The lexical typology of kinship

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1. Why kinship is special for lexical typology

Мой дядя самых честных правил

Когда не в шутку занемог

Он уважать себя заставил

И лучше выдумать не мог ...

Semantic range of дядя is broader than its Old Russian equivalents стрый 'MB' and уй 'FB'. First recorded evidence of merger of lumping parent's siblings is in 1178 (тётка) If we translated Евгений Онегин into Kayardild, should дядя be translated as kanthathu (F, FB) or kakuju 'MB'

Even across relatively closely-related languages (English, Russian) there are many non-equivalences in kinship semantics: English 'brother-in-law' is translatable as шурин, зять, деверь,

1A. Semantic recursiveness of social relationships

of which kinship terms are the most cohesive

- Social cognition hypothesis (Levinson, Tomasello, Enfield etc.): Much of what drove the evolution of language was evolving human capacity for social cognition
- This applies in logic, discourse and social reasoning







Reasoning about and coordinating social cognition can require complex linguistic structures, including recursion, found in:

 Machiavellian reasoning, e.g. alliance-building (my enemy's enemy is my friend),

> Thou art thy mother's daughter, that lotheth her husband and her children; and thou art the sister of thy sisters, which lothed their husbands and their children: your mother was an Hittite, and your father an Amorite (Ezekiel 16:45)

- Multiple-order embedding of other minds ->

 e.g. expressing the instinctive dislike for those who dislike us
 because of our social-category membership may require
 complex syntactic machinery (right: recursive embedding).
- Onion-layer narrative
- Embedded adjacency pairs in conversation
- Recursive application of kinship relations



Semantic recursiveness ctd

Recursion is also found in:

• Scheherezade story frames:

she recounted:

Ali Baba said:

He overheard the chief bandit saying

They would enter the town in oil jars...

 here the recursion is given by the story structure, not (necessarily) the syntax

Interruptions in adjacency pairs

[A. Is this yours? [B. You mean the one on the table?

[A. Which table? B. This one.]

A. Yes.] B. No, it must be someone else's.]

Here the recursion is given by the embedding of adjacency pairs [distributed across speakers



Semantic recursiveness ctd

And in kinship systems, and reasoning about complex kin relationships, over a potentially unbounded recursive set: FFnFBSnS were $0 < n < \infty$

E.g. Scheffler's extension rules, which give an account of how Aboriginal languages can bring in relatives of unbounded distance to manageable terms

- same-sex sibling rule places same-sex siblings in the same category, e.g. FFB = FF, MMZ=MM
- half-sibling rule places parent's children in the relevant sibling category, e.g. FS = B

Applying these two rules recursively allows us to explain why, e.g. in Kayardild, one

Tom

type of third-cousin counts simply as my sibling:

FFFBSSS > FFFSSS (by same-sex sib)

FFFSSS > FFBSS (by half-sibling)

FFBSS > FFSS (by same-sex sib)

FFSS > FBS (by half-sibling)

FBS>FS (by same-sex sib)

FS > B (by half-sibling)

Recursion of kinship operators in naturalistic corpora

High levels of recursion of kinship expressions can be found in naturalistic corpora:

Cat Stevens, being interviewed by Rolling Stone about 'Father and Son':

"Some people think that I was taking the son's side," its composer explained. "But how could I have sung the father's side if I couldn't have understood it, too? I was listening to that song recently and I heard one line and realized that that was my father's father's father's father's father's father's father's father's father speaking."

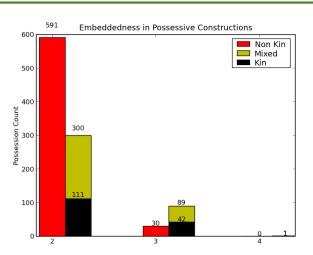
http://en.wikipedia.org/wiki/Father_and_Son_(song)



Religion has been at war with me for a long time.
And my mother...and my mother's mother.
And my mother's mother's mother's mother's mother's mother's mother's mother...religion has been promising crusade and bad blood. It makes no sense to me.
I don't see how people don't see this.

