



IDEOPHONES AND THE STANDARD HISTORIES

A CASE STUDY OF MENTAL SPACE MARKERS

Workshop on Mimetics II:
New Approaches to Old Questions

11-11-2017
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A SHORT SELF-INTRO

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From Belgium

Doing PhD in Linguistics at
National Taiwan University

Main research interests:

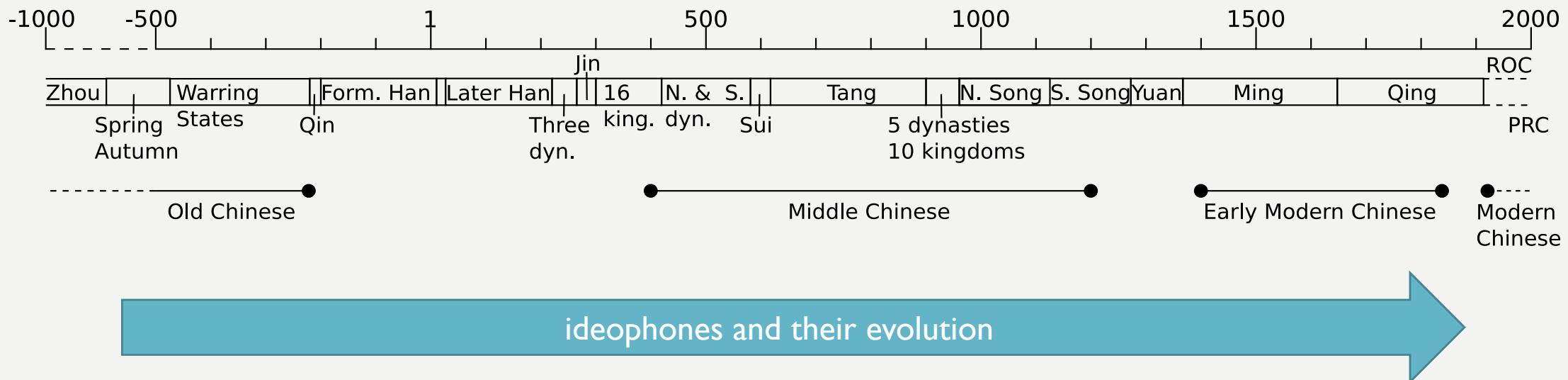
- Ideophones in (premodern) Chinese (and other languages)
- Working on the Bunun (Austronesian) part of a Formosan spoken corpus @ NTU



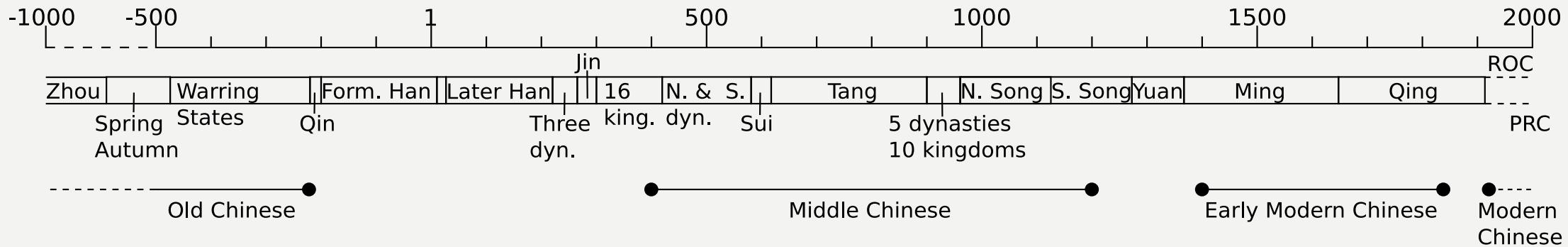
MAIN RESEARCH QUESTION

Main Research Question:

How did ideophones develop through the ages in Classical and Literary Chinese?



MY PREVIOUS STUDIES

*Shijing*

詩經

2016 (ISACG 9)

poetry

300 Tang Poems

唐詩三百首

2015 (MA thesis)

poetry

weather

2017 (IFG)

taxonomy

diachronic variation

2016 (CLDC8)

[2018 (CLR)]

GOALS AND OUTLINE

1. Material

Twenty-five histories: focus on the four “**Three Histories**”

2. Framework

Constructions of ideophones

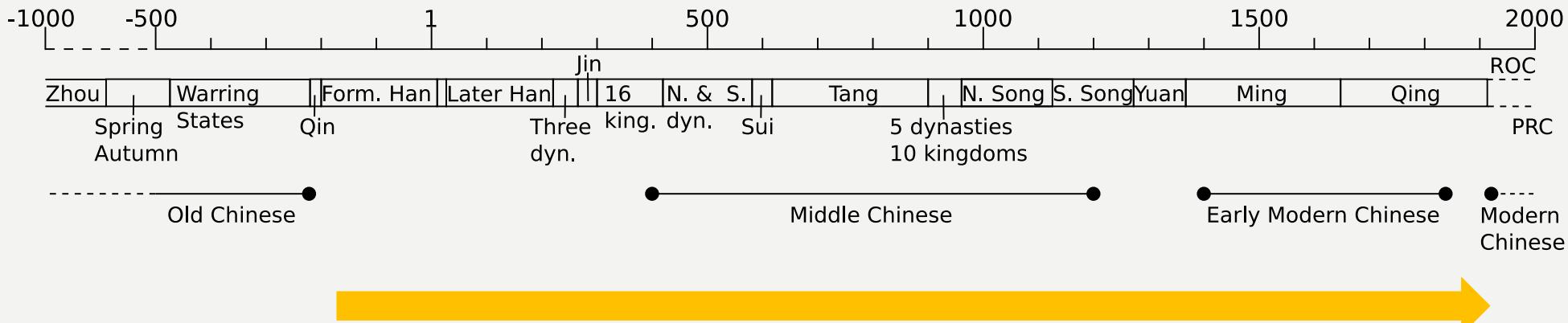
3. Methodology

Corpus-driven and **usage-based**

4. Case study

Emergent linguistic phenomena like
mental space markers

TWENTY-FIVE HISTORIES THE STANDARD HISTORIES



“twenty-four histories” + *Draft History of the Qing*
二十四史 清史稿

- reliable transmission
- reliable / well-known metadata
- prose
- diachronic usage

- model works
 - political and moral history
 - previous historical research
- (Wilkinson 2015:643)

OVERVIEW OF STANDARD HISTORIES

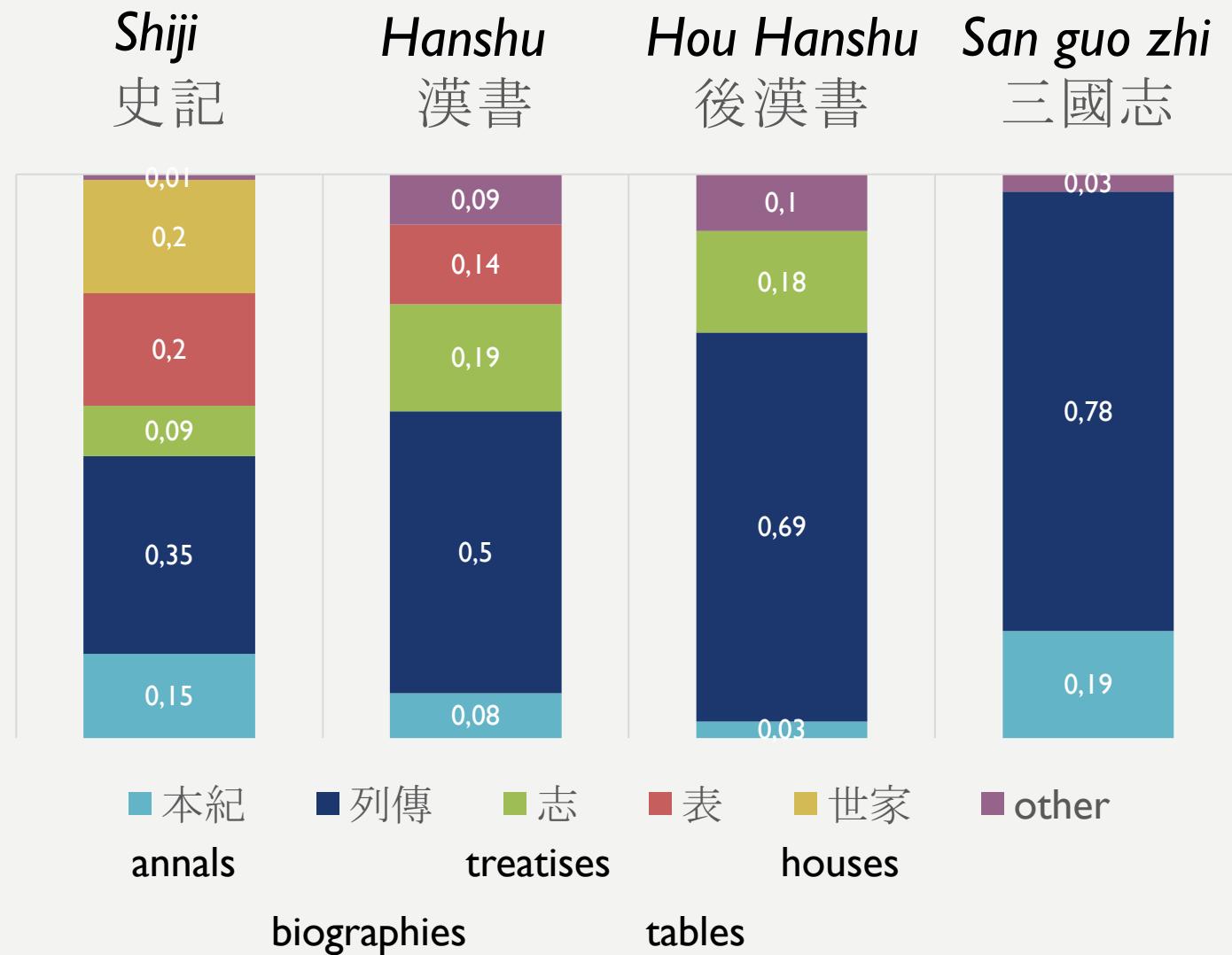
-87	史記	Records of the historian	659	南史	History of the Soutern Dynasties
96	[前]漢書	History of the Former Han	659	北史	History of the Northern Dynasties
297	三國志	Record of the Three Kingdoms	945	舊唐書	Old history of the Tang
445	後漢書	History of the Later Han	974	舊五代史	Old history of the Five Dynasties
488	宋書	Song History	1060	新唐書	New history of the Tang
537	南齊書	History of Southern Qi	1073	新五代史	New history of the Five Dynasties
572	魏書	History of the Wei	1344	遼史	History of the Liao
636	梁書	History of the Liang	1344	金史	History of the Jin
636	陳書	History of the Chen	1345	宋史	History of the Song
636	北齊書	History of the Northern Qi	1370	元史	History of the Yuan
636	周書	History of the Zhou	1739	明史	History of the Ming
636	隋書	History of the Sui	1928	清史稿	Draft history of the Qing
648	晉書	Jin History			

A TYPICAL STANDARD HISTORY

1. Basic annals *benji* 本紀 (alt. *ji* 紀 or *diji* 帝紀)
2. Biographies *liezhuan* 列傳
3. Treatises *shuzhi* 書志 (alt. *shu* 書 or *zhi* 志 or *kao* 考)
4. Chronological tables *biao* 表
5. Annals of non-legitimate regimes *zaiji* 載紀
6. Hereditary houses *shijia* 世家

THE SAN SHI 三史 CANON

- Originally:
 - ❖ Shiji 史記
 - ❖ Hanshu 漢書
 - ❖ Dongguan Hanji 東觀漢記
- From Tang dynasty onward
 - ❖ Shiji 史記
 - ❖ Hanshu 漢書
 - ❖ Hou hanshu 後漢書
 - +
❖ Sanguo zhi 三國志



THE SAN SHI 三史 CANON

Standard history

Shiji 史記

Hanshu 漢書

Hou Hanshu 後漢書

Sanguo zhi 三國志

Covered period

845-95 BC

206BC -24 AD

25-220

221-280

Finished date

87 BC

96

445

297

Author

Sima Qian 司馬遷

Ban Gu 班固

Fan Ye 范曄

Chen Shou 陳壽

Life

145-86 BC

32-92

398-445

233-297

Linguistic style

Historical details

Suitable as material

Evolution from 1st cent BC until 5th cent AD

FRAMEWORK AND THEORETICAL BACKGROUND: CONSTRUCTIONS

A few different flavours of construction grammars (Hoffmann & Trousdale 2013),
e.g.

- ❖ Fillmore's Berkeley Construction Grammar (1988 etc.)
- ❖ Goldberg's Construction Grammar (1995; 2006)
- ❖ Croft's **Radical Construction Grammar** (2001)
- ❖ Langacker's **Cognitive Grammar** (1987; 1991a; 1991b; 2000; 2008)



Broadly mutually compatible (Croft 2001),
yet still with their own differences (Langacker 2005).

ADVANTAGE OF THESE FRAMEWORKS: COGNITIVE-FUNCTIONALIST

This idea of ‘constructions’ ties in with both **FORM** and **MEANING** and the **SYMBOLIC** link between these two (Langacker 1987)

A recent definition:

“ideophones = marked words that depict sensory images” (Dingemanse 2011; 2012)

FORM

MEANING

Older definition:

“A vivid representation of an idea in sound. A word, often onomatopoetic, which describes a predicate, qualificative or adverb in respect to manner, colour, sound, smell, action, state or intensity.” (Doke 1935)

ADVANTAGE OF THESE FRAMEWORKS: MORPHOLOGY

Identify

- Usage-based constructions
- From the bottom-up
- ...

