Foreign Names into Native Tongues: How to Transfer Sound Between Chinese and English

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ABSTRACT
This talk will look at the variables that come into play when an English name is translated into Chinese and vice versa. Naming conventions will be examined, along with options for transliteration and phonological translation, taking into account the different segmental inventories, phonotactic constraints, and syllable structure requirements of the two languages. The strengths and weaknesses of a number of popular translation strategies will be examined, along with the merits of competing Chinese romanization systems from the perspective of language planning and language attitudes.

Keywords: transliteration; phonological translation; phonological awareness; translator; fit/fidelity; faithfulness; Chinese Mandarin

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Outline

0. Background
• Translating names between languages — not a homogeneous process (depends on properties of languages involved)

Roman script
(French, Spanish, German)

Segmental script
(Chinese, Russian, Arabic, Hindi)

Non-roman script
(Chinese, Arabic, Hebrew)

Non-segmental script
(Korean, Japanese, Hangul, Hangul)

Phonetic script
(Greek, Russian, Hebrew, Arabic, Hindi)

0. Background
• Roman script (transliteration not necessary)
  – Special symbols and diacritics (e.g., ñ, ö, ü, é, â, ß)
  – [Spanish to English] "mañana"
    – Omit diacritics — "mania"
    – Keep diacritics — "manana"
    – Rewrite as segment — "manyana"
  – Pronunciation (to nativize or not to nativize)
    – [French to English] "Notre Dame"
    – [Spanish to English] "Don Quixote"
  – Source language (Spanish) phonics — c.f. "quixotic"

0. Background
• Non-roman phonetic script (transliteration required)
  – Cyrillic to roman:
    • "Boris" → Boris
    • "Светлана" → Svetlana
  – Greek to roman:
    • "Πανδώρα" → Pandora
    • "Σολοµών" → Solomon

0. Background
• Non-phonetic script (e.g., Chinese)
  – "Hillary Clinton" into Chinese characters (漢字)
  – "毛紅軍" into English
0. Example (Chinese into English)

- Chinese: 毛紅軍 [mɑw 2 xoŋ 2 tɕɥyn 1]
  - Parse
    - 毛 [mɑw 2]
    - 紅 [xoŋ 2]
    - 軍 [tɕɥyn 1]
  - Family
  - Given
  - Source language: (Chinese)
  - Target language: (English)

- Sequence
  - Parse
    - 毛 [mɑw 2]
    - 紅 [xoŋ 2]
    - 軍 [tɕɥyn 1]
  - Family
  - Given

- Faithfulness/fidelity
  - Preserve sound
  - Preserve meaning

0. Example (Chinese into English)

- Chinese: 毛紅軍 [mɑw 2 xoŋ 2 tɕɥyn 1]
  - Faithfulness/fidelity
    - Preserve sound – choice of romanization [50+]
      - (Pinyin Format) Mao Hongjun
      - (Wade-Giles) Mao Hung-chün
      - (Cantonese Romanization) Mau Hungjyun
      - (General Romanization) Mao Hongjun

0. Example (Chinese into English)

- Chinese: 毛紅軍 [mɑw 2 xoŋ 2 tɕɥyn 1]
  - Localization / nativization
    - Phonological level
      - Hongjun --> Humphrey; Henry
    - Semantic level
      - “Red Army” --> Redd; Radcliffe; Rusty
      - “Fur” --> Furr; Furman; Barber

0. Example (Chinese into English)

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1. Chinese into English

- Parse
  - Han Chinese (variable count red/denom meaning-sensitive)
    - Family name:
      - 1 to 2 syllables;
      - fixed inventory
    - Given name:
      - 1 to 2 syllables;
      - open category (e.g. Bry)