http://www.worldpulse.com/node/16791

Recursion and kin terms in the King James Bible: a corpus mini-study



```
Corpus search* of Bible for
N's N (2 levels),
N's N's N (3),
N's N's N's N (4)
Non-kin e.g. 'the well's mouth '
Kin, e.g. 'And he brought up Hadassah, that is , Esther, his uncle's daughter: for she had neither father nor mother', incl. other social-relational e.g. neighbour
Mixed, e.g. 'his father's skirt, 'thy brother's nakedness'
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Note the shift in the proportion of kinship expressions as the degree of recursion increases:

 non-kin expressions predominate in simple possessive structures, have been overtaken by both pure kin and mixed kin possessives at the second level, and by the third level only non-kin recursion remains in the corpus.

These figures suggest that it is kinship terms (and other social-relational terms like neighbour, master, servant) which create the expressive environment for multiple possessive embedding.

^{*}With thanks to Meladel Mistica for programming and carrying out the corpus search

1B. Componentiality / factorability

 Most sets of kin terms can be represented by multicomponential semantic matrices (paradigms)

Note on

• This promotes cross-linguistic comparability since the comparison of semantic range can terminology: be represented in a much more tractable form

	♂ referent ♀ referent				
	♂ speaker	♀ speaker	♂ speaker	♀ speaker	
(elder)	1	3	5	7	Maximal
(younger)	2	4	6	8	
(elder)	bi:	ubaj	edʒij	ayas	Yakut (7)
(younger)	ini	surus	balïs	balïs	
(elder/younger)	worok	wili-ngo	elut-ngo	edok	Kaulong (4)
(elder/younger)	bı	other	S	sister	English (2)
(elder)	kakak			Indonesian (2)	
(younger)	adik				
(elder/younger)	tamania	1 1 1 1	saqi	tamania	Bilua (2)
(elder)		ani ane		Japanese (4)	
(younger)	(otōto	i	mōto	
(elder)	8	ıki:n		eki:n	Evenki (3)
(younger)		neku:n			

Kin type (etic)
e.g. {+male
ego, + male
referent,
older} (or
♂EB),

Kin term
(emic), e.g.
brother, брат
({♂MeB,
♂MyB, ♀eB,
♀yB}

1C. Connection with native jurisprudence and metasemantics

- Ensures that there is often much more overt discussion of word-meanings for this domain of vocabulary than for many others, since the legal stakes are higher (marriage, inheritance, clan membership and rights to clan territories/knowledge, citizenship)
- Refer here to Hale Warlpiri Kinship problem for examples of metasemantics, e.g. 'same/different patrimoiety', 'same/different matrimoiety', 'same/different generational moiety', each with their own emic term, e.g. kiḍa 'same patrimoiety to ego', kuḍuŋuļu 'opposite patrimoiety to ego'

Overt formulation of marriage rules in terms of (potentially recursive) kinship structures:

Could I marry my own aunt's (mother's elder sister) married daughter's daughter? i.e. she is my niece, we are both Bengali, and adult. there is age difference between she & me 6 years

Best Answer - Chosen by Voters

In India , under the Hindu Marriage Act,1955 & under the Special Marriage Act,1954 there is a provision that prevent marriage between close blood relatives who are covered under the degree of prohibited relationship. Any marriage between two people who are covered under this degree of prohibited relationship will be void marriage in the eye of law & will also be bad medically for the future progeny borne out of such marriage. In this case we have to see whether the marriage between you & your mother's sister's daughter is covered under this DEGREE OF PROHIBITED RELATIONSHIP or not.

For that here is the list of such degree of prohibited relationship:-

- Mother
- Father's widow (step mother).
- Mother's mother.
- Mother's father's widow (step grand-mother).
- Mother's mother's mother.
- Mother's mother's father's widow (step great grand-mother)...

[the list continues at length...]

In your case this woman is not covered under this list of prohibited relationship hence you can legally marry her either according to the Hindu Marriage Act or under the Special Marriage Act & in both the cases it will be a valid marriage. Best Of luck! I wait for your marriage's Misti.

Source(s):

I am a Lawyer.

Source: http://in.answers.yahoo.com/question/index?qid=20071216204415AArMCt0

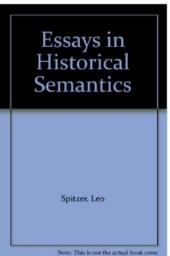


1D. Articulation with Social Structure

'of all linguistic branches, it is in semantics that the changes due to cultural development can best be seen at work, for "meaning" is the best barometer of cultural climate' (Spitzer 1947:2)

O Prophet, indeed We have made lawful to you the daughters of your paternal uncles and the daughters of your paternal aunts and the daughters of your maternal uncles and the daughters of your maternal aunts (Quran 33:50)

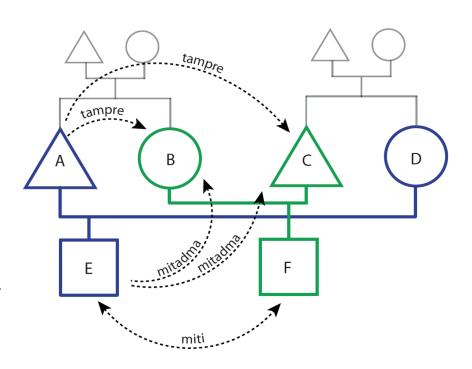




Spitzer, Leo. (1947). Essays in Historical Semantics. New York: Russell & Russell

D. Articulation with other aspects of Social Structure cont.

- Marriage rules (see above, but also 'prescribed' ideal partners in Australia, e.g. ♂MMBDD in Kayardild, Warlpiri
- Clan descent
- More specific marriage rules, such as sister exchange
- E.g. in Nen (PNG) clans with patrilineal descent are the most important social group, and this is reflected in how the cousin terms work, combined with a marriage system whose ideal is sisterexchange. For an 'unconsummated' sisterexchange a man will call his WB kamat, but if a bidirectional exchange has occurred he will call him tampre WB = ZH



And on to the reckoning of cousins...

- In Nen, clans with patrilineal descent are the most important social group, and this is reflected in how the cousin terms work
