Toward a Geotypology of EAT-expressions in Languages of Asia: Visualizing Areal Patterns through WALS*

Prashant Pardeshi (Kobe University), Peter Hook (University of Virginia and University of Michigan), Colin P. Masica (University of Chicago), Hajar Babai (Kobe University), Shinji Ido (Tohoku University), Kaoru Horie (Tohoku University), Jambalsuren Dorjkhant (Tohoku University), Joungeun Kim (Tohoku University), Kanako Mori (Tohoku University), Dileep Chandralal (Okinawa University), Omkar N. Koul (Indian Institute of Language Studies), Hsin-hsin Liang (University of Virginia), Yutaro Murakami (Ibaraki University), Kingkarn Thepkanjana (Chulalongkorn University), Qing-Mei Li, Prasad Vasireddi, Terry Varma

Key words: EAT-expressions, lexical typology, linguistic areas, language contact, geotypology, transition zone, semantic evolution, radial category

1. Introduction

Drawing on the seminal work of Johanna Nichols (1999), Bickel (ms.) in his assessment of the field of linguistic typology argues that the goal of lin-

---

* Earlier versions of this paper were presented at the 28th Annual Meeting of the German Society of Linguistics (DGfS), University of Bielefeld, Germany, February 22–24, 2006 and 132nd Annual Meeting of the Linguistic Society of Japan (LSJ), University of Tokyo, Japan, June 17–18, 2006. We would like to thank the audience for their criticisms and suggestions. Special thanks are due to Taro Kageyama and Tasaku Tsunoda for their insightful comments and feedback on EAT expressions respectively in Japanese and in Australian aboriginal languages. Thanks are also due to Fariza Abidova Mirmahmadovna, Djamila Soltobaeva, K. V. Subbarao, Probal Dasgupta, Dinil Pushpalal, Md. R. Talukder and T.S.A. Reddy for sharing their native intuition. The research reported
guistic typology has undergone a change from the search of “limits of possible human languages” to explanation of “why linguistic diversity is the way it is?” In Bickel’s words: Instead of asking “what’s possible?” more and more typologists ask “what’s where why?” In this study of EAT-expressions in the languages of Asia we will address two sub-questions: (I) “What's where?” and (II) “What's why?” The endeavor undertaken here is a geographical exercise in “lexical typology” which has received relatively little attention as compared to syntactic typology.

Many of the languages of Asia have families of expressions in which a verb meaning EAT exhibits Janus-faced behavior. In some cases the subject of EAT bears the semantic role of an agent like other transitive verbs while in others it bears the role of a theme, patient, or experiencer. Note the following examples.

(1) *kono kuruma-wa yoku gasorin-o kuu*
   this car-Top\(^1\) a.lot gasoline-Acc EATS
   ‘This car really eats up the gasoline!’ [Japanese]

(2) *xué diàn.não hěn chí xiāng*
   study computer very EAT fragrance
   ‘Computer science is very hot (now).’ [Chinese]

(3) *shury khhyev nyenndri-manz byeDas-pyeTh wali.gwatun*
   child.Erg ATE sleep.Dat-in bed.Dat-on roll
   *ti pyev pathar*
   and fell floor

---

1) Abbreviations include the following:
   Acc.................................accusative  Gen....................genitive  SFP ...Sentence final particle
   Cop ..................copula  Inf ...............infinitive  Top ..................topic particle
   CP ...conjunctive participle  Instr ....instrumental  1sg...........first person singular
   Erg .................ergative  Pst ..............past tense
‘The child rolled over in bed in his sleep and fell on the floor.’
[Kashmiri]

(4) \textit{ti.cyaa choTy.aa bhaav.aa-na ti.laa ciD.av-un ti.tsaa}
her little brother-Erg her tease-CP her
\textit{tsaanglaats maar khaa.lt-aa}
very.good beating (Msg) ATE-Msg
‘Teasing her as he did, her kid brother got a good beating from her.’
[Marathi]

In example (1) the subject is presented as if bearing the semantic role of agent to the action of consuming an inedible object. In example (2) the subject bears the semantic role of theme to a stative predicate, in (3) that of subject of monovalent activity, and in (4) that of patient undergoing the action denoted by the direct object noun \textit{maar}.

