Differential Metaphorization and Grammaticalization: A Case Study of Chinese Light Verbs

Ka-Fai Yip

Yale University

kafai.yip@yale.edu

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Metaphorization

- A semantic *process*
- Major process in grammaticalization (e.g. *is going to*, Bybee & Pagliuca 1985)
  - → crucial in language change and language variations

- Results in categorical change:
  - E.g. Tense markers, modal, **light verbs** …

- How the process develops *gradually*?

Lexical verbs vs. Light verbs

1. **give** *a book (to someone)*   vs. **give** *a kick*

   Others: *make, take, have …*

2. *zuo dangao* "make a cake"   vs. *zuo yanjiu* "to do research"

3. *gei ta yi-zhi bi* "give him a pen"   vs. *gei(yu) jieshi* "give an explanation"

4. *dazao bingqi* "forge a weapon"   vs. *dazao guanghui weilai* "create a bright future"

Grammatical properties: concrete nouns vs. abstract nouns

Semantic properties: lexical meaning vs. "bleached" meaning

Research focus

1. An understudied yet very common light verb: *da* 打 **"hit"**
   ◦ Only several *da* compound verbs are briefly discussed (Wang 1985, Ren 2013)
   ◦ *Cf. jinxing* "proceed", *zuo* "make"… (Lü 1980, Zhu 1985, Diao 2004, Wang 2004 , Huang et al. 2014, *i.a.*)

2. **Metaphorization** and grammaticalization
   ◦ Key process in light verb development
   ◦ How a semantic process interacts with the grammar

3. The gradation of metaphorization: two dimensions
   ◦ A dynamic process: time
   ◦ The role of *metaphorical agency*

Roadmap

- Corpus base LiVaC
- Metaphorization and word structure
- The development of metaphorization from a variationist perspective
- The role of metaphorical agency

Corpus base LiVaC

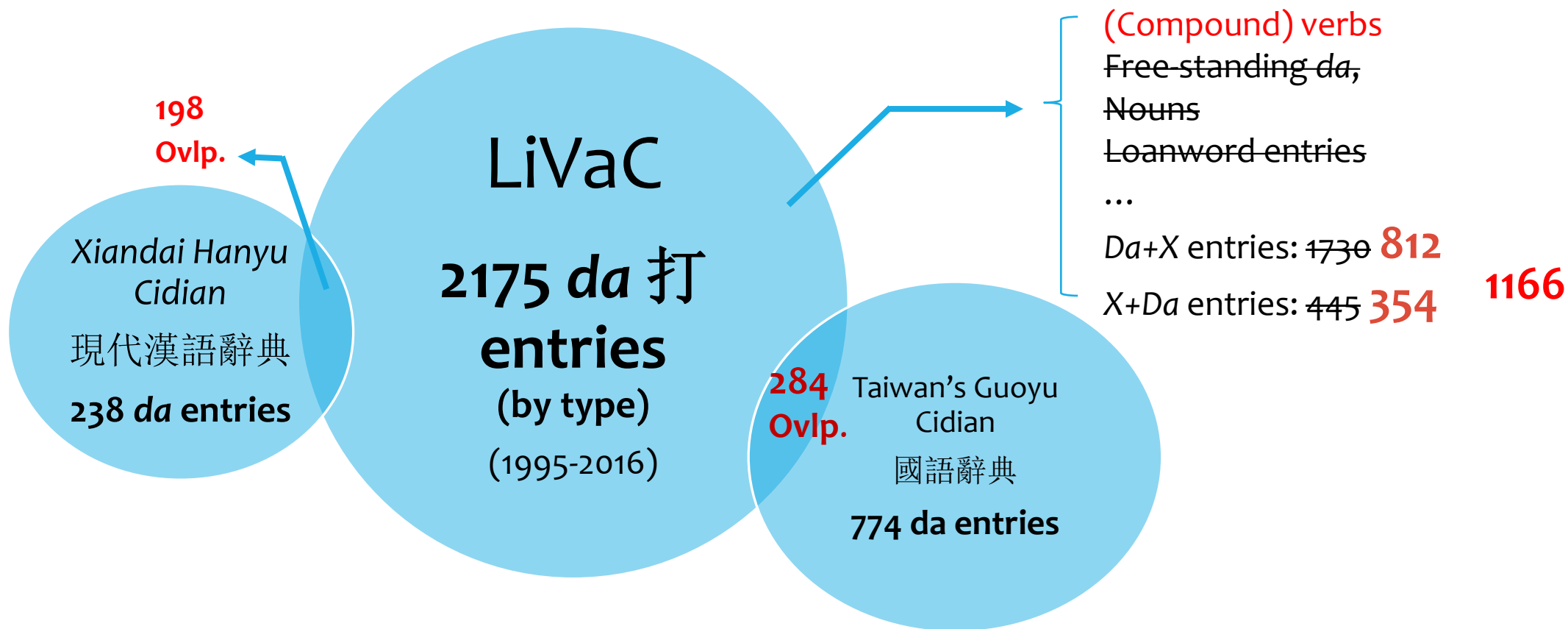# Corpus base: LiVaC *(Linguistic Variation in Chinese Speech Communities)*

