Incipient /aI/-raising in Fort Wayne: The missing dialect?  
Stuart Davis, Kelly Berkson, and Alyssa Strickler  
Indiana University

Recent studies have documented the emergence of /aI/-raising before voiceless consonants in US locales including Ann Arbor (Dailey O’Cain, 1997), Philadelphia (Fruehwald, 2013), New Orleans (Carmichael 2015), and Chicagoland (Hualde et al. 2016). Concomitant /aU/-raising does not occur, thus distinguishing the American from the Canadian variety of raising. One important finding characterizing all current varieties of /aI/-raising is that /aI/ raises before a flapped-t (e.g. writer [rIr’t]), thus distinguishing it from rider [rIr’t] where no raising occurs. As discussed in Fruehwald (2013), this is of interest because the relationship between /aI/-raising and flapping is opaque: /aI/ is raised before flapped-t even though it surfaces as voiced. Fruehwald (2013:193) makes a strong claim based on the Philadelphia data: “The raising of pre-voiceless /ay/ has always patterned according to the underlying voicing of the following segment, not its surface realization.”

Given these findings, the question arises as to whether there have ever been dialects where /aI/-raising only occurs before surface voiceless consonants, excluding flapped-t environments. As Fruehwald notes, one might predict that at the incipient stage—before becoming phonologized—/aI/-raising would be phonetically gradual, occurring before surface voiceless consonants but not before flapped-t or any other voice consonant. Famously, Joos (1942) describes two dialects of Canadian English, one that pronounces the second syllable of typewriter with /aI/-raising and one that does not. The existence of this second dialect has never been documented phonetically, however: Chambers (1973) note that Joos’s reported subdialect where /aI/-raising failed to occur before flapped-t no longer exists, and in the American varieties documented so far raising before flapped-t consistently occurs.

As far as we are aware, this missing dialect wherein raising occurs only before surface voiceless sounds has never been documented in the sociophonetics literature. With this in mind, the current study examines /aI/-raising in Fort Wayne, Indiana (FW). We have observed informally that /aI/-raising seems to be recent among students from that area. Given the possible incipient nature of the raising, a study was undertaken that targeted different generations of English speakers in FW. Our focus here is on females aged 18-22 from FW, who were recorded reading a pseudo-randomized 96-item wordlist that included 38 /aI/-forms with voiced (ride), voiceless (write), tapped-d (riding), and tapped-t (writing) targets. Acoustic measures reported include duration and time-normalized formant values

The data confirm that /aI/-raising occurs in FW and is incipient in nature. For some speakers, pre-tap variants pattern together and fall midway between the raised and unraised diphthongs, but the dominant pattern—illustrated in Figure (1) with data from two representative speakers—is that raising occurs in monosyllabic pre-voiceless contexts (e.g. write) but not in pre-tap environments (e.g. writing). Mean durations are also shown: though pre-voiceless shortening is sometimes offered as phonetic motivation for raising, pre-tap vowels are shorter yet do not raise. Consequently, FW attests the missing dialect.
**Fig. 1:** /aI/ formant tracks and mean duration in crucial environments for two speakers.

(499 words)

**References**


