1. Introduction

Children who speak non-standardized varieties of English are at risk for both over- and under-referral to speech-language and special education services (Morgan et al., 2016; Pearson, Jackson, & Wu, 2014). These findings are based heavily on research with speakers of African American English (AAE; Craig & Washington, 2006) and have demonstrated the importance of understanding the difference between language variation and language deficit (de Villiers, 2017). This distinction may also be important for another, much less researched, linguistic community in Hawai`i, where approximately half the population is estimated to speak Hawai`i Creole (Sakoda & Siegel, 2003). This creole language is primarily lexified by English and locally referred to as ‘Pidgin’. While adult Pidgin has been well documented and described, few studies have focused on Pidgin-speaking children, none of them recent (Day, 1979; Purcell, 1984). As a result, little is known about the Pidgin spoken by children in Hawai`i today, making appropriate clinical and education assessment difficult. Here we report on our first steps towards a description of contemporary child Pidgin.

2. Tense and finiteness in Pidgin

Many people who grow up in Hawai`i today speak a local variety of English referred to as Hawai`i English (HE; Drager, 2012) and many people can shift freely between HE and Pidgin. Some researchers describe these varieties along a spectrum with heavy Pidgin on one end and HE on the other (e.g., Reynolds, 1999). HE is also sometimes called Hawai`i Standard English and has been...
described as standardized American English (SAE) “with a local flavor” (Reynolds, 1999, p. 304); that is to say that HE is closely related to SAE although it does have some articulation and intonational differences. Differences between (adult) Pidgin and HE include markings of tense and finiteness. Pidgin allows, but does not require, null marking of tense and finiteness in both past and third-person-singular contexts (1) (Sakoda & Siegel, 2003, p. 39). Other differences at the VP-level include the possibility of zero auxiliaries and copulas (2-3), and the use of the past auxiliary and copula *waz* with plural subjects (4-5). In addition, (adult) Pidgin has some unique constructions not attested in English, including *wen* as a pre-verbal marker of past tense (6), and *stei*, which can function as a copula, progressive, or perfective but only occurred as a locative in this sample (7). Given the resemblance of constructions (1)-(3) to phenotypical constructions associated with developmental language disorder in English (Extended Optional Infinitive; Rice, Wexler, & Cleave, 1995), the incidence of such constructions in child Pidgin is of particular interest.

Plain form; null tense/finiteness

(1) He shake da tree.¹
   ‘He shakes/shook the tree.’

Zero auxiliary

(2) Da boy and da girl watching da dog.
   ‘The boy and the girl are/were watching the dog.’

Zero copula

(3) Dey all sad.
   ‘They are/were all sad.’

Past auxiliary ‘*waz*’; invariant form

(4) Da bees waz chasing him.
   ‘The bees were chasing him.’

Past copula ‘*waz*’; invariant form

(5) Dey waz happy.
   ‘They were happy.’

¹ Like many non-standardized language varieties, Pidgin does not have a standard orthography. Its phonological system is distinct from English and some researchers have utilized a systematic orthography developed by Odo (1977) which captures these phonological differences. However, Odo orthography has been resisted by many Pidgin speakers and is not widely used in the community. For these reasons, we have instead chosen to use an “eye dialect” (Walpole, 1975) to represent our data.
Past tense ‘wen’; unique marking
(6) Da frog wen open da ting.
   ‘The frog opened the thing.’

Locative ‘stei’; unique marking
(7) Da frog no stei.
   ‘The frog isn’t there.’

3.1. The Fiestas corpus

The Fiestas corpus consists of spoken narrative retellings from children in PK-2 from across Hawai’i (n=251) who were in after-school care programs (Fiestas, 2015). To gather the narrative samples, children first listened to a single examiner read two wordless picture books; Too Many Mangos (Paikai, 2009), where the examiner read a Pidgin script, and then Frog Where Are You? (Mayer, 1969), read with an English script. After each script, the child was given the wordless picture book and was asked to tell the story in their own words. The samples were collected in 2014 to establish local norms and not all children were Pidgin speakers. A preliminary report on grammatical feature characteristics of the corpus showed lower use of English grammatical morphemes compared to continental United State norms (Samples & Fiestas, 2015). Children in the database were not known to be receiving special education or speech-language services according to self-report and to the knowledge of the after-school program staff. Three children of the 251 who could not perform the task were excluded from the study. The remaining children were presumed to present with typically developing language skills. Hawai’i children’s lower production of standardized English grammatical morphemes thus points towards a language difference rather than developmental language disorder. These findings present important evidence for educational and clinical considerations in Hawai’i. A limitation of this study, however, lies in its exclusive focus on the presence or absence of morphemes that are obligatory in SAE. In other words, the domain of analysis was defined by the properties of the standardized variety only. The present study aims to add to these existing observations by focusing on the presence of legitimate Pidgin constructions, rather than the absence of morphemes required in standardized English.

