

# 言語地図と言語理論： Linguistic Atlas of Asia と WALS

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AA研共同利用・共同研究課題  
理論言語学と言語類型論と計量言語学の対話にもとづく  
言語変化・変異メカニズムの探求  
2021年度第5回研究会  
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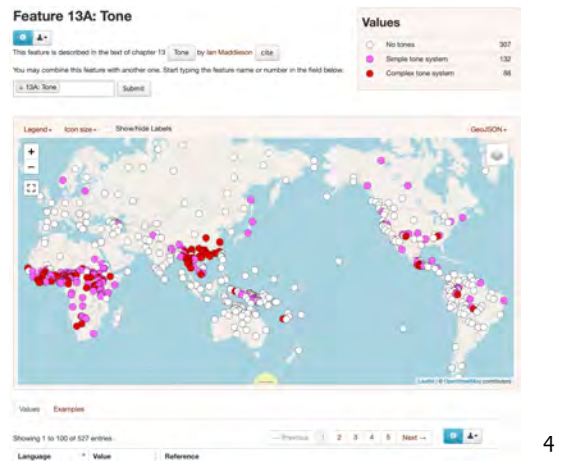
## 概要

1. World Atlas of Language Structures (WALS)
2. Linguistic Atlas of Asia (LAA)
  - 2.1 概要
  - 2.2 Tone and accent in Asia
3. 言語類型論と理論言語学
  - 3.1 言語類型地理論 (橋本 1974, 1978)
  - 3.2 Stress and word order (Tokizaki 2019)

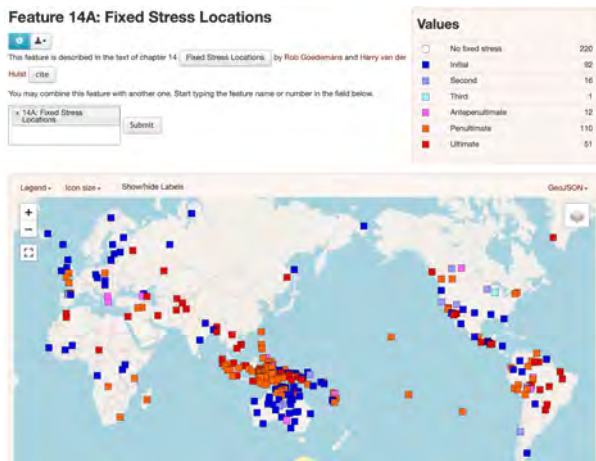
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## 1. World Atlas of Language Structures (WALS)

(https://wals.info)



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## 2. Linguistic Atlas of Asia (LAA)

### 2.1 内容

**Linguistic Atlas of Asia**  
 語学・辞書典 | B1ブックマーク | シェア | ツイート  
 遠藤 光俊(編集), 峰岸 真琴(編集), 白井 聡子(編集), 鈴木 博之(編集), 倉部 慶太(編集)  
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### 【内容】

アジア全域の全語族につき2000地点ほどの密度で「太陽・稲・乳・風・鉄・計数法(類別詞)・声調とアクセント・雨が降る」の8項目に対して言語地図を描画し、それぞれの語形の形成過程に関する解釈を集成した。24名からなる各語族の専門家によるコラボレーションの成果である。項目ごとにアジア全域における概観が与えられ、マクロ・ミクロな地理分布をパノラマのように一望することができる。★A1判大判地図(4枚・両面印刷)付き

執筆者：海老原志徳・遠藤光俊・深澤美香・福井玲・福嶋秋子・岩佐一枝・岩田礼・岸江信介・近藤美佳・倉部慶太・松本亮・峰岸真琴・長渡陽一・斎藤純男・清水政明・白井聡子・白石英オ・鈴木史己・鈴木博之・田口善久・植屋高史・内海敦子・八木堅二・吉岡乾

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Language	ISO 639-1	ISO 639-2	ISO 639-3	Other Info
Arabic	ar	ara	arb	...
Armenian	hy	arm	hye	...
Burmese	my	bur	mya	...
Chinese	zh	chi	zho	...
English	en	eng	eng	...
French	fr	fre	fra	...
German	de	ger	deu	...
Japanese	ja	jpn	jpn	...
Korean	ko	kor	kor	...
Russian	ru	rus	rus	...
Spanish	es	spa	spa	...
Thai	th	tha	tha	...
Vietnamese	vi	vie	vie	...

