No word-specific mismatch negativity effect in Mandarin speakers

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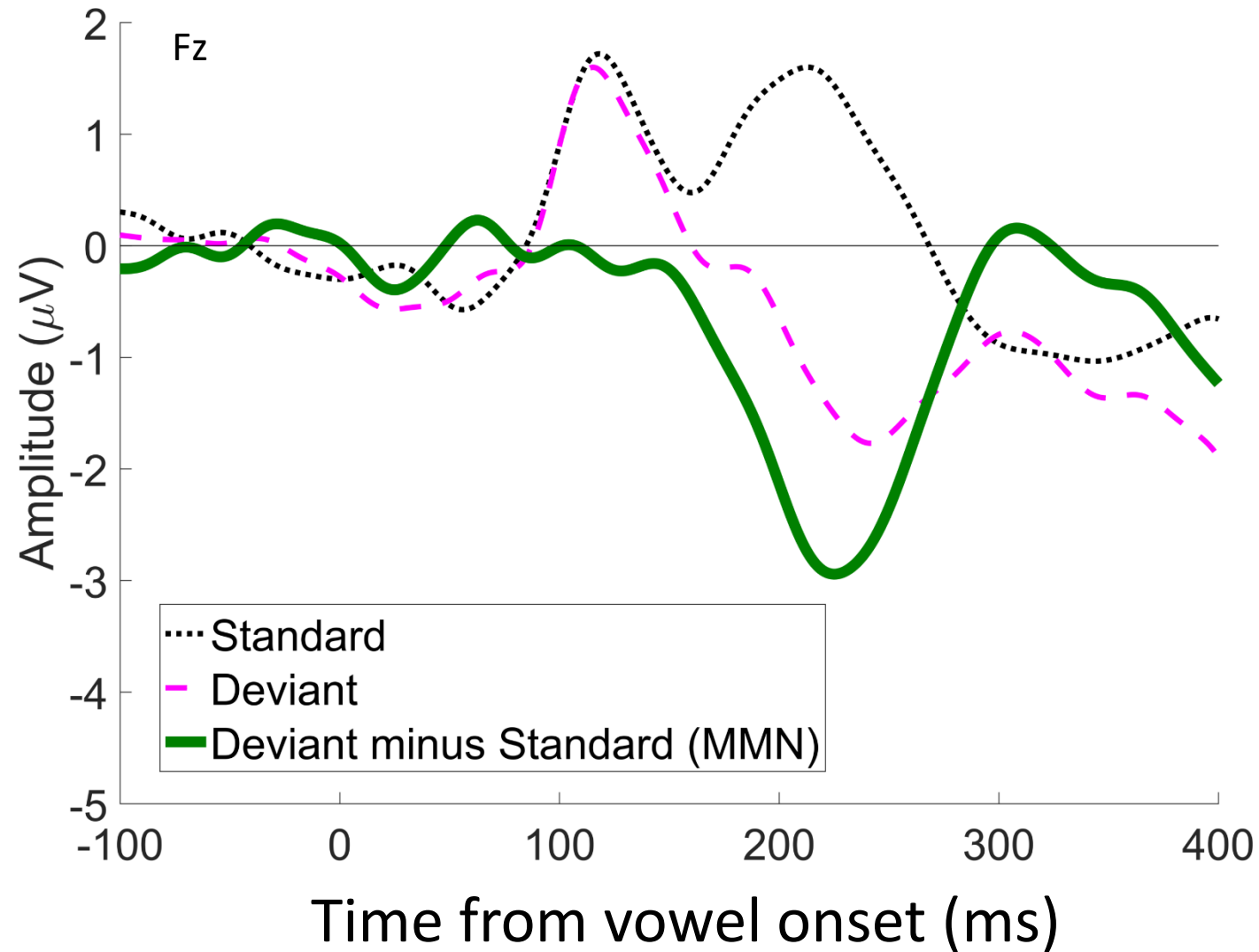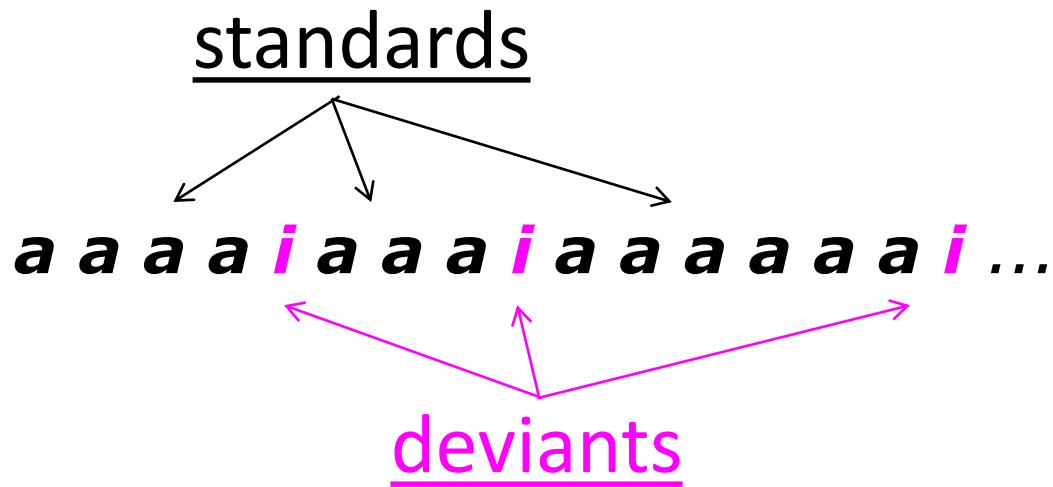*equitable*   grenkelap