<table>
<thead>
<tr>
<th>Family name (EN)</th>
<th>Given name (CH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>姚明</td>
<td>Yao Ming</td>
</tr>
<tr>
<td>韓聰</td>
<td>Han Zhiweng</td>
</tr>
<tr>
<td>胡錦濤</td>
<td>Hu Jintao</td>
</tr>
<tr>
<td>司馬相如</td>
<td>Sima Xiangru</td>
</tr>
<tr>
<td>毛澤東</td>
<td>Mao Zedong</td>
</tr>
<tr>
<td>莫言</td>
<td>Mo Yan</td>
</tr>
<tr>
<td>翟西</td>
<td>Zhai Xi</td>
</tr>
<tr>
<td>趙存</td>
<td>Zhao Cun</td>
</tr>
<tr>
<td>郭培</td>
<td>Guo Pei</td>
</tr>
<tr>
<td>胡錚</td>
<td>Hu Zhong</td>
</tr>
<tr>
<td>姚曉竹</td>
<td>Yao Xiaozhu</td>
</tr>
<tr>
<td>莫言</td>
<td>Mo Yan</td>
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<td>Sima Xiangru</td>
</tr>
</tbody>
</table>
1. Chinese into English

- **PARSE**
  - Ethnic / minority (Mongol, Manchu, Tibetan, Japanese)
  - Above metrical restrictions do not apply
    - Manchu: 爱新觉罗 (Aisin Gioro, Manchu dynasty)
    - Mongol: 札奇斯欽 (Zhaqi Siqin, Mongol)
    - Japanese: 三島由紀夫 (Sandao Youjifu)

- **SEQUENCE** (Family name vs given name)
  - **SOURCE LANGUAGE (Chinese)** sequence = Family + Given
    - Historical figures; prominent politicians; news celebrities
    - *Mao Tse-tung* (Chinese revolutionary)
    - *Hu Jintao* (Chinese president)
    - *Xi Jinping* (Chinese president)
  - **TARGET LANGUAGE (English)** sequence = Given + Family
    - Ordinary citizens; people with westernized names
    - *Wen Mchao Li* (self)
    - *Yuen Ren Chao* (linguist)
    - *Jackie Chan* (actor)

- **FAITHFULNESS/FIDELITY**
  - Preserve sound (mainstream)
  - *Romanization systems* (50+; see Legeza 1968)
  - Preserve meaning (rare)

- **ISSUES**
  - The Mandarin consonant inventory
    - **Consonantal contrast** (e.g., *pie* vs *spy*)
      - Labial: *p* [p] [pʰ] [m] [f]
      - Alveolar: *t* [t] [tʰ] [n] [l]
      - Alveolar-velar: *ts* [tʰ] [s]
      - Retroflex: *ts* [tʰ] [s] [ɻ]
      - Alveopalatal: *tɕ* [tʰ] [ɕ]
      - Velar: *k* [k] [kʰ] [x] [ŋ]
1. Chinese into English (romanization)

• Issue (1)
  – Contrastive aspiration (strategies)
    • OPTION 1: Treat as voicing contrast
      (utilize existing voicing contrast in English)
    • OPTION 2: Use diacritics to mark aspiration (to indicate that the contrast is different from what is found in English)

• Issue (2)
  – The Mandarin consonant inventory
    • How to transcribe the sibilant initial series (x3)

<table>
<thead>
<tr>
<th></th>
<th>pinyin</th>
<th>IPA</th>
<th>pinyin</th>
<th>IPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>labial</td>
<td>b</td>
<td>[p]</td>
<td>p'</td>
<td>[pʰ]</td>
</tr>
<tr>
<td>alveolar</td>
<td>d</td>
<td>[t]</td>
<td>t'</td>
<td>[tʰ]</td>
</tr>
<tr>
<td>velar</td>
<td>g</td>
<td>[k]</td>
<td>k'</td>
<td>[kʰ]</td>
</tr>
</tbody>
</table>

• PROBLEMS:
  – Word-initial \( p, t, k \) usually pronounced as aspirated in English (impulse of romanization design)
    • 功夫
      – Gongfu
      – Kung-fu
    • 宮保雞丁
      – Gongbao Chicken
      – Kung-pao chicken
    • 山東
      – Shandong restaurant
      – Shan-tung restaurant

• OPTIONS:
  – 許可馬
    – Wade Giles (1932)
  – 李約瑟
  – 高本漢
    – B. Karlgren (1940): Grammata Serica
  – 法國 Vissiere system (1902)
  – 匈牙利 Academic system (1952)
  – 波蘭 Jablonski system (1934)
1. Chinese into English (romanization)