Pan-Chinese synchronous database **LIVAC**

(https://en.wikipedia.org/wiki/LIVAC_Synchronous_Corpus)

since 1995

More than 600 million characters of news media texts, rigorously curated with assisted verification, from Pan-Chinese communities:

Beijing, (Guangzhou,) Hong Kong, Macau, Shanghai, (Shenzhen,) Singapore, Taiwan, etc.

Corpus base: LiVaC da entries

198
Ovlp.

Xiandai Hanyu Cidian

現代漢語辭典

238 da entries

LiVaC

2175 da 打 entries
(by type)

(1995-2016)

284
Ovlp.

Taiwan's Guoyu Cidian

國語辭典

774 da entries

(Compound) verbs
~~Free-standing *da*,~~
~~Nouns~~
~~Loanword entries~~
...

Da+X entries: ~~1730~~ **812**

X+Da entries: ~~445~~ **354**

1166

Metaphorization and word structure

Metaphorization

◦ Involves an understanding of one conceptual domain in terms of another (Lakoff & Johnson 1980)

◦ Working definition for *da* 打 'hit':

◦ **Literal** meaning: physical domain

  ◦ *daji bangqiu* 打擊棒球 "hit a baseball"

◦ **Metaphorical** meaning: other conceptual domains, e.g. emotion

  ◦ *daji xinqing* 打擊心情 "(lit.)hit-heart status, emotionally striken"

Three types of metaphorization in usage

Type I (Literal):
◦ Only literal meaning, e.g. *dasi* 打死 "beat to death, (lit.) hit-die", *daquan*打拳 "fist boxing, (lit.) hit-fist"

Type II (Incipient Metaphorization / metaphoric polysemy):
◦ Could be used both literally (Type I) and metaphorically (Type III), e.g. dazao打造 "(lit.) fabricate (furniture)" vs. "(metaph.) forge (bright future)", daci打氣 "(lit.) pump air" as in wei luntai daqi 為輪胎打氣 "pump air into tires" vs. "(metaph.) cheer up" as in wei qiuyuan daqi為球員打氣 "cheer the players up".

Type III (Metaphorical):
◦ Only metaphorical meaning, e.g. daya打壓 "suppress, (lit.) hit-press", dajia打假 "crack down on counterfeit, (lit.) hit-falsehood"

Distribution by word structure

	entries	Type I	Type II	Type III
X-*da* 'hit'	354	87%	8%	5%
da 'hit'-X	812	31%	24%	45%

○ *jida*擊打 "(lit.) strike-hit"　　　　vs.　　*daji*打擊 "(lit.) hit-strike"

○ *Jida* (Type I): *Only* allows literal meaning, e.g. *jida luogu*擊打鑼鼓 "strike gongs and drums"

○ *Daji* (Type II): Allows metaphorical meaning, e.g. *daji zuian*打擊罪案 "strike at crimes".

○ **Metaphorization is sensitive to word structure**

Word structure

◦ *X-da* "hit": Modifier-Verb 偏正/狀中 (e.g. *jida*擊打 "(lit.) strike-hit")

◦ *Da* "hit"-X:
  ◦ (i) Verb-Verb 並列 (e.g. *dazao*打造 "(lit.) forge, fabricate")
  ◦ (ii) Verb-Object 動賓 (e.g. *daci*打氣 "(lit.) pump air")
  ◦ (iii) Verb-Complement 動補 (e.g. *dajin*打進 "compete to enter")

◦ **Take home message**:
◦ **Metaphorization is sensitive to word structure**

Distribution of the three types

Word structure	Type I	Type II	Type III
VV	20%	16%	**64%**
VO	36%	22%	**42%**
VC	27%	**63%**	10%

Word structure (cont.)

