

# Wh-question Intonation Patterns in the Showamura Dialect of Japanese\*

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## 1. Introduction

- We examine the Showamura dialect of Japanese.
- Showamura is a small town located in the Aizu region of Fukushima prefecture.
- The traditional dialects of the Aizu region of Japan are endangered. Young people of this region are not fluent in these dialects.
- We recorded data from 26 Showamura residents (average age: 77.5).
  - We showed participants sentences in standard Japanese and asked them to say them in their dialect.
  - We had participants ask each other questions about drawings.
- We compiled a corpus of this data.
- Data are available online:
  - <http://www.osaka-kyoiku.ac.jp/~jginsbur/AizuBenDatabase/Showamura1.html>
  - Search for the appropriate subject # and item.
- We present and analyze findings regarding intonation in wh-questions in the Showamura dialect.

## 2. Tokyo and Fukuoka Dialects

(1) *Naoya-ga nanika-o nomiya-de nonda.*  
Naoya-NOM something-ACC bar-LOC drank  
'Naoya drank something at the bar.'  
(Ishihara 2003:52)

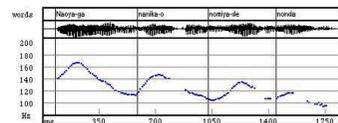


Fig. 1: Pitch track for (1), from Ishihara (2003:53)

(2) *Naoya-ga nani-o nomiya-de nonda no?*  
Naoya-NOM what-ACC bar-LOC drank Q  
'What did Naoya drink?'  
(Ishihara 2003:52)

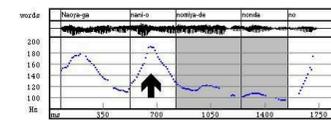


Fig. 2: Pitch track for (2), from Ishihara (2003:53)

(3) *Imanishi-ga doyoobi aomushi-ni yarareta to.*  
Imanishi-NOM Saturday caterpillar-by was done PRT  
'Imanishi was affected by caterpillars on Saturday.'  
(Smith 2013:98)

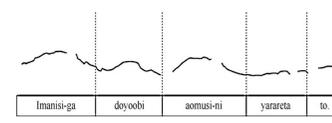


Fig. 3: Pitch track for (3), from Smith (2013:98)

(4) *Dare-ga doyoobi aomushi-ni yarareta to?*  
who-NOM Saturday caterpillar-by was done PRT  
'Who was affected by caterpillars on Saturday?'  
(Smith 2013:98)

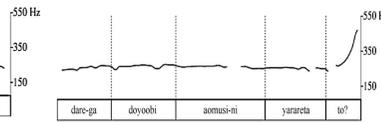


Fig. 4: Pitch track for (4), from Smith (2013:98)

- In the Tokyo dialect, there is Post-Focus Reduction (PFR) (Ishihara 2003). (Figs. 1 and 2)
  - There is a pitch peak on a wh-phrase followed by a PFR "effect [that] spreads to all post-FOCUS [post-wh] material" (Ishihara, 2003, p. 52).
  - In Fig. 1 (a statement), there is a slight peak on *nanika* 'something'. In Fig. 2 (a wh-question), there is an elevated peak on *nani-o* 'what' and there is PFR after *nani-o* 'what'.
- In the Fukuoka dialect, there is accent deletion (or reduction). The accents on words following a wh-phrase are deleted (or highly reduced).
  - Pitch peaks in the statement (Fig. 3) disappear in the wh-question (Fig. 4).

## 3. Showamura Dialect

- In the statement (Fig. 5), there is a pitch peak on the indefinite *nanika* 'something', followed by peaks on each successive phrase.
- In the corresponding wh-question (Fig. 6), the pitch peaks on the wh-phrase and then gradually falls until the question particle, where it rises again.
- The accents on the words following the wh-phrase have been reduced. This is similar to Fukuoka Japanese, except that accents haven't been deleted.
- Unlike the Tokyo dialect, in the wh-question pattern (Fig. 6), pitch on the wh-phrase is not elevated, when compared with the indefinite *nanika* (Fig. 5), and there is very little (if any) pitch compression after the wh-phrase; there is no PFR effect.

(5) *Jiichan-ga nanika-o nagashi-de kutta yo.*  
grandpa-Nom something-Acc kitchen-LOC ate Emph  
'Grandpa ate something in the kitchen.'

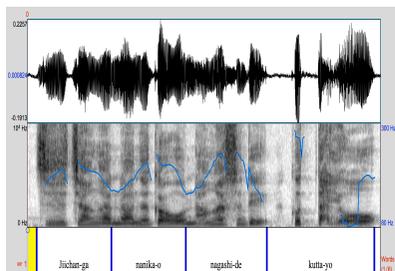


Fig. 5: Pitch track for (5), spoken by a 75-year old female (Subject 32, Item 10)

(6) *Jichan-wa nani-o nagashi-de kutta no?*  
grandpa-Top what-Acc kitchen-LOC ate Q  
'What did grandpa eat in the kitchen?'

