All that glitters is not gold

Prototypical semantic change in shiny Literary Chinese ideophones

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Roadmap

- **Goal:**
  describe the **semantic change** of **literary Chinese ideophones** that are situated in the semantic domain of **LIGHT** using **prototype theory** and keeping in mind **different levels of schematization**.

- Introduction
- Material & Methodology
- Literature review & Research Question
- Findings: case studies
- Conclusions
Background: Ideophone research

- Dingemanse's (2011; 2012) cross-linguistic definition: “Ideophones are marked words that depict sensory imagery.”

<table>
<thead>
<tr>
<th>FORM</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>wāng~wāng</td>
<td>‘woof-woof’</td>
</tr>
<tr>
<td>tǎn~tè</td>
<td>‘perturbed, disturbed’</td>
</tr>
<tr>
<td>liàng-jīng-jīng</td>
<td>‘glittering, sparkling’</td>
</tr>
</tbody>
</table>

In (Mandarin) Chinese:

- Usually the MEANING component is downplayed (e.g. Huang & Shi’s reference grammar 2016). This component, however, is essential, as ideophones are heavily grounded in context and often perform a scene in a complex verbal event (Slobin 2004; Lu 2006; Dingemanse & Akita 2016; Nuckolls 2017; Haiman 2018; Li & Ponsford 2018 etc.).
Motivation of this study

- 星光熠熠
- xīngguāng yìyì
- ‘twinkling star light’

- Some people pronounced zhézhé but did know the meaning.

- There can be a dissociation between phonological form, written form and meaning.

Folk model of Chinese (漢字的「形音義」)

\[
\begin{array}{c|c}
\text{writing} & \text{MEANING} \\
\hline
\text{sound} & \Sigma
\end{array}
\]
Motivation of this study

- While most studies on ideophones investigate synchronic properties,
  - experiments: (like *kiki* and *bouba*)
  - anthropological studies: elicitate narratives
  - recordings

- This study is more interested in **how they evolved through time**.

- The folk model of WRITING/SOUND // MEANING is helpful, because we can investigate VARIATION on three different levels:
  1. Semasiological variation: what does a given ideophone mean? (What does it collocate with?)
  2. Onomasiological variation: what variants in the form are at play?
  3. Phonological variation: are there any groupings that engage in a systematic/iconic relationship with the meaning (sound-symbolism)?
Phonological pre-study investigating sound-symbolism provided material

<table>
<thead>
<tr>
<th>yi~yi</th>
<th>昀燚</th>
<th>làn~màn</th>
<th>燜熎</th>
<th>shuò~shuò</th>
<th>扒扒</th>
<th>yù~yì</th>
</tr>
</thead>
<tbody>
<tr>
<td>yuè~yuè</td>
<td>燿熠</td>
<td>wèi~wèi</td>
<td>燎熎</td>
<td>hù~hù</td>
<td>雲雲</td>
<td>yì~yì</td>
</tr>
<tr>
<td>yào~yào</td>
<td>燿燿</td>
<td>wèi~yè</td>
<td>燎燀</td>
<td>shǎn~shǎn</td>
<td>燛燛</td>
<td>yì~yào</td>
</tr>
<tr>
<td>yào~yào</td>
<td>燿燿</td>
<td>zhù~zhù</td>
<td>燎燄</td>
<td>zhēng~zhēng</td>
<td>鋪鋪</td>
<td>yè~yè</td>
</tr>
<tr>
<td>yì~yào</td>
<td>燿燿</td>
<td>zhù~shuò</td>
<td>燎爛</td>
<td>huǎng~huǎng</td>
<td>鋬爛</td>
<td>yè~yè</td>
</tr>
<tr>
<td>yì~yào</td>
<td>燿燿</td>
<td>hào~hào</td>
<td>燎爍</td>
<td>jīng~jīng</td>
<td>晃晃</td>
<td>màn~màn</td>
</tr>
<tr>
<td>yù~yù</td>
<td>灼燿</td>
<td>jiǎo~jiǎo</td>
<td>燎皎</td>
<td>guāng~guāng</td>
<td>晶晶</td>
<td>yì~yì</td>
</tr>
</tbody>
</table>