- **Issue (2)**
  - How to transcribe the sibilant initial series (x3)
  - Unconventional use of symbols/letters
  - Use of diacritics
  - Combinations of symbols/letters

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</thead>
<tbody>
<tr>
<td>[ts]</td>
<td>[tsʰ]</td>
<td>[s]</td>
<td></td>
</tr>
<tr>
<td>[ʈʂ]</td>
<td>[ʈʂʰ]</td>
<td>[ʂ]</td>
<td></td>
</tr>
<tr>
<td>[ʈɕ]</td>
<td>[ʈɕʰ]</td>
<td>[ɕ]</td>
<td></td>
</tr>
</tbody>
</table>

1. Chinese into English (romanization)

- **Issue (2)**
  - How to transcribe the sibilant initial series (x3)
  - 威妥瑪 Wade Giles (1892)
  - Use of diacritics
  - Combinations of symbols/letters

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<td></td>
</tr>
<tr>
<td>[ʈɕ]</td>
<td>[ʈɕʰ]</td>
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<td></td>
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</tbody>
</table>

1. Chinese into English (romanization)

- **Issue (2)**
  - How to transcribe the sibilant initial series (x3)
  - 漢語拼音 Hanyu Pinyin (1958)
  - Unconventional use of symbols/letters
  - Combinations of symbols/letters

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</tr>
</thead>
<tbody>
<tr>
<td>[ʦ]</td>
<td>[ʨ]</td>
<td>[ɕ]</td>
<td></td>
</tr>
<tr>
<td>[ʈʂ]</td>
<td>[ʈʂʰ]</td>
<td>[ʂ]</td>
<td></td>
</tr>
<tr>
<td>[ʈɕ]</td>
<td>[ʈɕʰ]</td>
<td>[ɕ]</td>
<td></td>
</tr>
</tbody>
</table>

1. Chinese into English (romanization)

- **Issue (2)**
  - Sibilant series-induced spelling differences:
    - 西安 – Xi’an – HsiZan
    - 太極拳 – Tai Ji Quan – T’ai Chi Ch’uan
    - 易經 – I Jing – I-Ching

1. Chinese into English (romanization)

- **Issue (3)**
  - High central (apical) vowel [ɨ] – transcription strategies
    - Unconventional use of symbols/letters
    - Combinations of symbols/letters

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>i</td>
<td>y</td>
<td>u</td>
</tr>
<tr>
<td>Mid-high</td>
<td>o</td>
<td>e</td>
<td>ɨ</td>
</tr>
<tr>
<td>Mid-low</td>
<td>ɛ</td>
<td>a</td>
<td>ə</td>
</tr>
<tr>
<td>Low</td>
<td>ə</td>
<td>a</td>
<td>ɨ</td>
</tr>
</tbody>
</table>
1. Chinese into English (romanization)

**Issue (3)**

- The high central vowel – 威妥玛 Wade Giles (1892)
  - "u" with alveolar sibilants (plus consonant rewrite – "u" vowel recycled)

- "ih" with retroflex consonants

- 高中中央元音

- 汉语拼音 Hanyu Pinyin (1958)
  - "i" recycled for use as both high front vowel and high central (apical) vowel
  - Unconventional use of "i" symbol achieves economy of representation, but requires prior knowledge/training

- 国语罗马字 Gwoyeu Romatzyh (1942)

<table>
<thead>
<tr>
<th>pinyin</th>
<th>IPA</th>
<th>Wade-Giles</th>
<th>Yale</th>
</tr>
</thead>
<tbody>
<tr>
<td>zi</td>
<td>[ʦi]</td>
<td>z'</td>
<td>ts'</td>
</tr>
<tr>
<td>si</td>
<td>[st]</td>
<td>s</td>
<td>s</td>
</tr>
<tr>
<td>ri</td>
<td>[ɻi]</td>
<td>r</td>
<td>r</td>
</tr>
<tr>
<td>chia</td>
<td>[tʂʰi]</td>
<td>ch'</td>
<td>tʂʰ</td>
</tr>
<tr>
<td>shi</td>
<td>[ʂɨ]</td>
<td>sh</td>
<td>ʂ</td>
</tr>
<tr>
<td>jia</td>
<td>[ɻɨ]</td>
<td>j</td>
<td>ɻ</td>
</tr>
</tbody>
</table>