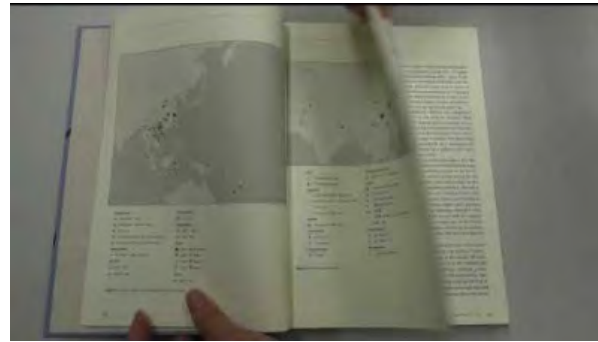
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**Chapter 1 : SUN**  
 'Sun' in Asia  
 'Sun' in Nivkh  
 'Sun' in Ainu  
 'Sun' in Japanese  
 'Sun' in Korean  
 'Sun' in Sinitic  
 'Sun' in Hmong-Mien  
 'Sun' in Kra-Dai  
 'Sun' in Tibeto-Burman  
 'Sun' in Austroasiatic  
 'Sun' in Austronesian  
 'Sun' in Tungusic  
 'Sun' in Uralic  
 'Sun' in Mongolic and Turkic

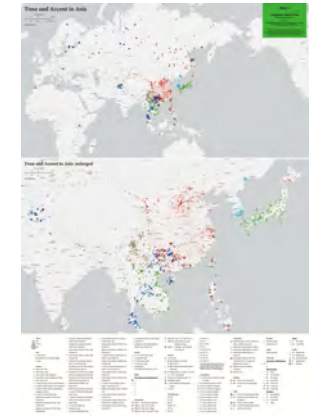
'Sun' in South Asia  
 'Sun' in Arabic

**Chapter 2 : RICE PLANT**  
**Chapter 3 : MILK**  
**Chapter 4 : WIND**  
**Chapter 5 : IRON**  
**Chapter 6: NUMERIC**  
**QUANTIFICATION**  
**Chapter 7 : TONE AND ACCENT**  
**Chapter 8: IT RAINS**