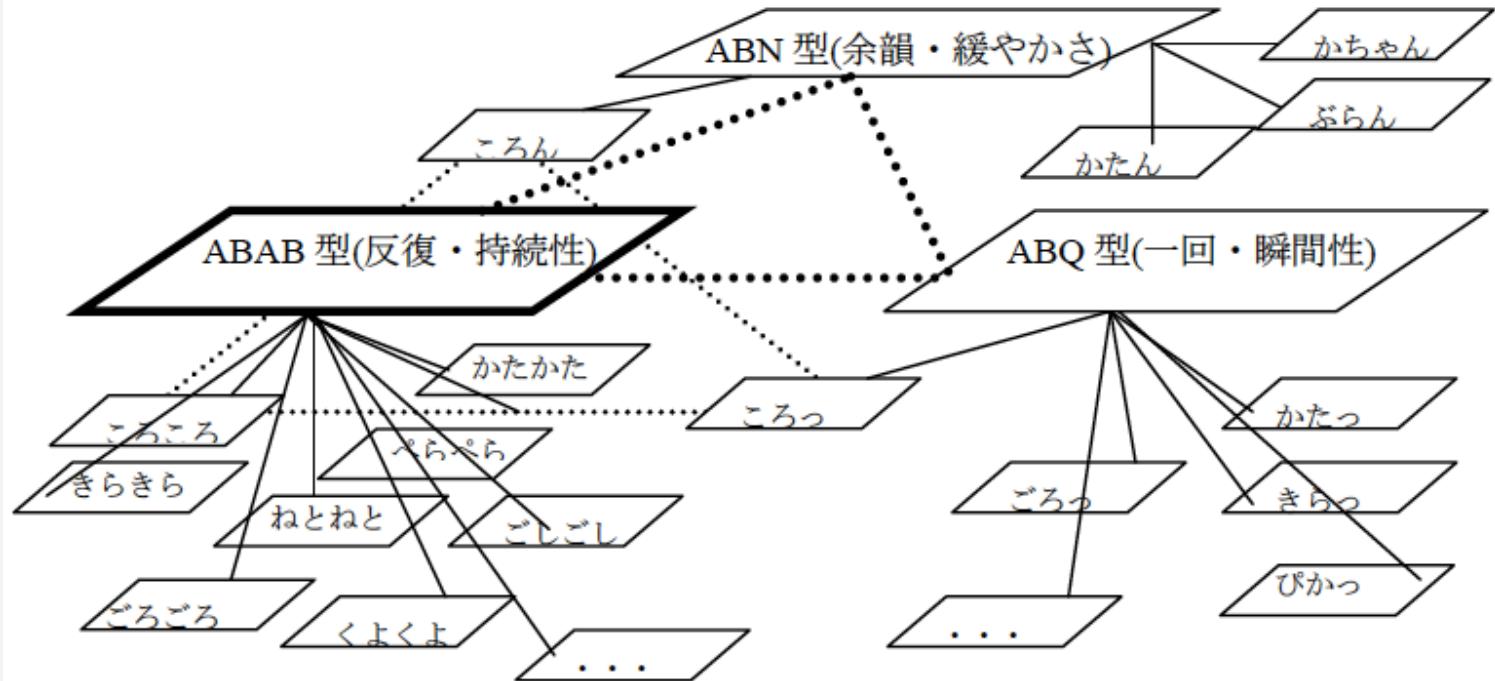


図 4.5 擬音語・擬態語のパターン・ネットワーク (立体図)

直線：事例化リンク

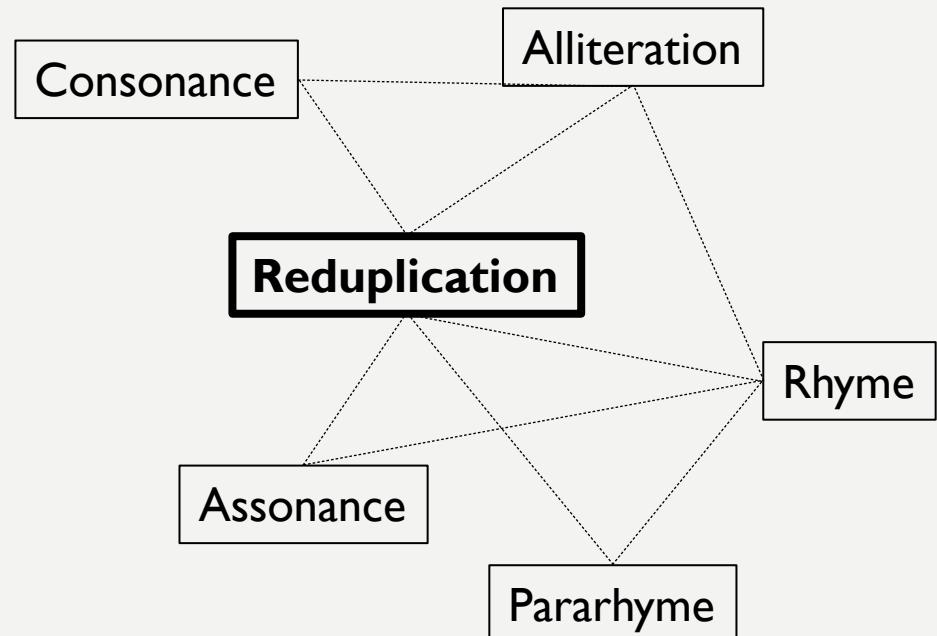
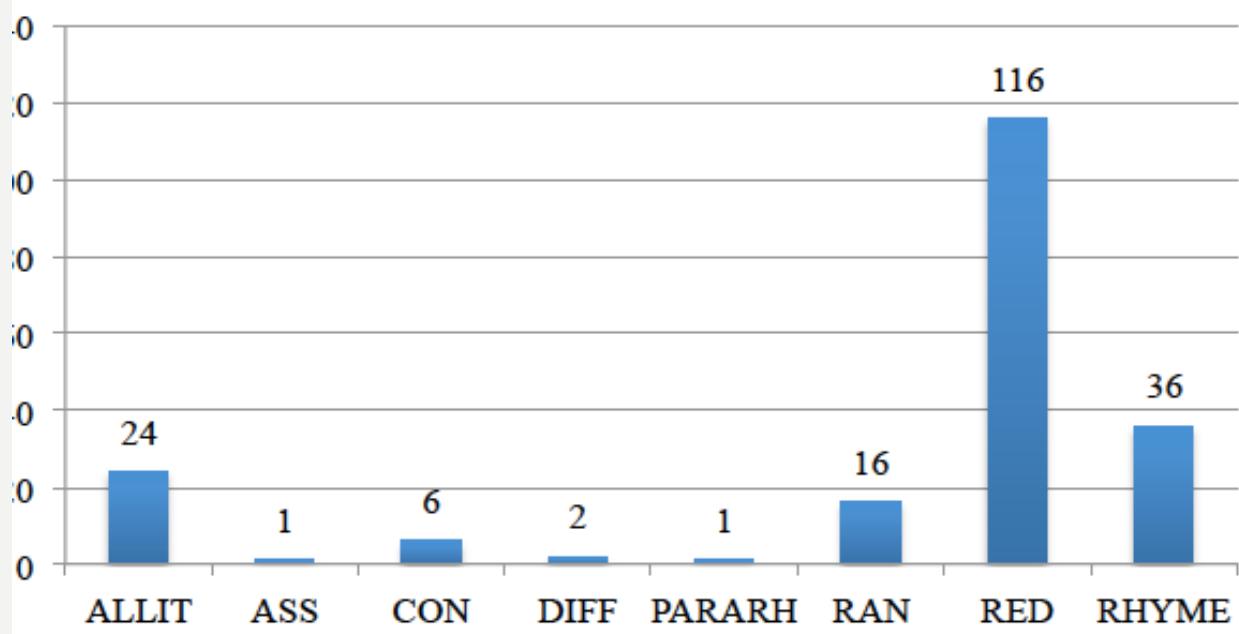
点線：パターン同士のリンク

Lu Chiarung 呂佳蓉 (2006:97)
on Japanese onomatopoeia

ADVANTAGE OF THESE FRAMEWORKS: MORPHOLOGY

Similar distributions effects are observed for ideophones in Tang poetry (Van Hoey 2015)

Distribution of formation



ADVANTAGE OF THESE FRAMEWORKS: USAGE CONTEXTS

Constructions identified in 300 *Tang poems* 唐詩三百首 (Van Hoey 2015:76-80)

I.	PREDICATE construction	119	=	59%	higher-level abstracted constructions
2.	ADVERBIAL construction	34	=	17%	
3.	ATTRIBUTIVE construction	30	=	15%	
4.	NOMINALISATION construction	6	=	3%	
5.	BACKGROUND construction	7	=	3%	
6.	UTTERANCE construction	6	=	3%	

But what about **non-poetry**? → see material: 4 of the 25 histories

And what about the lower level patterns, which are presumed to be more entrenched? (Tuggy 2003)

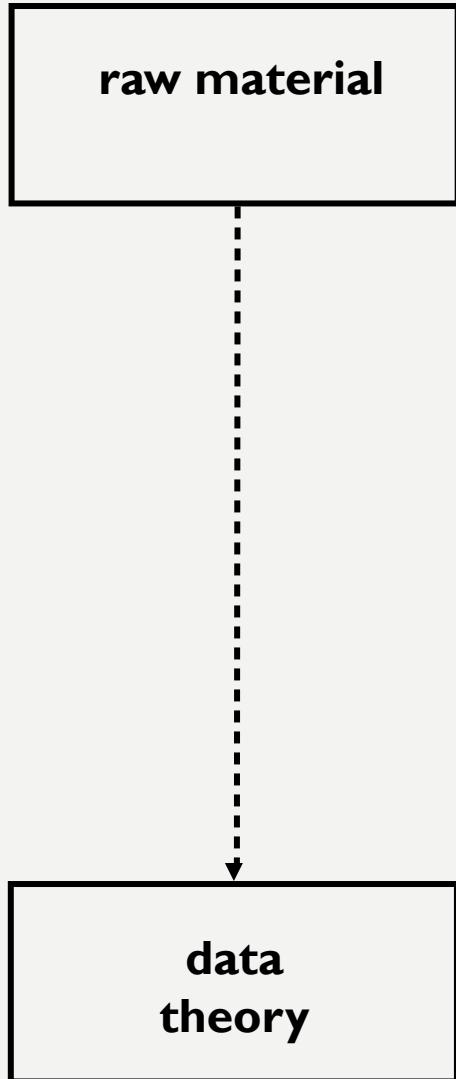
METHODOLOGY: CORPUS LINGUISTICS

Evidence for ideophone analysis	<u>OC & MC</u>	<u>comment</u>
1. Intuition (as a native speaker)	✗	not a native speaker
2. Experiments	✗	no native speakers left
3. Elicitation (narratives etc.)	✗	no native speakers left
4. Dictionaries	○	historical dictionaries (Geeraerts 2006)
5. Corpus-based	○	good if you already know what you want to look for
6. Corpus-driven	○	emergent phenomena

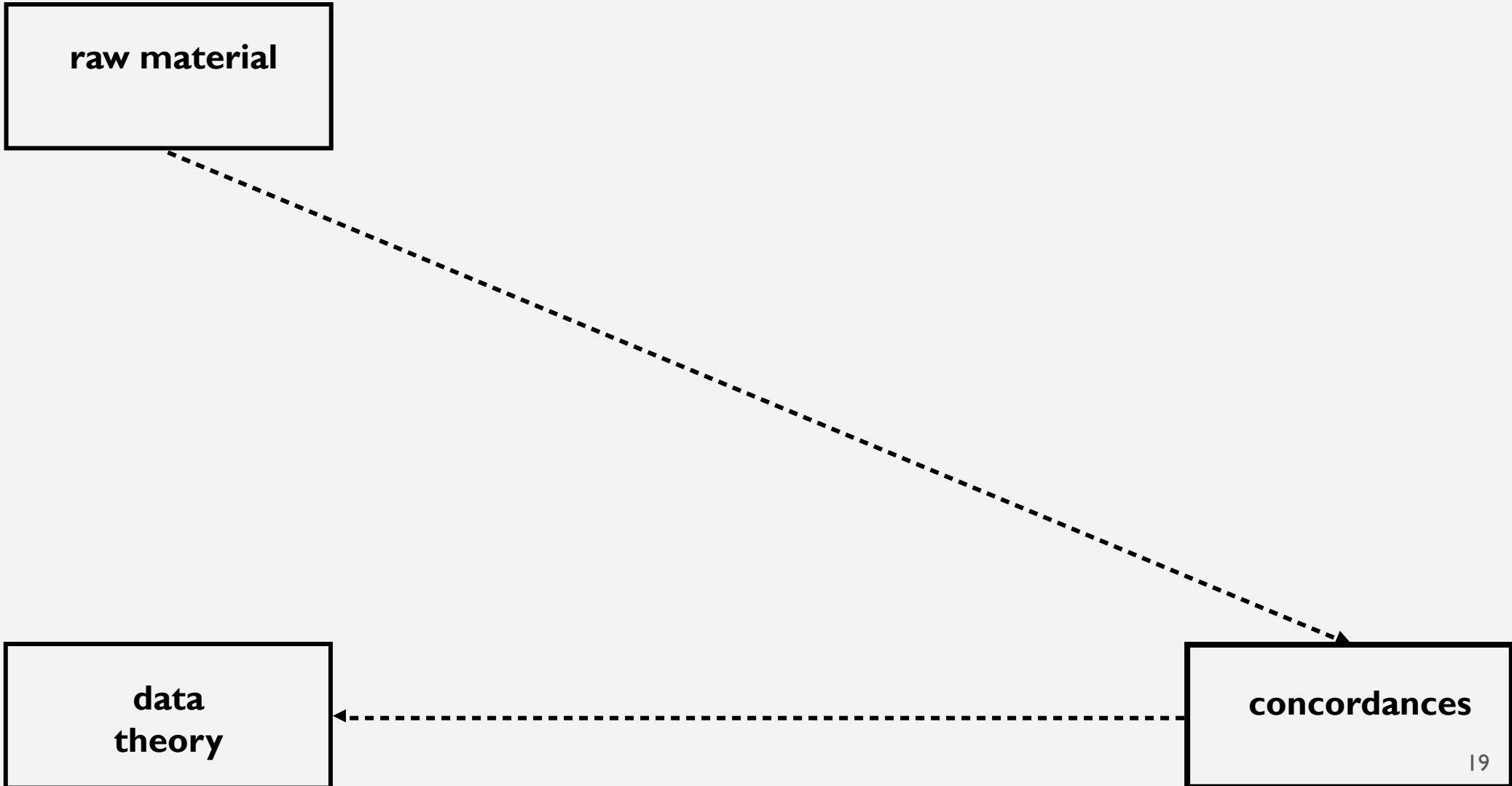
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FROM RAW MATERIAL TO DATA



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FROM RAW MATERIAL TO DATA

- Unfortunately raw data does not come in the format you want, you need to mold it into data that you can analyze and over which you can theorize
- In the process, I used different technologies. Reasons for this include:
 - Full control over every stage of the data processing
 - Establishing a processual methodology for bigger sets of data
 - Discovering the potential of different technologies
- From raw data to data fit for theorizing in eight steps