- Since my F and FB are in the same clan, so will their children be. So cousins from my FB (FBC) are known by the relevant sibling term: ane 'eB/Z, eFBC'; nngn 'yB/Z; yFBC'
- I call my MB baba. He is the clan of my mother, not my father. His children (my MBC) are in the same clan as he is, and will also be called baba
- I call my MZ ama 'M'. But normally she and my mother will have married men from different clans. Those men call each other yekeli 'WZH'. So my MZC are also the children of my father's yekeli. I call them yekeli too, which is the relationship between our clans, at the genealogical point where our relationship was established
- Ideally my M was exchanged in marriage for my FZ. My FZH=MB is my mitadma and the children of him with my FZ are my miti 'double cross-cousins'.

Articulation with sections and subsections in Australia

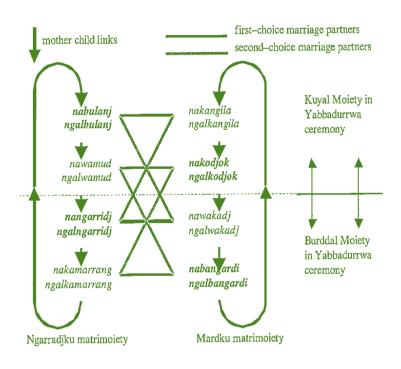


Figure 1.11: The subsection cycle (western version)

Yirridjdja subsections are shown in normal font, Duwa subsections in **bold**. From the point of view of a nakamarrang man:

- People in Nakamarrang/ngalkamarrang will be his yabok (eZ), djakerr (yZ, yB), kokok (eB),
- People in Nangarridj/Ngalngarridj will be his karrard (M, MZ, MMZD) and ngadjadj (MB, MMZS)
- People in ngalbulanj will be his kangkinj (ZC) but also his doydoyh (MMM)

In other words, the subsections form a clear template for fitting in various types of relatives who are structurally equivalent in the system

- Note:
- Z: sister (vs S = Son)
- C: child, P: Parent
- e: elder, y: younger
- = same-sex (parallel)
- ≠ opposite sex (cross)

2. A brief history of the field

Lavrovskij (1867) – investigating proto-Slavic kinship meanings

'Synchrono-diachronic method' combined cross-linguistic comparison of etyma, the synchronic analysis of the semantic field, and the study of attested variation at particular historical moments

Types of evidence

- a. historical evidence e.g. Chinese lit. tradition, recordings by earlier travellers
- b. retained earlier meanings in myths, proverbs etc. 'It is better to have nine деверь than one золовка'
- c. differences in semantic range of reference and address terms, e.g. in Song Dynasty fu 文 meant both F and FB, but King Cheng-Wang addressed his FB as shufu − originally an address term, this later became a reference term as well
- d. differences in usages of older and younger speakers

Was interested in tracking both the changes in the uncle/aunt terms (merger of MB|FB and MZ|FZ) and the changes in the cousin terms in the evolution of Russian and other Slavic languages

Krjukov, M.V.. 1998. The synchro-diachronic method and the multidirectionality of kinship transformations. In M. Godelier, T. Trautmann & Franklin E. Tjon Sie Fat (eds.) Transformations of Kinship. Washington: Smithsonian Institution Press.

Лавровский, П.А. 1867. Коренное значение в названиях родства у славян. Санкт Петербург: Тип. Имп. Акад. Наук.

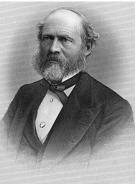
2. A brief history of the field

Lewis Henry Morgan

The remarkable results of comparative philology, and the efficiency of the method upon which as a science it proceeds, yield encouraging assurance that it will ultimately reduce all the nations of mankind to families as clearly circumscribed as the Aryan and Semitic. But it is probably that the number of these families, as finally ascertained, will considerably exceed the number now recognized. When this work of philology has been fully accomplished, the question will remain whether the connection of any two or more of these families can be determined from the materials of language. Such a result is not improbably, and yet, up to the present time, no analysis of language, however searching and profound, has been able to cross the barrier which separates the Aryan from the Semitic languages, — and these are the two most thoroughly explored, — and discover the processes by which, originally derived from a common speech, they have become radically changed in their ultimate forms. It was with special reference to the bearing which the systems of consanguinity and affinity of the several families of making might have upon this vital question, that the research, the results of which are contained in this volume, was undertaken.

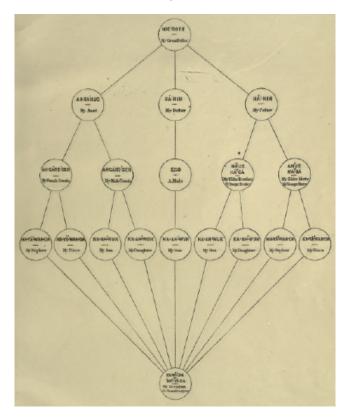
In the systems of relationship of the great families of mankind some of the oldest memorials of human thought and experience are deposited and preserved. They have been handed down as transmitted systems, through the changes of the blood, from the earliest ages of man's existence upon the earth.



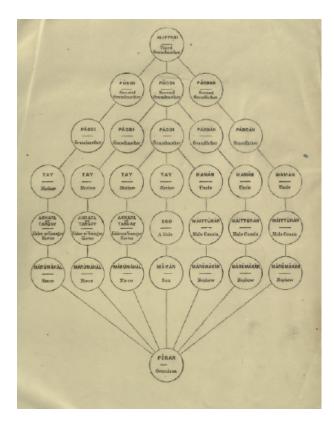


5	R-vä/	a a	Ka_wa/	u u	Ka-vä/	et ec
6	Kä-yä/-no-nä	My child.	Kä.yä/-no-nä	My child.	Kä-yä/-no-nä	My child.
8	Le-yä/-ah He-wä/-teh	My son. Lev	wis Henry	Iviorgan	Ka-ya/-ah	My daughter. My niece.
9	Me-toush/-kä	11 11	Me-chunk/-she		Me-tun/-zhan	My daughter.
10	Me-to-us/-kii	" " Cyctor	nc of Conca	nauinity	18/-28	My niece.
11	Me-toash/-kä	" " Syster	ns of Consa	riguillity a	Met/-zhä	11 11
12	Me-toze'-kä	۸ ۲۲۰۰۰	Me-chunk/-she	11 11	Me-to/-zhä	16 16
13	Me-toans'-kä Me-toaze'-kä	Affini	ty of the Hu	ıman Fam	Voh/ah	
15	Me-toash/-kä	u u	Me-chink-she		Me-to/-28	u u
16	Me-toas'-kä	44 44	Me-chunk/-she. 1870	16 61	Ne-to/-zä	ee ee
17	Me-to'-zä	11 11	Me-chunk/-sheLO./		Me-to/-zä	££ ££
18	Toosh'-pii-hii	My grandchild.	Toosh -pii-hii	My grandchild.	Toosh-pä-hä	My grandohild.
19 20	Wee-tŭsh'-pä Heen-tä'-kwä	My grandson.	Wee-tūsh/-pā Heen-tā/-kwā-me		Wee-tush/-pä	
21	E-tä'-kwä	my grandson.	E-tä'-kwä-me	My granddaughter.	Heen-tä/-kwä-me E-tä/-kwä-me	My gd.daughter.
22	Be-chose'-pä	My grandchild.	Be-chose'-pä	My grandchild.	Be-chose'-pä	My grandchild.
23	We-chose'-pā	44 44	We-chose'-pa	" "	We-chose/-pä	" "
