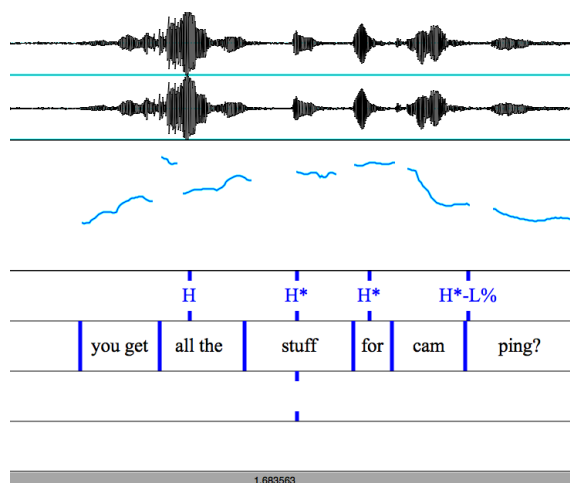(4) HCE Yes/No Question

HCE: Is your person one wahine?

English gloss: Is your person a woman?

		H*			H*-L	
Is	your	person	one wa	hine?		
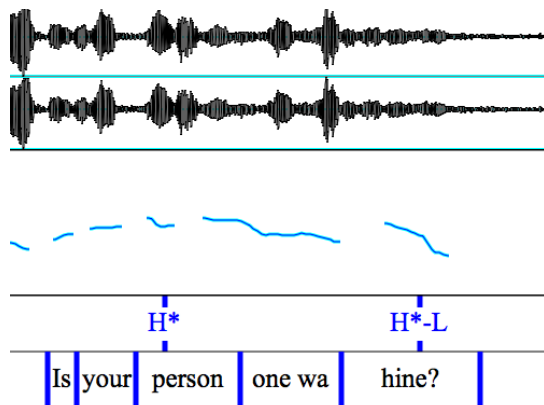
The following example is taken from a website, Full on Pidgin, which is designed to introduce people to HCE.

(5) HCE Yes/No Question

HCE: you get all the stuff for camping?

Much like the previous example, this utterance starts at a high tone, continues at a high tone, peaks on the last stressed syllable and has a dramatic fall. With the Hawaiian and HCE examples presented via instrumental analysis in PRAAT, it is easy to see the similar intonation patterns.

3.0 Implications of this study

This study not only provides crucial knowledge regarding the prosodic system of both HCE and Hawaiian, but it also challenges universalist theories as well as Bickerton's Language Bioprogram theory. Through this study, I also provide a theory of how the Hawaiian intonation imprint has endured through the evolution of HCE.

3.1 Universalist Claims

Phonologists such as Bolinger, Gussenhoven, and Ohala have made claims that intonation patterns to a large extent are universal.   In particular, Bolinger stated that in general declaratives have falling intonation patterns while interrogative or question intonation patterns have rising intonation patterns. "It seems reasonable to say (and we can assume) that the unmarked intonation for yes/no questions is rising, while the marked intonation is falling. The reverse is true of wh questions." (Bolinger, 1989: 435) As mentioned in the introduction of this paper, the Yes/No Question intonation is falling in HCE, as well as in Hawaiian. Other claims to universals in phonology such as Ohala's Frequency Code and Gussenhoven's Effort Code attempt to explain interpretation of pitch variation such that a higher final pitch may indicate uncertainty or a question and a lower final pitch would indicate certainty or a statement. Developed by Ohala (1983), the Frequency Code is a biological code innate to human speech and thus expressing cross-

language similarities in the use of pitch to contrast questions (using high question intonation) and statements (using low statement intonation).

However languages such as Hawaiian and HCE pose a problem for such claims because these languages have falling intonation patterns for interrogatives and statements, which would counter what the Frequency code predicts (questions have rising intonation whereas statements have falling intonation). Hawaiian and HCE are not the only languages that behave differently from the universally expected patterns noted by the above listed phonologists. Catalan (Simonet, 2008) as well as Hungarian (Ladd, 2008) and Russian (Marakova, 2007) are languages that employ falling question intonation, to name a few.

3.2 *Bickerton's Language Bioprogram Hypothesis (LBH)*

One theory of creole genesis is that the creole emerged out of a pidgin language. Bickerton (1981) questioned this theory and posited one that would include the use of innate human language requirements. In developing the Language Bioprogram Hypothesis (LBH), Bickerton did not include all creoles in his theory; he defined a "classic creole" situation that could be explained through the LBH. In this definition, the "classic creole situation" would be one where the creole speaking community would be those who were abruptly removed or 'torn' from their native cultures and whose native languages (the substrata) would be looked at as unfavorable. These "classic creoles" would also have emerged in situations where a pidgin language was used for a very short time and no more than 20 per cent of the community population represented superstratal speakers (80 per cent of the remaining community population was linguistically diverse). Bickerton used this definition to narrow down his research area to truly identify languages where "human linguistic capacity is stretched to the uttermost." (Bickerton,1981:4) In using this definition, he identified HCE as falling into the category of "classic creole".