In comparison to the languages of Western Europe, Asian languages have some peculiar and characteristic types of EAT expressions. In particular, there seems to be an abundance of expressions in Asia in which the ‘eater’ is the sufferer of an action (5) or the target of an instrument of violence (6) expressed as the direct object:

(5) \textit{uchi kara oidashi-o kurat.ta de onsen iku zo}
home from eviction-Acc ATE Instr baths go SFP
‘Seeing as how I was kicked out of the house, I’ll go have a soak.’
[Japanese]

(6) \textit{marat altyn-dan bichak ye.dii}
Marat Altyn-from knife ATE
‘Marat was stabbed by Altyn.’ [Kyrgyz]

A central concern of this paper is to characterize the geographic distribution in Asia of the semantic extensions of the experientially basic verb EAT in selected languages: Turkish, Persian (West Asia), Uzbek, Tajik, Kyrgyz (Central Asia), Kashmiri, Hindi-Urdu, Gujarati, Marathi, Telugu, Bangla, Sinhala (South Asia), Thai, Vietnamese, Khmer (Southeast Asia),
Chinese, Japanese, Korean, Mongolian (East Asia). We graph the areal distribution of representative EAT expressions as sets of data points on the WALS maps (Haspelmath et al. 2005) and suggest a semantic network which might explain the evolution of EAT expressions in some of the languages under investigation.

2. Methodology

In order to facilitate organization and comparison of cross-linguistic data we use as uniform a format as possible in collecting it. The format for registering the data has five components:

a. A tripartite dictionary-like entry:
   tobacchiri-o kurau (lit: side.blow EAT) ‘be struck by a chance blow; be (get) dragged into a mess’

b. Full sentence examples with a literal morpheme-by-morpheme gloss:
   so.shite  ichi.ban tobacchiri-o  kura-u-no-wa2) ultimately the.most side.blow-Acc EAT-Inf-Gen-Top
   hokkaido-no nouka   da Hokkaido-Gen farmers Cop

c. For each full sentence example a translation into normal English:
   ‘Ultimately, the ones who will suffer the most from the collateral damage are Hokkaido’s farmers.’

d. Source: (http://www.human5.2ch.net/test/read.cgi/dame/1148609021/)

---

2) For some the verb kuu has to be used in (b). Judgments may differ from region to region, speaker to speaker.

3) In Japanese there are three lexical strata for the lemma ‘eat’: meshiagaru (honorific), taberu (plain) and kuu/kurau (vulgar). In normal circumstances, the honorific form meshiagaru and the plain form taberu cannot be substituted for vulgar kurau in this expression. However, in an ironical joking situation, the honorific form meshiagaru can be used in the place of kurau as in the expression Kore demo meshi-agare! (You may as well eat this!) where kore ‘this’ refers to a bomb (taken from http://page.freett.com/jojolog/log/1035048319.html.). Being vulgar in nuance, kurau is not preferred in formal registers. Instead, it is widely used in casual speech and written versions of personal experiences such as blogs. We would like to thank Taro Kageyama for bringing these facts to our attention and also for providing the apparent counter-example.
e. Remarks on frequency, formality, cultural presuppositions, subject-properties, etc:

“The verb *taberu* cannot be substituted for *kurau* in this expression.”

Using this uniform format the authors of this paper have collected data from various sources: dictionaries, websites, native speakers, etc. To better compare data across languages we have established nine categories on the basis of the semantic role and the animacy of the subject and the abstractness of the object referents. Category A is the most basic or canonical use of EAT with a subject typically animate and an object referring to an edible thing. To organize the extended uses of EAT we have set up another seven categories (B through H below). An additional category (I) is reserved for isolated, one-of-a-kind idioms. The nine categories are:

- **Category A**: [+animate, +agentive] Subject, [+edible] Object
- **Category B**: [+animate, +agentive] Subject, [−edible] Object
- **Category C**: [−animate, −patientive] Subject, [−abstract] Object
- **Category D**: [−animate, −patientive] Subject, [+abstract] Object
- **Category E**: [+animate, −agentive] Subject, [−abstract] Object
- **Category F**: [+animate, −agentive] Subject, [+abstract] Object
- **Category G**: [−animate, +patientive] Subject, [−abstract] Object
- **Category H**: [−animate, +patientive] Subject, [+abstract] Object
- **Category I**: isolated, one-of-a-kind idioms

The subject in Categories A through D bears the role of actor; in Categories E through H, the role of undergoer (theme, patient, or experiencer). These categories are illustrated below.