standards

deviants

$a\ a\ a\ a\ \textcolor{magenta}{i}\ a\ a\ a\ \textcolor{magenta}{i}\ a\ a\ a\ a\ a\ a\ \textcolor{magenta}{i}\ \ldots$

Fz

Amplitude (μV)

Time from vowel onset (ms)

······· Standard
– – Deviant
—— Deviant minus Standard (MMN)

Figure adapted from Schluter, Politzer-Ahles, & Almeida (2016)

3

type type type _**tight**_ ...

pipe pipe pipe **pite** ...

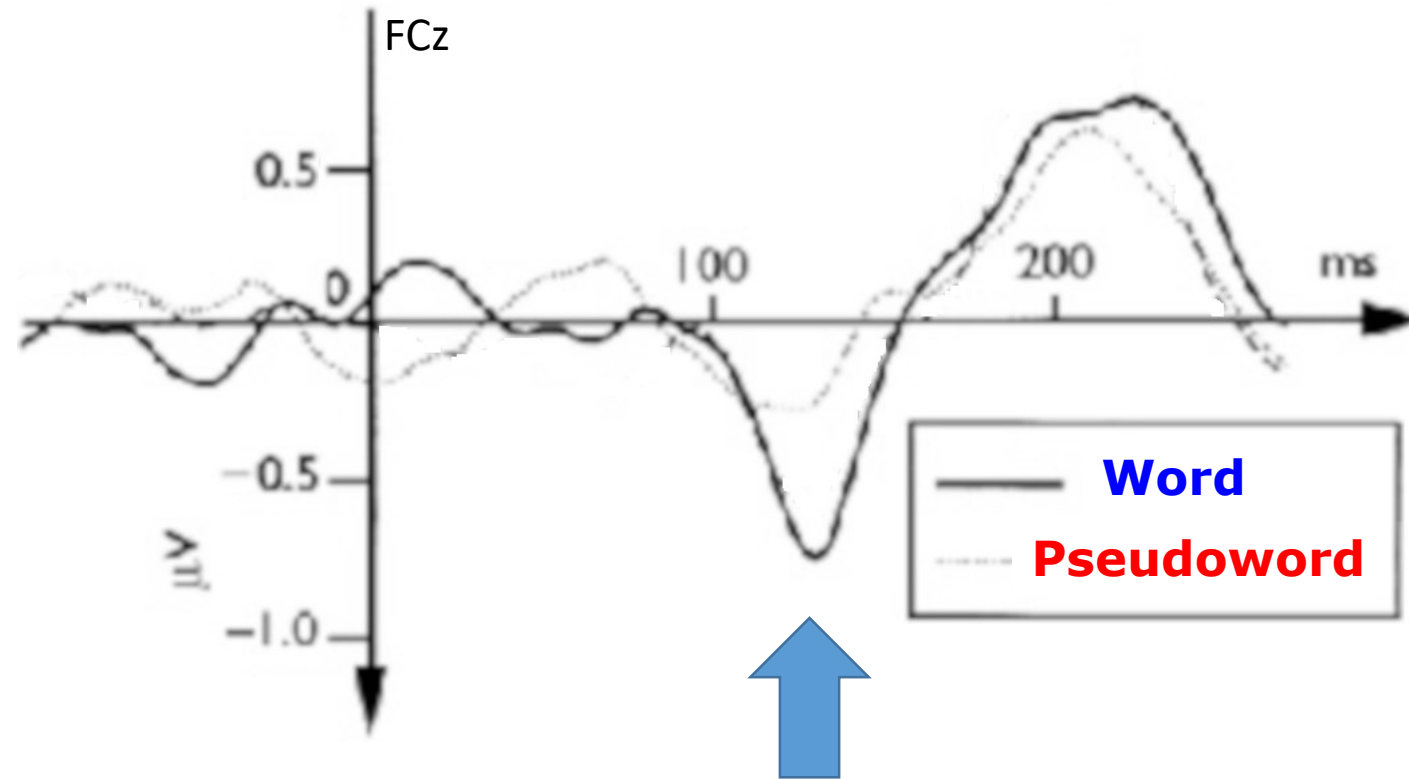_Figure adapted from Shtyrov &_
Pulvermüller (2002)