Semantic domain of LIGHT
Phonological pre-study ➔ material

- For this study, which investigates the WRITTEN pole vs. MEANING, we ended up with **17 types** from the group that had an obstruent coda in Old Chinese (reconstruction Baxter & Sagart 2014)
- Full reduplication / AA (most frequent / prototypical form, cf. Van Hoey 2015)
- Definitions in Kroll’s (2015) *A Student’s Dictionary of Classical and Medieval Chinese* include:
  - brightly shining; flashing; flaring; gleaming; flickering; vividly bright etc.
- Definitions in the Ministry of Education’s online dictionary (found on zdic.com) include:
  - 光閃動的樣子。光明盛大的樣子。光明照耀的樣子。......
- And in the *Shuowen jiezi* 說文解字, we get:
  - “it is light / shining” 「光也，照也，電光也」
Literature review

• Unifying three linguistic frameworks for Chinese ideophones: different levels of schematization
Defining ideophones (for Chinese)

- Comparative concept (Haspelmath 2010)
  Ideophones = marked words that depict sensory imagery (Dingemanse 2011; 2012)

- Hard to define a certain lexeme (cf. Nuckolls et al. 2017):
  1. IMAGE SCHEMATIC approach (Nuckolls 1996)
  2. IDEALIZED COGNITIVE MODEL approach (Lu 2006)
  3. FRAME semantics approach (Akita 2012)
1. IMAGE SCHEMAS

- Finding the most fitting **image schema** underlying different meanings in the semantics of lexeme.

- For Quichua this was done and later revised (Nuckolls 1995; Nuckolls et al. 2017), e.g. *polang*
  - “glide across”
  - “glide up”
2. IDEALIZED COGNITIVE MODEL

3. Fillmorean FRAME semantics approach

- Akita argues that SOUND ideophones in Mandarin Chinese are “generally unspecified as to sound sources and perhaps sensitive to sound qualities” (2013:29). In other words, they are vague, e.g. jī~jī-zhā~zhā 嚕嘰喳喳.

- This is opposed to Japanese ideophones, which are highly specific and almost always evoke a certain very specific frame (Akita 2012).

- However, as soon as we leave the imagic iconicity of SOUND ideophones to more diagrammatic end of the iconicity spectrum (Dingemanse 2012), it will become untenable to state that Chinese ideophones are only vague, and not polysemous.
Different levels of metaphor => different levels of ideophone?

- Kövecses (2017; 2018) proposes a **four level architecture** involved in the meaning (creation) of metaphors.

- I think this model can also be applied to ideophones, in which ‘domain’ is equal, or similar enough to Lu’s ‘ICM’, i.e. a collection of frames.
Research question
Methodology

• Geeraerts’s (1997) model for diachronic prototype semantics
• Corpus-based
Research question

So far, we have tried to show that:

- There are many different ideophones related to the semantic domain of LIGHT.
- A study on different levels of abstraction might unify three different frameworks (just like in metaphor studies).
- The relationship between WRITTEN form and MEANING is not necessarily one-to-one; in other words: variation and prototypicality probably play a role.

So now we restate the research question that drives this study:

- What does a leveled approach with attention to polysemy and prototypicality reveal about the nature of ideophones?
Diachronic prototype semantics:

1. New meanings from joint influence of several meanings
   F M O P

2. Meanings that crop up occasionally, but do not persist in time
   P Q I

3. Concepts are not equally important in the process of semantic change
   A F C B > E G

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**VER-GRIJPEN**

‘MIS-TAKE’

<table>
<thead>
<tr>
<th>Label</th>
<th>Example</th>
<th>Definitional gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(4)–(5)</td>
<td>to use physical violence against (someone)</td>
</tr>
<tr>
<td>B</td>
<td>(6)–(7)</td>
<td>to oppose someone to whom one owes respect and obedience</td>
</tr>
<tr>
<td>C</td>
<td>(8)–(9)</td>
<td>to harm (someone) in a non-physical way</td>
</tr>
<tr>
<td>D</td>
<td>(10)–(11)</td>
<td>to oppose an abstract principle</td>
</tr>
<tr>
<td>E</td>
<td>(12)</td>
<td>to mis-take</td>
</tr>
<tr>
<td>F</td>
<td>(13)–(15)</td>
<td>to do something forbidden</td>
</tr>
<tr>
<td>G</td>
<td>(16)–(17)</td>
<td>to make a mistake</td>
</tr>
<tr>
<td>H</td>
<td>(18)</td>
<td>to adulterate</td>
</tr>
<tr>
<td>I</td>
<td>(19)–(20)</td>
<td>to do something inadvisable, unwise, improper</td>
</tr>
<tr>
<td>J</td>
<td>(21)–(22)</td>
<td>to harm (something) in a non-physical way</td>
</tr>
<tr>
<td>K</td>
<td>(23)–(24)</td>
<td>to steal</td>
</tr>
<tr>
<td>L</td>
<td>(25)–(26)</td>
<td>to violate a woman’s honour</td>
</tr>
<tr>
<td>M</td>
<td>(27)–(28)</td>
<td>to eat or drink excessively</td>
</tr>
<tr>
<td>N</td>
<td>(29)</td>
<td>to hurt while catching or seizing</td>
</tr>
<tr>
<td>O</td>
<td>(30)–(31)</td>
<td>to rebel violently</td>
</tr>
<tr>
<td>P</td>
<td>(32)</td>
<td>to catch the wrong person</td>
</tr>
<tr>
<td>Q</td>
<td>(33)</td>
<td>to commit suicide</td>
</tr>
<tr>
<td>R</td>
<td>(34)–(35)</td>
<td>to damage (something)</td>
</tr>
</tbody>
</table>