- **Category A**: BASIC SENSE: [+animate, +agentive] Subject, [+edible] Object
  - Examples: {men, women, etc.} EAT {bread, water, cigarettes, betel leaf, etc.}
- **Category B**: [+animate, +agentive] Subject, [−edible] Object
  - Examples: {men, women, etc.} EAT {money, bribe, profit, rent, etc.}
- **Category C**: [−animate, −patientive] Subject, [−abstract] Object
  - Examples: {cars, computers; jobs, etc.} EAT {fuel, time, electricity, etc.}
Category D: [−animate, −patientive] Subject, [+abstract] Object (Inanimate agents perform actions.) Examples: [balls, kites, boats, rope, etc.] EAT [a bounce, swing, kink, etc.]

Category E: [+animate, −agentive] Subject, [−abstract] Object (Subjects affected by an instrument.) Examples: [humans] EAT [whip, bullets, sword, cudgel; curses, etc.]

Category F: [+animate, −agentive] Subject, [+abstract] Object (Subjects undergo action or emotion.) Examples: [humans] EAT [deception, defeat, eviction; anger, fear, sorrow, etc]

Category G: [−animate, +patientive] Subject [−abstract] Object (Inanimate subjects affected by entities.) Examples: [books, grain, knives, etc.] EAT [rust, ants, dust, etc.]

Category H: [−animate, +patientive] Subject, [+abstract] Object (Inanimate subjects affected by forces.) Examples: [crops, clothes, etc.] EAT [heat, cold, dampness, etc.]

Category I: one-of-a-kind idioms
Examples: Persian, Hindi-Urdu, Marathi, Gujarati, etc: EAT someone’s salt=benefit from X’s protection; Japanese: EAT bubble=be taken aback; Mongolian: EAT rice=crib answers from others, take a cheat sheet into an exam; Mandarin: EAT tofu=engage in adultery, etc.

Grouping EAT-expressions into these nine categories allows cross-linguistic comparison even if datasets have accidental gaps. For instance, (7) shows the presence of [EAT a scolding] in a number of languages and its absence in others:

(7.1) SOV-Prepositional languages:

a. (man) az baba-m harf khordæ-m (Persian)

b. *(man) az padara-m gap khorda-m (Tajik)
   I from father-my scolding ate-1sg
   ‘I got a scolding from Dad.’
(7.2) SOV-Postpositional languages:

c. (ben)  *baba.m-dan  *papara  ye.di-m  (Turkish)
d. *(men)  *ota.m-dan  *gap  ye.di-m  (Uzbek)
e. (men)  *ata.m-en  *urush  je.di-m  (Kyrgyz)
f.  *meely-sund  *vwahav  khyoo-m  (Kashmiri)
g. māi.ne  *pitta.ji-i-se  DaāT  khaai  (Hindi-Urdu)
h. aami  *baabaar  bokuni  khe.laa-m  (Bengali)
i. mi  *vaDilaan-ci  bolNi  khaa.lli  (Marathi)
j. mē  *baap-thi  khaasDaā  khaadhāā  (Gujarati)
k. neenu (naanna.gaari-ceeta)  *tiTlu  tınaanu  (Telugu)
l. *mama  (taatta-gen)  banum  kanawa  (Sinhala)
m. *(nae.ka)  *ebeci-hanthey  cansoli-lul  mek.ess.ta  (Korean)

(7.3) SVOX languages

p. *chān  *kin  dū?  cǎak  phāc  khāchān  (Thai)

(7.4) SXVO languages

s. *wō  bèi  bàba  chī.le  chī.mā  (Mandarin)

‘I got a scolding from Dad.’
Use of broad categories helps determine whether particular gaps are significant or accidental. For instance, while Mandarin lacks a counterpart to this particular idiom it has nine others that do belong to Category E (EAT a fist, knife, black dates (=bullets), “white eye” [=suffer contempt], etc.) whereas in Category E Thai has no EAT-expressions at all.