24	E-choon-zhunk'-e-neke	My little gd. daught.	E-choonsh'-ka-neke	My little grandson.	E-choon-zhunk'-e-neke'	My little gd. dau.
25						THE RESERVE TO SERVE
26 27	Bus-bä/-he-ä	STATE OF THE PARTY	Bus-bä/-he-ä	10 10 V Cal /	Due hy/ha y	0.00
28	A'-kĭ	My father.	An'-take	My younger sister.	Bus-bä'-he-ä Suh-näk'-fish	My y'nger sister.
29	A'-kĭ	11 11	An'-take	" " "	Et-e-bä/-pĭ-shĭ-lĭ	My sister.
30	A-näk-fī	My elder brother.	An'-take	11 11 11	Et-e-bä/-pĭ-shĭ-lĭ	
31	Chuhl-kŭ-che'	My little father.	Chu-pŭ'-se	My grandmother.	Chu-pŭ/-se	My grandmother.
32	E-dau-dä/	My father.	Un-gi-dan'	My younger sister.	Un-gī-lun'-ĭ	My y'nger sister.
33	Ah-ge-do'-di E-rats'-teh	My brother,	Aŋ-ke-doh E-tä'-heh	11 11 11	An-ge-lä/-ib	Mr. aioton
35	A-te'-ase	My father.	A-tā/-he	My sister.	E-dä'-deh	My sister.
36	11-10-430 111111111111111111111111111111111111	my menon	22-03-220-220-220-220-220-220-220-220-22		A-60-110	
37	N'-de-kwä-tim'	My nephew	N'-do-sa-mis-kwame'	My step-daughter.	Neese-che-mis/	My niece.
38	N'-de-kwä-tim'	4 4	N'-do-zha-mis-kwame'	11 11	Neest-che-mish	46 46
39	N'-deh-kwä-tim'	44 44	N'-do-zha-mis-kwem'	44 44	Neest-che-mis'	11 11
40 41	Nī-nin-gwā/-niss Ne-nin-gwuh/-nis	" "	Nin-do-zhī-mī'-kwem Nin-do'-zhe-mi-quam	66 66	Nī-shī/-miss	ee ee
42	Ne-nin-gwi-nis'	" "	Nin-do'-zha-mi-quam	44 44	Ne-she'-me-sha Ne-she-mis'	
43	Ne-nin-gwi-nis'	" "	N'-do'-zha-mĭ-kwam'	" "	Ne-she-mis/	
44	Ne-nin-gwi-nis'	ee ee	N'-do'-zha-mi-kwem'	u u	Ne-she-mis/	11 11
45						

Seneca Iroquois



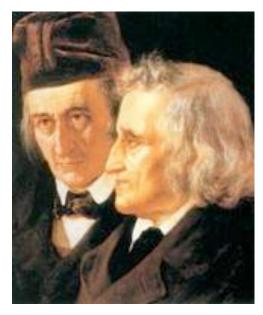
Tamil



"Uncritical semantics is the myth of a museum in which the exhibits are meanings and the words are labels" (Willard

Quine) –

a myth which can be maintained as long as we deal with familiar languages which don't vary much in their semantic structures



two brothers Zwei Brüder twee broers due fratelli dos hermanos Два брата

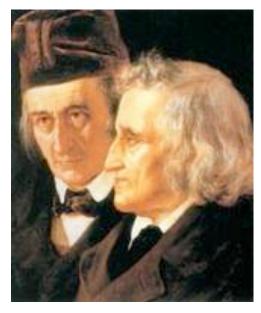


brother and sister
Bruder und Schwester
broer en zus
fratello e fratella
hermano y hermana
Брат и сестра



two sisters
Zwei Schwestern
twee zussen
due sorelle
dos hermanas
Две сестры

But in Kayardild the world is carved at different joints: we cannot use 'brother' or 'sister' in the middle picture because a different word is used for opposite-sex siblings; on top of this there is a special suffix *-ngarrb* for 'kin dyads' ('pair such that one is [Kin:X] to the other')



Two brothers Zwei Brüder Два брата

Brother and sister
Bruder und Schwester
брат и сестра



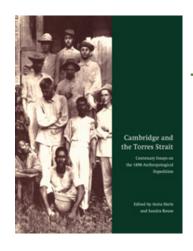
Two sisters Zwei Schwestern Две сестры

thabujungarrb

kularrinngarrb

yakukathungarrb

thabuju: older male same-sex sibling, kularrin(d): opposite sex sibling, yakukathu 'older female same-sex silbing



Methods in data-gathering

Questionnaire-type approach (e.g. Morgan's). Gets close to full coverage; very difficult to do accurately; most people find it very difficult to give terms for people with whom their relationship is hypothetical. 'Genealogical method' – usually attributed to Rivers (Cambridge Expedition to Torres Strait) but in fact was pioneered earlier by Howitt in his work on the Kurnai (McConvell & Gardner). Works with actual genealogies of real people and the terms for them, and between them. For the more obscure terms can sometimes be difficult to get coverage without working with many people

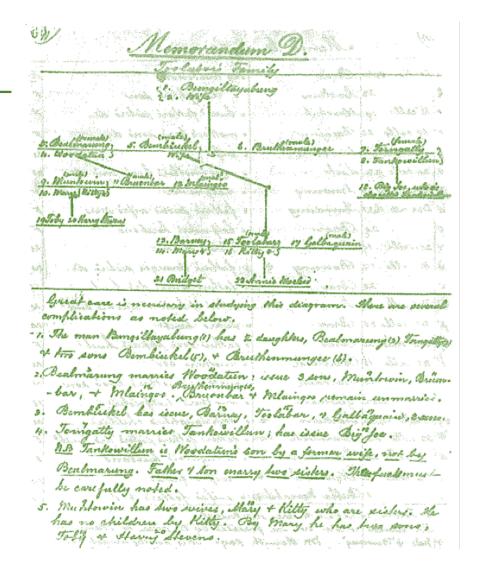
 Either way it is crucial to break down the characterisation of meanings into atomic units (expanded etic grid) to capture different ways of packaging extensions together into different intensions

The genealogical method

kinship terms. Howitt's letter describing this momentous session in the Bairnsdale autumn has been lost, but Fison replicated the details in a letter to Morgan written from his Letterbook which retained press copies of every leaf. Howitt began by laying out his own family tree with which Tulaba was familiar. Alfred Howitt = Liney Howitt with offspring Charlton, Mary, Annie, Maude and Gilbert. Tulaba then took up the sticks and provided his family tree and told Howitt which term was used between which family members. Fison described the session to Morgan:

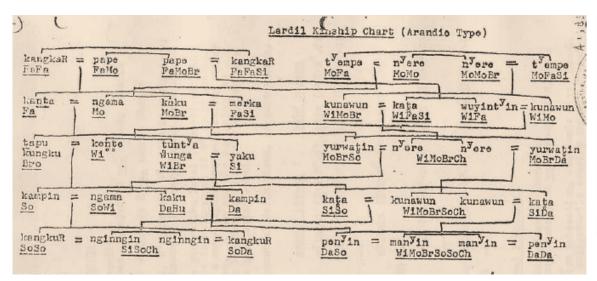
He found it impossible to make any headway in my schedule. Toolabar soon grew hopelessly bewildered, utterly failing to take in the idea conveyed by a term such as 'my father's, father's, sister's, son's daughter'. But Mr Howitt, after getting what terms that he could did not abandon the attempt in despair after the manner of but too many of my correspondents. He hit upon a simple, yet ingenious plan which produced admirable results. On the floor he constructed a sort of family tree representing the members of his own family, with which Toolabar was well acquainted. Each individual was represented by a piece of stick, and Toolabar gave the words by which one stick would address another. The results given here in the accompanying memoranda which I have made are the [...] families (no fewer than four) whose diagrams have been ascertained by means of Toolabar's sticks.⁷

Gardner, Helen & Patrick McConvell. 2015. Southern Anthropology: A history of Fison and Howitt's Kamilaroi and Kurnai. UK: Palgrave



On attending to indigenous visualisations: Ken Hale meets kinship in Australian languages

They would often correct me, you know, by saying that "It's not that way, it's this way". So for example one time when I was eliciting kinship terms—we do it on a piece of paper right, we write down a kinship chart—and so I was filling it out and I get this chart, you know, and he looked at it and said, "It's not that, it's not like that". He picked it up and he put it like this [rolling the local newspaper into a cylinder]³⁸... Or sometimes they would point at a windmill, or anything round and say, "It's like that". They would complete it. The point is that it returns, you know. It seems to me to be all part of the same thing.