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Geeraerts (1997: 47-62)
Methodology

- **Material (the 17 types from the pre-study)**

- **Corpus-based study**
  - Scripta Sinica corpus 漢籍電子文獻資料庫 (‘Hanchi’)
  - 3500+ tokens
  - Periods in the Scripta Sinica corpus: about 300 years
    - 先秦 秦漢 魏晉南北朝 隋唐五代 宋遼金 元 明 清 民國
  - **semantic preference**, rather than the direct collocate (Geeraerts 2010:170-173)
Findings

• 3 case studies showing prototype effects
Case study 1: yuè~yuè 燈熾 prototypical structure

- 國語辭典「光明的樣子。」
- 說文解字 | 康熙字典「光也，電光也。」

semantic preference/collocations / mental spaces

prototype effects: LIGHTNING → LIGHT etc.
Case study 2: huī~huī 輝輝 燦熾 晞暉 frequency effects

- 晞 huī <MC xjwĭj <OC *qʷʰər 「 晞朗的樣子。 」 「 光也。」
- 輝 huī <MC xjwĭj <OC *qʷʰər 「 光也。」
- 燦 huī <MC xjwĭj <OC *qʷʰər 「 光也。」

- Based on the definitions, one could presume that their meanings are entirely the same, i.e. synonymous.
- However, based on corpus study we can see that this is not the case:
Differences in semantics but also in productivity per ideophone.
Case study 2: 
*hui*~*hui* 輝輝 燦爛 暖暖 vs. *zhuo*~*zhuo* 灼灼

*zhuo*~*zhuo* has a much higher token frequency than any of the *hui*~*hui*
Case study 3: yè~yè 燈燭 燈燭 燈燭 transient prototypicality

- Sometimes it is also the case that one ideophone is the most productive for a while, but that this gradually is taken over by another.

- For instance, 燈燭 SUN was very productive in terms of ‘shiny flowers’, but also light sources
  But by the Song dynasty simplex 燈燭 FIRE is taking over this role.

- The complex 燈燭 FIRE was marginal and only semi productive
One level of schematization higher: the main frames of LIGHT ideophones
Domains / ICMs: collections of frames

(Kövecses 2017)
Image schemas for LIGHT IDEOPHONES
Conclusions
The prototypical nature of Literary Chinese LIGHT ideophones

- Due to the **prototypical** bundles that give rise to different sets of meanings, we end up with **fuzzy extensions** of core meanings.
- There is noticeable **polysemy** in the semantics of the investigated lexemes, e.g. ｙè～ｙè ]=[this has a bundle that depicts LIGHT, but also FLOWERS
- However, there is also some **vagueness**, e.g. ｙè～ｙè’ｓ ]=[this FLOWER bundle was presumably abstracted from certain trees (丹桂) and flowers (紫葵)
- At the same time, **frequency effects** are noticeable: once a collocation has been made, repeated usage crystallizes it
- Furthermore: **metaphorical** extensions
Horizontal and vertical results

- **Horizontal**
  - Historical change with prototypes and frequency effects
  - Mutual influence of the written form (even with a constant phonological form)

- **Vertical**
  - **Mental spaces**
    - the lower level patterns, ‘real data’ as we go
  - **Frames**
    - entrenched constructions, slightly bigger
  - **Domains | ICMs**
    - more entrenched collocations
  - **Image schemas**
    - licensed by embodiment: our bodies know about physics (optics)
Future directions

- While this study has reached important conclusions (see above), there is room for improvement:
  - **subject ‘hybrid’ AB ideophones** and their relation to ‘pure’ AA ideophones, e.g. *yiyi* 烈烈 and *yuyu* 烈烈 vs. *yuyi* 烈烈 and *yiyu* 烈烈
  - investigate the **token frequency** of this family and the lexemes without family
  - **Other semantic domains**, e.g.
    - COLOUR
    - TEXTURE
  - Scale this approach by using **computational** methods
Yì-yì 星光熠熠 only gained its connection to STARS around the Tang (589-618)