To this end, it is also important to systematize which children in the corpus spoke more or less Pidgin since the sample was heterogeneous. An additional challenge comes from the fact the child speakers are still in the process of mastering their language forms. For example, very young children do not consistently mark tense on their verbs. Monolingual English-speaking children in the continental United States typically ceiling in marking all finite verbs around age 5 but children with specific language impairment may not achieve mastery until 7 years of age. The lack of tense marking in school-aged children can be one indicator of developmental language disorder (Rice, Wexler, & Hershberger,
1998). However, this interpretation is problematic in the context of Hawai`i schools both because Pidgin allows for alternate or zero-marking of several tense markers (e.g., past tense can be zero-marked or be marked with *wen*+V) and because the English variety examined by Rice and colleagues is not identical to the English spoken in the islands. For these reasons, a ratings study was conducted to identify the children who were most consistently rated as Pidgin-speaking or English-speaking in order to say whether missing tense inflections in Pidgin-speaking children were developmental errors or correct utterances in the target variety.

3.2. Materials

The first step in this process was to identify relevant child speakers. Fifteen kindergarten and 15 first grade language samples were selected from the Fiestas corpus. Children who identified another language spoken at home were excluded, as were samples with excessive background noise. An effort was made to include speakers from all islands available from the corpus. The full corpus is slightly over representative of male speakers and this was also true of the subset selected for this rating study; 18 of the speakers were male and 12 were female. One-minute audio-samples were created from *Frog* story, and an effort was made to find sections with minimum interruptions or silences.

3.3. Participants

University students who self-identified as native Pidgin speakers (*n*=31) were recruited through a participant pool at the University of Hawai`i. Thirteen identified as female, 17 male, and one chose not to answer. Participants’ mean age was 20.8 years (range 18-30). Participants rated their Pidgin comprehension abilities an average of 8.68 out of 10 (range 5-10) and English comprehension an average of 9.77 (range 8-10). All participants had attended high school and at least part of primary school in Hawai`i.

3.4. Procedure

Participants were asked to rate the 30 1-minute audio-samples on a scale from 1=“heavy Pidgin” to 4=“English” (adapted from Oetting & McDonald, 2002). Google Forms was used to present the clips and the listener ratings to participants as an online survey.

3.5. Results

Only four samples received mean ratings of less than 2 (heavy Pidgin). The data from these most consistently Pidgin-rated children, as well as those from the four most consistently English-rated ones, were then fully transcribed and present
the basis for the analyses in Section 4. The demographics of the eight selected children are shown in Table 1.

Table 1. Demographics of English-rated and Pidgin-rated child speakers.

<table>
<thead>
<tr>
<th>English-rated (ER) children</th>
<th>Pidgin-rated (PR) children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>Sex</td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>K</td>
<td>f</td>
</tr>
<tr>
<td>K</td>
<td>f</td>
</tr>
<tr>
<td>I</td>
<td>m</td>
</tr>
<tr>
<td>I</td>
<td>f</td>
</tr>
</tbody>
</table>

* Retold 1 story instead of 2

4. Analyses of children's story retellings
4.1. Transcription and analyses

The complete Mangos and Frog re-tellings for the selected eight children were fully transcribed by both the first author and an independent research assistant fluent in both Pidgin and Hawai‘i English. Inter-scorer reliability for the selected verb phrases (described below) was calculated at 93%. Linguistic mazes such as filled pauses (‘I um want that.’), repetitions (‘I, I, I am going.’), revisions (‘She- he sat.’), and abandoned utterances (‘I will see- They are going.’) were not considered for this analysis.