1. Chinese into English (romanization)

**Issue (4)**

- The high front rounded vowel 去声

- Diacritic (umlaut ü)

- Combinations of letters "yu"

- Combinations of letters "iu"

- (no good solution – all strategies have major shortcomings)

1. Chinese into English (romanization)

**Issue (5)**

- Labeling of tone

- Diacritics (majority of romanizations)

- Build into spelling 国语罗马字 Gwoyeu Romatzyh (1942)

<table>
<thead>
<tr>
<th>Tone</th>
<th>Hanyu Pinyin</th>
<th>Wade-Giles</th>
<th>Yale</th>
<th>Gwoyeu Romatzyh</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ma</td>
<td>mā</td>
<td>mā</td>
<td>(basic form)</td>
</tr>
<tr>
<td>2</td>
<td>má</td>
<td>má</td>
<td>mā</td>
<td>ṭu → uyʊ or add -r</td>
</tr>
<tr>
<td>3</td>
<td>má</td>
<td>má</td>
<td>mā</td>
<td>ṭu → uyʊ or double vowel</td>
</tr>
<tr>
<td>4</td>
<td>má</td>
<td>má</td>
<td>mā</td>
<td>ṭu change/double final letter; or add -n</td>
</tr>
</tbody>
</table>

2013-12-19
1. Chinese into English (romanization)

• Issue (5)
  – Labeling of tone
    • Diacritics (majority of romanizations)
    • Build into spelling (Gwoyeu Romatzyh 1942)

<table>
<thead>
<tr>
<th>Hanyu Pinyin</th>
<th>Gwoyeu Romatzyh</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tone 1</td>
<td>châng</td>
<td>chang</td>
</tr>
<tr>
<td>Tone 2</td>
<td>chăng</td>
<td>chang</td>
</tr>
<tr>
<td>Tone 3</td>
<td>chǎng</td>
<td>chaang</td>
</tr>
<tr>
<td>Tone 4</td>
<td>chàng</td>
<td>chanq</td>
</tr>
</tbody>
</table>

1. Chinese into English (romanization)

• Issue (6)
  – Syllable boundaries
    • Word boundaries: space
    • Word-internal syllable boundary:
      – No space (Yale 1943, Hanyu Pinyin 1958, Gwoyeu Romatzyh 1942)
      – Hyphen (Wade Giles 1892, B. Karlgren 1940, French Vissiere 1902, Hungarian Academic 1952, Polish Jablonski 1934)

1. Chinese into English (romanization)

• Romanization in mainland China vs Taiwan
  – Mainland China
    • Standardized since 1958
    • Used in spelling and instruction
  – Taiwan
    • Use of Mandarin Phonetic Symbols (Bopomofo) for spelling and instruction – no pressing need for romanization
    • Free market / natural evolution – no guidance for romanization
    • Symmetry & systematicity
    • Economy
  – Wade Giles predominant until 2000
    – NATIVIST CAMP (Democratic Progressive Party [DPP] + green camp)
      • Hanyu Pinyin
      • Tongyong Pinyin
    – UNIFICATION CAMP (Nationalist Party [KMT] + blue camp)
      • Hanyu Pinyin (Taipei) / Mandarin Phonetic Symbols (Bopomofo) (regions other than Taipei)

1. Chinese into English (romanization)

• The romanization debates (Taiwan, 2000-2002)
  – Issues
    • Tool for communication vs status/identity symbol
    • Target audience (who is it designed for?)
      – Chinese audience
      – Foreign audience
    – Phonemic correspondence
    – Symmetry & systematicity
    – Economy
  – Dimensions of romanization design
    – Economy
    – Symmetry
    – Computer input

1. Chinese into English (romanization)

• Dimensions of romanization design
  – Economy
  – Symmetry
  – Computer input
    – Avoidance of diacritical cost
### 1. Chinese into English (romanization)

#### Dimensions of romanization design

- **Economy** (c.f. sibilant series)
  
  - 漢語拼音 Hanyu Pinyin (1958)
  