Wermits Hale

Other themes

- Relevance to C19 speculation on the 'evolution of mankind', and also on the 'unity of mankind' – e.g. did a 'primitive promiscuous state' ('group marriage') precede the patriarchal family leading to the protection of property through regulated transmission
- Much of this was based on poor understanding of the native institutions, e.g. failure to understand how sections and subsections worked in Aboriginal Australia led to statements about 'early promiscuous states' or 'group marriage'

Other themes

- Language/ culture coevolution
- Nerlove & Romney (1967): pioneering typology of sibling syncretisms across 245 systems for which there was also ethnographic information
- Hypothesis: special cross-sex relations, such as brother-sister avaoidance, will tend to produce terminological distinctions between the terms used between siblings of opposite sex and those used between siblings of the same sex

The relatives of any two kin-types tend to be called by the same kinship terms, rather than by different terms, in inverse proportion to the number and relative efficacy of (a) the inherent distinctions between them and (b) the social differentials affecting them, and in direct proportion to the number and relative efficacy of the social equalizers affecting them [1949:138].

Murdock 1949

Two notes on terminology:

Many anthropologists use 'equivalence' for what lexical typologists often call 'colexification' and morphologists 'synretism'. I will mostly use the term syncretism to stress the paradigmatic aspect of semantic extension in kinship terms

Nerlove, S., & Romney, K. A. (1967). Sibling terminology and cross-sex behavior. *American Anthropologist*, *69*, 179–187.

3. Analytic preliminaries

The typologists' regret:

There is always more richness out there than can be systematicsed and compared It is necessary to prune and delimit the field to allow a manageable amount of intofmration

Some examples of what I won't be including:

- kin at further degrees of remove (e.g. 2nd cousins, MMB, FFZ, MMM (Dal doydoyh))
- sibs of sib-in-laws (e.g. mZHZ)
- other complex affinal relations (e.g. Nen yekeli mWZH, Spanish compadre 'co-parent-in-law')
- co-spouses (e.g. Nen yézég HW [cowife], , WH2), also e.g. Trumai *yutu* 'relation between two people who have or had a common lover' (de Vienne 2012)
- temporally modified relations (e.g. Mah Meri yaw 'ex-spouse's new spouse',

Semaq Beri madu? 'partner of one's spouse before or after one was married to them',

Bininj Kun-wok -modjarrkdorrinj

'(two kin) who through being cross-cousins could have become spouses

but elected to make the relationship to the potential uncle-in-law one of joking rather than affinal respect, entailing skewing of the cross-cousin relationship one generation upwards')

- more complex terms such as triangular kin terms, orphan terms etc. (though a bit more on this later)
- kinship terms reflecting residence in addition to kinship relation,
 - e.g. Примак 'son-in-law living with his wife's family'

Approaches to semantic analysis

To individual systems:

Componential analysis

Extension rules (Scheffler)

Converse classes & dyads; converse equivalence (uncle/aunt – nephew/niece;

Category levels and semantic evidence, e.g. kin hypernyms, paraphrasability with kinship verbs

Paradigmatic mapping

Componential analysis

	direct		collateral	
	male	female	male	female
+2	grandfather	grandmother	uncle	aunt
+1	father	mother		
0	brother	sister	cousin	
-1	son	daughter	nephew nied	
-2	grandson	granddaughter		

Fig. 3.4 The English relationship terminology structure for close consanguines (after Romney and D'Andrade 1969 [1964]: 378).

Generates componential specifications through combinations like:

[+2 +male +direct] for 'grandfather', [+1 +male +colateral] for 'uncle'
 Components may of course be featurised more, e.g. ±M,±Dir

Advantages:

Reveals the overall structural logic of the system
Different systems may be structured using different
components (e.g. agnate, uterine, cross, parallel,
harmonic and disharmonic are components relevant to
many Australian languages but not for English

In some cases, components correspond to native categories, e.g. Warlpiri (kinship problem), or supercategories of various types. E.g. kiḍana 'F, FB, FFBS, MH, ...': {+kuyuwapira; +kuyukari; +yapa}

Disadvantages:

components aren't definitions (Wierzbicka: circularity and uninterpretability)

No necessarily direct comparability cross-linguistically Some terms may be undefined (or work differently in different systems) e.g. cross/parallel

Scheffler, Lounsbury and Merging Rules

Merging rules (or 'equivalence rules') are essentially polysemic extensions that can apply recursively, or at specified points of the system

E.g. the 'half-sibling rule' states that: FS = B and MS = B i.e. one's father's son is one's brother, and one's mother's son is one's brother. (Not necessarily true in English with its niceties of 'half-brother' etc. but those terms play no role in Australian kinship systems0

The 'same sex sibling merging rule' states that FB = F and MZ = M (Z = sister)

Armed with these two merging rules, and applying them recursively, we can derive extensions like:

FFBSS = FFSS (half-sib) = FBS (ss sib) = FS (half-sib) = B

Accounting for the fact that in Kayardild, like many other Australian languages, the word for brother includes:

B, FBS, FFBSS, (in fact there is thabuju 'older brother (of male)' and duujint 'younger brother (of male)' so the choice between these two terms, made by relative age, needs to be mapped onto this set of referents

Differences between systems can be accounted for in terms of the particular sets of equivalence rules they have, e.g. English arguably lacks both these merging rules, Kayardild has both

Multiple levels of representation I

E.g. Warlpiri has large numbers of higher-order labels that can be used to slice and dice the kinship space into various higher-order categories, e.g. 'co-circumcision terms' such as yalpuru which includes papaḍi "EB, FS, FFBSS etc.', kukuṇu 'YB, FBS, FFBSS etc.' and wariṇiyi 'FF, FFB, FFZ, ♂SS, ♂SD, etc.'

These kin form a superordinate category that is coextensive with all those in the same subsection as ego

In Bininj Gun-wok (Evans 2003a) the 'dyad' suffix has two forms –ko and –migen, depending on whether the kin are in odd-numbered (-ko) or even-numbered generations (-miken) with respect to each other:

kakkak 'parallel grandkin, i.e. FF/MM or \nearrow SC/ $\stackrel{\frown}{\rightarrow}$ DC' > kakkakmiken '(paternal) grandfather/grandchild pair, (maternal) grandmother/grandchild pair' bey '(man's) child' > beyko 'father/child pair'

(Note that while English has 'grandkin' as a term for the first superordinate, we have no term for the second.]

Note also that many languages (English, Russian) lack overt terms for what are very clear covert superordinates in the system: e.g. we have sibling for 'brother/sister' but no term (in ordinary English) for 'uncle/aunt' or 'nephew/niece'. (Anthropologists have proposed 'nuncle' and 'nibling' respectively)

A very common type of covert superordinate is the 'double converse': evidence for 'niece' and 'nephew' forming a single category are that both are converses of 'uncle' (or aunt) and likewise evidence for 'uncle' and 'aunt' being a single category are that both are converses for 'niece' (or 'nephew')

Multiple levels of representation II

Double converse' sets often align with the composition of the dyad test: Dalabon beyko 'father and son; father's brother and his brother's son, father's sister and her brother's son'; Wurdko 'mother and child, mother's sister and child, mother's brother and his sister's child'

Double converse sets:

Wurd 'fC, fZC, mZC', nah 'M, MZ', kardak 'MB' (i.e. nah and kardak are united as 'all those who would refer to the same person as wurd ['matrichild')

Bey 'mS mBS, fBS', beydjan 'mD, mBD, fBD', mbulu 'F, FB', djongok 'FZ', i.e. bulu and djongok are united as 'all those who would refer to the same people as bey (if male) and beydjan (if female)

Ilgar kinship verbs: the impact of word class on generality of root meaning

	Verb: Vmaryarwun 'be father to'	Noun Equiv.	Verb: \(\sullag\) 'be mother to'	Noun Equiv.
Sen: Ego Jun: Ref, & 1sg>3sg.masc a-	amaryarwun '(♂ speaker) my son, (♀ speaker) my brother's son'	ŋabi ŋawiŋ	awulaŋ '(우 speaker) my son, (♂ speaker) my sister's son'	ŋabi gaɲuŋ
Sen: Ego Jun: Ref, 早 1sg>3sg.fem <i>aŋ-</i>	anmaryarwun '(♂ speaker) my daughter, (♀ speaker) my brother's so'	ŋabi ŋawiŋ	apbulan '(우 speaker) my daughter, (♂ speaker) my sister's daughter'	ŋabi gaɲuŋ
Sen: Ref, σ^1 Jun: Ego 3sg.masc>1sg η ani-	nganimaryarwun 'my father'	ŋabi buŋi	naniwulan 'my mother's brother, my paternal uncle'	ŋabi yaja
Sen: Ref, \$\begin{align*} \Pi & \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	nannamaryarwun 'my father' s sister, my paternal aunt'	ŋabi magamag a	nannawulan 'my mother'	ŋabi gamu

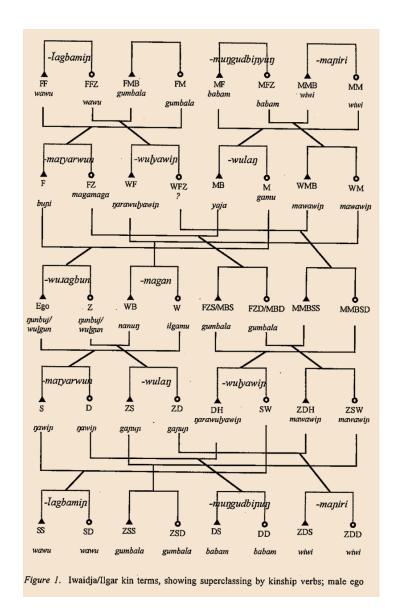
Note the many-to-one correspondence between the roots of kinship verbs, and the kinship nouns that they correspond to. In each case, the set of kinship nouns is the union of the set 'senior kin + siblings' with all its converses

Evans, Nicholas. 2000. Kinship verbs. In Petra M. Vogel & Bernard Comrie, eds. *Approaches to the Typology of Word Classes*. Berlin: Mouton de Gruyter. Pp. 103-172.

Ilgar kinship verbs: the impact of word class on generality of root meaning



Evans, Nicholas. 2000. Kinship verbs. In Petra M. Vogel & Bernard Comrie, eds. *Approaches to the Typology of Word Classes*. Berlin: Mouton de Gruyter. Pp. 103-172.



4. Problems of meaning and comparison I: extension vs intension

Suppose we list out a set of referents, e.g. Kayardild sibling terms, using an etic grid:

	еВ	уВ	eZ	yZ
o√ego	<mark>thabuju</mark>	<mark>duujint</mark>	kularrint	kularrint
♀ego	kularrint	kularrint	yakukathu	duujint

We have mapped the extension satisfactorily (at least w.r.t. kin types), but have we failed to capture the intension? What if Kayardild speakers think of the meanings of these terms as follows?

o dego	еВ	уВ	Z	Where:
	thabuju ♂e∥			#= same-sex sib
♀ego	yakukathu ♀e //	duujint y //	kularrint ≄	≠ opp-sex sib
	eZ			
		yZ	В	

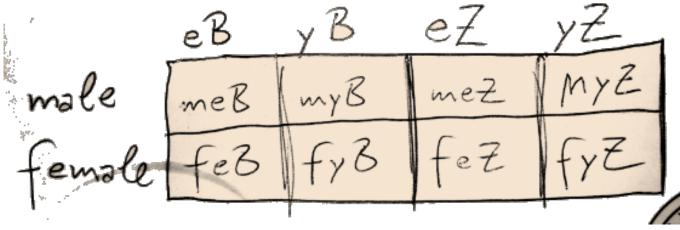
This arrangement may better reflect the intension of the terms

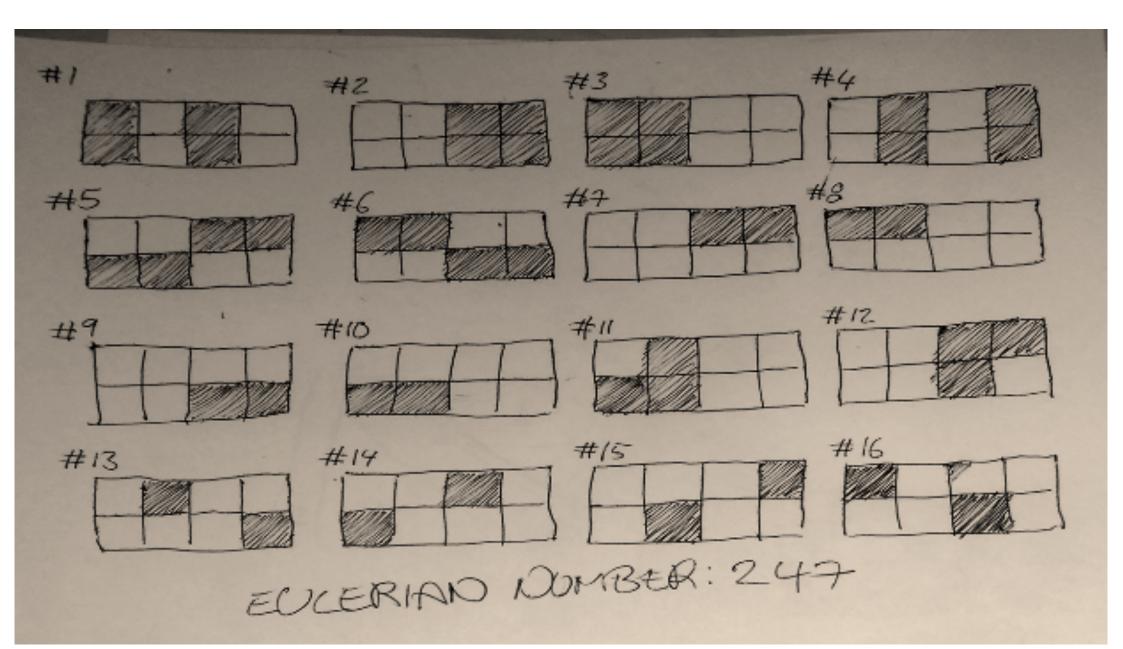
Syncretism in sibling terminology

- 247 different syncretisms are possible (Eulerian number for 8 cells)
- Multiple syncretisms per language (e.g. mEB=mYB and fEB=mEZ)
- Syncretisms can overlap but are not hierarchical

• 4140 possible sibling term systems are possible (Bell number for 8

cells)





Problems of meaning and comparison II: syncretisms, patterns, systems

We shall use the terms

'syncretism' for the semantic range of a single term

'pattern' for a recurrent assemblage of syncretisms in a subcomponent of the kinship system (e.g. siblings; affines)

'system' for the kinship system as a whole

Same syncretism; different pattern: Kayardild duujint and Watut laseng

	еВ	уВ	eZ	yZ
o dego	thabuju	duujint	kularrint	kularrint