- Modifier-Verb: specifies the main action
  - guoda 摑打 "(lit.) slap-hit, to slap" or chuida 捶打 "(lit.) pound-hit, to pound"
  - Denote a **subset** of hitting actions

- Verb-Verb: coordination of near-synonyms
  - e.g. *daji*打擊 "(lit.) hit-strike, hit", *dazao*打造 "(lit.) hit-forge, forge"
  - not hierarchically constrained but forms an equal partnership

- Metaphorization: involves a **relaxation** of meaning

The development of metaphorization

FROM A VARIATIONIST PERSPECTIVE

Modern Standard Chinese (MSC) and its varieties

○ **Beijing, Hong Kong, Macau**, Shanghai, Singapore, **Taiwan**, etc.

○ Different dialectal backgrounds: Mandarin, Cantonese, Taiwanese/Southern Min, Hakka...

○ Different socio-cultural backgrounds

○ Significant variations

Distribution of *da* 'hit'-X entries

Distribution	Types (%)	Tokens (%)
LIVAC	812 (100)	318,095 (100)
BJ, HK, MC or TW	672 (83)	197,486 (62)
BJ, HK, MC and TW	124 (18)	186,286 (59)

Type II entries: 40 (32%) types, 115,006 (62%) tokens
→ Predominant

Sampling Type II sentences

- Metaphorical polysemy → must examine authentic sentences

- 1st period: 1995-2000
- 2nd period: 2011-2016

- At most 50 sentences per year for each word in each community
- Total 16955 sentences have been obtained and tagged

Metaphorization Index (**MI**)

○ Measured for each word

○ The degree of metaphorization of a type II verb

$$MI = \frac{M}{T} \times 100\%$$

(M: metaphorical tokens)
(T: total tokens)

Overall Metaphorization Index (OMI)
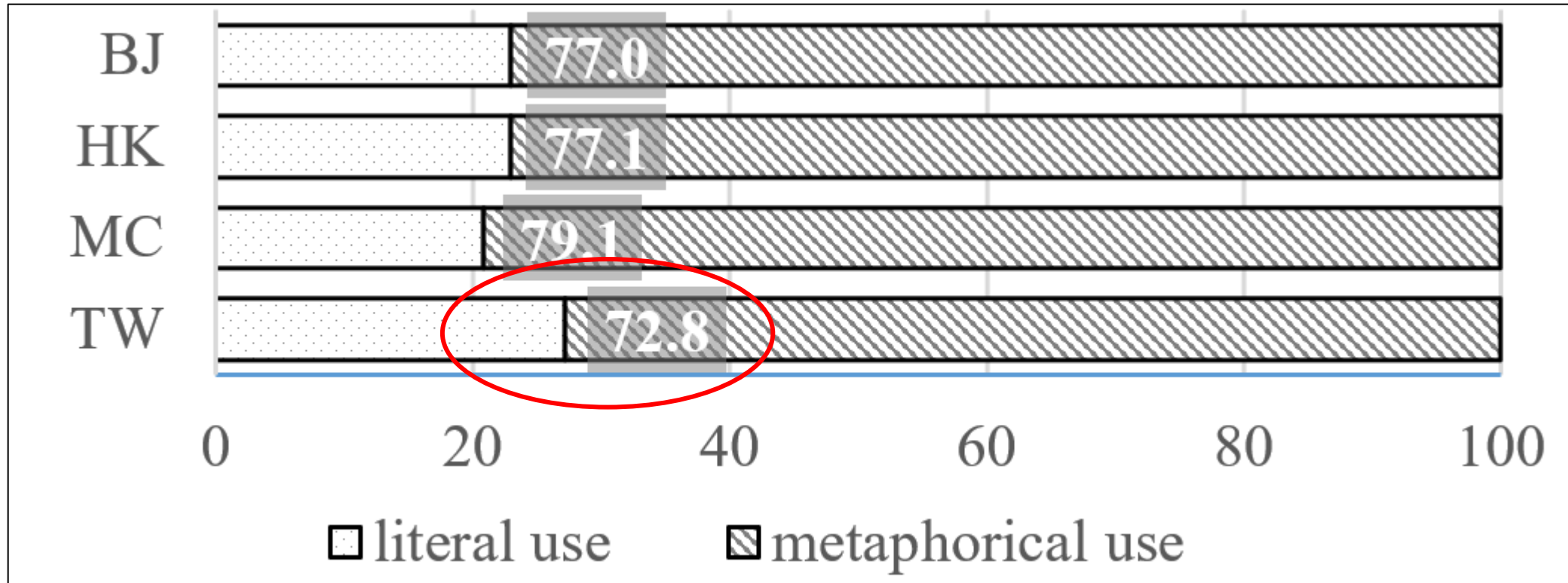
◦ Aggregated for each community over time
◦ Enable quantitative comparison: regional variations and longitudinal developments

$$OMI = \frac{C + (Bm_1 + Bm_2 \ldots + Bm_n)}{A + B + C} \times 100\%$$

(where A, B, C = total tokens of Types I, II & III respectively, and Bm_n = tokens of metaphorical usage of a Type II entry)

