SYNAESTHESIA: AN INTRODUCTION

- Synaesthesia: the union of senses.
- Linguistic synaesthesia is a figure by which a perceptual experience related to one sense is described through lexical means typically associated with a different sense (e.g. ‘sweet voices’, ‘sharp tongues’).
- Synaesthesia can be considered as an instance of semantic incongruence.

OUTLINE

- Synaesthesia: an introduction
- Synesthesia in characters: synesthetic characters
  - Sensory radicals
  - Radical combination to encode senses
  - Synesthetic sense extension
- Synaesthesia in modern Chinese
  - Culture-specific synaesthesia
    - Case study: BITTERNESS AND PAIN
- Synaesthesia in Chinese Buddhist studies

The Six Senses

<table>
<thead>
<tr>
<th>Sense Object</th>
<th>Qualifying Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>the eye</td>
<td>look at; see</td>
</tr>
<tr>
<td>the ear</td>
<td>listen to; hear</td>
</tr>
<tr>
<td>the nose</td>
<td>smell</td>
</tr>
<tr>
<td>the tongue</td>
<td>taste</td>
</tr>
<tr>
<td>the body</td>
<td>feel</td>
</tr>
<tr>
<td>the mind</td>
<td>perceive; think</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Qualifying Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>color; shape; space</td>
<td>bright, dull, round, straight, big, small, full, empty…</td>
</tr>
<tr>
<td>loud, quiet, melodious, jarring, pleasant - piercing</td>
<td></td>
</tr>
<tr>
<td>fragrant, aromatic, perfumed, smelly, odorous…</td>
<td></td>
</tr>
<tr>
<td>yummy, tasty, delicious, savory, insipid…</td>
<td></td>
</tr>
<tr>
<td>solid, fluid, heat, mobility</td>
<td>hard, soft, fluid, watery, hot, cold, fast, slow…</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concept</th>
<th>Sense Object</th>
<th>Qualifying Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>six internal sense spheres</td>
<td>look at; see</td>
<td>bright, dull, round, straight, big, small, full, empty…</td>
</tr>
<tr>
<td>six external sense spheres</td>
<td>listen to; hear</td>
<td>loud, quiet, melodious, jarring, pleasant - piercing</td>
</tr>
<tr>
<td>sense objects</td>
<td>smell</td>
<td>fragrant, aromatic, perfumed, smelly, odorous…</td>
</tr>
<tr>
<td>dimensions</td>
<td>taste</td>
<td>yummy, tasty, delicious, savory, insipid…</td>
</tr>
<tr>
<td>qualifying terms</td>
<td>feel</td>
<td>hard, soft, fluid, watery, hot, cold, fast, slow…</td>
</tr>
</tbody>
</table>
**SYNAESTHESIA IN CHINESE CHARACTERS**

- **Methodology:**
  - Look for synaesthetic characters
  - Hantology

- **Sensory radicals:**
  - 耳 (auditory)
  - 目 (visual)
  - 口 (gustatory)
  - 心 (mental)
  - 舌 (gustatory)

- It seems that olfactory and tactile radicals are not salient in Chinese orthography.

- The combination of radicals reveal one of the six senses.
  - 美 ‘tasty; beautiful’ = 羊 ‘sheep’ + 大 ‘big’
  - 鮮 ‘tasty’ = 魚 ‘fish’ + 羊 ‘sheep’
  - 尖 ‘pointed’ = 小 ‘small’ + 大 ‘big’

- The information encoded by the combination of radicals may be culture-bound.

**SYNAESTHESIA IN CHINESE CHARACTERS**

- The semantic extension of a character may resort to the synaesthesia mechanism.
  - 麻
    - (i) hemp;
    - (ii) numb (tactile);
    - (iii) pungent (gustatory).

- The second and the third sense of the character 麻 involve synaesthesia, which covers both tactile and gustatory domains.