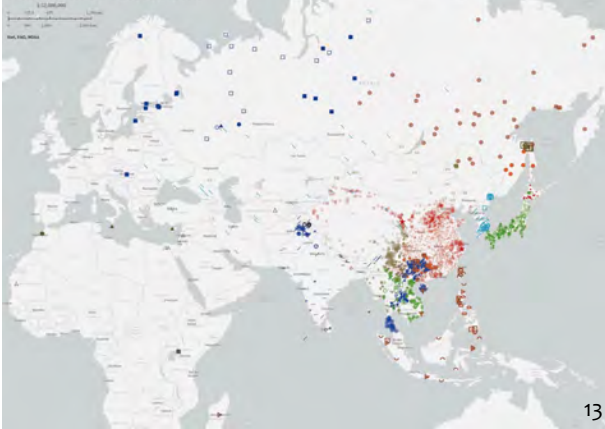


<https://youtu.be/KgXkjNQo4CM>

2.2 Tone and accent in Asia

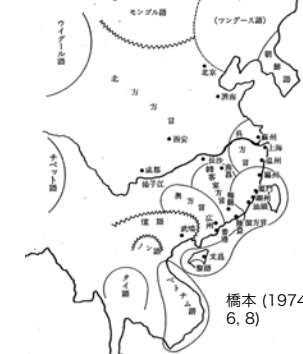


Tone and Accent in Asia



<p><b>Austronesian</b></p> <ul style="list-style-type: none"> <li>☐ phonemic length contrast, stress/accnt falling on the last long vowel</li> <li>∨ stress/accnt falling regulary on silms</li> <li>∧ stress/accnt falling regulary on penult</li> <li>∩ stress/accnt falling regulary on antepenult</li> <li>☐ stress/accnt falling on penult, but influence by PAN *q (present day predominantly schwa)</li> <li>▷ phonemic accent (secondarily introduced)</li> <li>∩ phonemic tone</li> </ul> <p><b>Tungusic</b></p> <ul style="list-style-type: none"> <li>● B-1. accent on the last syllable</li> <li>⊕ B-2. accent on the last syllable/long vowel</li> </ul> <p><b>Uralic</b></p> <ul style="list-style-type: none"> <li>■ A-1. accent on the first syllable (fixed)</li> <li>□ A-2. accent on the first syllable (with exceptions)</li> <li>● B-1. accent on the last syllable</li> <li>○ B-3. accent on the penultimate syllable</li> <li>▲ C. accent on any syllable</li> </ul>	<p><b>Mongolic</b></p> <ul style="list-style-type: none"> <li>☐ Initially-accented</li> <li>∩ Finally-accented</li> </ul> <p><b>Turkic</b></p> <ul style="list-style-type: none"> <li>∩ Finally-accented</li> </ul> <p><b>South Asia</b></p> <p><b>tone-accent - Distinctness</b></p> <ul style="list-style-type: none"> <li>○ Y</li> <li>○ N</li> </ul> <p><b>Indo-European</b></p> <ul style="list-style-type: none"> <li>✓ C. Stress</li> <li>∩ D. Not identified</li> <li>● E. Not written</li> <li>∩ A-1. 2-way Pitch</li> <li>⊕ B-1. 3-way Tone</li> <li>⊕ A-2. 3-way Pitch</li> <li>⊕ B-2. 5-way Tone</li> </ul> <p><b>Dravidian</b></p> <ul style="list-style-type: none"> <li>∩ D. Not identified</li> <li>● E. Not written</li> <li>∩ A-1. 2-way Pitch</li> <li>✓ C. Stress</li> </ul>	<p><b>Others</b></p> <ul style="list-style-type: none"> <li>● E. Not written</li> <li>∩ A-1. 2-way Pitch</li> </ul> <p><b>Arabic</b></p> <ul style="list-style-type: none"> <li>△ A-1. mdrasa type</li> <li>▽ A-2. madraai type</li> <li>▲ A-3. partial lexicalized</li> <li>● B. Maghreb type</li> <li>■ C. tone type</li> </ul>
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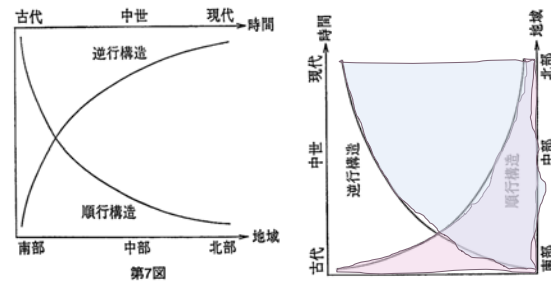
3. 言語地図と言語研究  
 3.1 言語地理類型論  
 (橋本 1974, 1978)



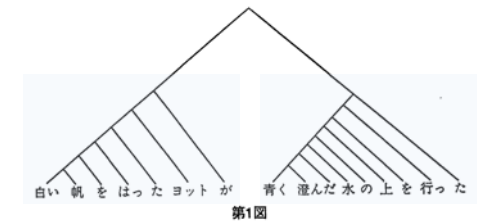
方向	音節構造	声調	現象
北↑	CVCV.....CV CVCV.....{n}	なし	濟州語
	CV CV{ $\frac{n}{\eta}$ }	3	甘肅
南↓	CV CV{ $\frac{n}{\eta}$ }, CV{ $\frac{t}{k}$ }	4	北京
	CV CV{ $\frac{m}{n}$ }, CV{ $\frac{p}{t}$ }	6	南昌
南↓	CV CV{ $\frac{m}{n}$ }, CV{ $\frac{p}{t}$ }	8(9)	広州
	CV CV{ $\frac{m}{n}$ }, CV{ $\frac{p}{t}$ }	8	タイ諸語