- **Pseudoword**: **pǎ**
- **Word**: ***kǎ***

- **Pseudoword**:   **pǎ**
- **Word**:   *kǎ*

- **Allomorph**:   **ká**
- **Word**:   *pá*

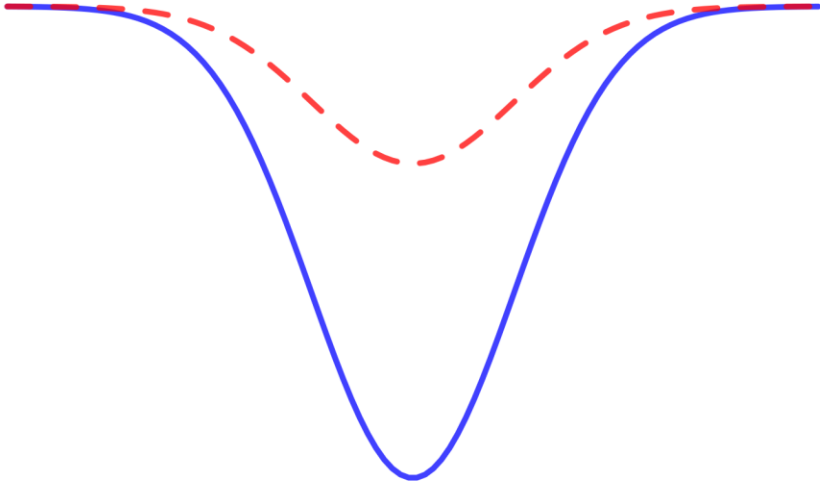|	standards	deviants
• **Pseudoword**:	pǎi pǎi pǎi …	**pǎ**
• **Word**:	kǎi kǎi kǎi …	**kǎ**
• **Allomorph**:	kái kái kái …	**ká**
• **Word**:	pái pái pái …	**pá**

Word vs. Pseudoword

- - - pă (pseudoword)
——— kă (word)