**SYNAESTHESIA IN MODERN CHINESE**

- **Visual**
  - 美 ‘beautiful’
  - 臭 ‘ugly’
  - 大 ‘big’
  - 小 ‘small’
  - 尖 ‘sharp’
  - 鍋 ‘blunt’
  - 深 ‘deep’
  - 浅 ‘short’
  - 淡 ‘tender-green; light-green’ (tactile-to-visual)
  - 冷色 ‘cold-colors’ (tactile-to-visual)
  - 暖色 ‘warm-colors’ (tactile-to-visual)
  - 淡色 ‘light-color’ (tactile-to-visual)

- The visual domain has several dimensions, such as shape, size, depth and color, among which the color is most conducive to a target domain for synaesthesia (specifically, tactile-to-visual mapping), while the rest of them as source sensory domain.
Auditory:
- 高聲 'high-sound' (visual-to-auditory)
- 大聲 'big-sound' (visual-to-auditory)
- 高音 'high-sound' (visual-to-auditory)
- 重音 'heavy-sound; stress' (tactile-to-auditory)
- 聲音洪亮 'sound-bright; loudness' (visual-to-auditory)
- 輕音 'light-sound' (tactile-to-auditory)
- 輕言細語 'light-speech-thin-speech; soft speech' (tactile-to-auditory)
- 重話 'heavy-speech; blunt words' (tactile-to-auditory)

Auditory sense is most likely to be the target domain, which is modified by epithets from other sensory domains, such as visual and tactile domains.

It seems that those sounds modified by tactile epithets tend to develop into metaphoric meanings.

(Regarding the differences between 声 'sound' and 音 'sound', please refer to 洪嘉馡, 黃居仁 2004)

Gustatory
- 甜 'sweet' (originally gustatory)
- 苦 'bitter' (originally gustatory)
- 酸 'sour' (originally gustatory)
- 滑 'smooth' (tactile/gustatory)
- 嫩 'tender' (tactile/gustatory)
- 辣 'hot' (tactile/gustatory)
- 麻 'pungent' (tactile/gustatory)
- 香味 'good-taste; tasty' (no synaesthesia)
- 怪味 'strange-taste' (visual-to-gustatory)

Gustatory sense, strictly speaking, is not distinct from tactile sense. Therefore, there are quite a few words that are both gustatory and tactile in meaning.

Olfactory
- 味 'smell' (olfactory/gustatory)
- 苦 'bitter' (olfactory)
- 酸 'sour' (olfactory)
- 香味 'good smell' (olfactory)
- 臭味 'bad smell' (olfactory)

Olfactory and gustatory sense are so closely related that the category terms for the two senses share the same character 味 'taste; smell' in Chinese.

Also, olfactory and gustatory senses share quite a few epithets.

Tactile
- 痛 'pain'
- 重 'heavy'
- 輕 'light'
- 熱 'hot'
- 暖 'warm'
- 冷 'cold'
- 嫩 'tender'
- 滑 'smooth'
- 麻 'numb'
- 雞 'light'

It seems that the tactile domain is an active source sensory domain to be mapped to auditory, visual and gustatory domains.
SYNAESTHESIA IN MODERN CHINESE

- Mental
  - 淡泊名利 ‘indifferent to fame’
  - 淡季 ‘dull season’
  - 孵嫩 ‘puerile, immature’
  - 辣 ‘capable and aggressive (ladies); sexy (ladies)’
  - 甜睡 ‘sleep soundly’
  - 苦难 ‘ordeal’
  - 酸 ‘sarcastically speak’
  - 深奥 ‘profound’
  - 肤浅 ‘superficial; shallow’
  - 利根 ‘favorable disposition; favorably-endowed’
  - 钝根 ‘unfavorable disposition; unfavorably-endowed’

SYNAESTHESIA IN MODERN CHINESE

- Any hierarchy among the sense domains?
  - Among these sense domains, visual and tactile domains are prominent in the sense that they are likely to serve as source sense domains to be mapped to other domains.
  - Between the visual and tactile domains, the tactile can be said to be more basic, as tactile epithets can modify visual (color) words, such as 嫩緑 ‘soft-green’ and 冷色 ‘cold-color’.