♀ego	kularrint	kularrint	yakukathu	duujint
	eB	eZ	eZ	yZ
♂ego	eB <mark>lewiŋg</mark>	eZ <mark>laseŋg</mark>	eZ jeniŋg kefi	yZ jening kefi

Same pattern (sib terms)

Tamil, Japanese, Warlpiri (among many others)

	еВ	eZ	уВ	yZ
♂ego	<mark>papardi</mark>	<mark>kukurnu</mark>	kapurlu	ngawurru
♀ego	<mark>papardi</mark>	kukurnu	kapurlu	ngawurru

	еВ	eZ	уВ	yZ
♂ego	<mark>ani 兄</mark>	<mark>ane 姉</mark>	otōto 弟	imōto 妹
♀ego	ani 兄	ane 姉	otōto 弟	imōto 妹

(note incidentally that the phonology and writing cross-cut one another: phonology contrasts on elder vs yonger [an- 'elder', -ōto 'younger'] while the kanji emphasise sex of referent # radical for female referents)

	еВ	eZ	yВ	yZ
♂ego	<mark>ลทุกลท</mark>	<mark>akka</mark>	tambi	taŋge
♀ego	<mark>ลทุกลท</mark>	<mark>akkat</mark>	tambi	<mark>tange</mark>

But the similarity in these patterns doesn't extend right through the system, e.g. In Japanese 父さん F≠FB=MB 叔父さん while in Warlpiri and Tamil F=FB≠MB. But then Warlpiri and Tamil differ in their treatment of crosscousins: in Tamil makan FZDS=S, whereas in Warlpiri they are different (malidi and nalapi), reflecting the difference between 1st crosscousin marriage (Tamil) and 2nd cross-cousin marriage (Warlpiri) So: pattern ≠ system System is the set of all patterns (at least, those in our purview)

A caveat: beneath the analytic units

- Note that these differences are above and beyond the finergrained distinctions one might like to make between e.g. pater and genitor,
- Eg the Nayar, a Dravidian tribe of Southern India, where a girl is ritually united with a young man before her first menstruation; this may or may not be physically consummated at that point.
- He then leaves the girl, and all rights of sexual access cease on his departure. She may then enter into one or more liaisons with other men and bear children to them, and they can acknowledge their paternity with gifts. But the children do not use the term appan 'father' for such biological fathers – rather they use it to refer to the man who was ritually united with their mother in the coming-of-age ceremony

5. A grammatical interlude

Special grammatical characteristics of kinship terms (see Dahl & Koptjevskaja-Tamm (2001) for a good survey):

- a) describe two-place relationships (three-place in the case of trilrelational see below): 'kinship is treated in Russian as performing a kind of a function; cf obe prixodjatsja emu [D] vnuchkami [I] 'both are granddaughters [I] of his [D]' (Jakobson 1936 (1971))
- b) though nouns in most languages, there are also languages in which they belong to the verb category, and others where although nouns they partake of some verbal morphology
- within nouns, they may have special behaviour with respect to possession morphology (e.g. inalienable, or only Ns to allow possessive affixation, or the only nouns to allow both possessive pronouns and articles (la mia zia))
- d) in many languages they have generous derivational or syntactic possibilities not available to other nouns (dyads, bereavement terms, family group classifiers etc.)
- e) there are also a number of languages in which kinship considerations enter core inflectional morphology (e.g. kinship-sensitive pronouns)

Kinship verbs: canonical cases

Ilgar kinship verbs again

	Verb: √maṛyarwun 'be father to'	Noun Equiv.	Verb: √wulaŋ 'be mother to'	Noun Equiv.
Sen: Ego Jun: Ref, σ 1sg>3sg.masc a -	amaţyarwun '(♂ speaker) my son, (♀ speaker) my brother's son'	ŋabi ŋawiɲ	awulaŋ '(♀ speaker) my son, (♂ speaker) my sister' s son'	ŋabi gaŋuŋ
Sen: Ego Jun: Ref, \$\big \text{1sg} \text{3sg.fem } an-	anma[yarwun '(♂ speaker) my daughter, (♀ speaker) my brother's S'	ŋabi ŋawiɲ	anbulan '(♀ speaker) my daughter, (♂ speaker) my sister's daughter'	ŋabi gaṇuŋ
Sen: Ref, σ Jun: Ego 3sg.masc>1sg nani-	nanimaryarwun 'my father'	ŋabi buŋi	nganiwulan 'my mother's brother, my paternal uncle'	ŋabi yaja
Sen: Ref, ♀ Jun: Ego 3sg.fem>1sg nanna-	nannamaryarwun 'my father's sister, my paternal aunt'	ŋabi magamaga	nannawulan 'my mother'	ŋabi gamu

Iwaidja kinship verbs: no gender distinction in objects so both subject and object gender lost if kinship verb has a 1st or 2nd person subject

Language /	'he -> me':	'she-> me'	'I > him'	'I > her'
root	Ilg ŋani-	Ilg ŋanŋa-	Ilg a-	Ilg an-
	Iw ŋandu-	Iw ŋandu-	Iw aK-	Iw aK-
Ilgar √wulaŋ	<i>ŋaniwulaŋ</i> 'my	J J J	awulaŋ 'my (♀ sp.)	anbulaŋ 'my (♀
'be mother ('s	maternal uncle; ŋabi	mother or maternal	(sister's) son, my (♂	sp.) (sister's)
sibling) to'	yaja'	aunt; <i>ngabi kamu'</i>	sp.) sister's son'; ηabi	daughter, my (♂
			kanun'	sp.) sister's
				daughter'; ŋabi
				kanun'
Iwaidja	ŋanduwulaŋ	nanduwulan 'his/her	abulaŋ 'my (♀ sp.)	abulaŋ 'my (♀ sp.)
$\sqrt{wula\eta}$ 'be	'his/her maternal	mother or maternal	(sister's) child, my (♂	(sister's) child, my
mother ('s	uncle; <i>ŋabi yaja</i> '	aunt; <i>ngabi kamu'</i>	sp.) sister's child' <i>ŋabi</i>	(♂ sp.) sister's child'
sibling) to'			kanun / kanun / nayan'	nabi kanun / kanun /
				ŋayaŋ'

Evans, Nicholas. 1998. Iwaidja Mutation and its Origins. In A. Siewierska and J. J. Song, eds., *Case, Typology and Grammar: In honour of Barry J. Blake.* Amsterdam: John Benjamins. Pp. 115-149.

Why call these verbs?

- (a) shared argument-marking morphology (subject + object); cf nanna-wula-n 'my mother', nanna-wu-n 'she hit me'
- (b) shared possibility of forming reciprocals through derivational affixation with —njildi, with accompanying reduction of valence from two to one and use of intransitive prefix form, cf ini-wuqakbun 'her older brother, lit. [the one such that] he is older sibling to her', a-wuqakbunjildin 'siblings, lit. [the ones such that] they are older siblings to each other'