3. Findings

Systematic collation and categorization of EAT expressions in the Asian languages under consideration reveal interesting areal patterns. (See Appendix A for the areal distribution of representative EAT expressions as sets of data points plotted on the WALS maps.) Due to limitations of space we can show only a few representative maps of EAT expressions (from a pool of around 140 attested in one or another of the languages under scrutiny). While some metaphoric extensions of usage of the verb EAT are probably found in every language, there is a particular type (in Categories E and F) involving the subject as undergoer of a quasi-passive act performed by someone or something (who or which may qualify as the “Logical Agent”) that seems to be characteristic of Central Asia, South Asia, and to some extent also of Northeast Asia. As demonstrated by Masica (1976) these portions of Asia share a number of other typological characteristics: SOV word order, morphological causatives, use of conjunctive participles instead of conjoined VPs, presence of compound verbs, dative of experiencer-subjects, absence of a verb HAVE, etc. EAT-expressions of types E and F appear to be less characteristic of peninsular Southeast Asia (Thailand, Cambodia, Vietnam), an area which does not share the typological characteristics of the Indo-Turanian area identified by Masica (1976). Mandarin stands out as an exception: It lacks the typological characteristics of Masica’s Indo-Turanian linguistic area and yet has a number of EAT-expressions of the quasi-passive type. Perhaps this is another reflection of Mandarin’s geotypological transitional status. (See Hashimoto 1984, 1986.)

Category E includes expressions denoting physical damage (through
“eating” slaps, cudgel, whip, knife, bullets, punch, fist, kicks, a shoe-beating, a box to the ears, etc.) as well as verbal aggression (being the target of reproaches, scolding, rebukes, verbal abuse). EAT expressions in Southeast Asia are overall quite different from those in the rest of Asia. For example, Thai lacks the Category E EAT-expressions listed above altogether, while Vietnamese has a few involving physical damage but none denoting verbally inflicted damage. Although Khmer is rich in the former, it too does not permit the latter. In East Asia, Mongolian is like Thai while Japanese resembles Khmer, albeit Japanese allows EAT-expressions of the verbal type. Languages in the South of South Asia (Telugu and Sinhala in our sample) are also poor in such expressions. Hindi-Urdu in South Asia and Persian in West Asia are extremely rich in them. Overall there appears to be a cross-linguistic tendency: A language which permits EAT-expressions of verbal aggression (suffer scolding, rebuke, verbal abuse) always allows EAT-expressions denoting physical damage (beating with various instruments) and not the other way round.

The expressions in Category F are most numerous in Persian.

Extensions of the agentive aspect of the subject of the activity of eating as seen in Category B (animate agents consuming inedible objects like public funds, bribes, profit, inheritance, interest, rent, head/brain, mind, rest, air, sun, emotions, oaths) are noteworthy. Metaphoric expression of “eating” money in the form of misappropriation or bribes is widely observed (barring Japanese, where bribes are “pocketed”). Further, spending an idle life “eating” an inheritance is also widely attested across languages belonging to non-contiguous regions while making a living by “eating” is sporadic. Some of the metaphoric extensions are clearly confined to specific areas. For example, pestering someone (“eating” someone’s head or brain) is confined to Central Asia (barring Kyrgyz) and South Asia (barring Sinhala). It is absent altogether in South-East Asia and East Asia. Similarly enjoying life (through “eating” rest, fresh air and sun) is attested only in Central Asia and South Asia and only in those languages that had a fairly intense contact with Persian.
Further, among the South Asian languages, the directness and intensity of language contact with Persian also seems to play an important role in the repertoire of EAT-expressions. Hindi-Urdu (North India), which has had a longer and more extensive contact with Persian, abounds with EAT-expressions as compared with Sinhala (in Sri Lanka), which did not have direct contract with it. The languages neighboring Hindi-Urdu such as Gujarati and Marathi which have had relatively less direct contact with Persian but direct contact with Hindi-Urdu fall in between in terms of their inventories of EAT-expressions. Contact with a language rich in EAT-expressions may help in the proliferation of the repertoire of EAT-expressions through mechanisms like borrowing or calquing. (But independent developments following stimulus diffusion cannot be ruled out.) Diffusion through contact with a language rich in EAT expression like Persian is just a part of the story. Japanese, Korean, Chinese, etc. never had contact with Persian but they do possess EAT expressions in fairly sizable numbers.