Very likely influenced by yù~yù 煥煥

so now we end up with

xīngguāng yìyì 星光熠熠

So what is now ‘fossilized’ and often presented as a lexical item that just has to be memorized was actually more flexible and motivated than most approaches give credit for.
References


References


References


Thank you
Case study 2: yaò~yaò 耀耀 燜燁

Mutual influence

- 国语辞典：【耀耀】「光明的样子。」【燁燁】「NA」
- 説文解字：「照也。」

耀 yaò LIGHT 光
耀 yaò FIRE 火
<table>
<thead>
<tr>
<th>OC: obstruent coda</th>
<th>OC: nasal coda</th>
<th>Not analyzed</th>
</tr>
</thead>
<tbody>
<tr>
<td>燹 yuè &lt;MC yak &lt;OC *lewk</td>
<td>燕 ying &lt;MC hweng &lt;OC *N-qʷen</td>
<td>軒 xuān &lt;MC xjon &lt;OC *qʰar</td>
</tr>
<tr>
<td>燹 yào &lt;MC yewH &lt;OC *lewk-s</td>
<td>燕 ying &lt;MC hweng &lt;OC *N-qʷen</td>
<td>剎 yān &lt;MC yemX &lt;OC *N-ram?</td>
</tr>
<tr>
<td>燹 yào &lt;MC yewH &lt;OC *lewk-s</td>
<td>燕 ying &lt;MC hweng &lt;OC *N-qʷen</td>
<td>熊 xióng &lt;MC hjuwng &lt;OC *C.gʷəm</td>
</tr>
<tr>
<td>燹 zhuò &lt;MC tsyak &lt;OC *tewk</td>
<td>燕 ying &lt;MC hweng &lt;OC *N-qʷen</td>
<td>履 hū &lt;MC huX &lt;OC *m-qʰa?</td>
</tr>
<tr>
<td>燹 shuò &lt;MC syak &lt;OC *r ewk</td>
<td>燕 ying &lt;MC hweng &lt;OC *N-qʷen</td>
<td>閃 shǎn &lt;MC syemX &lt;OC *s.tem?</td>
</tr>
<tr>
<td>燹 shuò &lt;MC syak &lt;OC *r ewk</td>
<td>燕 ying &lt;MC hweng &lt;OC *N-qʷen</td>
<td>皓 hào &lt;MC hawX &lt;OC *gʰu?</td>
</tr>
<tr>
<td>燹 yi &lt;MC yik &lt;OC *gʷəp</td>
<td>燕 zhēng &lt;MC tsreang &lt;OC *ts’en</td>
<td>皎 jiǎo &lt;MC kaewX &lt;OC *kʰraw?</td>
</tr>
</tbody>
</table>

There is no real evidence of sound-symbolism but there might be some phonesthemic networks.
Phonological pre-study ➔ material

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Research question: operationalization

- Four levels of schematization:
  - mental spaces: what is being referred to \( \rightarrow \) semantic preference
  - different frames
  - different domains
  - different image schemas

- Prototype effects throughout history
  - Model: Geeraerts’s diachronic prototype semantics description of *vergrijpen*
Polysemy vs vagueness
(Geeraerts 1997: 18-19; 2006 [1993])

- Distinctions among senses illustrate polysemy: *fruit* is *polysemous* because it has at least the meanings
  - ‘something that people can eat and that grows on a tree or a bush’ and
  - ‘the result or effect of something’.

- Distinctions among the members of a single sense are cases of vagueness:
  - *fruit* is semantically vague with regard to the differences between oranges and watermelons, because those differences do not lie at the basis of a distinction between senses. Geeraerts (1997: 18-19).

- It’s not easy to differentiate, however *statistics* help (token frequency)

- Also Tyler & Evans’ (2003) criteria played a role
It is not surprising to find metaphorical extensions within the polysemous semantic network of the investigated items.

- using LIGHT ideophones to talk about
  - women’s posture 姿
  - talentful men 才
  - words 詞 言……
Variability in the poles of symbolic assemblies

- The current presentation once again shows that there is considerable variation and change in the poles of symbolic assemblies (Langacker 1987; 1991)

- onomasiological variation
  slight diachronic change
  日 金 火 光

- semasiological
  prototypicality and fuzziness
  diachronic change

- reanalysis

\[ \text{writing} \quad \text{sound} \]

\[ \text{MEANING} \sum \]

漢字的「形 音 義」