LAA  
 Yagi  
 (2021: 250)

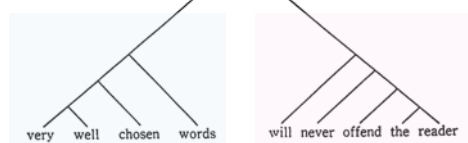


橋本 (1978, 2000: 58)



第1図

橋本 (1978, 2000: 51)



第2図



● 全体の類型論 (wholistic typology)

\* Bally (1944) German French

\* Donegan &

Stampe (1983) Munda Mon-Khmer

❖ Word order	Head-final (OV) PoP, AN, GN, Suff Compl-initial	Head-initial (VO) PrP, NA, NG, Pref Compl-final
❖ Accent	Initial (trochaic)	Final (iambic)
❖ Morphology	Synthetic Agglutinative	Analytic Isolating/flective

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3.2 Stress and word order (Tokizaki 2019)

Sister Linearization at Externalization

(1)  $\{X_P X \{Y_P \dots\}\}$

(2) a.  $[X_P X [Y_P \dots]]$   
b.  $[X_P [Y_P \dots] X]$

(3) Stress is assigned to complement (cf. Cinque 1993)

(4) Stress-based linearization (Tokizaki and Kuwana 2013)

a.  $X [Y_P \dots]$  languages with **final stress** (Romance)  
b.  $[Y_P \dots] X$  languages with **initial stress** (Germanic)

(5) a. **lire des livres**  
b. **Bücher lesen**

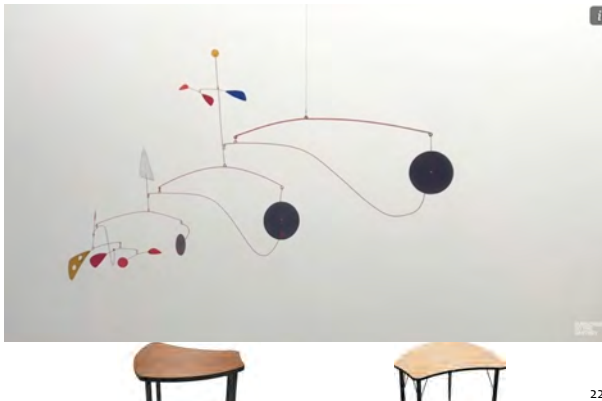
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Calder's mobiles