The transcripts were then divided up by verb phrase and each verb was coded for morphosyntactic features; either English or Pidgin features described by current adult literature (Drager, 2012; Sakoda & Siegel, 2003). Some features did not fit either standardized English or (adult) Pidgin morphosyntax and were coded as developmental errors. For the analyses focusing on VP-level phenomena reported here, only utterances with 3rd-person subjects and finite verb phrases were included. Verb phrases including passives, modals, and do-support as well as verbs that were part of constructed dialogue (e.g., when the child spoke as a character in the story) were not included in any of the following analyses because they were relatively rare in this sample. Future research may target these forms. The passive construction may be particularly illuminating since it is generally agreed to be absent in Pidgin (Gallimore & Tharp, 1976). Unrelated side comments were also excluded (e.g., a child saying ‘This itches’ and rubbing the microphone).

The remaining verb phrases were analyzed using variationist method of analysis which examines not just the number of Pidgin features but also counts how often that feature could have occurred.

The first analysis focused on finite verb phrases while the second analysis focused on BE verb phrases. Because the children were telling stories, the finite verb phrases could take several forms. In English, children could use simple
past (past-ed or irregular past) or historical present (3rd-person-present). Pidgin also allows past tense *wen* (6) and plain form verbs (1) in these positions. This Pidgin plain form is only different from English historical present when the subject is singular since English 3rd-person-present with plural subjects is also unmarked (e.g., ‘She goes.’ vs ‘They go.’). In order to count how often it was possible for children to use a plain form, all of finite, non-BE, singular subject verb phases were considered together; namely, regular/irregular past, 3rd-person-present-s, past *wen*, or plain form.

For the second analysis, we focused on BE verb phrases. One set of possible variations is seen in auxiliary BE verb phrases. The auxiliary BE in English takes different forms to mark past and plural (e.g., ‘She is/was walking.’ ‘They are/were walking.’). Pidgin allows two additional variations: zero auxiliary (2) and *waz* used with plural subjects (4). Thus, a second analysis focused on the variationist analysis of children's auxiliary choices, in which all and only utterances with progressive aspect and a plural subject were considered.

Like with the auxiliary BE, copula BE has a similar set of possible variations. Pidgin copula *waz* (5) is only differentiated from English ‘was’ when the subject is plural (e.g., ‘He was happy’ vs ‘They were happy’). Unlike the auxiliary, however, when the zero-copula is used the utterance no longer has an overt verb (e.g., ‘Dey all happy’).

In addition to these variationist analyses in the highly specific contexts such as those discussed above, we also wanted to quantify how much overall Pidgin the children used across the different grades. To begin this analysis, we looked at all selected verb-phrases (i.e., finite, 3rd person subject, non-modal, non-DO support, non-passive) and determined which ones fit into three categories: unique Pidgin forms (6-7), null/invariant Pidgin forms (1-5), and developmental errors such as overgeneralizations (e.g., ‘da glass breaked’). These categories were selected because null/invariant Pidgin forms might resemble developmental errors to unfamiliar listeners while unique Pidgin forms may be more readily identified as a language variation. The total verb-phrases produced by Pidgin-rated and English-rated children were then separated by grade so that age-related trends could be observed.

### 4.2. Results

In the first analysis focusing on finite, non-BE verb phrases, only a single instance of overt *wen* (6) was attested, whereas plain form verbs (1) accounted for 20/96 possible contexts among Pidgin-rated children, versus only 1/106 among English-rated children, and were found among all 4 Pidgin-rated children (Table 2). No clear differences between the groups were seen in incidence of irregular past. However, the incidence of regular past -ed appears much lower in the Pidgin-rated children which is consistent with Samples and Fiestas' earlier analysis.
Table 2. Tokens of finite verb phrases with singular subjects, excluding constructions with BE.

<table>
<thead>
<tr>
<th></th>
<th>ER children</th>
<th>PR children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregular past (e.g., ‘said’)</td>
<td>57</td>
<td>55</td>
</tr>
<tr>
<td>Regular past (-ed)</td>
<td>45</td>
<td>19</td>
</tr>
<tr>
<td>3rd person singular (-s)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Past tense ‘wen’</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Plain form</td>
<td>1</td>
<td>20*</td>
</tr>
<tr>
<td><strong>Total possible contexts</strong></td>
<td><strong>106</strong></td>
<td><strong>96</strong></td>
</tr>
</tbody>
</table>

* Attested in all PR children

In the second analysis which focused on auxiliary BE choices, Pidgin auxiliary *waz* (4) was found among all 4 Pidgin-rated children, while no instances of this construction appeared in the English-rated samples (Table 3).