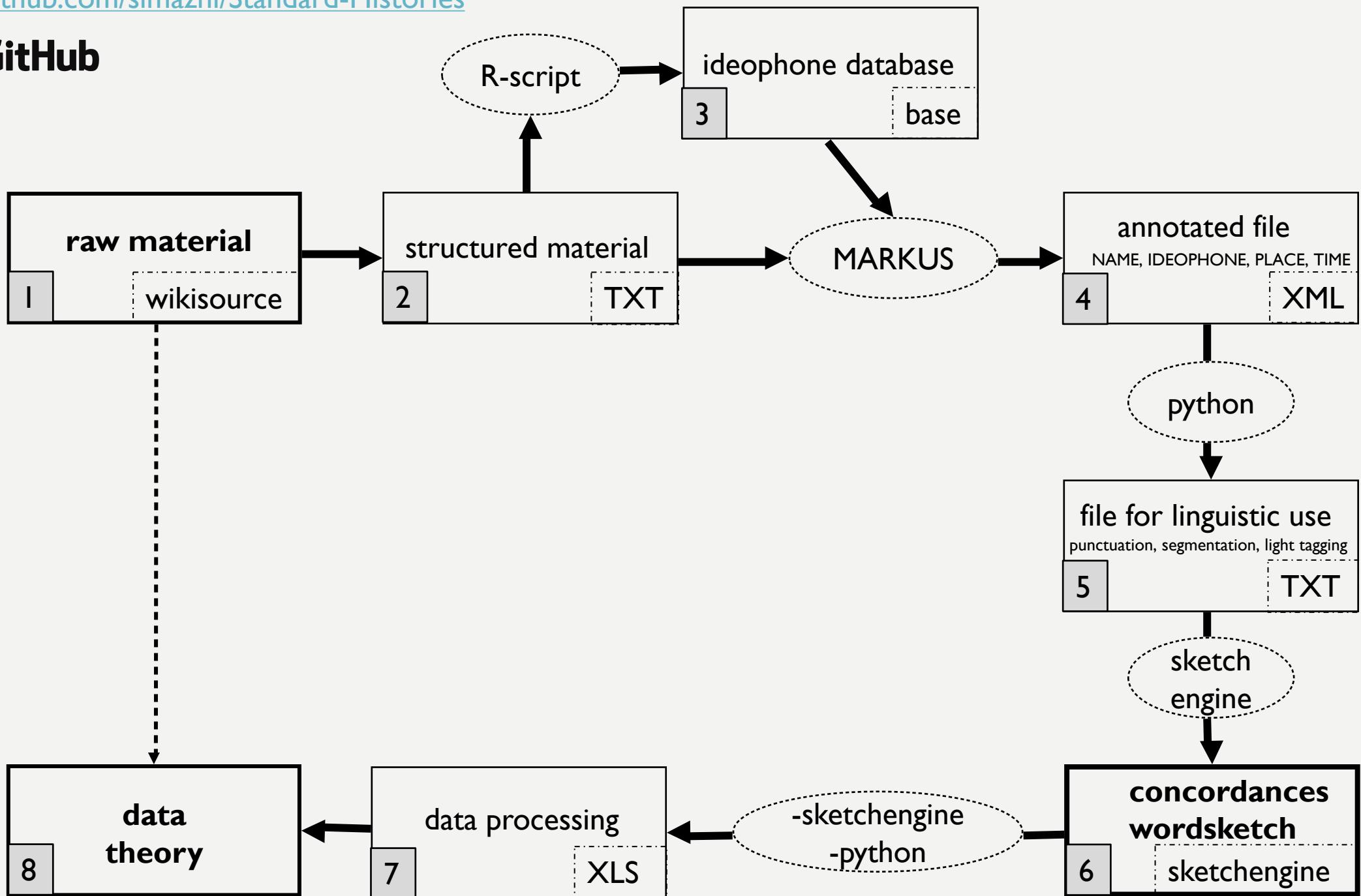
intro

material

frame
work

method

case
study



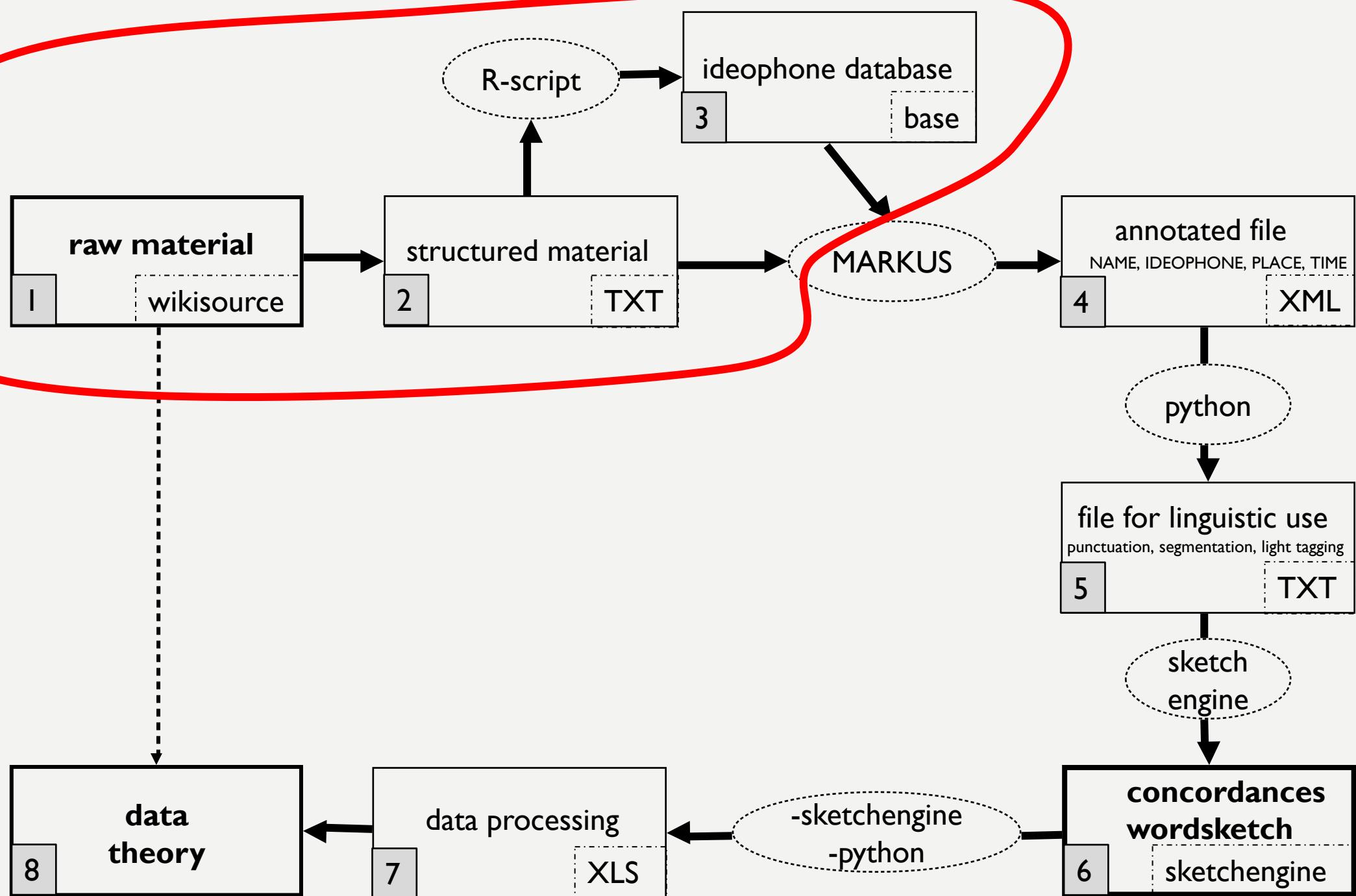
intro

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STEP 1: RAW MATERIAL

Wikisource.org

- + easy access
- + verifiable
- + structured
- differences in character sets
(trad. vs.simp.)
- inconsistent inclusion of commentary
- mark-up that needs to be stripped
- some characters are missing

<https://zh.wikisource.org/wiki/後漢書>

Alternatives

- Retype everything myself
- Repositories like Kanseki
 - No punctuation
 - More a reflection of (cultural) printing conventions than of linguistic materials (?)
 - Maybe in the future (?)
- Available corpora like Academia Sinica, Beijing
 - Sometimes different tag-schemas (doesn't capture all my ideophones)
 - Not all texts that I want included

STEP 1: RAW MATERIAL

《後漢書》

Wikisource.org

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<https://zh.wikisource.org/wiki/後漢書>

紀 [编辑]

- 卷一上 光武帝紀 第一上
- 卷一下 光武帝紀 第一下
- 卷二 顯宗孝明帝紀 第二
- 卷三 肅宗孝章帝紀 第三
- 卷四 孝和孝殤帝紀 第四
- 卷五 孝安帝紀 第五
- 卷六 孝順孝沖孝質帝紀 第六
- 卷七 孝桓帝紀 第七
- 卷八 孝靈帝紀 第八
- 卷九 孝獻帝紀 第九
- 卷十上 皇后紀 第十上
- 卷十下 皇后紀 第十下

STEP 2: STRUCTURED MATERIAL

Wikisource: 《後漢書》

後漢書/卷1上

維基文庫，自由的圖書館
< 後漢書

後漢書	卷一上·光武帝紀第一上	卷一下·光武帝紀第一下 →
	范曄、司馬彪等	

世祖光武皇帝諱秀，字文叔，禮「祖有功而宗有德」，光武中興，故廟稱世祖。謚法：「能紹前業曰光，克定禍亂曰武。」伏侯《古今注》曰：「秀之字曰茂。伯、仲、叔、季，兄弟之次。長兄伯升，次仲，故字文叔焉。」南陽蔡陽人，南陽，郡，今鄧州縣也。蔡陽，縣，故城在今隨州棗陽縣西南。高祖九世之孫也，出自景帝生長沙定王發。長沙，郡，今潭州縣也。發生春陵節侯買，春陵，鄉名，本屬零陵冷道縣，在今永州唐興縣北，元帝時徙南陽，仍號春陵，故城今在隨州棗陽縣東。事具宗室四王傳。買生鬱林太守外，鬱林，郡，今郴州縣。《前書》曰：「郡守，秦官。秩二千石。景帝更名太守。」外生鉅鹿都尉回，鉅鹿，郡，今邢州縣也。《前書》曰：「都尉，本郡尉，秦官也。掌佐守，典武職，秩比二千石。景帝更名都尉。」回生南頓令欽，南頓，縣，屬汝南郡，故城在今陳州項城縣西。《前書》曰：「令、長，皆秦官也。萬戶以上為令，秩千石至六百石；不滿萬戶為長，秩五百石至三百石。」欽生光武。光武年九歲而孤，養於叔父良。身長七尺三寸，美須眉，大口，隆準，日角。隆，高也。許負云：「鼻頭為準。」鄭玄尚書中候注云：「日角謂庭中骨起，狀如日。」性勤於稼穡，種曰稼，斂曰穡。而兄伯升好俠養士，常非笑光武事田業，比之高祖兄仲。仲，郃陽侯喜也，能為產業。見《前書》。王莽天鳳中，王莽建國六年改為天鳳。乃之長安，受尚書，略通大義。《東觀記》曰：「受尚書於中大夫廬江許子威。資用乏，與同舍生韓子合錢買驢，令從者僦，以給諸公費。」

莽末，天下連歲災蝗，寇盜鋒起。言賊鋒競起。字或作「蜂」，論多也。地皇三年，天鳳六年改為地皇。南陽荒饑，《韓詩外傳》曰：「一穀不升曰歉，二穀不升曰饉，三穀不升曰饉，四穀不升曰荒，五穀不升曰大侵。」諸家賓客多為小盜。光武避吏新野，新野屬南陽郡，今鄧州縣。《續漢書》曰：「伯升賓客劫人，上避吏於新野鄧晨家。」因賣穀於宛。《東觀記》曰：「時南陽旱饑，而上田獨收。」宛，縣，屬南陽郡，故城今鄧州南陽縣也。宛人李通等以圖識說光武云：「劉氏復起，李氏為輔。」圖，河圖也。識，符命之書。識，驗也。言為王者受命之徵驗也。《易坤靈圖》曰：「漢之臣李陽也。」光武初不敢當，然獨念兄伯升素結輕客，必舉大事，且王莽敗亡已兆，天下方亂，遂與定謀，於是乃市兵弩。十月，與李通從弟軼等起於宛，時年二十八。

Structured text 《後漢書 紀》

```
1 #Name: 後漢書 Hou Han Shu
2 #Subpart: Annals 記
3 #Metadata:
4 ##Writer: (南朝劉宋) 范曄
5 ##Commentary: (唐) 章懷太子 李賢
6 ##Address: https://zh.wikisource.org/wiki/%E5%BE%8C%E6%BC%A2%E6%9B%BB
7 ##Date: 20170425
8 ##Collector: TVH
9
10
11 #Div:記
12 ##卷一上
13 ##光武帝紀
14
15 世祖光武皇帝諱秀，字文叔，禮「祖有功而宗有德」，光武中興，故廟稱世祖。謚法：「能紹前業曰光，克定禍亂曰武。」伏侯《古今注》曰：「秀之字曰茂。伯、仲、叔、季，兄弟之次。長兄伯升，次仲，故字文叔焉。」南陽蔡陽人，南陽，郡，今鄧州縣也。蔡陽，縣，故城在今隨州棗陽縣西南。高祖九世之孫也，出自景帝生長沙定王發。長沙，郡，今潭州縣也。發生春陵節侯買，春陵，鄉名，本屬零陵冷道縣，在今永州唐興縣北，元帝時徙南陽，仍號春陵，故城今在隨州棗陽縣東。事具宗室四王傳。買生鬱林太守外，鬱林，郡，今郴州縣。《前書》曰：「郡守，秦官。秩二千石。景帝更名太守。」外生鉅鹿都尉回，鉅鹿，郡，今邢州縣也。《前書》曰：「都尉，本郡尉，秦官也。掌佐守，典武職，秩比二千石。景帝更名都尉。」回生南頓令欽，南頓，縣，屬汝南郡，故城在今陳州項城縣西。《前書》曰：「令、長，皆秦官也。萬戶以上為令，秩千石至六百石；不滿萬戶為長，秩五百石至三百石。」欽生光武。光武年九歲而孤，養於叔父良。身長七尺三寸，美須眉，大口，隆準，日角。隆，高也。許負云：「鼻頭為準。」鄭玄尚書中候注云：「日角謂庭中骨起，狀如日。」性勤於稼穡，種曰稼，斂曰穡。而兄伯升好俠養士，常非笑光武事田業，比之高祖兄仲。仲，郃陽侯喜也，能為產業。見《前書》。王莽天鳳中，王莽建國六年改為天鳳。乃之長安，受尚書，略通大義。《東觀記》曰：「受尚書於中大夫廬江許子威。資用乏，與同舍生韓子合錢買驢，令從者僦，以給諸公費。」
```

STEP 3: R-SCRIPT AND DATABASE

Usage-based

From my **database** (Libreoffice Base v. 5.3.2.2) I select all ideophones encountered so far, both in simplified and traditional, and put them in a ‘**masterlist.txt**’ file.

Using an R-script to help me identify ideophones of the **AA-type (full reduplication)**,
e.g. zhengzheng 丁丁 (not *dingding!*)

This I then look up, and add to my database if it wasn’t there yet. This way the database can grow throughout my research.