<table>
<thead>
<tr>
<th>IPA</th>
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</thead>
<tbody>
<tr>
<td>zi</td>
<td>[tsi]</td>
</tr>
<tr>
<td>ci</td>
<td>[tsʰi]</td>
</tr>
<tr>
<td>si</td>
<td>[sti]</td>
</tr>
</tbody>
</table>

  - 威妥瑪 Wade Giles (1892)
  
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<td>ts</td>
<td>[ts]</td>
</tr>
<tr>
<td>tsʰ</td>
<td>[tsʰ]</td>
</tr>
<tr>
<td>s</td>
<td>[s]</td>
</tr>
</tbody>
</table>

- **Symmetry** (c.f. high central vowel)
  
  - 漢語拼音 Hanyu Pinyin (1958)
  
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>zhi</td>
<td>[tʃi]</td>
</tr>
<tr>
<td>chi</td>
<td>[tʃʰi]</td>
</tr>
<tr>
<td>shi</td>
<td>[ʃi]</td>
</tr>
<tr>
<td>ri</td>
<td>[ɻi]</td>
</tr>
</tbody>
</table>

  - 耶魯方案 Yale romanization (1942)
  
<table>
<thead>
<tr>
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<th>Pinyin</th>
</tr>
</thead>
<tbody>
<tr>
<td>dz</td>
<td>[tʃi]</td>
</tr>
<tr>
<td>tsz</td>
<td>[tʃʰi]</td>
</tr>
<tr>
<td>sz</td>
<td>[ʃi]</td>
</tr>
<tr>
<td>r</td>
<td>[ɻi]</td>
</tr>
</tbody>
</table>

- **Computer input**

  - Avoid diacritics (c.f. economy)
  
<table>
<thead>
<tr>
<th>IPA</th>
<th>Hanyu Pinyin</th>
<th>Wade-Giles</th>
<th>Yale</th>
<th>Gwoyeu Romatzyh</th>
</tr>
</thead>
<tbody>
<tr>
<td>女</td>
<td>nü</td>
<td>nü</td>
<td>nyu</td>
<td>niu</td>
</tr>
<tr>
<td>次</td>
<td>ci</td>
<td>tz‘u</td>
<td>tsz</td>
<td>tsyh</td>
</tr>
</tbody>
</table>

#### Loss of imagery/meaning in romanization

- **Meaningfulness** in conventional English names (associations):
  
  - Etymological associations (e.g., Arthur, Mohammed, Vladamir)
  
  - Gender implications (e.g., David, Julia, Mary, Sarah)
  
  - Experiential associations
1. Chinese into English (romanization)

- **Loss of imagery/meaning** in romanization
  - **Meaninglessness** in transliterated Chinese names
  - Loss of character imagery
  - Reduced to random syllables (tainted semantics)
    - Mao Hongjun
    - Li Lihua

1. Chinese into English (romanization)

- **Unintentional addition** of meaning
  - An Li (=Ang Li)
  - Wendi You
  - Susan Chen
  - Boxing Song
  - Long Fang

1. Chinese into English (romanization)

- **Connotations** in romanization
  - Psychological associations (Wade Giles vs Pinyin)
    - Examples:
      - Teng Hsiao-p'ing vs Deng Xiaoping
      - Ch'ien Ch'i-chung vs Qian Qichen
  - Deliberate archaisms
    - Peking University* (not Beijing University)
    - Tsinghua University* (not Qinghua University)
    - Peking duck (not Beijing duck)

* Chinese Postal Map Romanization (1906)

1. Chinese into English (romanization)

- **Why anglicize?**
  - Chinese Americans: Assimilation into mainstream society
  - Entertainment business: Trendiness, exoticness
  - Business setting: Egalitarianism
1. Chinese into English

- Name translation **by meaning** (rare)
  - 李樱 (Ying [cherry] Li) → Cherry Li  
  - 高山峰 (Gao [high] Shan [mountain] Feng) → Mountain Kao  
  - 殷悦 (Yin Yue) homophonous with 音乐 (music) → Melody Yin