Variations in **metaphorization**:
Overall MI for 124 shared da-X verbs

22 years: 95-16

Resonates with **grammatical** variations

- Lin et al. (2014), Huang et al. (2014), Jiang et al. (2016)

- Grammatical variations of light verbs in Beijing and Taiwan
  - jinxing進行 "proceed", congshi從事 "engage", zuo做 "do", guo搞 "make", jiayi加以 "add"

- **TW** light verbs: more conservative, less grammaticalized
- **TW** is also conservative in metaphorization: the lowest OMI

Gradual metaphorization: *datong* 打通 "hit-through"

- Literal Meaning: "to open up passage by hitting or digging"
  - *Zhongyu* **datong** *suidong jiuchu san-ming-gongren* 終於打通隧洞救出三名工人
    "Finally dug through a tunnel and rescued three workers." (1995)

- Metaphorical meaning: "to connect"
  - **Datong** *yu shehui dazhong de lianxi* 打通與社會大眾的聯繫
    "Punched through the connection to the public in society." (2016)
  - Domains: Politics, business/economics, international affairs …

Gradual metaphorization:
datong 打通 "hit-through" (cont.)

- BJ shows rapid metaphorization
- TW, MC: gradual developing
- HK: inert
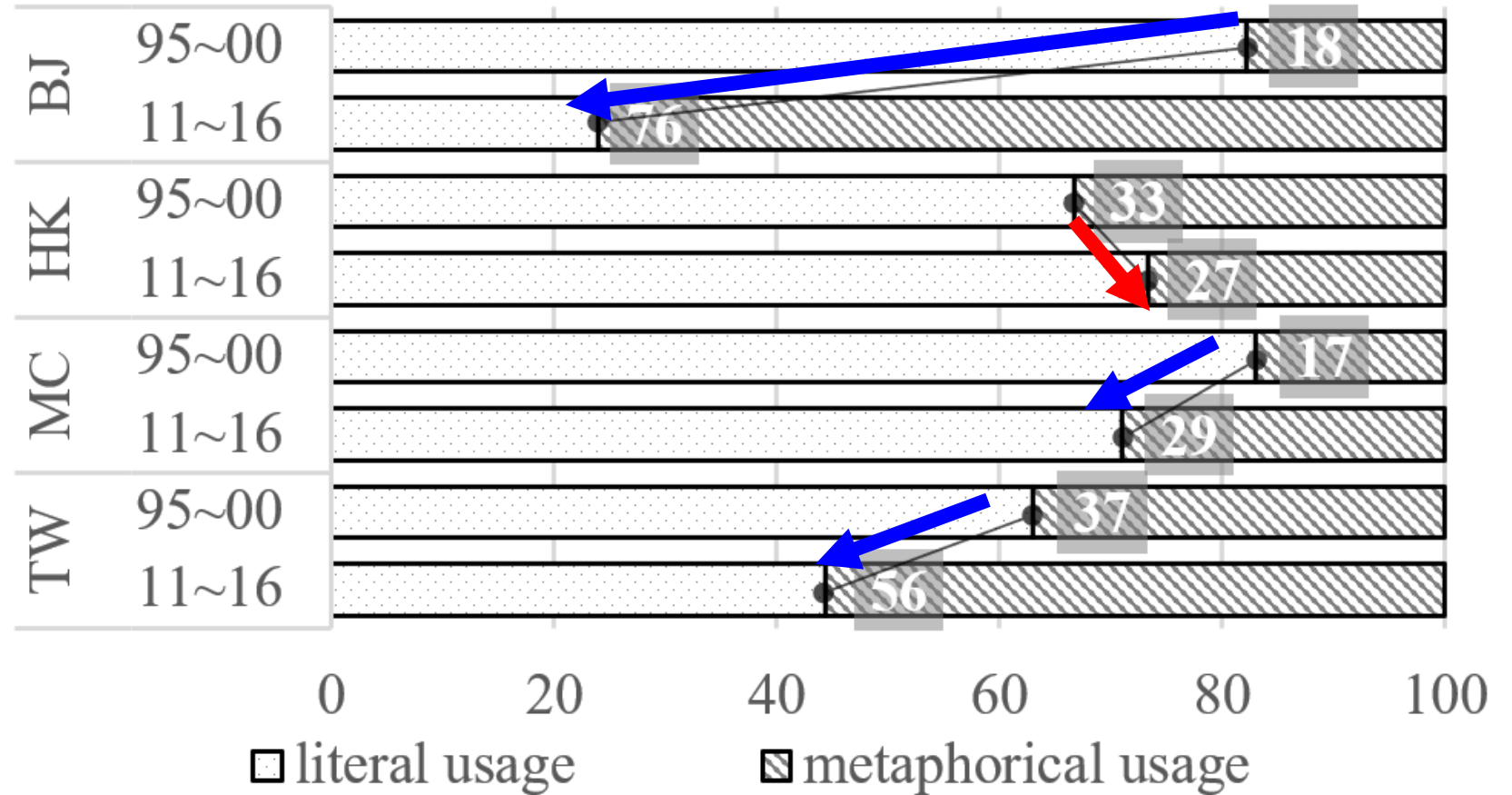
Gradual metaphorization:
daxiang 打響 "hit-loud"