Current statistics of the database: **784 types**

STEP 3: R-SCRIPT AND DATABASE

Ideophone Edit form

ideophoneID 14	traditional 丁丁	Form Letter AA
pinyin zheng-zheng	simplified 丁丁	Formal mechanism reduplication
pinyintone zhēng-zhēng	Ricci	
MC tsreng-tsreng	Zdic 狀聲詞：(1) 形容伐木的聲音。詩經·小雅·伐木：「伐木丁丁，鳥鳴嚶嚶。」(2) 形容下雨的聲音。唐·元稹·景申秋詩八首之三：「啞溫簷雷凝，丁丁窗雨繁。」(3) 形容樂器彈奏的聲音。唐·許渾·聽琵琶詩：「欲寫明妃萬里情，紫槽紅撥夜丁丁。」(4) 形容下棋的聲音。宋·王禹偁·荊州新津小	
OC *t̪eŋ ~ *t̪eŋ	note	
same_as_ID	Kroll rdup., onom. of axe-blows to tree, "jhung-jhung"	
First Record Previous Record Next Record Last Record		

STEP 3: R-SCRIPT AND DATABASE

Ideophone Edit form

IDEOPHONE

ideophoneID 14	traditional 丁丁	Forms
pinyin zheng-zheng	simplified 丁丁	LEXICOGRAPHIC MEANINGS
pinyintone zhēng-zhēng		
MC tsreng-tsreng		
OC *tʃəŋ ~ *tʃəŋ		
same_as_ID		

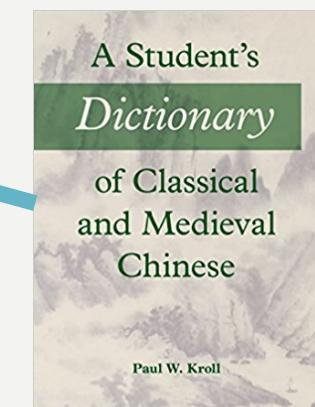
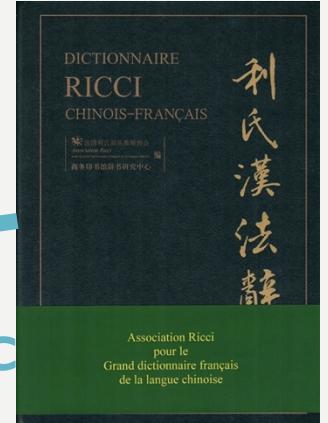
Ricci

Zdic

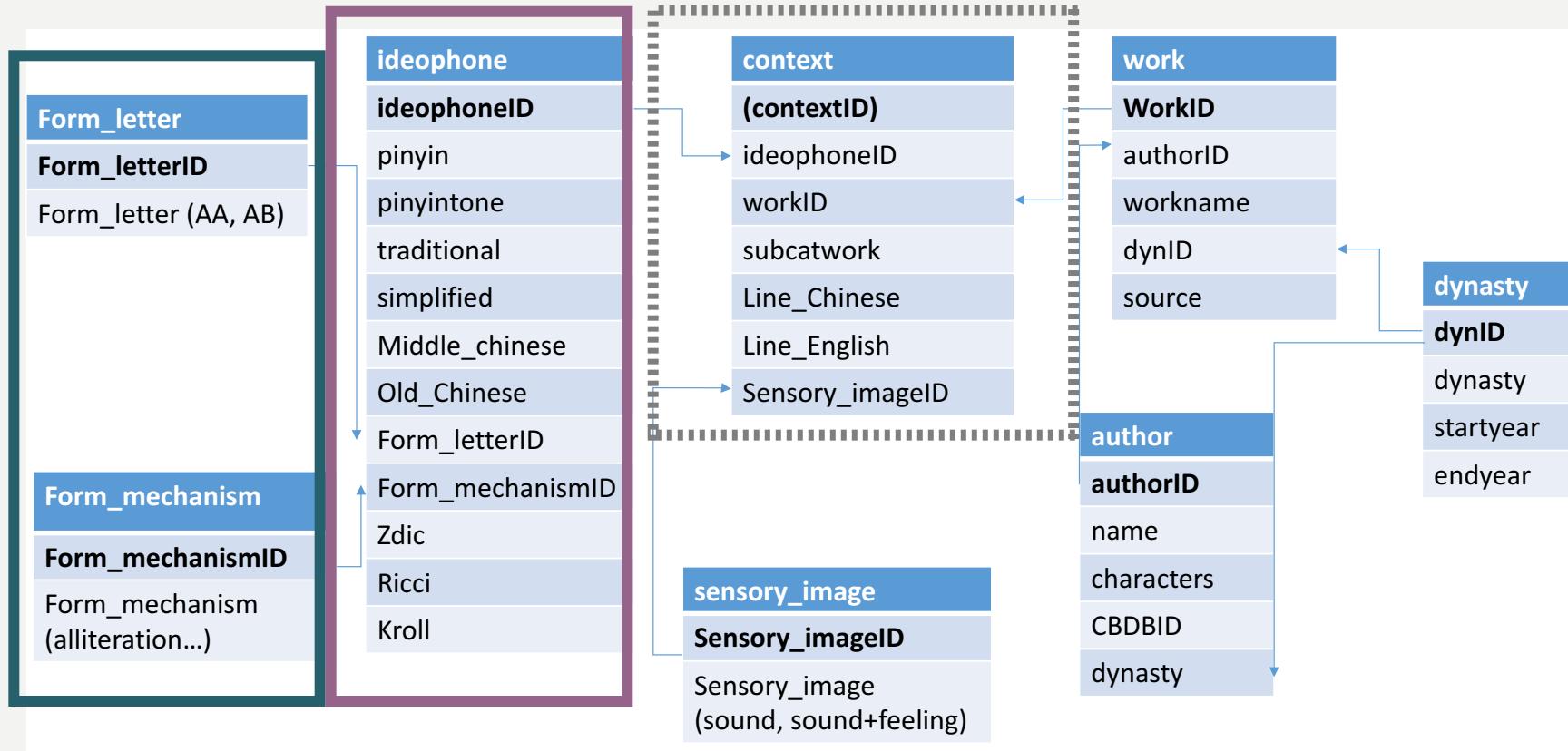
Kroll

note

First Record Previous Record Next Record Last Record



STEP 3: R-SCRIPT AND DATABASE



relational database molded after the Chinese Biographical Data Base (CBDB)

- easier to avoid errors when copying
- structural queries
- ever-growing collection of ideophones encountered

STEP 3: R-SCRIPT AND DATABASE

Ideophone Edit form

ideophoneID

14

pinyin

zheng-zheng

pinyinintone

zhēng-zhēng

MC

tsreng-tsreng

OC

*tʂəŋ ~ *tʂəŋ

traditional

丁丁

simplified

丁丁

Form Letter

AA

Formal mechanism

reduplication

Ricci

狀聲詞：(1) 形容伐木的聲音。詩經·小雅·伐木：「伐木丁丁，鳥鳴嚶嚶。」(2) 形容下雨的聲音。唐·元稹·景申秋詩八首之三：「啞溫簷雷凝，丁丁窗雨繁。」(3) 形容樂器彈奏的聲音。唐·許渾·聽琵琶詩：「欲寫明妃萬里情，紫槽紅撥夜丁丁。」(4) 形容下棋的聲音。宋·王禹偁·荊州新津小

note

same_as_ID

Zdic

rdup., onom. of axe-blows to tree, "jhung-jhung"

Kroll

First
RecordPrevious
RecordNext
RecordLast
Record

Currently: 784 types

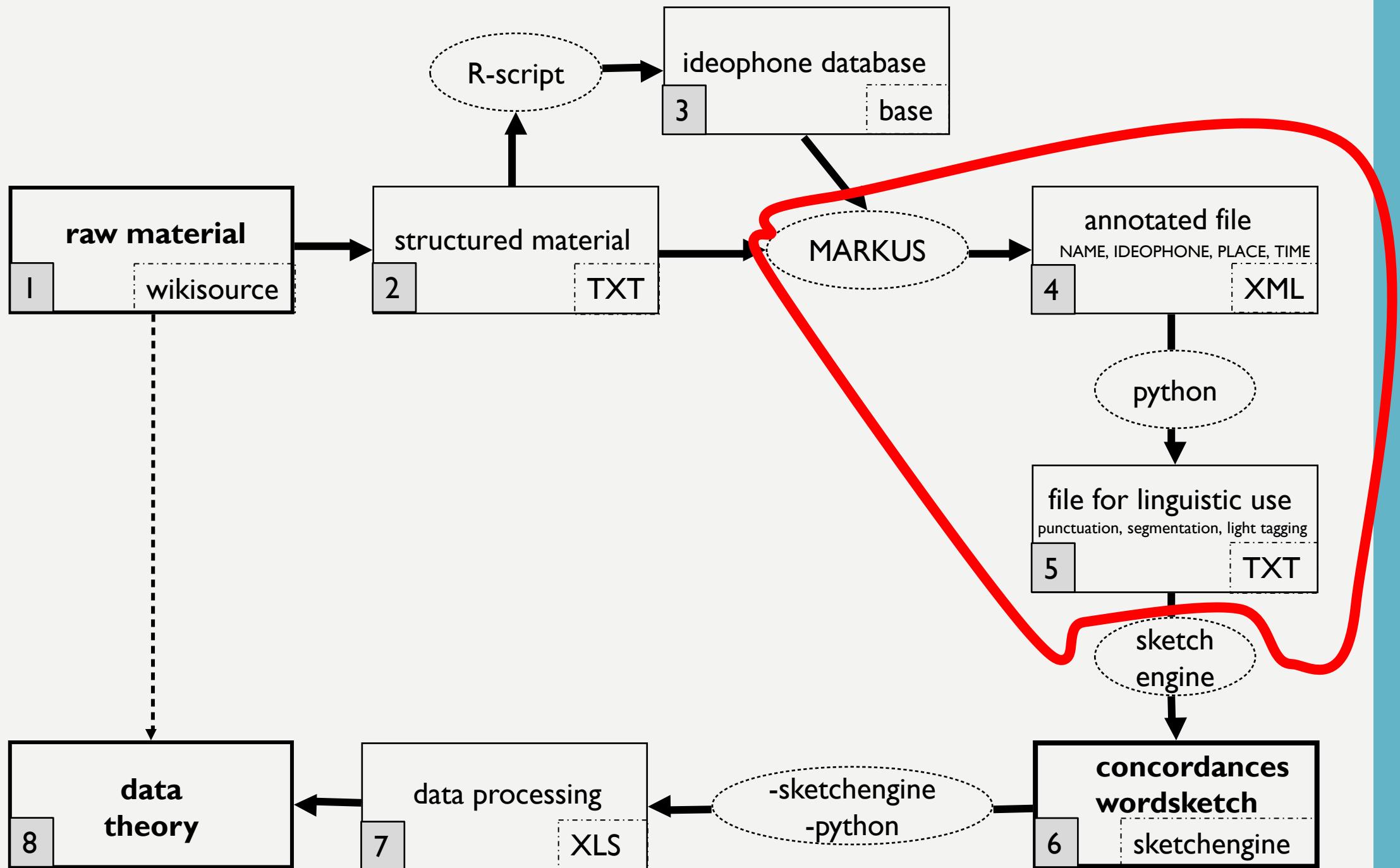
intro

material

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STEP 4: MARKUS ANNOTATED FILE

If meaning in language is encyclopedic, it is very important to know about real world references:

- esp. in historiography and
- esp. in Premodern Chinese, where most markers are dropped consistently or are optional in the best circumstances.

MARKUS

With MARKUS you can upload a file in classical Chinese (and perhaps in the future other languages) and tag personal names, place names, temporal references, and bureaucratic offices automatically. You can also upload your own list of key terms for automated tagging. You can then read a document while checking a range of reference works at the same time, or compare passages in which the same names or keywords appear. Or, you can extract the information you have tagged and use it for further analysis in our visualization platform and other tools.

Names = proper nouns = profiles **THING** (cf. Langacker 2008:316-318)

Places and Temporal references also have special semantic import: their basic domains are the **SPATIAL** and the **TEMPORAL**.

And of course the **MIMETICS/IDEOPHONES** we are interested in

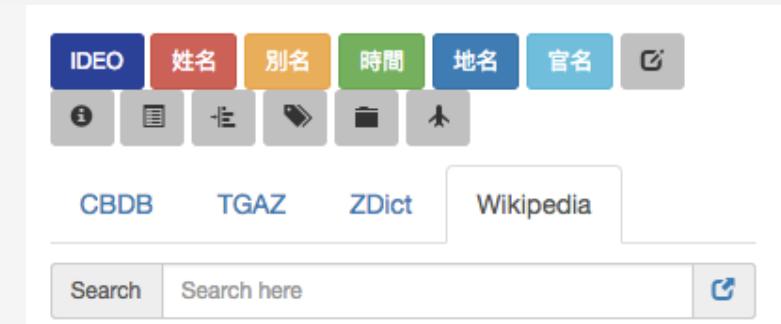
STEP 4: MARKUS ANNOTATED FILE (ONLINE)

Passage393

贊曰：炎正中微，大盜移國。〈漢以火德王，故曰炎正。大盜謂王莽篡位也。莊子曰：「田成子一日殺齊君而盜其國，向所謂智者，不反為大盜積者乎？」〉九縣飄回，三精霧塞。〈九縣，九州也。飄回謂亂也。三精，日月星也。霧塞言昏昧也。精，或為「象」。〉人厭淫詐，神思反德。光武誕命，靈貺自甄。〈誕，大也。書曰：「誕膺天命。」甄，明也。靈貺謂佳氣神光之類也。〉沈幾先物，深略緯文。〈幾者，動之微也。物，事也。沈深之幾，先見於事也。謚法：「經緯天地曰文。」〉尋、邑百萬，貔虎為羣。〈貔，執夷，虎屬也。書曰：「如虎如貔。」言甚猛勇也。〉長轂雷野，高鋒彗雲。〈長轂，兵車。雷野，言其聲盛。淮南子曰：「雷以為車輿。」彗，埽也，音詳銳反。〉英威既振，新都自焚。

（王莽初封為新都侯。史記曰，周武王伐紂，紂衣其實玉自焚而死。莽雖被殺，滅亡與紂同，故假以言之。）虔劉庸、代，紛紜梁、趙。〈虔、劉，皆殺也。左傳曰：「虔劉我邊垂。」謂公孫述稱帝於庸、蜀，盧芳據代郡也。紛紜，諭亂也。梁謂劉永，趙謂王郎也。）三河未澄，四關重擾。〈三河，河南、河北、河東也。未澄謂朱鮪等據洛陽，未歸光武也。四關謂長安四塞之國。重擾謂更始已定關中，劉盆子入關殺更始，發掘諸陵也。神旌乃顧，遞行天討。周禮曰：「析羽為旌。」稱神者，猶言神兵神算也。詩云「乃眷西顧」，書云「天討有罪」也。〉金湯失險，車書共道。〈前書曰：「金城湯池，不可攻矣。」金以諭堅，湯取其熱。光武所擊，皆失其險固也。禮記曰：「天下車同軌，書同文。」〉靈慶既啟，人謀咸贊。〈靈慶謂符讖也。左傳曰：「天啟之也。」人謀謂羣下勸即尊號也。易曰：「人謀鬼謀，百姓與能。」贊，助也。〉明明廟謨，赳赳雄斷。〈詩曰「明明天子」。淮南子曰：「運籌於廟堂之上，決勝千里之外。」赳赳，武貌也。〉於赫有命，系隆我漢。〈於赫，歎美之詞，音鳥。詩云：「有命既集。」系猶繫也。）

commentaries



MARKUS is designed for close reading i.e., it looks quite appealing in the screen.