Bickerton did extensive fieldwork in Hawaii in 1973 and 1974 with a team who recorded speakers of both Hawaiian Pidgin English (HPE) and Hawaiian Creole English (HCE). In evaluating HCE through his classic creole definition, Bickerton found that elements in HCE were missing in HPE and thus came to the conclusion that HCE did not emerge from HPE, which supported his theory that not all creoles emerged from a pidgin and that classic creole characteristics were due to the LBH.

With regards to phonology, if the LBH claims that "classic creoles" share innate syntactic and semantic universal language characteristics, then could it also assume universal phonological characteristics? For example, "classic creoles" would share unmarked phonological characteristics claimed by other Universalists such that it should be expected to hear these similar intonation patterns in many of these "classic creoles". What would be viewed as 'default' or 'unmarked' intonation patterns used for yes/no questions and declaratives could be identified in these creoles. In short, yes/no questions would have a high final tone while statements would have a low final tone.

HCE poses a problem for a strict LBH approach. To expand, Hawaiian has a falling yes/no intonation pattern, which is considered 'marked'. This pattern is consistent with what is seen in HCE as well, which would provide evidence against the claim that creoles default to 'unmarked' characteristics consistent with the LBH's Universalist claim. This criticism holds especially strongly given Bickerton's description of HCE as a "classic" creole, whereby he also came up with his LBH characteristics by comparing HPE and HCE

from examining movement rules, articles, verbal auxiliaries, for-to complementization, relativization and pronoun-copying. (Bickerton, 1981:17)

3.3 Creolist Claims and Founder's Effect

According to Sakoda & Siegel (2004:733) "The phonology of Hawai'i Creole also has some similarities to that of Hawaiian, Cantonese, and Portuguese, especially in the vowel system and intonation in questions, but these connections have not been studied in detail." Siegel proposes that, of the substrate languages in Hawaii, Portuguese and Chinese had the most influence on HCE due to the increased numbers of these two immigrated groups and the decline of the native Hawaiian population during stabilization of the creole. However, due to the initial imprint Hawaiian had on Hawaiian Pidgin English, which continued when HCE developed, I claim that Hawaiian had more of an influence phonologically than has been acknowledged. Zelinsky (1973) and illustrates this point further.

> Whenever an empty territory undergoes settlement, or an earlier population is dislodged by invaders, the specific characteristics of the first group able to effect a viable, self-perpetuating society are of crucial significance for the later social and cultural geography of the area, no matter how tiny the initial band of settlers may have been… Thus, in terms of lasting impact, activities of a few hundred, or even a few score, initial colonizers can mean much more for the cultural geography of a place than the contributions of tens of thousands of new immigrants a few generations later. (Zelinsky, 1973)

Mufwene (2007) applied this same principle to creole genesis suggesting that the structure of the creole was predetermined by the founding population. I support this view in explaining the phonological structure transferred from Hawaiian to HCE.

4.0 Summary of Findings

Based on an AM notation system, I have compared (table below) Hawaiian, English, and HCE utterances to illustrate the similarities that Hawaiian and HCE have as well as to highlight the differences that HCE and English have with regards to yes/no questions, wh-questions, declaratives (statements) and continuation intonation. Comparing HCE to English is important to this study in order to demonstrate key differences in HCE and English intonation to support the argument that HCE has not been influenced by English intonation at least with regard to yes/no question intonation. English uses syntax to highlight the difference between declaratives vs. interrogatives (yes/no and wh-questions) as well as contrasting intonation patterns. The Hawaiian language does not have any change in syntax or morphology for questions or statements; it only has intonation to rely on. This raises questions regarding interpretability. For example, what if all utterances have falling intonation patterns? How can a speaker convey different types of utterances and a listener interpret them? To answer this, it seems that the peak of the H tones is on the last stressed syllable in both HCE and Hawaiian and then falls abruptly on the remaining syllables.

From the data I have gathered, it would also seem the distinction comes from a higher global F_0, in questions, to which the start of the utterance is a higher pitch that carries through the entire tune, while statements have a lower global F_0. In HCE the same occurs-falling intonation in all categories, and having a higher global F_0 in questions. It is the overall height of the utterance in HCE and Hawaiian that indicates whether the utterance is a

question or statement. In summary, as seen from the table, HCE and Hawaiian have falling intonation for questions and statements, however the realization of the falling tune has differences which the speaker and listener can distinguish.

(6) Comparison of HCE, English, and Hawaiian

	YES NO?	WH?	Declarative	Continuation
HCE	Falling	Falling	Falling	Falling
ENGLISH	Rising	Falling	Falling	Rising
HAWAIIAN	Falling	Falling	Falling	Falling

5.0 Conclusions and Future Study

The purpose of this study was to demonstrate the relevance of Hawaiian intonation on HCE intonation and to provide evidence of this imprint. I have provided empirical and socio-historical evidence to support the claims I have made in this paper. After completing a comparative study as well as in depth socio-historical research, I have come to the conclusion that Hawaiian intonation did indeed have a lasting impact on HCE intonation despite what has been said by previous creolist such as Bickerton, Roberts, and Siegel. I have also provided evidence against a strong Universalist explanation of characteristics found in HCE as posited by Bickerton via the LBH as well as argued against other Universalist based claims made by Gussenhoven and Ohala (Frequency and Effort Codes). In the future, I will conduct more perception-based experiments to test the salience of my observations on the tonic differences in HCE and Hawaiian.

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