○ Literal Meaning: "to make noise (e.g. by gun firing)"

   ○ *Nanchang Qiyi* **daxiang** *di-yi-qiang de zhandou didian* 南昌起義打響第一槍的戰鬥地點
"The place where they fired the first shot in the Nanchang uprising" (1997)

○ Metaphorical meaning: "to increase one's popularity"

   ○ *Bing xunsu zai meishiquan-zhong* **daxiang** *zhimingdu* 並迅速在美食圈中打響知名度
"And rapidly struck up popularity in the restaurant trade." (2015)

   ○ Domains: Business/economics, politics, …

Gradual metaphorization:
daxiang 打響 "hit-loud" (cont.)

- Metaphorization is almost completed in HK and TW
- Still ongoing in BJ
- MC: Slightly decreased
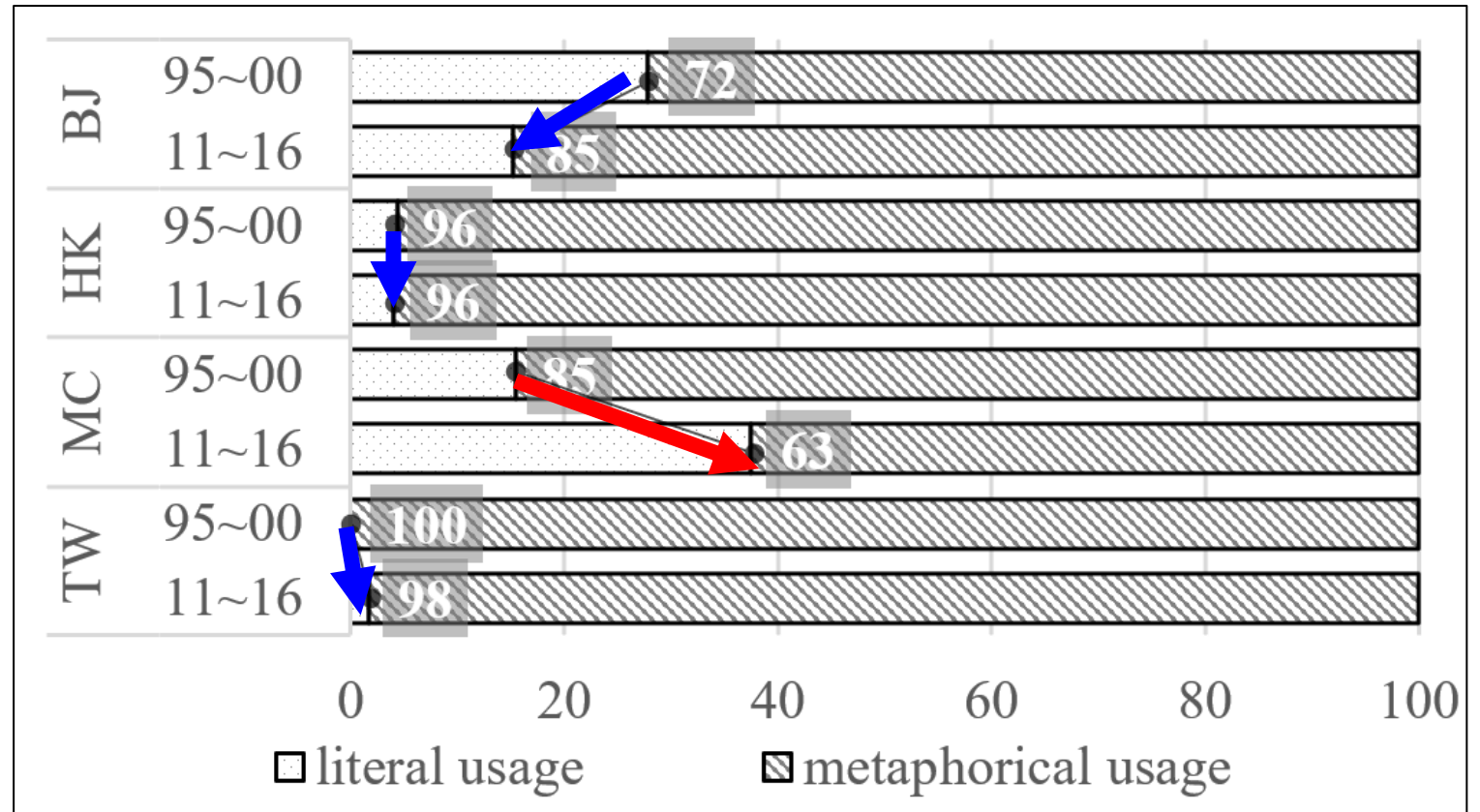
Gradual metaphorization: *dazhang* 打仗 "hit-conflict"