STEP 4: MARKUS ANNOTATED FILE (IN XML)

<p xml:id="passage393">贊曰：炎正中微，大盜移國。〈漢以火<roleName n="officialTitle">德王</roleName>，故曰炎正。大盜謂<name type="person" n="fullName" key="339519" ref="http://cbdb.fas.harvard.edu/cbdbapi/person.php?id=339519">王莽</name>篡位也。莊子曰：「田成子<date n="timePeriod">一日</date>殺齊君而盜其國，向所謂智者，不反為大盜積者乎？」九縣飄回，三精霧塞。〈九縣，九州也。飄回謂亂也。三精，日月星也。霧塞言昏昧也。精，或為「象」。〉人厭淫詐，神思反德。<date n="timePeriod">光武</date>誕命，靈貺自甄。〈誕，大也。書曰：「誕膺<date n="timePeriod" notBefore="1616-02-17;1626-10-01" notAfter="1626-09-30;1627-02-15">天命</date>。」甄，明也。靈貺謂佳氣神光之類也。〉沈幾先物，深略緯文。〈幾者，動之微也。物，事也。沈深之幾，先見於事也。謚法：「經緯天地曰文。」〉尋、邑百萬，貔虎為羣。〈貔，執夷，虎屬也。書曰：「如虎如貔。」言甚猛勇也。〉長轂雷野，高鋒彗雲。〈長轂，兵車。雷野，言其聲盛。<roleName n="officialTitle">淮南</roleName>子曰：「雷以為車輿。」彗，埽也，音詳銳反。〉英威既振，<placeName n="placeName" key="">新都</placeName>自焚。<<name type="person" n="fullName" key="339519" ref="http://cbdb.fas.harvard.edu/cbdbapi/person.php?id=339519">王莽</name>初封為<placeName n="placeName" key="">新都</placeName>侯。史記曰，周<roleName n="officialTitle">武王</roleName>伐紂，紂衣其實玉自焚而死。莽雖被殺，滅亡與紂同，故假以言之。〉虔劉庸、代，紛紜梁、趙。〈虔、劉，皆殺也。左傳曰：「虔劉我邊垂。」謂公孫述稱帝於庸、<placeName n="placeName" key="">蜀</placeName>，盧芳據代郡也。紛紜，諭亂也。梁謂劉永，趙謂王郎也。〉<placeName n="placeName" key="">三河</placeName>未澄，四關重擾。<<placeName n="placeName" key="">三河</placeName>，<placeName n="placeName" key="">河南</placeName>、<placeName n="placeName" key="">河東</placeName>也。未澄謂朱鮪等據<placeName n="placeName" key="">洛陽</placeName>，未歸<date n="timePeriod">光武</date>也。四關謂<date n="timePeriod" notBefore="0701-11-26" notAfter="0705-01-29">長安四</date>塞之國。重擾謂<date n="timePeriod" notBefore="0385-01-27;0409-07-28;023-03-11" notAfter="0386-04-14;0412-09-21;025-10-16">更始</date>已定<placeName n="placeName" key="">關中</placeName>，劉盆子入關殺<date n="timePeriod" notBefore="0385-01-27;0409-07-28;023-03-11" notAfter="0386-04-14;0412-09-21;025-10-16">光武</date>也。

Unreadable for human eyes

STEP 5: TURNING UNREADABLE XML INTO PROCESSABLE TXT

```
## IDEOPHONES
ideo = re.sub(r'(<name type="IDEO".+?>)(.+?)(</name>)', ' \\\2_IDE ', data)

## PROPER NAME OR PARTIAL NAMESqq
names = re.sub(r'(<name type="person".+?>)(.+?)(</name>)', ' \\\2_NAM ', ideo)

## ROLES
roles = re.sub(r'(<roleName.+?>)(.+?)(</roleName>)', ' \\\2_ROL ', names)

## PLACES
places = re.sub(r'(<placeName.+?>)(.+?)(</placeName>)', ' \\\2_PLA ', roles)

## DATES
dates = re.sub(r'(<date.+?>)(.+?)(</date>)', ' \\\2_DAT ', places)

##ideophone correction
idecor = re.sub(r'(.*)_PLA +(.*)_PLA+ +(_IDE)', '\\\\1\\\\2\\\\3', dates)

## PUNCTUATION
punct = re.sub(r'([\u3000-\u303F|\uFF00-\uFF5A])', ' \\\1_PUN ', idecor)

## DELETE COMMENTARY
comm = re.sub(r' <_PUN(.+?)> _PUN ', '', punct)
```

Regular expressions in python

@passage393 贊曰：_PUN 炎正中微，_PUN 大盜移國。
_PUN 九縣飄回，_PUN 三精霧塞。_PUN 人厭淫詐，_PUN
神思反德。_PUN 光武_DAT 誕命，_PUN 靈貺自甄。_PUN 沈
幾先物，_PUN 深略緯文。_PUN 尋、_PUN 邑百萬，_PUN
貔虎為羣。_PUN 長轂雷野，_PUN 高鋒彗雲。_PUN 英威
既振，_PUN 新都_PLA 自焚。_PUN 虛劉庸、_PUN 代，_PUN
紛紜梁、_PUN 趙。_PUN 三河_PLA 未澄，_PUN 四關重擾。
_PUN 金湯失險，_PUN 車書共道。_PUN 靈慶既啟，_PUN
人謀咸贊。_PUN 明明_IDE 廟謨，_PUN 趕赳_IDE 雄斷。_PUN
於赫有命，_PUN 系隆我漢。_PUN

- All the xml <...XXX...> tags have been replaced by a shortened “_XXX” version
- Punctuation (。、，……) has received a tag (if in the future I would want to delete it, it is very easy to do so)
- Commentaries have been deleted
- Segmented after every character ('monosyllabicity of premodern Chinese' (it's not perfect I know))

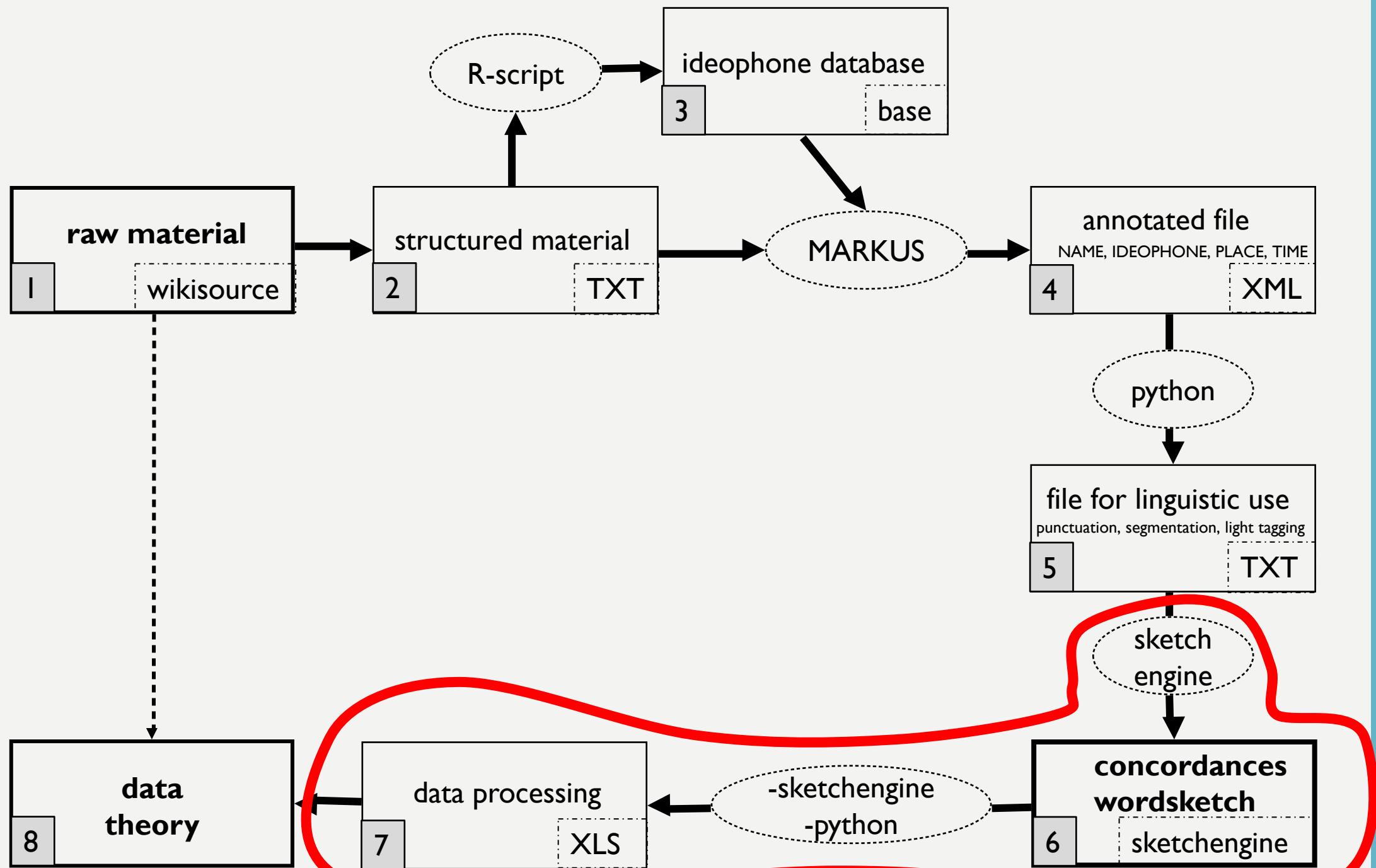
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STEP 6: CONCORDANCES

Concordances were the main goal from which we wanted to do research. With the previous steps, we are now able to make them.

Software choice:

- Antconc



very slow

- Python
- Natural Language Toolkit (NLTK) not what I want
(but maybe I need more time to discover this)



python



- + free
- + does the job very well
- + extra functions
- limited in #characters (1 million)

STEP 6: CONCORDANCES WITH SKETCH ENGINE

Query IDE 987 (773.18 per million) ⓘ

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file469822... , _PUN 三時不聞警蹕之音，_PUN 莫不懷思皇皇 IDE，_PUN 若有求而不得。_PUN 今乃以盛春之
 file469822... 重囚，_PUN 益其食。_PUN 行秋令則草木零落 IDE，_PUN 人傷於疫。_PUN』_PUN 夫斷薄刑者，
 file469822... 787 爲字叔陵，_PUN 性沈深好學，_PUN 孽孽 IDE 不倦，_PUN 遂杜絕交遊，_PUN 不答候問之禮。
 file469822... ，_PUN 化成天下。_PUN 陛下既廣納 PLA 豐譽 IDE 以開四聰，_PUN 無令芻蕘以言得罪；_PUN 既顯巖
 file469822... @passage 803 賀曰：_PUN 卓、_PUN 魯款款 IDE，_PUN 情慤德滿。_PUN 仁感昆蟲，_PUN 愛及
 file469822... _PUN 是故《_PUN 詩》_PUN 稱「_PUN 濟濟 IDE」_PUN，_PUN 《_PUN 書》_PUN 曰「_PUN
 file469822... 儒士痛心，_PUN 臣竊傷之。_PUN 湛容貌堂堂 IDE，_PUN 國之光輝；_PUN 智略謀慮，_PUN 朝之
 file469822... ，_PUN 不足以知宰相_ROL 之才，_PUN 竊懷區區 IDE，_PUN 敢不自竭。_PUN 臣前為侍郎史_ROL，
 file469822... _PUN 未及爵命，_PUN 奄然而終。_PUN 呴呼 IDE 哀哉！_PUN』_PUN 於是追封謚霸則鄉哀侯，_PUN
 file469822... 而終。_PUN 朝廷_ROL 潛悼，_PUN 恒其愴然 IDE。_PUN 《_PUN 詩》_PUN 不云乎：_PUN 「
 file469822... PUN『_PUN 朱浮_NAM 上不忠於君，_PUN 下陵譏 IDE 同列，_PUN 竟以中傷至今，_PUN 死生吉凶未
 file469822... 。_PUN』_PUN 其見親重如此。_PUN 中元元 IDE 年，_PUN 篱，_PUN 帝悼惜之，_PUN 使者
 file469822... 坐者數千人。_PUN 睿上言：_PUN『_PUN 惡惡 IDE 止其身，_PUN 可一切徙京師_PLA 近郡。_PUN
 file469822... 言宣封禪，_PUN 正三雍之禮。_PUN 中元元 IDE 年，_PUN 從封泰山。_PUN 及帝崩，_PUN 睿受遺詔
 file469822... ，_PUN 雖曉習文法，_PUN 長於應對，_PUN 然察察 IDE 小慧，_PUN 類無大能。_PUN 宜簡嘗歷州宰素有名者
 file469822... ，_PUN 受賜錢二十萬。_PUN』_PUN 永元元 IDE 年，_PUN 卒，_PUN 詔尚書_ROL：_PUN『
 file469822... _PUN 試輶馬。_PUN 孔子於鄉黨，_PUN 恺恺 IDE 如也。_PUN 父母之國，_PUN 所宜盡禮，_PUN
 file469822... _PUN 不有忠言奇謀而取大位，_PUN 何其往來屑屑 IDE 不憚煩也？_PUN』_PUN 遂拒之。_PUN 良慚
 file469822... 握持不離身。_PUN 出以示宏等曰：_PUN『_PUN 林流離 IDE 兵亂，_PUN 常恐斯經將絕。_PUN 何意東海_ROL_P
 file469822... ROL，_PUN 皇后_ROL 日已疏，_PUN 晏嘿嘿 IDE 不得意。_PUN 謚進說曰：_PUN“昔武帝_NAM 欲

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Ideophones in the 《後漢書》

Tag: IDE

- 987 tags in the 後漢書
- 'IDE' and '_' are seen as separate words
- Some words tagged as IDE (and others) are reified as compounds
 - no solution?
 - but also no problem?
- Overgeneralization: some things tagged as IDE that shouldn't, like 中元元年、永元元年

STEP 7: DATA PROCESSING IN EXCEL (XLS/TXT)

- Exporting the concordances from Sketch Engine, running them through a python script I wrote to get the concordances I want.