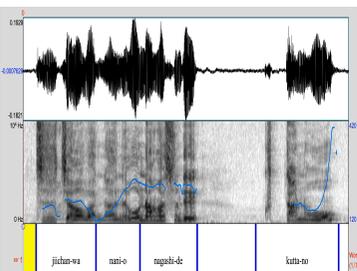


Fig. 6: Pitch track for (6), spoken by a 75-year old female (Subject 32, Item 11)

- In the statement (Fig. 7), there is a pitch peak on the indefinite *nanika* 'something', followed by peaks on each successive phrase.
- In the corresponding wh-question (Fig. 8), the pitch peaks on the wh-phrase, but the successive peak on the adjunct phrase *nagashi-de* 'in the kitchen' is reduced in the wh-question (Fig. 8), when compared with (Fig. 7).
- There is no significant pitch compression (PFR) after the wh-phrase in Fig. 8.

(7) *Jisama-ga nanika nagashi-de kutteta yo.*  
grandpa-NOM something kitchen-LOC ate Emph  
'Grandpa ate something in the kitchen.'

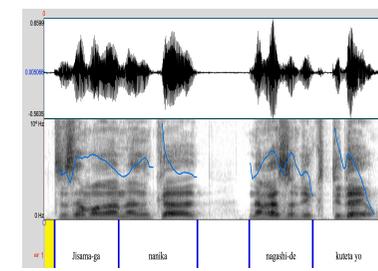


Fig. 7: Pitch track for (7), spoken by an 80-year old male (Subject 41, Item 11)

(8) *Jisam-wa nani-o nagashi-de kutta no-gana?*  
grandpa-NOM what-ACC kitchen-LOC ate Q  
'What did grandpa eat in the kitchen?'

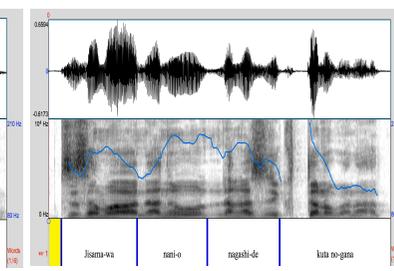


Fig. 8: Pitch track for (8), spoken by an 80-year old male (Subject 41, Item 12)

- We found two primary patterns with respect to pitch peaks on wh-phrases:

Total # of wh-questions	Pitch peak on wh-phrase	Rising intonation on wh-phrase
116	60% (70 out of 116)	40% (46 out of 116)

Table 1: Wh-phrase intonation

- Pitch peak appears on the wh-phrase about 60% of the time, as in Figs. 9 and 11.
- Pitch rises on the wh-phrase about 40% of the time, as in Fig. 10.

(9) *nani-ga miru?*  
what-Nom see  
'What can you see?'

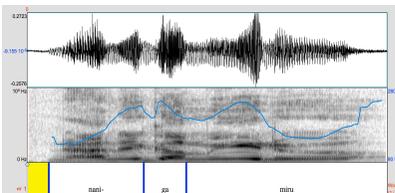


Fig. 9: Pitch track for (9), spoken by a 75-year old male (Subject 38, Item 5)

- Fig. 9 shows a wh-question with a pitch peak on the wh-phrase; the peak falls on the particle *ga* 'Nom' following *nani* 'what'.
- There is a notable lack of PFR after the wh-phrase, as there is a peak on the next phrase *miru* 'see'.

(10) *Yube na basama yurui-pata-de nani nondeta no-ya?*  
evening Emph grandma hearth-LOC what was-drinking Q  
'That evening, what was grandma drinking at the hearth?'

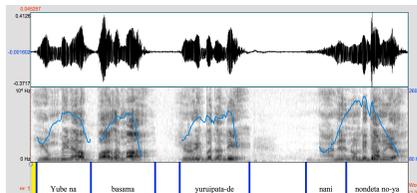


Fig. 10: Pitch track for (10), spoken by a 75-year old male (Subject 38, Item 12)

- Fig. 10 has rising intonation (but no peak) on the wh-phrase *nani* 'what', with the pitch peak falling on the following verb *nondeta* 'was drinking'.

(11) *Otoko-no-ko donna-iro-no-kutsu haiteiru?*  
boy which-color-Gen-shoes wearing  
'Which color shoes is the boy wearing?'

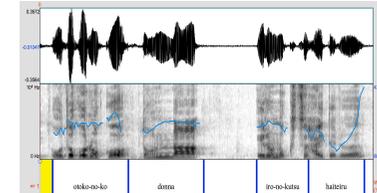


Fig. 11: Pitch track for (11), spoken by a 75-year old female (Subject 18)

- Fig. 11 has a small pitch peak on the wh-phrase *donna* 'which'.
- There is almost no drop in pitch until after the noun *kutsu* 'shoes'.

## 4. Conclusions

- In the Showamura dialect, the prominence of a wh-phrase can be indicated with either a pitch peak or with rising intonation.
- The typical intonation patterns found in the Tokyo dialect do not hold in the Showamura dialect.
  - There is no requirement for PFR following a wh-phrase.
- Like the Fukuoka dialect, accents appear to be reduced between a wh-phrase and a question particle. Compare Fig. 5 and Fig. 6 and Fig. 7 and Fig. 8.
- Unlike in the Fukuoka dialect, accents on wh-phrases do occur.
  - There is either a peak on a wh-phrase or rising intonation on a wh-phrase.

References:  
Ishihara, Shinichiro. 2003. Intonation and interface conditions. MIT dissertation.  
Smith, Jennifer L. 2013. Fukuoka Japanese wh prosody in production and perception. *Lingua* 124, 96-130.