◦ Literal Meaning: **"to fight a war" (military)**

  ◦ *Budui xingjun **dazhang*** 部隊行軍打仗
    "The troops are transferred to fight in war." (1998)

◦ Metaphorical meaning: **"to compete"**

  ◦ *Gai-ju bei zhi nalai gen Gangshi kaitaiju duihan **dazhang*** 該劇被指拿來跟港視開台劇對撼打仗
    "This show was said to be taken to compete against HKTV's show." (2014)

  ◦ Domains: Politics (elections), entertainment …

Gradual metaphorization: *dazhang* 打仗 "hit-conflict" (cont.)

- Metaphorization is initiated in HK and TW
- Not yet started in BJ and MC

		literal usage	metaphorical usage
BJ	95~00		0
	11~16		0
HK	95~00		7
	11~16		22
MC	95~00		0
	11~16		0
TW	95~00		4
	11~16		18
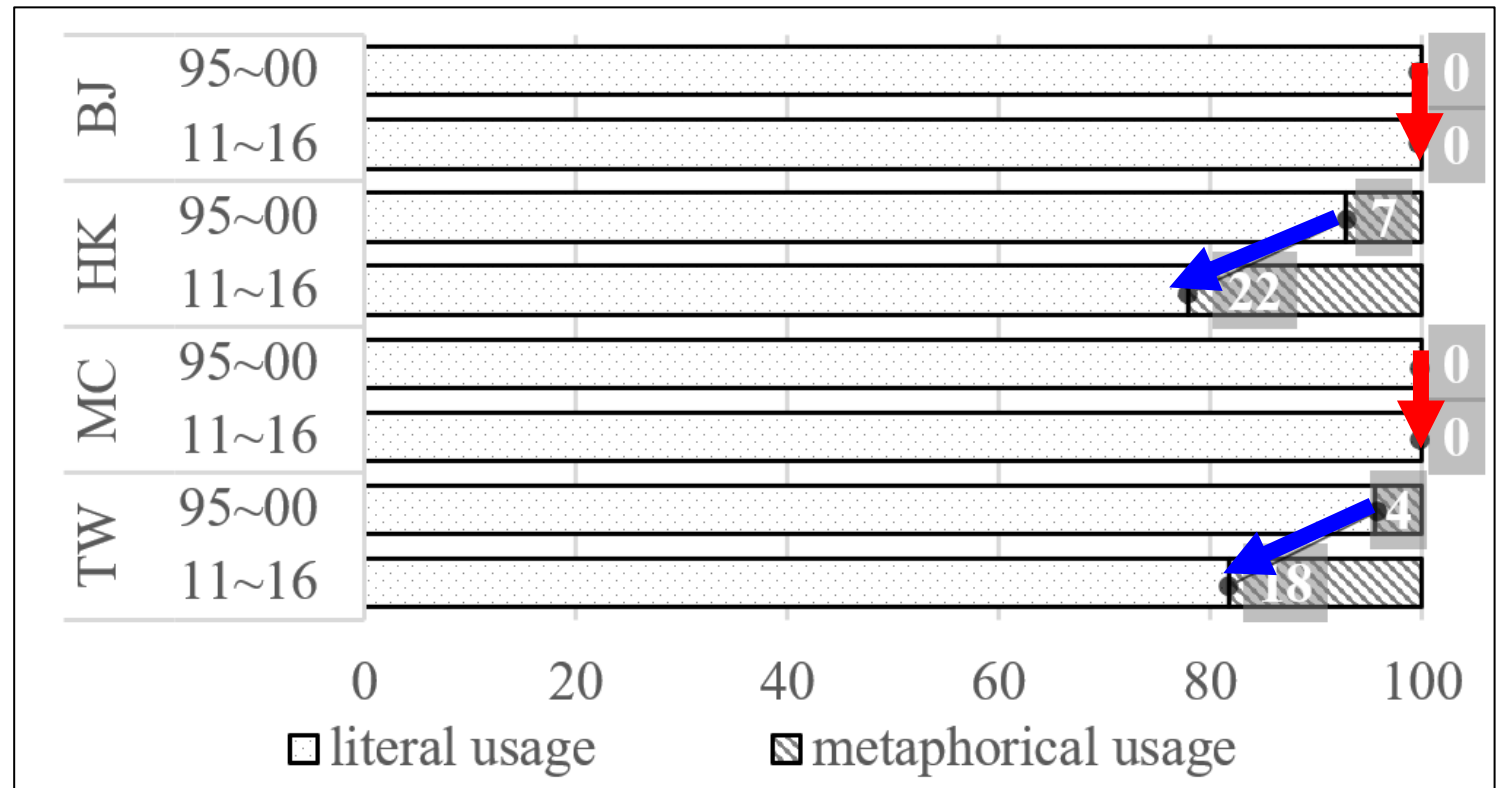
The role of metaphorical agency