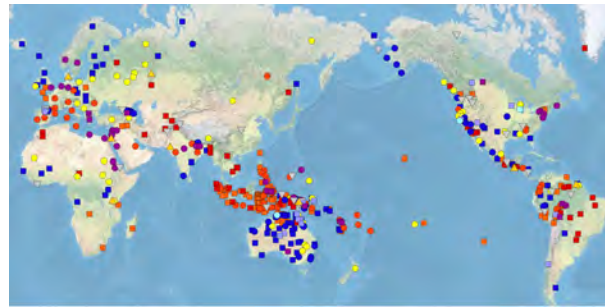


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Calder's mobiles



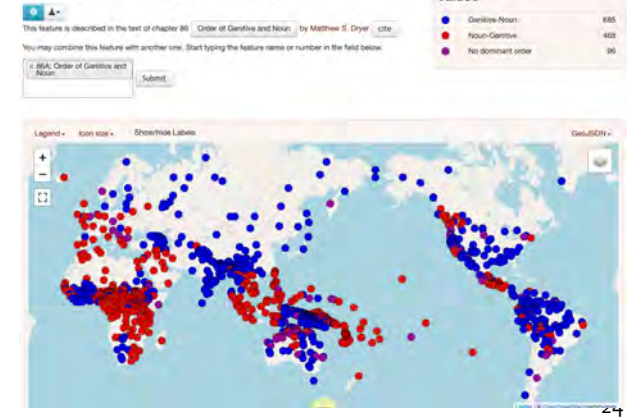
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Initial 92	Second 16	Third 1	Antepenultimate 12	Penultimate 110	Ultimate 51
Left-edge: First or second 37	Right-edge: Ultimate or penultimate 65	Left-oriented: One of the first three 2	Right-oriented: One of the last three 27	Unbounded 54	Combinéd 8
Not predictable 26					
total 500 languages					

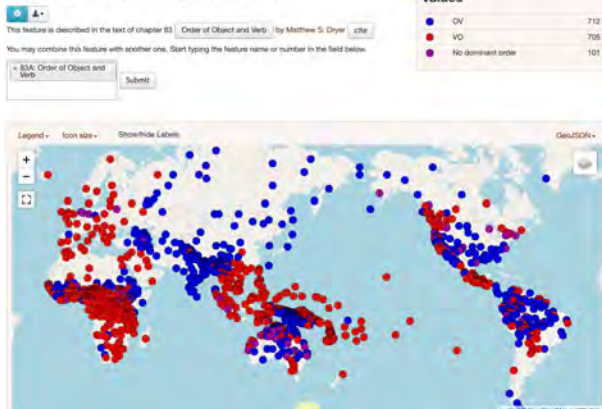
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Feature 86A: Order of Genitive and Noun

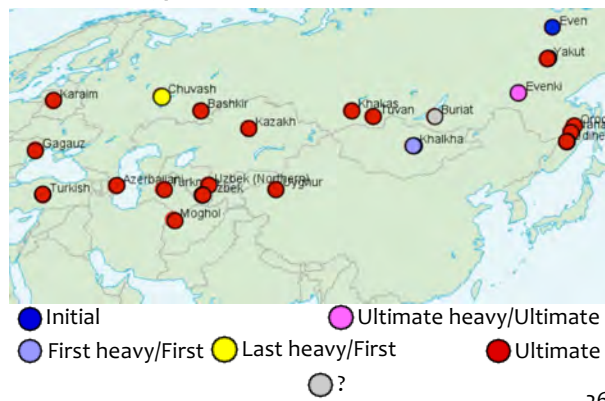


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Feature 83A: Order of Object and Verb



Altaic StressTyp 2 (Goedemans, Heinz and van der Hulst 2014)



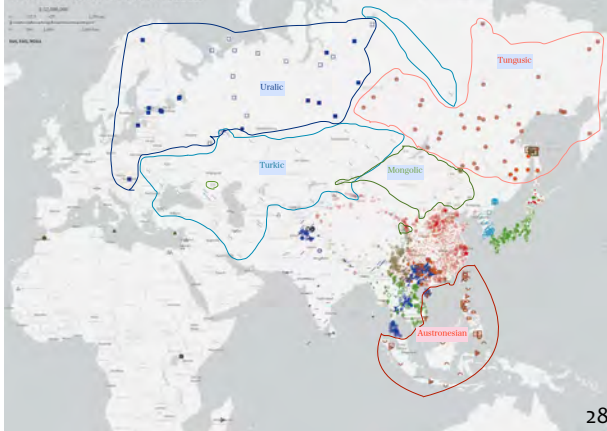
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Tone and Accent in Asia



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Tone and Accent in Asia



Accent in **Tungusic** (Matsumoto 2021: 272)

The accent types of all Tungusic languages are classified as Type B, in which the accent falls basically on the last syllable of a word. It is often mentioned that the first syllable is pronounced with relatively strong aspiration and that the last syllable is accompanied with a musical intonation (pitch accent).

