The short-\(a\) split among young speakers in the Long Island suburbs of New York City
Allison Shapp
New York University

**The Phonetic Variable**

**Short-\(a\)**

In American English, the low front vowel /æ/ often surfaces with two allophones, a "tense" version (raised and fronted) and a "lax" version (lower and backer). However, there are several different systems of phonological conditioning of these allophones that exist in various dialects.

The most common pattern in American English for the pronunciation of /æ/ is known as the "nasal-split." In this system, the vowel is tense when followed by a nasal consonant and lax otherwise.

### New York City English

Historically, New York City English (NYCE) has had a "complex short-\(a\) split." The split of New York City’s /æ/ into tense and lax sets was described as early as Babbit (1896), was described further by Trager in 1942, and has continued to be discussed extensively by sociolinguists (Labov, Yeager and Steiner 1972; Labov 2007, Cohen 1970, Becker and Wong 2009, Becker 2010, Coggshall 2017).

### Additional Constraints

In addition to conditioning by the following phonetic environment, Labov (2007) lists seven "specific conditions" that operate on NYCE short-\(a\). These include: abbreviations, lexical exceptions, learned words, function words, and inflectional boundaries. The remaining two of these constraints are the most relevant to the current analysis. They are the Word Initial Constraint and the Open Syllable Constraint.

**Word-Initial Constraint:** When /æ/ is in word-initial position, it will be lax regardless of following environment.

**Open Syllable Constraint:** All words where /æ/ is in an open syllable (words like planet, habit, hammer, etc.) are lax, regardless of following environment.

I use the word ANNEX to represent the class of words that the Word-Initial Constraint would render lax when it would otherwise be tense in the other systems. I use the word PLANET to represent the same for the Open Syllable Constraint.

**Conditioning by Following Environment**

The basis for NYCE’s traditional complex-split is primarily the following environment. It is not nasal vs. oral, but is instead front nasals, voiced stops, and voiceless fricatives (tense) vs. velar nasals, voiceless stops, and voiced fricatives (lax).

A third short-\(a\) system in American English is the “continuous system” (Becker 2010), in which front nasals are highest, what would be oral lax consonants in the complex-split are lowest, and what would be oral tense consonants as well as velar nasals are intermediate.

### Data Collection/Community

The speakers for the present study are from the eastern edge of the NYC dialect region: suburban Nassau County, Long Island. While historical dialectological studies place Nassau as part of the NYC region (Kurath 1949, Labov et al. 2006), there has been virtually no study of the distribution of NYC features there (but see Olivo 2013).

The present data consists of 1243 tokens of the /æ/-vowel from the word list portion of sociolinguistic interviews with 24 members of a robotics club in a Nassau high school, aged 14-18. The vowels were measured using the Penn FAVE engine (Rosenfelder et al. 2011).

Subject JH (left), 17yo male, illustrates a distribution close to the traditional NYCE complex system, with /æ/ followed by voiced fricatives and voiceless stops as lax, while those followed by voiced stops and voiceless fricatives are tense. This plot also shows an element mentioned by Becker 2010, that the velar nasal often shows up in the tense group, or somewhere intermediate.

Subject MO (right), 14yo male, has following nasals separate from all other following environments, however his ANNEX and PLANET word classes pattern with the lax environments, in accordance with the constraints described above.

### Results

The majority of my teenage subjects have systems that can best be categorized as a nasal-split, with a handful of Becker’s continuous system represented. However almost every one shows some features of the historical complex system. Subject MO (right), 14yo male, has following nasals separate from all other following environments, however his ANNEX and PLANET word classes pattern with the lax environments, in accordance with the constraints described above.

**The Can-Can**

Subject AT (left), 15yo female, has the most distinct nasal-split in the study. However, as can be seen in this vowel plot, she still has a significant minimal pair distinction between the auxiliary word CAN ("I can") and the content word ("tin can.").

AT is the child of East-Asian Sikh immigrants. While they are a small minority in this sample, the children of more recent immigrant groups have the most complete nasal-splits.

**Summary and Discussion**

The present data suggests that young Long Islanders are moving towards a nasal system, unlike their parents and grandparents, but similar to the younger speakers in other New York City area studies like Becker and Wong 2009 and Becker 2010. The shift has not yet reached 100% nasal-split, and the teenage speakers in this study still maintain constraints of the traditional NYCE complex-split system.

There is evidence of language change towards the national standard, however it manifests with a mixing of constraints from the old and new systems and is not complete, as intermediate (continuous) systems are also still present.

Social factors for further analysis: This data set includes several potentially relevant social factors that will be incorporated into the analysis of variation in future reports: gender, family demographic background and migration patterns, and the speakers’ level of connection to the label of “New Yorker” (a sometimes contentious identity to claim on Long Island.) The researcher encourages input and speculation on how these factors might condition variation of this variable.