literal vs. metaphorical: not a clear cut

◦ *Dazao* 打造 "(lit.) hit-forge"

◦ Literal: ***dazao*** *bingqi* 打造兵器 "forge a weapon"

◦ Metaphorical: ***dazao*** *guanghui weilai* 打造光輝未來 "create a bright future"

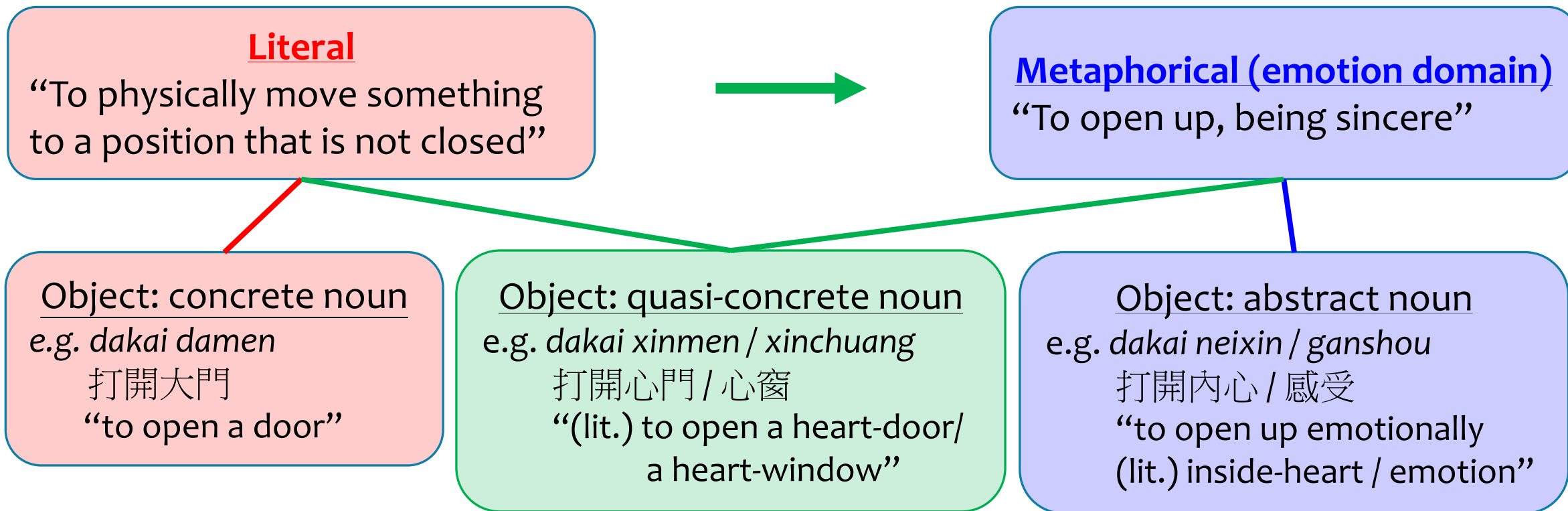◦ Literal or metaphorical?