# Corpus: Houhanшу								
# Hits: 987								
# Query [word="IDE"] 987	[REDACTED]							
1 Houhanшу_ii	內 蒙恩。_PUN 上 當 天地 之 心，_PUN 下 為	元元	IDE 所 歸。_PUN 」_PUN 譏記 曰：_PUN 「_PUN					
2 Houhanшу_ii	，_PUN 宜如臨深淵，_PUN 如履薄冰，_PUN	戲戰	憚懼 _IDE，_PUN 日慎一日 DAT。_PUN 其 嘴效					
3 Houhanшу_ii	宜如臨深淵，_PUN 如履薄冰，_PUN 戲戰 IDE	懷懼	IDE，_PUN 日慎一日 DAT。_PUN 其 嘴效 未 謂，					
4 Houhanшу_ii	詔曰：_PUN 「_PUN 犧盜縱橫，_PUN 賊害	元元	IDE，_PUN 盆子 審尊號，_PUN 亂惑 天下。_PUN 朕奮兵討擊					
5 Houhanшу_ii	PUN 將殘吏 未勝，_PUN 猥多 奪結，_PUN	元元	IDE 懈怠，_PUN 感動 天氣乎？_PUN 其 令 中 都 PLA					
6 Houhanшу_ii	，_PUN 賊害為害，_PUN 弱弱 相陵，_PUN	元元	IDE 失所。_PUN 詩云：_PUN 「_PUN 日月 告凶，_PUN					
7 Houhanшу_ii	修職 ROL 任，_PUN 奉遵 法度，_PUN 惠茲	元元	IDE 。_PUN 百 僉 各 上 封事，_PUN 無 有所 謂。_PUN					
8 Houhanшу_ii	北 匈奴 遣使 奉獻。_PUN @ passage 375 中	元元	IDE 年 春 正 月 DAT，_PUN 東 海 ROL_PLA 王 張					
9 Houhanшу_ii	而 失 黃老 養生 之 福，_PUN 頽頭 翳 精神，_PUN	優游	IDE 自寧。_PUN 」_PUN 帝 曰：_PUN 「_PUN					
10 Houhanшу_ii	。_PUN 」_PUN 離身 清大業 DAT，_PUN	兢兢	IDE 如 不 及，_PUN 故 能 明慎 政體，_PUN 繳 [PUN					
11 Houhanшу_ii	PUN 嗣曰：_PUN 「_PUN 氣佳哉！_PUN	書齋	IDE 葱葱然。_PUN 」_PUN 及 始起 兵還春陂，_PUN 造望舍南					
12 Houhanшу_ii	道。_PUN 靈慶既 故，_PUN 人 諱咸 賞。_PUN	明明	IDE 瀨謨，_PUN 起起 IDE 雄斷。_PUN 於 熟有命，					
13 Houhanшу_ii	PUN 人 諱咸 賞。_PUN 明明 IDE 瀨謨，_PUN	起起	IDE 雄斷。_PUN 於 熟有命，_PUN 系 廢 我漢。_PUN					
14 Houhanшу_ii	_PUN 聖恩 遣戒，_PUN 瞽重 天下，_PUN 以	元元	IDE 為首。_PUN 公卿 百僚，_PUN 將 何以 輔朕 不 逮？					
15 Houhanшу_ii	十 解。_PUN 其 牺刑 及 郡 徒，_PUN 在 中	元元	IDE 年 四 月 己 卯 DAT 故前 所犯 而 後 捕繫者，_PUN 悉 免					
16 Houhanшу_ii	，_PUN 臨事 益 憚，_PUN 故 「_PUN 君子 坦	蕪蕪	IDE，_PUN 小人長 戒戒 IDE 」_PUN。_PUN 其					
17 Houhanшу_ii	故 「_PUN 君子 坦蕪蕪 IDE，_PUN 小人長	戚戚	IDE 」_PUN。_PUN 其 令 天下 自 殊死 已 下，_PUN					
18 Houhanшу_ii	ROL 建 三 朝 之 禮，_PUN 而 未及 蘭蕪。_PUN	眇眇	IDE 小子，_PUN 屢當聖業。_PUN 間 春吉辰，_PUN					
19 Houhanшу_ii	_PUN 令 人 ROL 懈笑。_PUN 重 逆 此 縢之	拳拳	IDE，_PUN 其 復元氏 縢 PLA 田租 更 賦 六 歲，_PUN					
20 Houhanшу_ii	河中，_PUN 滔濤 濟溢，_PUN 犹測 岸折，_PUN	蕪蕪	IDE 極望，_PUN 不 知 綱紀。_PUN 今 克、_PUN豫					
21 Houhanшу_ii	PUN 災異 屢見，_PUN 谷 在 耕躬，_PUN 犹懼	連連	IDE，_PUN 未 知 其 方。_PUN 將 有 司 陳事，_PUN 多					
22 Houhanшу_ii	472 賛 曰：_PUN 琅宗 NAM 不 承，_PUN	業業	兢兢 IDE。_PUN 危心恭德，_PUN 政察 澄勝。					
23 Houhanшу_ii	：_PUN 琅宗 NAM 不 承，_PUN 葉葉 IDE	兢兢	IDE。_PUN 危心恭德，_PUN 政察 澄勝。_PUN 術章韻物					
24 Houhanшу_ii	，_PUN 紐理 萬機，_PUN 僵失厥 中，_PUN	兢兢	IDE 葉葉 IDE，_PUN 未 知 所 濟。_PUN 深 惟 守					
25 Houhanшу_ii	統理 萬機，_PUN 僵失厥 中，_PUN 競競 IDE	業業	IDE，_PUN 未 知 所 濟。_PUN 深 惟 守 文 之 主，					
26 Houhanшу_ii	光 稱 不 德，_PUN 僵失厥 中，_PUN 競競 IDE	競競	IDE，_PUN 自稱 不 德，_PUN 無 起 寢廟，_PUN 帽地 而 祭					
27 Houhanшу_ii	PUN 天下 聞 之，_PUN 莫 不 憎 憎。_PUN 陛下 至 孝	談談	IDE，_PUN 奉順型 PLA 德。_PUN 臣愚 以 為 更 衣 在 中門					
28 Houhanшу_ii	PUN 朕 以 無 德，_PUN 奉 承 大 業 DAT，_PUN 夙夜	惺惺	IDE，_PUN 不 敢 荒事。_PUN 而 災異 仍 見，_PUN					
29 Houhanшу_ii	PUN 明試 以 功，_PUN 則 政 有 異 迹。_PUN 文質	彬彬	IDE，_PUN 朕 其 無 異。_PUN 其 令 太傅 ROL、_PUN					
30 Houhanшу_ii	不 儒財，_PUN 不 害 人 」_PUN，_PUN 誠 欲	元元	IDE 去 末 歸 本。_PUN 而 今 貴 貳 近 親，_PUN 奢縱 無 度，					
31 Houhanшу_ii	PUN 朕 在 弱 冠，_PUN 未知 穢穉 之 艱 難，_PUN	區區	IDE 管窺，_PUN 豈 能 照 一 隅 咎！_PUN 其 科 制 度					
32 Houhanшу_ii	皆 所 以 扶 進 微 薦 也。_PUN 中	元元	IDE 年 詔書，_PUN 《扶五經》_PUN 章句 煩 多，					
33 Houhanшу_ii	PUN 朕 之 不 德，_PUN 上 累 三 光，_PUN 震 慄	切切	IDE，_PUN 痛 心 疾 首。_PUN 前 代 聖 君，_PUN 博思 咨 譴					
34 Houhanшу_ii	PUN 賴 有 開 廣 反 風 之 應。_PUN 令 子 小 子，_PUN 徒	慘慘	IDE 而 已。_PUN 其 令 二 千 石 ROL 理 宽 獄，_PUN 錄 輕 繫					
35 Houhanшу_ii	予 末 小 子，_PUN 賴 又 菲 薄，_PUN 仰 恃 先 帝	蒸蒸	IDE 之 懿，_PUN 今 修 褒 祭，_PUN 以 盡 孝 敬。_PUN					
36 Houhanшу_ii	之 臣，_PUN 辟 公 相，_PUN 皆 助 朕 之	依依	IDE。_PUN 今 聖 公 錢 四 十 萬，_PUN 御 半 之，_PUN					
37 Houhanшу_ii	PUN 朕 道 化 不 德，_PUN 吏 政 失 和，_PUN	元元	IDE 未 諭，_PUN 抵 罪 於 下。_PUN 寔 賊 爭 心 不 息，					

STEP 8: DATA AND THEORY

Now I have converted my raw textual data into readable concordances.

Why the long way?

- I had **control** over the process
- I can go back for more context should I need it
- Scripts for future research

SKETCH ENGINE: TOKEN FREQUENCY

Document	Number of ideophone tokens	Normalized frequency (per million)
<i>Shiji</i> 史記	310	458.26
<i>Hanshu</i> 漢書	757	814.49
<i>Houhanshu</i> 後漢書	987	773.18
<i>Sanguo zhi</i> 三國志	230	581.13

There is a small error margin in these numbers.
 However, the mimetics *do* occur in prose texts.

SKETCH ENGINE: WORDSKETCH

IDE

Houhanshu freq = [987](#) (773.18 per million)

words before "IDE"		words just after "IDE"		words after "IDE"	
	1,472 149.14		246 24.92		1,039 105.27
元	58 9.39	兮	15 10.84	兮	15 8.85
中元 元 _ IDE 年		_ IDE 兮 , _ PUN		_ IDE 兮 , _ PUN	
巍巍	18 8.63	止其身	7 9.82	止其身	7 7.75
_ PUN 巍巍 _ IDE		業業	6 9.61	子孫	7 7.67
善	19 8.46	多士	5 9.34	業業	6 7.54
善 善 _ IDE 及 子孫		之氣	4 9.03	多士	5 7.28
翼翼	16 8.46	翼翼	4 8.99	翼翼	5 7.26
翼翼 _ IDE , _ PUN		兢兢	4 8.98	然	6 7.24
中元	16 8.41	然	5 8.63	按	11 7.20
_ PUN 中元 元 _ IDE 年 , _		白駒	3 8.62	若	8 7.18
兢兢	14 8.26	不得意	3 8.62	顯顯	4 6.97
_ PUN 猚猩 _ IDE		之志	3 8.62	之氣	4 6.96
恂	14 8.22	哀哉	3 8.58	年	33 6.95
恂 恂 _ IDE		巍巍	3 8.57	中元 元 _ IDE 年 , _ PUN	
永元元	13 8.15	年	33 8.51	兢兢	4 6.95
永元元 _ IDE 年 , _		中元 元 _ IDE 年 , _ PUN		如	6 6.78

WORDSKETCH AND CONSTRUCTIONS

For e.g. Hou Hanshu we can see the following constructions

- Ideophone + 而 ér
 - Ideophone + 者 zhě
 - Ideophone + 也 yě
- These seem to indicate PREDICATE constructions

- Ideophone + 之 zhī
- This seems to indicate a MODIFICATION construction

- **Ideophone + 如 rú**
 - **Ideophone + 然 rán**
 - **Ideophone + 若 ruò**
- These are interesting, because in general you would not expect a **space-builder** (cf. Langacker 2008:272; Fauconnier 1994) after an ideophone — they are usually depictive enough e.g. in Hanshu there are 337 ideophones in clause-final position without any particles after them

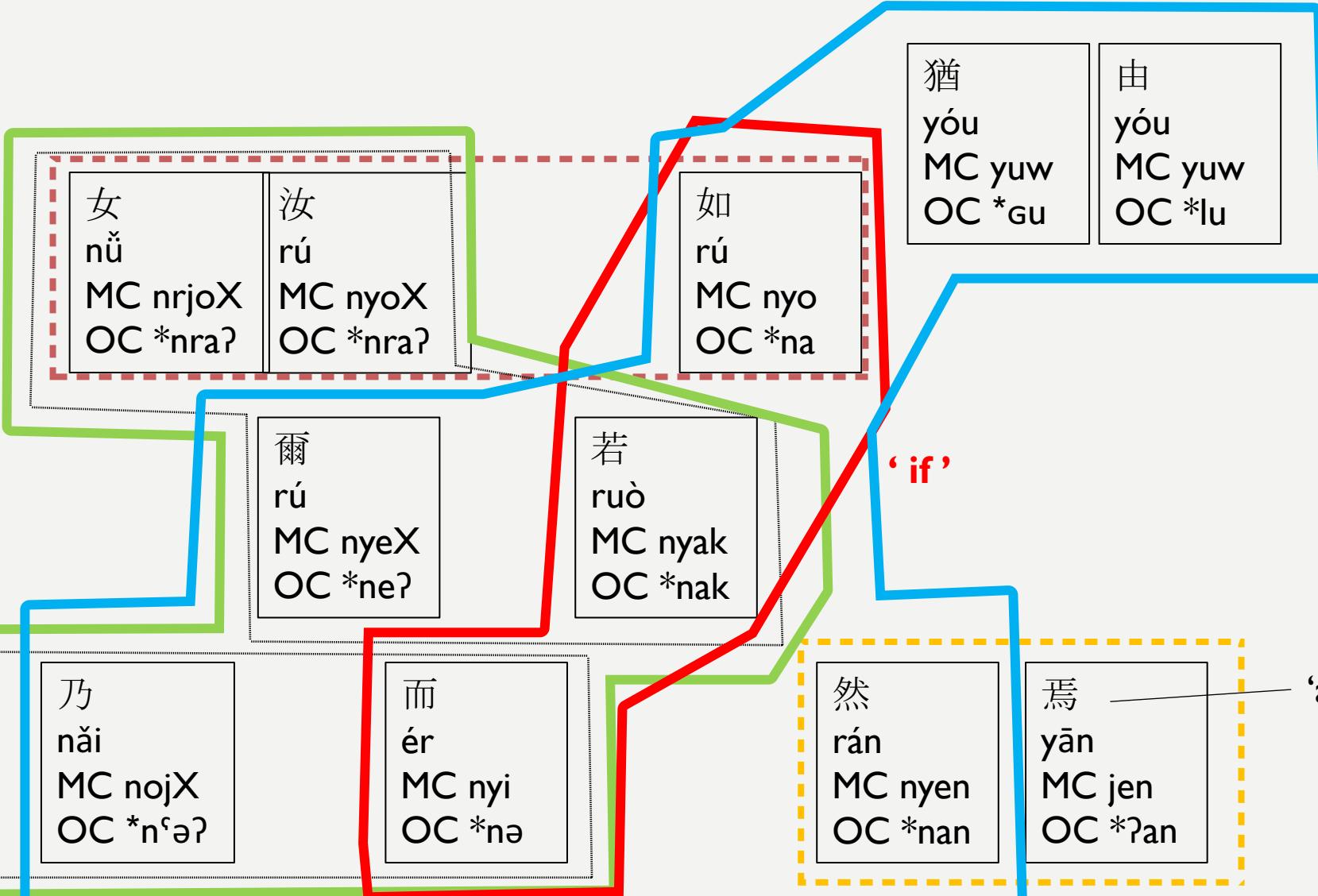
IDEOPHONES FOLLOWED BY SPACEBUILDERS

	Shiji	Hanshu	Sanguozhi	HouHanshu	Total
IDE如Compl.				1	1
RU IDE如O		2	1		3
IDE如O也				1	1
IDE如也	4	3		3	10
RAN IDE然	4	4		5	13
IDE若Compl.			1		1
RUO IDE若O	1			3	4
IDE若O也				2	2
IDE若此		2			2
YAN IDE焉		5		1	6
Total	9	16	2	16	43

ABOUT THESE PARTICLES

[PULLEYBLANK 1995]

2nd
person
pronoun



IDEOPHONE + 若/如/然

RUO RU RAN

- Suprising: 2nd person vs. 'if' and 'be like'
- Less surprising: 'if' and 'be like'

如欲平治天下,
rú yù píng-zhì tiān-xià,
if want peace-order heaven-under

當今之世,
dāng jīn zhī shì,
when now LNK generation

舍我其誰也?
shè wǒ qí shuí yě?
set.aside IP LNK who YE

Subordinate clause with *ru*

Subordinate clause

Main clause

"If [Heaven] wished to bring peace and good order to the world, in the present generation, who is there except me (to bring it about)?"