2. English into Chinese

- **Available templates**
  - **Most typical** (Length: 2 to 3 syllables)
    - family name (1) + given name (2) [Cf. Sinologists]
      - Anthony Beely → 安东尼
      - Weldon South Coblin → 韦尔登
      - Ke Weinan → 凯文
    - All family name (3) [Cf. news translations; historical figures]
      - Steve Jobs → 史蒂夫
    - All given name (3)
      - Hillary Clinton → 希拉蕊

- **Regional differences**: China / Taiwan / Hong Kong
  - George Bush / 布什 / Bushi
  - Barack Obama / 奥巴马 / Oubama

- **Minority/ethnic names** (not subject to length restrictions)
  - Japanese
    - Yukio Mishima = 三島由紀夫 = Sandao Youjifu
    - Suzuki Ichiro = 斉木一郎 = Lingmu Yilang
  - Mongolian
    - Jagchid Sechen = 扎奇斯欽 = Zhaqi Siqin
    - Chingeltei = 鈍格爾泰 = Qingge`ertai
  - Manchu (Qing dynasty)
    - Aisin Gioro Puyi = 爱新覺羅|溥儀 = Aixinjueluo Puyi
      - Alternative Sinicized surname: 金溥儀 = Jin Puyi

- **Alternative Sinoized surname for news translation**
  - Amare Stoudemeyer = 史陶德邁爾 = Shitaodemai'er
  - Monica Lewinski = 萊溫斯基 = Laiwensiji
  - Don King = 唐金 = Tang Jin

- **Phonotactic constraints**
  - “ki” → “ji”

- **Chinese writing system:**
  - CHINA (Mandarin)
  - TAIWAN (Mandarin)
  - HONG KONG (Cantonese)

- **Stock translations**
  - David = 大衛 = Dawei ("big + guard")
  - William = 威廉 = Weilian ("authoritative + decent")
  - Elisabeth = 伊麗莎白 = Yilishabai ("beautiful + gauze + white")
  - Michael = 麥克 = Make ("white + permissible")
    - (CANTONESE = "white + dwell")
2. English into Chinese

• Sound transfer / phonological translation
  – Relative complexity of syllable structure

<table>
<thead>
<tr>
<th>SYLLABLE STRUCTURE</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese</td>
<td>CVN or CVC [geminate]</td>
</tr>
<tr>
<td>Mandarin</td>
<td>CGVN or CGVG</td>
</tr>
<tr>
<td>Cantonese</td>
<td>CGVC</td>
</tr>
<tr>
<td>English</td>
<td>CGCV, CCC</td>
</tr>
<tr>
<td>Polish</td>
<td>CCCVC, CCCCC</td>
</tr>
</tbody>
</table>

- Mandarin allows no syllable-final consonants (except nasals)
- Mandarin allows no consonant clusters

2. English into Chinese

• Sound transfer / phonological translation
  – Adaptation strategies
    - Vowel insertion
      - Brad Pitt (2) = 布萊德彼特 = Bulaide bite (5)
    - Consonant deletion
      - (Michael) Bloomberg (2) = 彭博 = Pengbo (2)
  - (Consonant blend)
    - (Donald) Trump (1) = 川普 = Chuanpu (2)

2. English into Chinese

• Sound transfer / phonological translation
  – Different priorities

<table>
<thead>
<tr>
<th>MAX-I2 (do not delete segments)</th>
<th>DEP-I2 (do not add segments)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solution 1: VOWEL INSERTION</td>
<td>preserves phonemes * (sabotages rhythm)</td>
</tr>
<tr>
<td>Solution 2: CONSONANT DELETION</td>
<td>preserves rhythm</td>
</tr>
</tbody>
</table>

- Which is better?
  - Vowel insertion (V-insertion)
  - Consonant deletion (C-deletion)
  - Consonant blend (blend)