Word vs. Allomorph
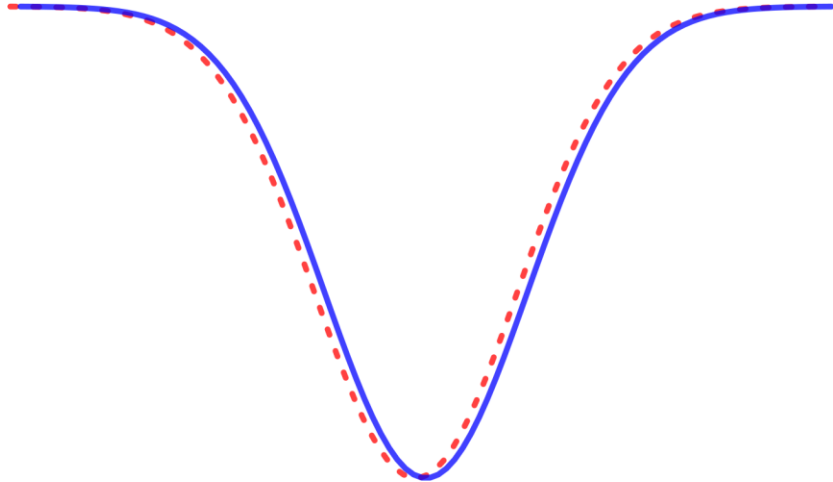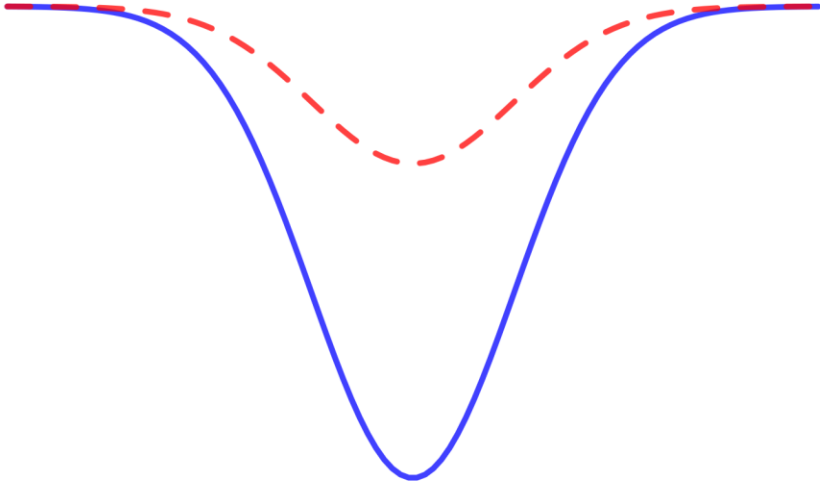