SYNAESTHESIA IN MODERN CHINESE

- It seems that synaesthetic expressions encoded in sensory organs tend to involve metaphor. In particular,
  - (a) The meaning is not literal but metaphorical;
  - (b) Word class conversion usually occurs.
- 冷眼 (cold-eye; impartially; with detachment)
  - adjective or adverb (tactile-to-visual)
- 刺耳 (pierce-ear; jarring; harsh)
  - adjective (tactile-to-auditory)
- 刺鼻 (pierce-nose; pungent)
  - adjective (tactile-to-olfactory)
- 長舌 (long-tongue; long-tongued; gossip)
  - adjective or verb (visual-to-auditory)

CULTURE-BOUND SYNAESTHESIA

- Linguistic synaesthesia exhibits cross-cultural differences.
  - e.g., 硬 in Chinese versus sharp in English

A case study:

- Being Assiduous, Do We Have BITTERNESS OR PAIN? (Xiong and Huang, 2015)
### Table 1

<table>
<thead>
<tr>
<th>Gustatory</th>
<th>Olfactory</th>
<th>Auditory-mental</th>
<th>Mental</th>
</tr>
</thead>
<tbody>
<tr>
<td>ku-chha</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>‘bitter-tea’</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ku-wet</td>
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<td></td>
<td></td>
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<tr>
<td>‘bitter-taste’</td>
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<tr>
<td>ku-yen</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>‘bitter-smell’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ku-men</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>‘bitter-stuffy; depressed’</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ku-chong</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>‘bitter-in-do-happiness; enjoy in the mist of sorrow’</td>
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<td></td>
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<tr>
<td>negative</td>
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</tbody>
</table>

### Table 2

<table>
<thead>
<tr>
<th>Tang ‘pain; painful’ and its synaesthesia</th>
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</thead>
<tbody>
<tr>
<td>Tactile</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>ya-tong</td>
</tr>
<tr>
<td>‘teeth-pain’</td>
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<tr>
<td>negative</td>
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</tbody>
</table>

### Table 3

<table>
<thead>
<tr>
<th>Bitterness and its synaesthesia</th>
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</thead>
<tbody>
<tr>
<td>Gustatory</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>bitter</td>
</tr>
<tr>
<td>lemon</td>
</tr>
<tr>
<td>negative</td>
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</table>

### Table 4

<table>
<thead>
<tr>
<th>Pain and its synaesthesia</th>
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</thead>
<tbody>
<tr>
<td>Tactile</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>back pain</td>
</tr>
<tr>
<td>negative</td>
</tr>
</tbody>
</table>
Eat the bitterest of the bitter, you would be the best among people.

The virtue of being able to endure the hardships.

Take great effort.

Painstakingly practice dancing.

Ku ‘bitterness’ refers to “great effort” in the above examples.

The conceptual metaphor of ku ‘bitterness; bitter’:
* EFFORT IS BITTERNESS.

The conceptual metaphor of tong ‘pain; painful’:
* INTENSITY IS PAIN.

When bitter or bitterly is applied, the modified action is intensified.
(15) No pain, no gain!
(16) Successful are those who are willing to take pains.
(17) We must take pains to do meticulous work among the masses.
(18) They take pains over writing and send them here for us to read.
(19) I had taken great pains with my appearance.
(20) If you want to succeed in the work, you must take pains about it.
(21) They take pains to hire people whose personalities predispose them to serve customers well.

_Pain_ in English seems to be able to encode “effort-making”.

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**CULTURE-BOUND SYNAESTHESIA**

(22) _The conceptual metaphor of bitter:_
- **INTENSITY IS BITTERNESS.**

(23) _The conceptual metaphor of pain:_
- **EFFORT IS PAIN.**

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**SYNAESTHESIA IN CHINESE BUDDHIST TEXTS**

**Motivations:**
- The theory of the six senses is one of the core teachings in Buddhism. Therefore, we expect to find rich literature revolving around the six senses, which is verified in our study.
- The Chinese Buddhist texts feature a wide range of time depending on when they were translated. This provides us a platform to investigate how sensory words may diachronically differ in terms of their synaesthetic uses.
**SYNAESTHESIA IN CHINESE BUDDHIST TEXTS**

- 味 ‘taste’ (gustatory word; noun)
  - 我眼見色，我耳聞聲，我鼻嗅香，我舌嘗 味，
    我身覺觸，我意識法。[雜阿含經]