The verb EAT is one of those most frequently occurring in daily speech and is semantically quite complex. The main aspects of EAT or the consumption of “food” (a word itself defined in terms of edibility) include: (i) making an item decrease as it is consumed, (ii) making it disappear altogether, (iii) incorporating one thing in another, (iv) absorbing the properties of the item eaten, (v) reacting to the properties of the eaten item, (vi) outward display or reflection of the properties of the item eaten, (vii) coming in intimate bodily contact with something, (viii) use of the mouth, (ix) living or depending on the items that are eaten, and (x) yet others still to be articulated. It is perhaps this inherent complexity which led to the development of such a wide and varied range of idiomatic EAT-expressions in the languages of Asia.

In Appendix B we offer a semantic network of Hindi-Urdu’s EAT-expressions in the form of a radial diagram which connects the meanings of EAT which are more closely related to the core meanings of the basic lexical item to those meanings which are more peripheral to it. Asian
EAT-expressions may hark back more or less directly to one or another or several of these aspects. In other cases, as the radial diagram suggests, an idiomatic EAT-expression has itself been the basis for further extensions and developments of yet other meanings.

5. Summary and Conclusion
In this paper we present preliminary findings of our ongoing work on the geographical distribution and semantic extensions of the verb denoting the experientially basic activity of eating. Based on our analysis, we map the areal patterns and point out that to a large extent they are similar to those of Masica (1976). However, there are (geographically transitional?) exceptions like Khmer and Mandarin. No connection between the distribution of Masica’s typological features and that of EAT-expressions is asserted here (although one may exist). To explain why there are clusters of EAT-expressions that emerge across languages in certain areas and not in other areas, we can appeal to two related ideas: 1. there was direct linguistic borrowing from language to language in a given area or Sprachbund, or, 2. the parallels reflect some deep-seated convergence of world view that distinguishes South, Central, and Northeast Asian peoples as a group from those living in China and Southeast Asia. While anthropologists might prefer the second kind of explanation, as linguists we would prefer the first. The problem is that it is hard to claim direct or even indirect linguistic borrowing over such a large expanse as the Indo-Turanian area.

With regards to the Category E we observed a cross-linguistic tendency: If a language has an expression expressing verbally delivered psychological damage it also has expressions denoting physical damage or injury, but the presence of the latter does not imply the presence of the former. Further, we present a tentative and highly speculative radial diagram depicting how various semantic extensions of the verb EAT might be connected. Casting the data net still further (into West Asia and Indonesia), a search into diachronic aspects and refinement of our analyses are matters that are still on the anvil.
Appendix A: Maps showing the areal distribution of representative EAT expressions

Map 1: Category A
[+animate, +agentive] Subject, [+edible] Object

EAT an apple

Map 2: Category A
[+animate, +agentive] Subject, [+edible] Object

EAT liquids

Map 3: Category B
[+animate, +agentive] Subject, [−edible] Object

EAT bribe (=take bribe)
Toward a Geotypology of EAT-expressions in Languages of Asia

Map 4: Category B
[+animate, +agentive] Subject, [–edible] Object

EAT someone’s head/brain (=pester someone)

Map 5: Category B
[+animate, +agentive] Subject, [–edible] Object

EAT the sun (=take the sun)

Map 6: Category C
[–animate, –patientive] Subject, [–abstract] Object

EAT fuel (=consume fuel)
Map 7: Category C
[-animate, -patientive] Subject, [-abstract] Object

EAT time (=consume time)