◦ **dazao** qicheye de hangkongmujian 打造汽車業的航空母艦 "forge an aircraft carrier of the automotive business"

Metaphorical agency

- **dazao** qicheye de hangkongmujian 打造汽車業的航空母艦
  "forge an aircraft carrier of the automotive business"

- "an aircraft carrier": no actual ships, but the metaphorical surrogate for aggrandization of "automotive business"

- Quasi-concrete nouns

A schema of metaphorization in light verbs

◦ *dakai* 打開 "(lit.) hit-open"

Literal
"To physically move something to a position that is not closed"

➡

Metaphorical (emotion domain)
"To open up, being sincere"

Object: concrete noun
e.g. *dakai damen*
　打開大門
　"to open a door"

Object: quasi-concrete noun
e.g. *dakai xinmen / xinchuang*
　打開心門 / 心窗
　"(lit.) to open a heart-door/
　　a heart-window"

Object: abstract noun
e.g. *dakai neixin / ganshou*
　打開內心 / 感受
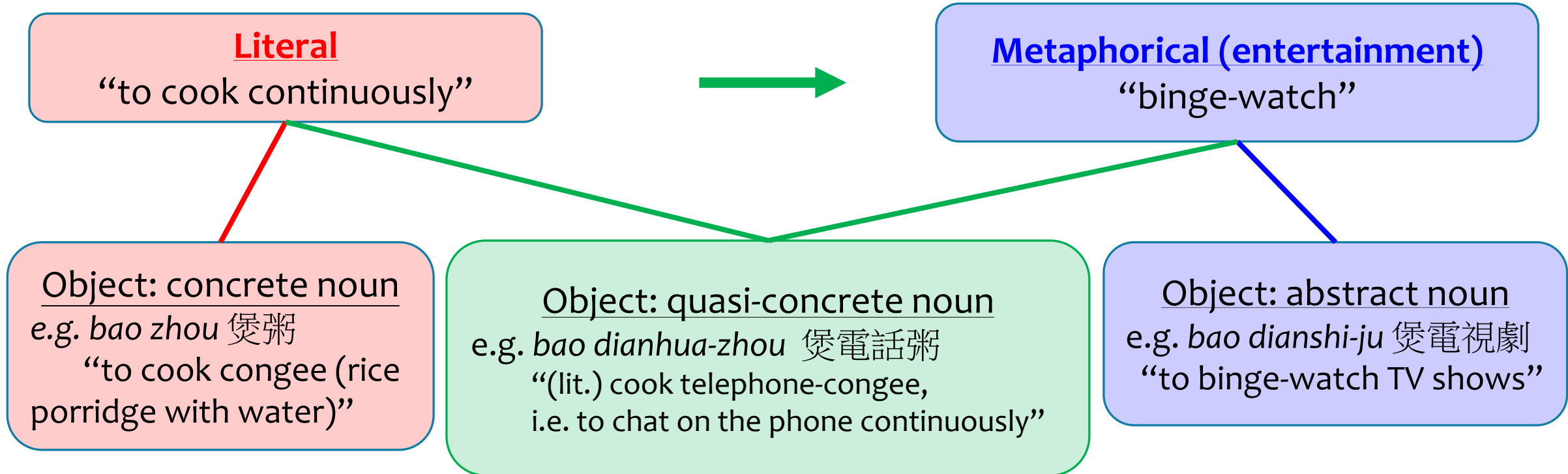　"to open up emotionally
　(lit.) inside-heart / emotion"

More examples

◦ *dakai huaxiazi* 打開話匣子 "(lit.) open speech-box"

◦ *dakai Zhongguo shichang zhi men* 打開中國市場之門 "(lit.) open the door of China market"

◦ *datong-le minjian jiaowang de gaosulu* 打通了民間交往的高速路 "(lit.) punch through the highway of connection within the civil society"

Beyond light verbs

◦ *bao* 煲 "to cook continuously"

Literal
"to cook continuously"

➡

Metaphorical (entertainment)
"binge-watch"

Object: concrete noun
e.g. bao zhou 煲粥
"to cook congee (rice porridge with water)"

Object: quasi-concrete noun
e.g. *bao dianhua-zhou* 煲電話粥
"(lit.) cook telephone-congee,
i.e. to chat on the phone continuously"

Object: abstract noun
e.g. *bao dianshi-ju* 煲電視劇
"to binge-watch TV shows"

Conclusions

Concluding remarks

◦ How metaphorization may interact with grammatical developments

◦ Two dimensions involving **gradation** of metaphorization:
  ◦ Time (incipient metaphorization/ metaphoric polysemy)
  ◦ **Metaphorical agency**

◦ Future research:
  ◦ Further quantify the preliminary results through statistic tests
  ◦ Explore the role of **metaphorical agency** in the **conventionalization** of metaphors (Bowdle & Gentner, 2005)

Thank you!

ANY COMMENTS ARE WELCOME!