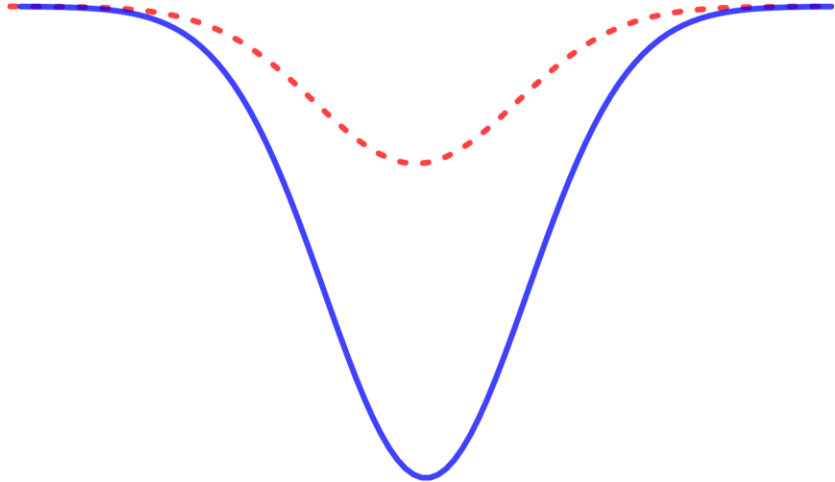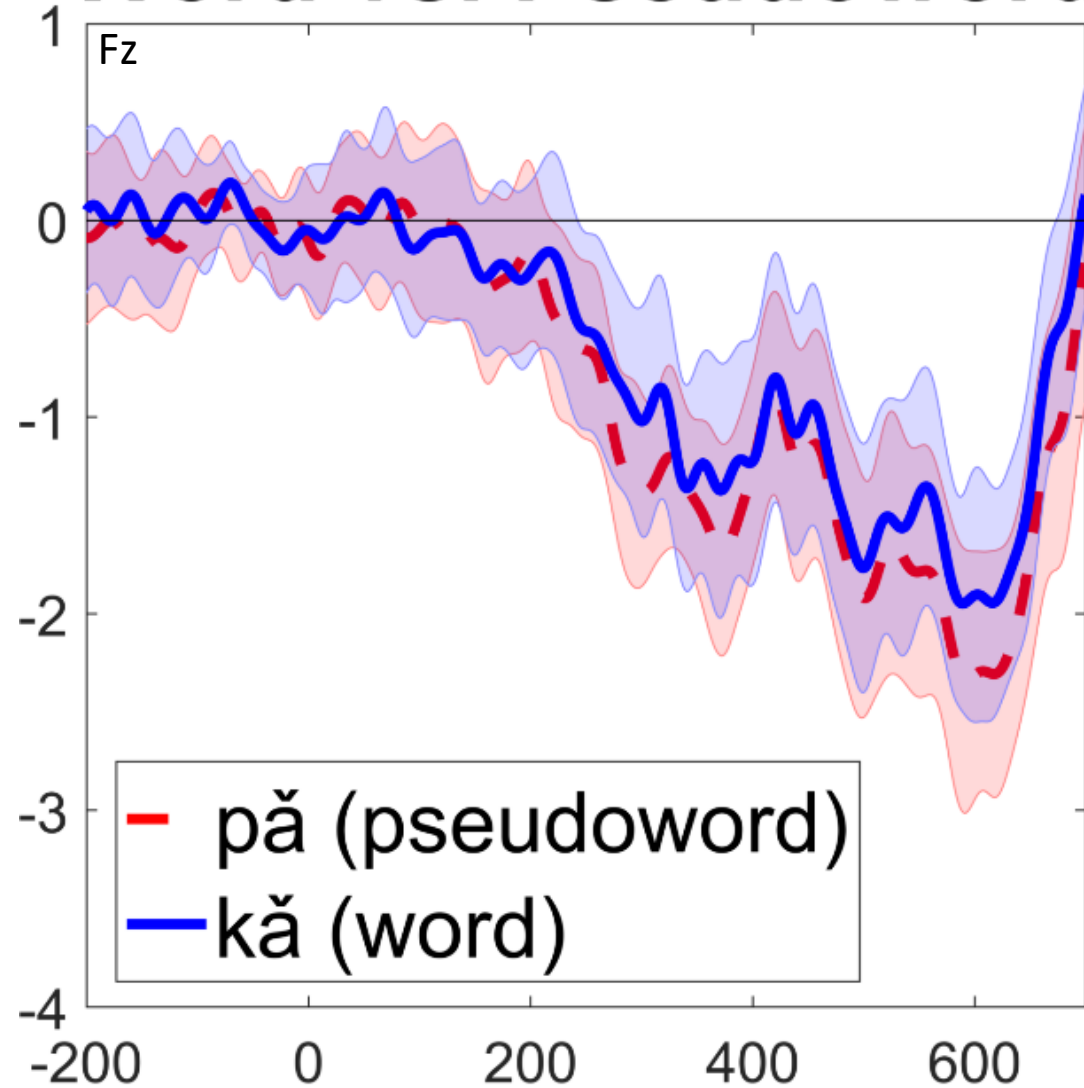
····· ká (allomorph)
——— pá (word)