Map 8: Category D
[-animate, -patientive] Subject, [+abstract] Object

EAT kink (=coil/twist)

Map 9: Category E:
[+animate, -agentive] Subject, [-abstract] Object

EAT a beating (=be beaten)
Map 10: Category E
[+animate, −agentive] Subject, [−abstract] Object

EAT knife (=be stabbed)

Map 11: Category E
[+animate, −agentive] Subject, [−abstract] Object

EAT verbal abuse (=suffer verbal abuse/be insulted)

Map 12: Category E
[+animate, −agentive] Subject, [−abstract] Object

EAT scolding (=be scolded)
Map 13: Category F
[+animate, −agentive] Subject, [+abstract] Object

EAT cheating (=be cheated)

Map 14: Category F
[+animate, −agentive] Subject, [+abstract] Object

EAT emotion (EAT sorrow)

Map 15: Category I
[One-of-a-kind idiom]

EAT someone’s salt=be loyal to someone
Appendix B: Chart of suggested radiation of meanings of the verb EAT in Hindi-Urdu.

There is no necessary connection between the feature matrix in Section 2 and this chart. The chart illustrates a plausible sequence of semantic developments, while Section 2 is primarily concerned with developing a cross-linguistic typology of EAT-expressions. Some of these developments may have already taken place in Persian before their introduction into India.
References


Abstract

Many of the languages of Asia have families of expressions in which a verb meaning EAT exhibits Janus-faced behavior. In some cases the subject of EAT bears the semantic role of an agent while in others it bears the role of a theme, patient, or experiencer. A central concern of this paper is to characterize the geographic distribution in Asia of the semantic extensions of the experientially basic verb EAT in selected languages. We graph the areal distribution of representative EAT expressions as sets of data points on WALS maps and show that while some metaphoric extensions of usage of the verb EAT are probably found in every language, other particular types of extensions are found only in a specific area whose languages share a number of typological characteristics as shown by Masica (1976) in his seminal work on the SOV linguistic area of South, Central, and Northeast Asia. While language contact certainly has played and continues to play a significant role, we propose the independent operation of a radial network of semantic extensions as a possible complementary factor in the proliferation and convergence of EAT-expressions.
アジア言語の「EAT」表現の地理類型に向けて
— WALS を用いた視覚化の試み—

Prashant PARDENSHI (Kobe University), Peter Hook (University of Virginia and University of Michigan), Colin P. MASICA (University of Chicago), Hajar BABAI (Kobe University), 井上 慎二 (東北大学), 堀江 薫 (東北大学), Jambalsuren DORJKHAND (Tohoku University), Joungmin KIM (Tohoku University), 森 奏子 (東北大学), Dileep CHANDRALAL (Okinawa University), Omkar N. KOUL (Indian Institute of Language Studies), Hsin-hsin LIANG (University of Virginia), 村上雄太郎 (茨城大学), Kingkarn Thepkanjana (Chulalongkorn University), Qing-Mei LI, Prasad VASIREDDI, Terry VARMA

アジア言語の多くにおいては、「食う・食う等 (以下「EAT」で統一)」に相当する動詞の主語が「動作主」と「主題、被動作主、経験者」という、いわば相反する意味役割を担う、一群の表現形式を有している。本研究の第一の目的は、アジア諸語における、基本的な経験を表す「EAT」動詞の意味拡張の地理的分布の特徴づけを行うことにある。本研究では「EAT」表現の代表的な用法の地域的分布を WALS の地図上に表示する。その結果、「EAT」動詞のメタファー的拡張のうちある種のものはどの言語にも見られる反面、南・中央・東北アジアの SOV 型言語地域言語接触に関する重要な先駆的業績である Masica (1976) で示された特定の地域のみで観察される拡張も確認された。さらに、本研究では、言語接触が「EAT」表現の拡散・収束に重要な役割を果たし続けていくことには疑いがない反面、意味拡張の放射状のネットワークが、言語接触と独立して補完的な要因として働いている可能性を提唱する。

(受領日 2006 年 9 月 11 日　最終原稿受理日 2006 年 9 月 23 日)