2. English into Chinese

• Sound transfer / phonological translation
  – Regional strategy preferences

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MANDARIN</th>
<th>INSERTION</th>
<th>DELETION</th>
<th>BLEND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eisenhower</td>
<td>ai-sen-hao-wei-er</td>
<td>ai-sen-hao</td>
<td>ai-sen</td>
<td>ai-sen</td>
</tr>
<tr>
<td>Knickkneed</td>
<td>wen-bu-en-ding</td>
<td>wen-bu-dun</td>
<td>wen-bu</td>
<td>wen-bu</td>
</tr>
<tr>
<td>Montreal</td>
<td>meng-te-sai-la-te</td>
<td>meng-sai-la-te</td>
<td>meng-sai</td>
<td>meng-sai</td>
</tr>
<tr>
<td>Trinidad</td>
<td>fa-shi-zi-da</td>
<td>qian-li-da</td>
<td>fa-shi</td>
<td>qian-li</td>
</tr>
<tr>
<td>Rotomea</td>
<td>bo-ci-wei-na</td>
<td>bo-jia-na</td>
<td>bo-ci</td>
<td>bo-jia</td>
</tr>
<tr>
<td>Gasaro</td>
<td>fa-shi-te-zi-fu</td>
<td>fa-shi-te-zi-fu</td>
<td>fa-shi</td>
<td>fa-shi</td>
</tr>
</tbody>
</table>

2. English into Chinese

• Back Translation Experiment (Li 2004)
  – Names from Harry Potter (Chinese editions)
    - Mainland China (V-insertion)
    - Taiwan (Blend and C-deletion)
2. English into Chinese

- **Back Translation** Experiment (Li 2004)
  - Why Harry Potter?
  - **Unfamiliar names** -- use of familiar names would measure memory and not phonological processing
  - Names chosen were all **phonological translations**

### Word List

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trelawny</td>
<td>Cedric</td>
<td>Godric</td>
<td>Draco</td>
</tr>
<tr>
<td>China</td>
<td>China</td>
<td>China</td>
<td>China</td>
</tr>
<tr>
<td>特里 劳妮 te-lao-ni</td>
<td>英国 英国 yeing-young</td>
<td>[preserves consonantal units] (preserves phonemes)</td>
<td>[preserves number of syllables] (preserves rhythm)</td>
</tr>
</tbody>
</table>

### Tasks

- **Back translation** (Chinese into English)
  - Instructions
    - Guess the original English based on sound similarities alone
    - Original English does not have to be a real word
  - **Syllable count** (English guess vs English actual)
  - **Consonant cluster preservation** (English guess vs English actual)

### Results

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trelawny</td>
<td>Cedric</td>
<td>Godric</td>
<td>Draco</td>
</tr>
<tr>
<td>US</td>
<td>+1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>CN</td>
<td>+1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>TW</td>
<td>+1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>Total</td>
<td>+1</td>
<td>0</td>
<td>+1</td>
</tr>
</tbody>
</table>

**Insertion**
- **US** +1.29
- **CN** +0.81
- **TW** +1.06
- **Total** +1.05

**Blend Deletion**
- **US** +0.25
- **CN** -0.25
- **TW** -0.04
- **Total** +0.01
2. English into Chinese

RESULTS

• Syllable count deviation
  • **Blend/deletion** strategy better at preserving syllable count
  • **Insertion** strategy increases syllable count
  – Effect most obvious among native speakers of English
  – Effect least obvious among speakers from China
  – Apparent counterexample DRACO due to hypercorrection: “derak” vs “drak”

• **Consonant cluster** restoration

<table>
<thead>
<tr>
<th>Insertion</th>
<th>Blend/deletion</th>
</tr>
</thead>
<tbody>
<tr>
<td>(preserves consonantal units)</td>
<td>(preserves number of syllables)</td>
</tr>
<tr>
<td>(preserves phonemes)</td>
<td>(preserves rhythm)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US</th>
<th>CN</th>
<th>TW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
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<tr>
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<td>0.32</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.88</td>
</tr>
</tbody>
</table>

| Total | 0 | 0.62 |

• **Similarity** ratings

<table>
<thead>
<tr>
<th>US</th>
<th>CN</th>
<th>TW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.00</td>
<td>5.87</td>
<td>3.37</td>
<td>6.62</td>
</tr>
<tr>
<td>7.50</td>
<td>9.25</td>
<td>5.50</td>
<td>7.25</td>
</tr>
<tr>
<td>5.25</td>
<td>7.00</td>
<td>3.50</td>
<td>6.50</td>
</tr>
<tr>
<td>5.92</td>
<td>7.37</td>
<td>4.12</td>
<td>6.79</td>
</tr>
</tbody>
</table>