Word vs. Pseudoword
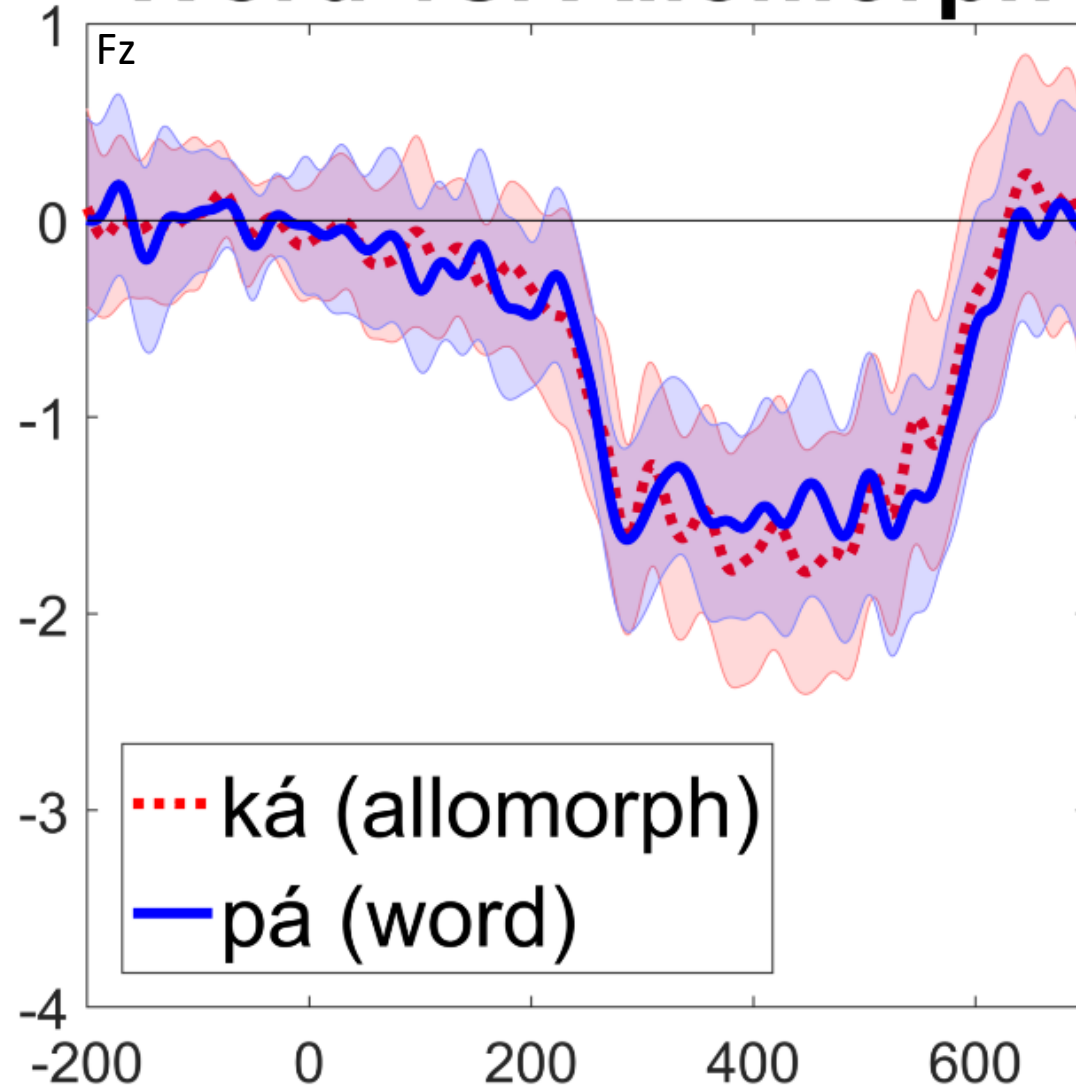

--- pǎ (pseudoword)
— kǎ (word)

Word vs. Allomorph

····· ká (allomorph)
— pá (word)

Word vs. Pseudoword

Fz

Legend:
- pǎ (pseudoword) — red dashed line
- kǎ (word) — blue solid line

Time from vowel onset (ms)

Word vs. Allomorph

Fz

Legend:
- ká (allomorph) — red dotted line
- pá (word) — blue solid line

Time from vowel onset (ms)

"brick"   "blick"

"brick"   "blick"

	T2 syllable exists	T2 syllable is gap	All tones are gaps
T1	*shī*	*saī*	tēi
T2	*shí*	saí	téi
T3	*shǐ*	saǐ	těi
T4	*shì*	*saì*	tèi

- **Pseudoword**: pǎi pǎi pǎi … **pǎ**
- **Word**: kǎi kǎi kǎi … *kǎ*

- **Allomorph**: kái kái kái … **ká**
- **Word**: pái pái pái … *pá*

- Type II error?
- Unknown confound in stimuli?
- Chinese is special?
- Pseudowords were too difficult?
- Lexicality of standards?
- MMN lexicality effect is not replicable?

Thank you!

多謝!

감사합니다!