(Mengzi 2B/13) (Pulleyblank 1995:150)

IDEOPHONE + 若/如/然

RUO RU RAN

- It is noteworthy that these particles seem to function in different degrees of schematicity as clitic-like elements to ideophones.
- This may be due to the experiential nature ideophones try to convey, the perceptions these concepts attempt to recreate (Dingemanse 2016).
- That these particles occur after certain words has been noted before (e.g. Pulleyblank 1995:102; Van Hoey 2015), but this connection in Classical Chinese has not been studied from a cognitive linguistics perspective before.

IDEOPHONE + 若/如/然

RUO RU RAN

material **Ideophone + 若** often precedes an object or complement → there is room for an object

- 「叔度 汪汪 茅 千頃陂」
Shu Du boundless like broad.tolerance
“Shu Du has broad an boundless-like tolerance.” (Houhanshu)

- 「咎-敗 灼灼 茅 此」
misfortune-loss brilliant like this
“The misfortune and loss were brilliant like this.” (Hanshu)

Ideophone + 然 does not, because *ran* 然 = ‘如+之’ → the transitive gap has already been filled

- 「天-下 肇肇=然」
heaven-below raucous.and.rackety=like.it
The empire is raucous. (Hanshu)

IDEOPHONE + 若/如/然

RUO RU RAN

material **Ideophone + 如** often has no object, only ‘pause-marker’ 也

- 「魯道衰，洙-泗之閒」 斷斷=如 也」
 Lu way decline Zhu-Si LNK between wrangle=be.like YE

“The Way of Lu is declining, between the Zhu and Si river fights are commonplace.” (Hanshu)

frame
work

- 「孔子於鄉-黨，恂恂=如也」
 Confucius LOC towns-men respect.care=like YE

“Confucius was respectful and careful toward the townsmen.” (Hou Hanshu)

method

case
study

IDEOPHONE + 若/如/然

RUO RU RAN

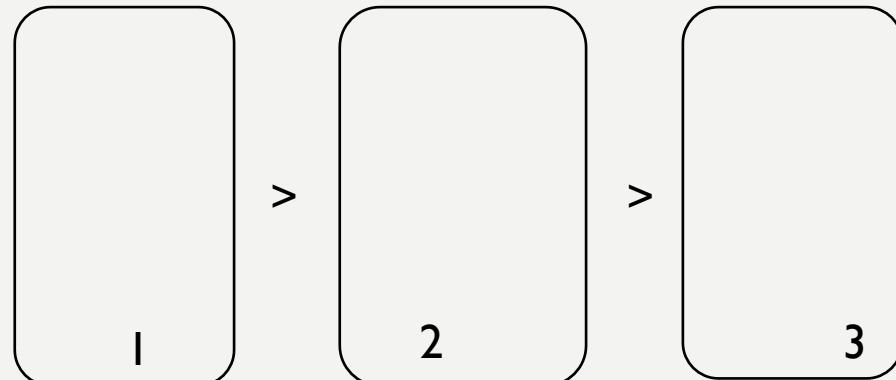
My hypothesis is that the spacebuilder works as a redundant clue that stresses the perceptual nature ideophones depict.

Let's look at an example.

魯 道 衰 , 淚-泗 之 間
 Lu way decline Zhu-Si LNK between
 斷斷=如
 wrangle=be.like
 也 」
 YE

“The Way of Lu is declining, between the Zhu and Si river fights are commonplace.” (Hanshu)

Three cognitive events



IDEOPHONE + 若/如/然

RUO RU RAN

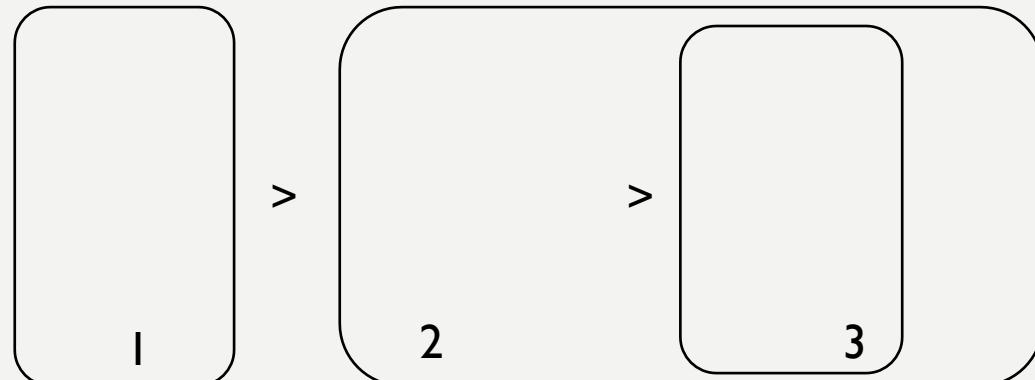
My hypothesis is that the spacebuilder works as a redundant clue that stresses the perceptual nature ideophones depict.

Let's look at an example.

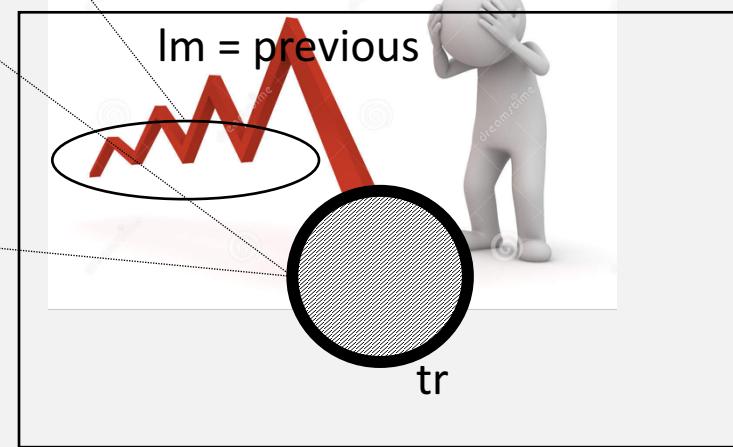
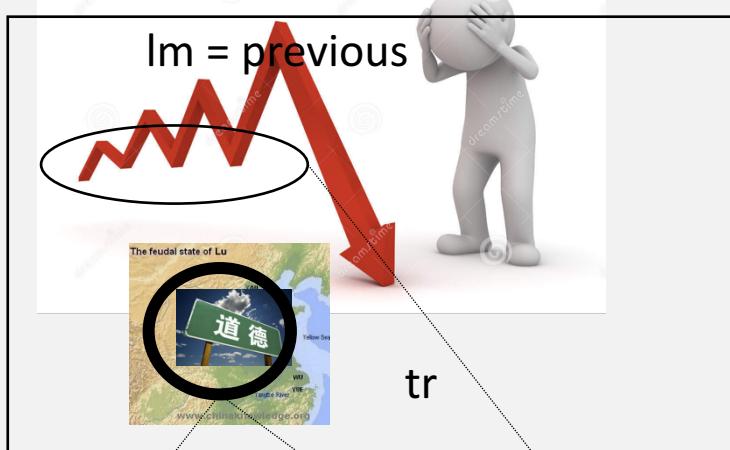
魯 道 衰 , 淚-泗 之 間
 Lu way decline Zhu-Si LNK between
 斷斷=如
 wrangle=be.like
 也 」
 YE

“The Way of Lu is declining, between the Zhu and Si river fights are commonplace.” (Hanshu)

Three cognitive events

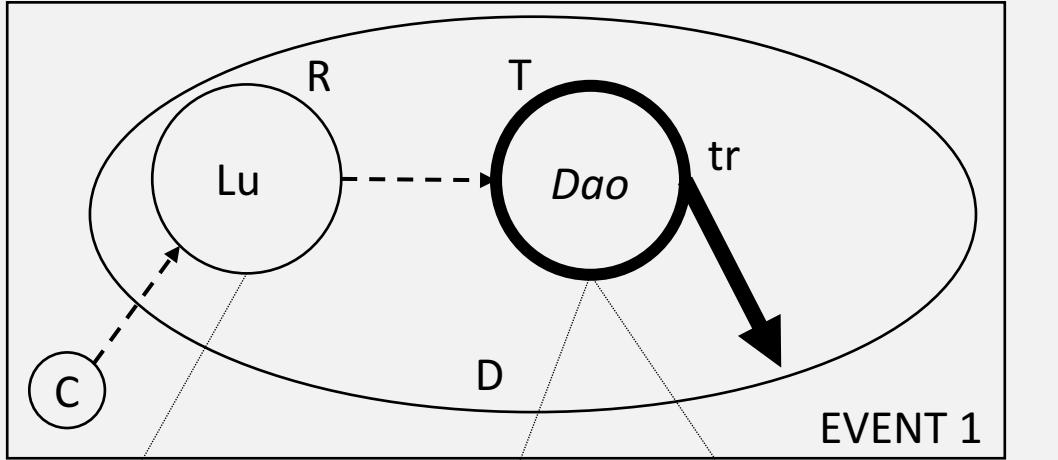


EVENT 1



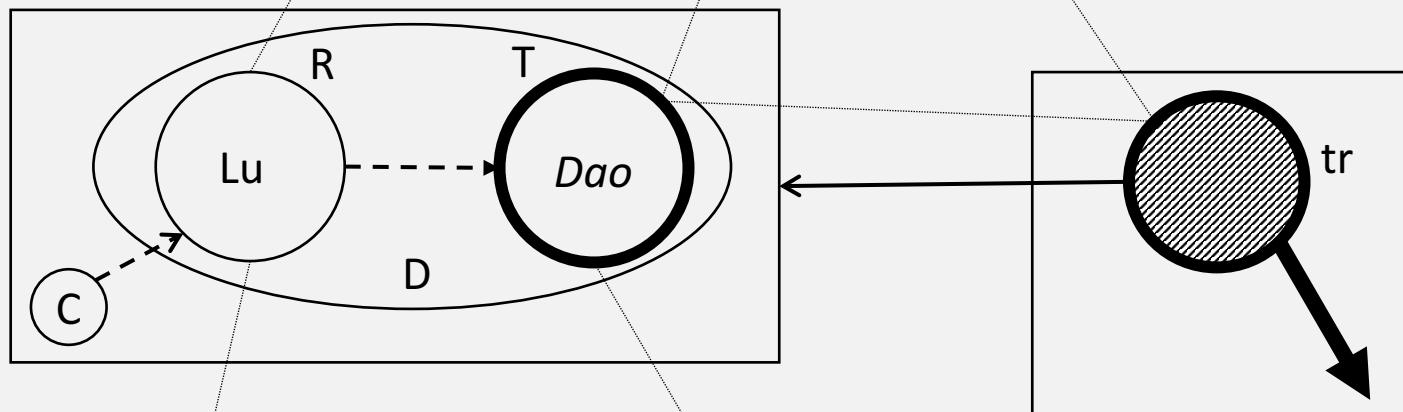
「魯道衰，洙-泗之間 斷斷=如 也」 (Hanshu)
 Lu way decline Zhu-Si LNK between wrangle=be.like YE
 “The Way of Lu is declining, between the Zhu and Si river fights are commonplace.”

Lu dao shuai

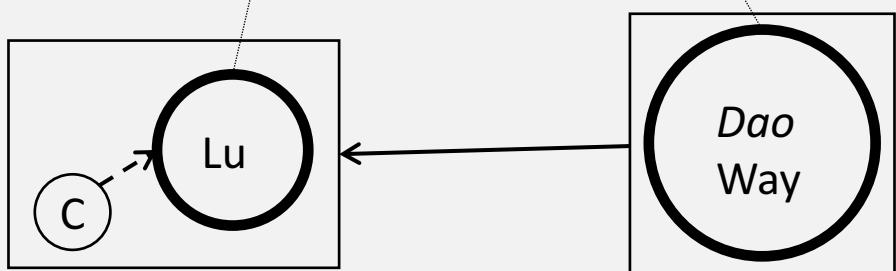


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EVENT 2



shuai
decline



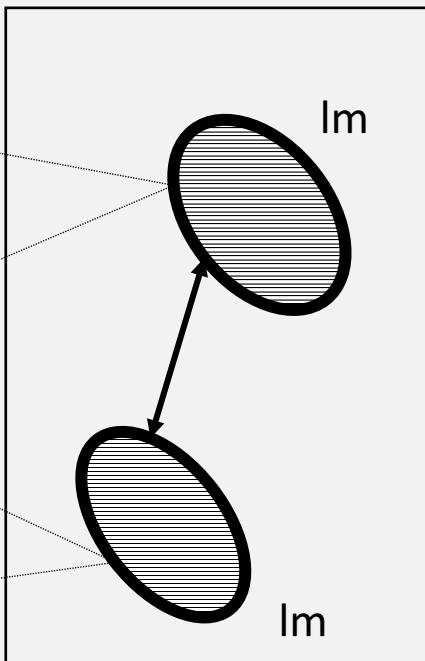
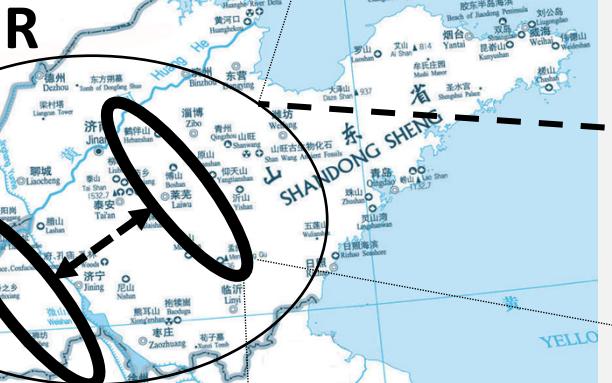
「*魯道衰，洙-泗之間 斷斷=如 也*」 (Hanshu)
Lu way decline *Zhu-Si LNK between wrangle=be.like YE*
 “The Way of Lu is declining, between the Zhu and Si river fights
 are commonplace.”