Ratings: 10 (more similar) ↔ 0 (less similar)
2. English into Chinese

RESULTS

- Relative importance of **segment vs prosody**
  
  Preserving # of **syllables** (prosody / rhythmic pattern) > Preserving # of **segments** (consonants / individual phonemes)

---

2. English into Chinese

- Lexical retrieval (Aitchison 2004: 137-147)
  
  - Tip of the tongue phenomena
  - Malapropisms
    - "Bathtub effect"
      
      - Beginning of word
      - End of word
      
      - Rhythmic pattern
        
        - Number of syllables
        - Stress pattern

---

2. English into Chinese

- Sound transfer – other issues
  
  - **Non-Mandarin-based** historical precedents
    
    - SHANGHAINISH
      
      - **Jackson** 杰克逊 (Jieksheun)
      - **Harrison** 哈里遜 (Halixun)
    
    - CANTONESE
      
      - **Sweden 瑞典 Shuijien**
      - **Denmark 丹麥 Danmai**
      - **Hungary 匈牙利 Xiongyali**
      - **Washington 华盛頓 Huashengdun**

---

2. English into Chinese

- Meaningfulness / meaninglessness of characters
  
  - Not necessarily the **closest in sound**
    
    - **David**
      
      - [CHINESE-ACCENTED ENGLISH] 哥尾 daiwei (idiot tail)
      - [STOCK TRANSLATION] 大衛 dawei (big guard)
    
    - **Smith**
      
      - [CHINESE-ACCENTED ENGLISH] 死密死 simisi (dead dense dead)
      - [STOCK TRANSLATION] 史密斯 shimisi (history dense opaque)

---

2. English into Chinese

- Meaningfulness / meaninglessness of characters
  
  - **Meaning avoidance** (negative, overly suggestive imagery), e.g.,
    
    - 死 **si**: "death"; "to die"
    - 呆 **dai**: "idiot"**
    - **gou** "dog"
      
      - E.g., **tango** 貪狗 tangou (greedy dog) but **tange** 探戈 (look spear)
    - **hou** "to yell"
      
      - E.g., **San Jose** 聖荷西 shenghexi (saint + water lily + west)
2. English into Chinese

- Meaningfulness / meaninglessness of characters
  - Meaning manufacture e.g.,
    - Neutral imagery (meaning opaque or abstract)
      - 斯 (Classical Chinese determiner)
      - 克 ("to subdue" - morpheme only)
      - 特 ("special")
    - Positive connotations
      - LeBron (James) ➔ 雷霸龍 (Thunder + Tyrannosaurus)
      - Coca Cola ➔ 可口可樂 (Tasty + Joyful)

- Gender explicitness
  - Female names:
    - Anna ➔ 安娜
    - Jennifer ➔ 芭芭拉
    - Barbara ➔ 希拉蕊
    - Elisabeth ➔ 伊麗莎白 (opaque; beautiful; gauze; white)
  - Male names:
    - David ➔ 大衛 (big guard)
    - William ➔ 威廉 (authoritative + decent)
    - Sam ➔ 山姆 (mountain + opaque)

CONCLUSION

- CHINESE INTO ENGLISH (preserving sound ➔ romanization)
  - Issues
    - Contrastive aspiration
    - Sibilant consonants
    - Apical vowel (high central vowel)
    - High front rounded vowel
    - Syllable boundaries
    - Tone
  - Goals
    - Economy
    - Symmetry / systematic
    - Compare with English phonics
    - Ease of computer input
    - Loss and/or addition of meaning / imagery

- ENGLISH INTO CHINESE
  - Syllable simplification strategies
    - Vowel insertion
    - Consonant deletion (-)
    - Consonant blending (-)
  - Character choice and meaning / imagery
    - Gender specificity
    - Neutral vs explicit (positive or negative imagery)

REFERENCES

- 李壬癸. 2001. 「漢字拼音的幾個關鍵問題」。見李壬癸主編，《漢字拼音討論集》，頁1–8。台北：中央研究院語言學研究所。