- **Semantically:**
  - synaesthetic uses
  - metaphorical uses

- **Syntactically:**
  - verb
  - classifier

- **Verb:** ‘to savor, to degust, to be attached to’
  - 一切法中無受念著不 味 不 義，是名禪。

- **Classifier:**
  - 佛平等說，如 味 雨，
    隨眾生性，所受不同，
    如彼草木，所屬各異。

- **SYNAESTHESIA IN CHINESE BUDDHIST TEXTS**

- 味 in *Agama sutta* is used as an umbrella term for “perception”, such as
  - 色味 ‘form-taste; the perception of visual forms’
  - 受味 ‘feel-taste; the perception of feeling’
  - 慾味 ‘desire-taste; the perception of desire’
  - 身際麁 losers
  - 思味 ‘mental-taste; the perception of thought’

- **Verb**: ‘to savor, to degust, to be attached to’
  - 一切法中無受念著不 味 不 義，是名禪。

- **Classifier:**
  - 佛平等說，如 味 雨，
    隨眾生性，所受不同，
    如彼草木，所屬各異。

**SYNAESTHESIA IN CHINESE BUDDHIST TEXTS**

- 味 in *Lotus sutta* is in a more abstract ‘sense’:
  - 解脫味 ‘emancipation-taste’
  - 法味 ‘dhamar-taste’

- **Verb**: ‘to savor, to degust, to be attached to’
  - 一切法中無受念著不 味 不 義，是名禪。

- **Classifier:**
  - 佛平等說，如 味 雨，
    隨眾生性，所受不同，
    如彼草木，所屬各異。

**SYNAESTHESIA IN CHINESE BUDDHIST TEXTS**

- **The modern use:**
  - 意味深長 (sense-taste-deep-long)
    - Synaesthesia: visual-to-gustatory
    - Metaphor: NATURE IS TASTE.
SYNAESTHESIA IN CHINESE BUDDHIST TEXTS

聞 'hear' (verb)
- 我眼見色，我耳聞聲，我鼻嗅香，我舌嘗味，我身覺觸，我意識法。[雜阿含經]

Semantically:
- Auditory-to-gustatory
- REPUTATION IS SOUND

Syntactically:
- v-to-n conversion

Semantically:
- Auditory-to-olfactory

SYNAESTHESIA IN CHINESE BUDDHIST TEXTS

聞 in Lotus sutta:
- 以是清淨鼻根，聞於三千大千世界上下內外種種諸香。
  - 象香、馬香、牛羊等香，男香、女香、童子香、童女香，及草木叢林香——若近、若遠，所有諸香，悉皆得聞，分別不錯
  - Auditory-to-olfactory

名聞甚高 (noun)
- visual-to-auditory (synaesthesia)
- REPUTATION IS SOUND. (metaphor)

SYNAESTHESIA IN CHINESE BUDDHIST TEXTS

観 ‘look’ and 見 ‘see’

観 ‘look’ (v) → ‘meditation’ (n)
- 内觀 ‘insight meditation’.
- 不浮觀 ‘meditation on uncleanness’

見 ‘see’
- 知見 ‘view’
- 正見 ‘right view’
- 邪見 ‘wrong view’

In modern Chinese, 見 develops into a verbal particle to indicate the completion of an action, such as
- 看見 ‘look-see; see’
- 聽見 ‘listen-see; hear’

SUMMARY

- Linguistic synaesthesia in Chinese can be embodied in orthographical, lexical and phrasal/syntactic levels.
- Linguistic synaesthesia may play a role in the diachronic development of lexical changes (e.g., 聞).
- Synaesthesia also helps to explain lexical polysemy, as in the case of 麻 (both tactile and gustatory).
- Synaesthesia even contributes to the development of Chinese grammar system, such as the (new) use of classifiers or verbal particles.


SELECTED REFERENCES


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- Shen, Yeshayahu & Michal Cohen. 1998. “How come silence is sweet but sweetness is not silent: a cognitive account of directionality in poetic synaesthesia”, Language and Literature 7 (2), 123-140.
- Shen Yeshayahu & David Assenman. 2008. “Hear melodies are sweet, but those unheard are sweeter! Synaesthesia and cognition”, Language and Literature 17 (2), 101-121.

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