「魯道衰，洙-泗之間 斷斷=如也」(Hanshu)

Lu way decline / Zhu-Si LNK between wrangle=be.like YE

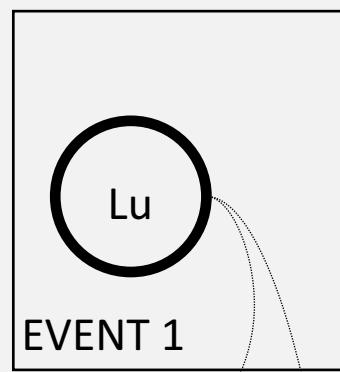
“The Way of Lu is declining, between the Zhu and Si river fights are commonplace.”

EVENT 2

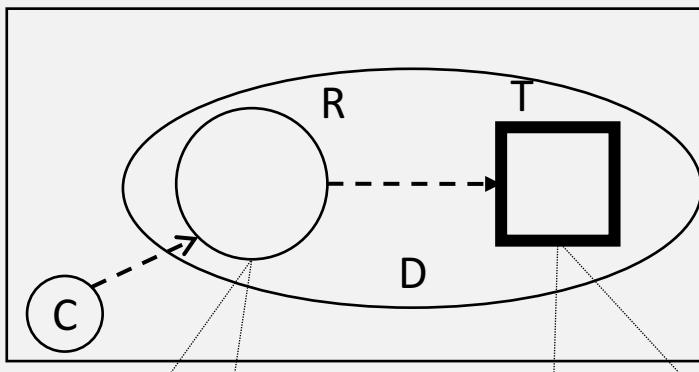


EVENT 3

[the Dominion, Ground and Conceptualizer left out]

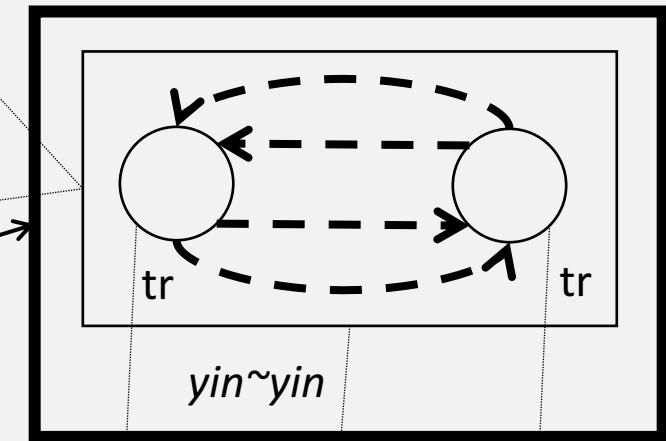
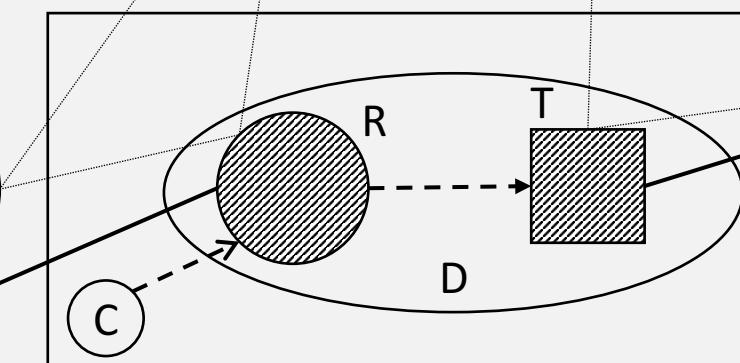
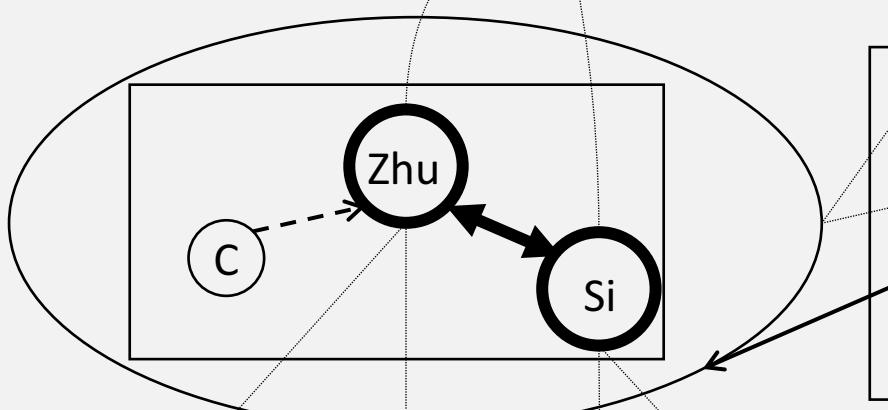


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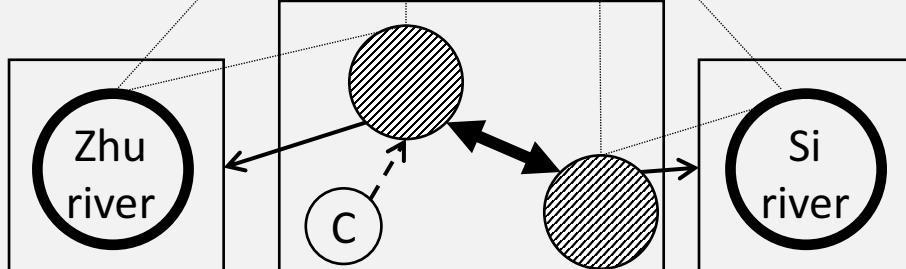


EVENT 3

MENTAL SPACE-LIKE



ru-like



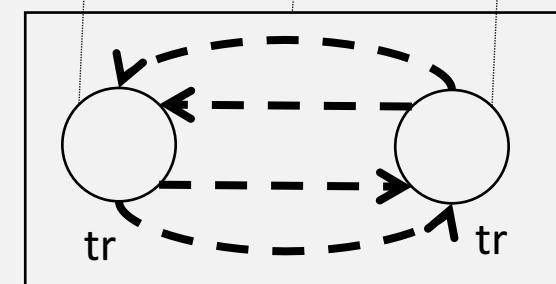
(*zhi*) *jian*

between

「魯道衰，洙-泗之間 斷斷=如 也」 (Hanshu)

Lu way decline Zhu-Si LNK between wrangle=be.like YE

“The Way of Lu is declining, between the Zhu and Si river fights are commonplace.”



MENTAL SPACE

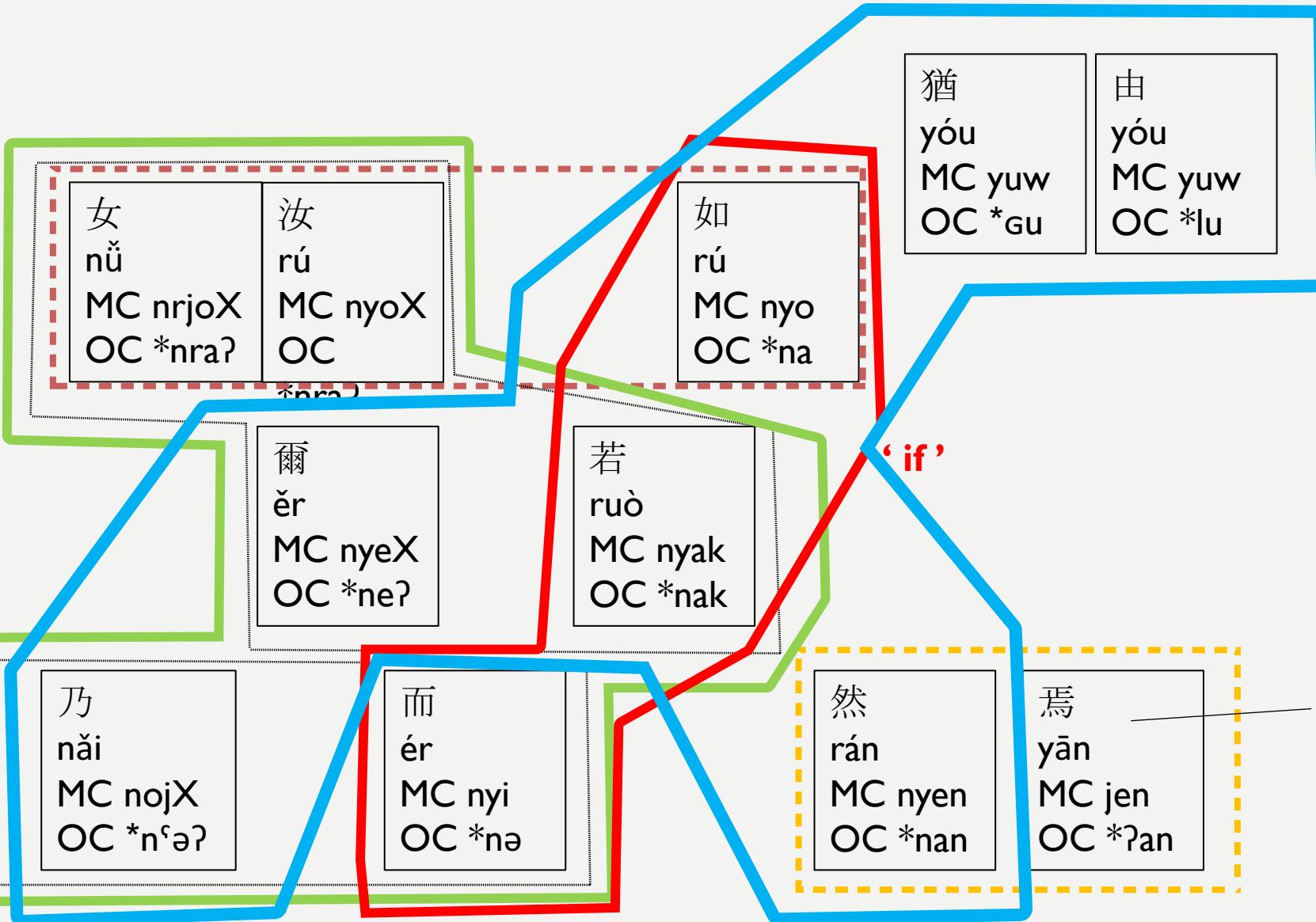
DISCUSSION: RESEARCH OUTCOMES

This paper has focused mostly on the **methodology** and **procedures** for future research.

- It is possible to **magnify the scope**, i.e. investigate the other *Standard Histories* as well
- **Other trends** may emerge through observed time
- **Construction and collocation research** of ideophones
- **Cognitive relevance** of ideophones
- **Mental space** research in relation to ideophones is worth further exploration
- **Digital methodology** is starting to come together

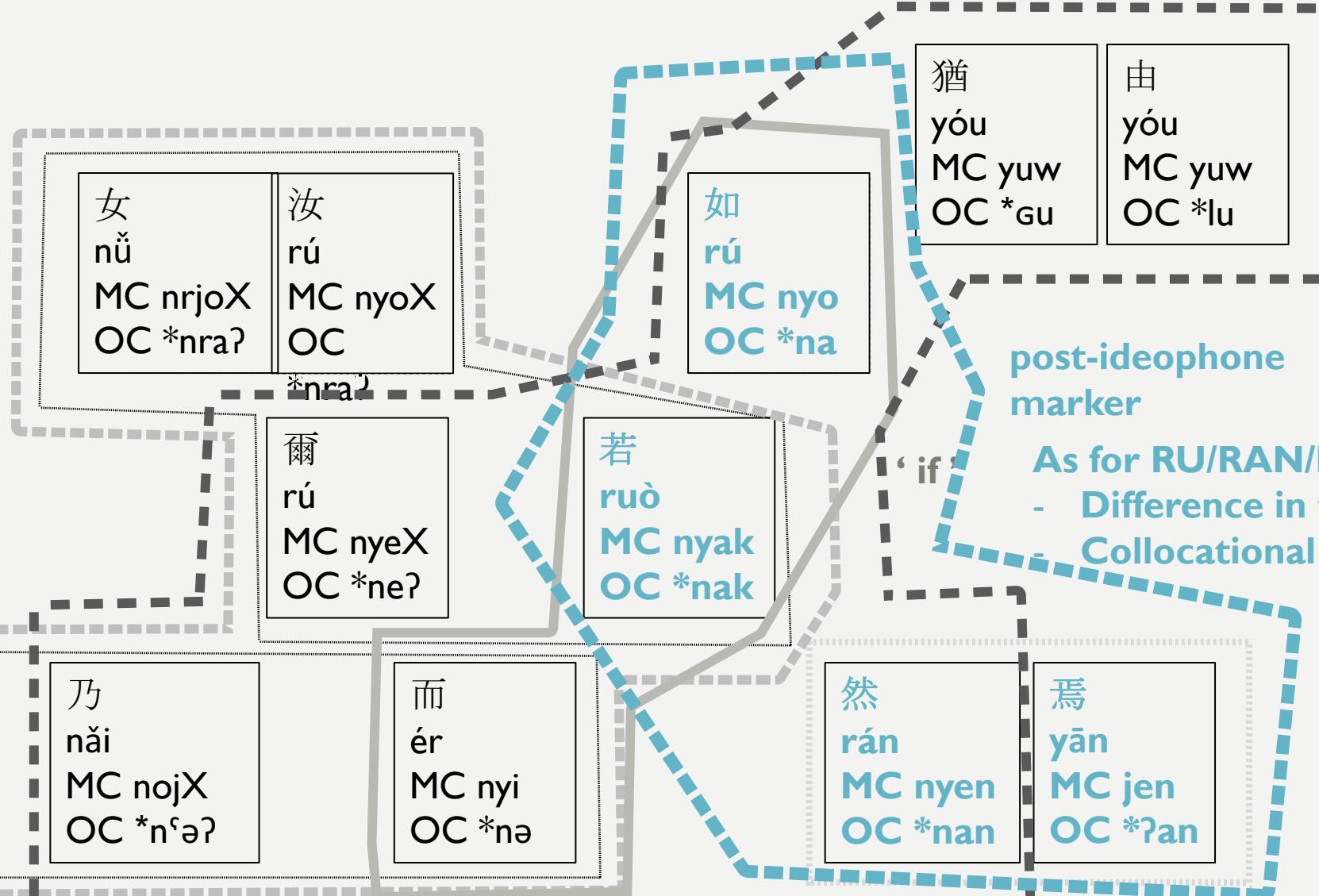
CONCLUSION

2nd
person
pronoun



CONCLUSION

2nd person pronoun



THANK YOU!

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QUOTATIVES

- Japanese *to* と quotative
adverbial use
- Mandarin Chinese *de* 地 adverbial use
- Premodern Chinese *-ran/ru/ruo* 然如若 quotative, but redundant, less frequent
no adverbial use