- Even: /a/ and /ə/ may be reduced in non-initial syllables (Ikegami 1989: 1070)
- Solon: short vowels are pronounced ambiguously in non-initial syllables (Ikegami 1989: 1070)
- Solon: short vowels in non-initial syllables tend to be reduced and sometimes dropped in casual speech (Tsumagari 2009: 3)

**Mongolic** (Saito 2021: 275)

The Mongolic languages have no contrastive accent, and which syllable is phonetically prominent has long been a matter of controversy (cf. Karlsson (2005), Svantesson et al. (2005)).

Vowel reduction and deletion took place in many Mongolic languages: Vowels in non-initial syllables are reduced in the majority of the languages, including Mongol and Oirat.

Vowels in non-final syllables are reduced in Monguor, Dōnxiāng, Kāngjiā, Bǎo'ān and Shira Yughur in Gānsu and Qīnghǎi provinces.

**Vowel reduction in non-initial syllables**

Mongolic

- Khalkha: the 'short' vowels of non-initial syllables are reduced (centralized) versions of the vowel of the preceding syllable (e.g. *xawar* [xawər] 'spring', *mongol* [mɔŋgɔɮ] 'Mongol', *guril* [gʊrjɔɮ] 'flour', *ajil* [atʃɔɮ] 'work') (Svantesson 2003: 158)
- Kalmuck: pl. *ek.nr* 'mothers' < \**eke.ner*
- Oirat: \**imaa/n* 'goat' > Wr. *yamaa/n* > Sp. *yama/n*
- Bonan (Bao'an): [i]n non-initial syllables, a regular reductive merger of the high vowels \*i \*u \*ü into e: (\*i:) *gholer* 'flour' < \**gulir*, (\*u:) *nase* 'age' < \**nasu/n*, (\*ü:) *under* 'high' < \**öndür*.
- Moghol: (neutralization) of the vowel \*e into a in all non-initial syllables

**Mongolic** (Saito 2021: 275)



Using this characteristic as a criterion, we classify the languages into two groups:

- A. the one with a prominent initial syllable and
  - B. the other with a prominent final syllable.
- (The terms "initial" and "final" here are just names of the accent types, and do not necessarily mean the accent falls on the first and last syllable of a word respectively. Ordos Mongol and Shinekhen Buryad have not undergone vowel reduction, but they are classified into Group A here taking the vowel harmony process into consideration. Cf. Yamakoshi (2011).) (two accent systems: pitch accent and stress accent)

**Turkic** (Saito 2021: 275)

The phonetic correlate of word-level accent in Turkish is higher pitch, which is normally associated with the last syllable in native words. ... Stress, although not well predictable, often falls on the first syllable, but can be placed on other syllables.

In Turkish, a reduplicative prefix is attached to some adjectives and adverbs for emphasis (Sebüktekin 1971: 25).

- a. *incé* 'thin' > *ip-ince* 'very thin' 
- b. *temiz* 'clean' > *tér-temiz* 'spotless' 

Altaic stress in two-accent model (Tokizaki 2019)



- Initial
- First heavy/First
- Last heavy/First
- Ultimate heavy/Ultimate
- Ultimate

- (1) Inertial Theory (Keenan 2002, Longobardi 2001)
  - a. [S]yntax, by itself, is diachronically completely inert. (Longobardi 2001: 277f)
  - b. [L]inguistic change proper may only originate as an interface phenomenon... (Longobardi 2001: 278)
  - c. [S]yntactic change should not arise, unless it can be shown to be *caused* — that is, a well-motivated consequence of other types of change (phonological changes and semantic changes, including the appearance/disappearance of whole lexical items) or, recursively of other syntactic changes... (Longobardi 2001: 278)
- (2)
  - a. phonological change → syntactic change
  - b. phonological change → change in Externalization

4. まとめ

- WALS
- Linguistic Atlas of Asia
- 言語地図による言語理論研究
- Minimalist program: 統語部門は階層構造のみで、語順は音韻により外在化で決定
- 音韻と語順の相関
- データの分析
- データの公開

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