Table 3. Tokens of verb phrases with progressive aspect and plural subjects.

<table>
<thead>
<tr>
<th></th>
<th>ER children</th>
<th>PR children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present progressive (are -ing)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Past progressive (were -ing)</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Past auxiliary ‘waz’</td>
<td>0</td>
<td>5*</td>
</tr>
<tr>
<td>Zero auxiliary</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total possible contexts</strong></td>
<td><strong>10</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

* Attested in all PR children

Additionally, differences between English-rated and Pidgin-rated children were also observed in copula BE verb phrases. For these plural subject BE phrases, both English-rated and Pidgin-rated children used English past ‘were’ and one used historical present ‘are’. Additionally, two Pidgin-rated children used Pidgin copula *waz* (5) and one used zero-copula (3). Note that these forms were not attested in all Pidgin-rated children.

Our third analysis looked at how frequently the children used Pidgin forms in total across the different grades and as well as how frequently they produced developmental errors. Pidgin forms were also separated between overt Pidgin forms like past *wen* and null/invariant forms like the plain-form. Results are presented in Table 4 and, for each cell, the density of the selected category as a ratio out of the total finite and BE verb phrases produced by the children in that grade.

Preliminary results of this third analysis indicate that the four Pidgin-rated children produced some Pidgin forms at a substantially higher rate than the four English-rated children. The two Pidgin-rated kindergarteners also produced overall higher rates of Pidgin than the two Pidgin-rated first graders. Developmental errors were relatively rare in both the Pidgin-rated and the English-rated children. Note that if one were to count Pidgin variations, such as plain-form verbs and *waz* with plural subjects, as errors, the Pidgin-rated children
would show concerningly high rates of errors. However, once Pidgin variations are acknowledged as such, the rate of true developmental errors is in fact similar in both groups.

Table 4. Comparison of rates of developmental error tokens, null/invariant Pidgin tokens (1)-(5), and unique Pidgin tokens (6)-(7) out of total finite and BE verb phrases produced by grade.

<table>
<thead>
<tr>
<th></th>
<th>ER children</th>
<th></th>
<th>PR children</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K (n=2)</td>
<td>1 (n=2)</td>
<td>K (n=2)</td>
<td>1 (n=2)</td>
</tr>
<tr>
<td><strong>Developmental error</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.8% (1/118)</td>
<td>0.7% (1/130)</td>
<td>1.8% (2/108)</td>
<td>0.0% (0/104)</td>
</tr>
<tr>
<td><strong>Null/invariant Pidgin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0% (0/118)</td>
<td>1.5% (2/130)</td>
<td>22.2% (24/108)</td>
<td>9.6% (10/104)</td>
</tr>
<tr>
<td><strong>Unique Pidgin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0% (0/118)</td>
<td>0.0% (0/130)</td>
<td>1.8% (2/108)</td>
<td>0.0% (0/104)</td>
</tr>
</tbody>
</table>

5. Conclusions

The findings from this small-scale analysis suggest that Pidgin *waz* may be a marker of contemporary child Pidgin, and that zero-marking of tense and finiteness are properties of *typical* development among Pidgin-speaking children and should not be taken as indicators of developmental language disorder. Thus caution is needed in the language assessment of children in Hawai‘i so that null and invariant Pidgin forms are not conflated with developmental error. These considerations are especially important in a school setting since it is in the area of morphosyntax that school-aged children who speak non-standardized varieties are most likely to be assessed for language and literacy skills. For example, the Common Core State Standards adopted by the Hawai‘i Department of Education state that students in K-5 will “demonstrate command of the conventions of standard English grammar,” and that Grade 1 students should “use singular and plural nouns with matching verbs in basic sentences” (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010, p. 26). Note that both plural-*s* and third-person-singular-*s* can be zero-marked in Pidgin and *waz* with plural subjects does not follow the conventions of SAE. Therefore, assessments based on the Common Core standards might penalize children for their language variation.

Limitations of this small-scale study include its small sample size as well as a lack of detailed demographic information that makes it impossible to definitively conclude that every child displayed typical language development. This study also only looked at VP properties even though Pidgin variations can also be found in noun phrases, vocabulary, phonology, and pragmatic markers. Despite these limitations, this study offers important implications for educational and clinical decisions for Pidgin-speaking children in Hawai‘i and highlights the need for more in-depth investigations of current child Pidgin.
References