- (c) shared TAM morphology (manipulable to express e.g. 'my ex-/late wife; my future younger brother etc.', though note that most kinship verbs use the PstPerf as the base (denoting the 'set-up' of the relationship, e.g. etymologically 'she brought me forth' for 'my mother')

Extension through the lexicon: many more kin terms have their own kinship verbs, e.g.

-ldakbamin 'be father's father to' -makan 'be husband to'

-mungudbinun 'be mother's father to' -wuҳakbun 'be older sibling to'

-wuryawin 'be wife's father to'

All have 'downwards kinship semantics' in terms of their projection from kinship role to verb argument

Kinship verbs as headless relative clauses

A kinship verb like ri-makan [3sgA>3sg-be.husband.to] can form referring expressions by taking the pivot as

(a) the subject

'her husband: the one; such that he; is husband to her' (cf 'the one that loves her')

(b) the object

'his wife: the one; such that he is husband to her;' (cf 'the one that he loves')

(c) the unification of subject and object

'husband and wife pair: the ones $_{\{i,j\}}$ such that $he_{\{i\}}$ is husband to $her_{\{j\}}$ ' (cf *'those two that he loves her')

(d) a subset of a plural subject

'your brother: the one; such that {you and he}_{i,j} are.in.the.same.lineage' (cf *'the one; that they_{i,j} live here')

(a) and (b) are well-attested pivot types in cross-linguistic syntax; (c) and (d) are highly unusual (perhaps unique?)

Verbal morphology on kinship nouns

Tiriyo (Meira 1999): reflexive/reciprocal prefix ët-, ëi-, e- used with

- (a) verbs
- (b) symmetric relational nouns roots like 'friend', 'brother' etc.

Adyghe (Rogava & Keresheva 1966:276-77): verbal reciprocal prefix ze- is extended to 'nouns, which can express reciprocal relationships', e.g. 'brother', 'age-mate', 'comrade' Ainu (Tamura 2000:205-6) u- 'reciprocal': u-nukar 'look at each other'; u-irwak-ne 'to be (each other's) siblings'

Koyukon (Jetté & Jones 2000), Beaver (Jung 2006) and several other Athabaskan languages: same forms of pronominal affix for (i) object of verb (ii) possessor of noun. These include a reciprocal form, which can be used on relational kin terms e.g. Lake Trembleur Carrier Ih-k'ekoo 'relatives (of each other)'

Jetté, Jules & Eliza Jones. 2000. Koyukon Athapaskan dictionary. Fairbanks: Alaska Native Languages Centre. Meira, Sergio P. 1999. A grammar of Tiriyó. Unpublished Ph.D. Thesis, Rice University. Rogava, G.V. & Kerasheva, Z.I. 1966. Grammatika Adyghejskogo Jazyka. Krasnodar: Maykop. Tamura, Suzuko. 2000. The Ainu language. Tokyo: Sanseido.

Relational characterisation of individuals in the lexicon: Dyad constructions



John Mawumdjul, Yawk Yawk 1990 natural orbites on eucalyptus tetradonta, 164×84 cm

Kayardild examples of the 'dyad' suffix (= Hale's 'reciprocal kinship'):

kularrinda 'opposite sex sibling' (sister of man; brother of woman), kularrinngarrba 'brother and sister; opposite sex sibling dyad' ngamathu 'mother', ngamathu-yarrngka [mother-DUAL] 'two mothers', ngamathu-ngarrb 'mother and child'

Note the complex semantics: though some dyad terms are genuinely reciprocal (e.g. kularrinngarrba 'two who are opposite-sex siblings to each other') others are not (*ngamathungarrba *"each other's mothers') and a more general characterisation of the dyad suffix [K-DYAD] would be 'pair such that one is K to the other', i.e. this is a referring expression whose semantics includes a two-place predicate within it.



Johnny Mawurndjul: Mardayin ceremony

In fact some languages (e.g. Kunwinjku) have distinct dyad suffixes depending on whether the kinship relation is self-reciprocal (-miken) or not (-ko):

kakkak 'parallel grandkin, i.e. FF/MM or \triangleleft SC/ \triangleleft DC' > kakkakmiken '(paternal) grandfather/grandchild pair, (maternal) grandmother/grandchild pair' bey '(man's) child' > beyko 'father/child pair'

Kinship sensitive pronouns in Lardil

gata kaput'in # I'm hunging.
baka n'ingki kaput'in # Oreyon
hungry,
yata wulba# I'm full loara biri baput in # are yi # nyalmu lagent in #
yes we are all hugyy,
yi # nyari laput'in #
yes we du bros are hugyy.

kaRa kiri kaput^yin # Are you du (bros, panjis hungry) kaRa nyi(·)nki kaput^yin# Are you du cousins, fa-so, mo-da hungry?

'a principle which is a proper part of the kinship system also functions as an important principle of opposition within a grammatical paradigm'

Hale, Kenneth 1966 Kinship Reflections in Syntax: Some Australian Languages. Word 22:318-324.



Dick Roughsey (Goobalathaldin; Lardil artist): Corroboree

Pronouns in Lardil: the full set

	1st person exclusive	1st person inclusive (including you and me)	2nd person	3rd person
The second	ngada		nyingki	niya
dual harmonic dual disharmonic	nyarri	ngakurri	kirri	birri
	nyaan	ngakuni	nyiinki	niinki
plural harmonic plural disharmonic	nyali	ngakuli	kili	bili
	nyalmu	ngakulmu	kilmu	bilmu

Lardil: 19 terms

English: 5 terms I (> 1L) he/she (1L) we (8L) you (5L) they (4L)

Hale, Ken. 1973. Deep-surface canonical disparities in relation to analysis and change: an Australian example. In T.A. Sebeok (ed.) *Current Trends in Linguistics 8: Linguistics in Oceania*. The Hague: Mouton. 401-458.



The harmonic/disharmonic contrast and grammatical metaphor in Dalabon

barra-h-bo-n

(darruhko/winjkûnko)

3duHARM-Assert-go-PR pair.of.brothers/maternal.grandmother/grandchild.pair 'they two go'

(relatives in 'harmonic' generations, e.g. two brothers, grandparent and grandchild')

ke-h-bo-n

(beyko / wurdko etc.)

3duDISHARM-Assert-go-PR

father.child.pair/mother.child.pair

'they two go'

(relatives in 'disharmonic' generations, e.g. father and son,

mother and daughter, aunt and niece)



Alpher, Barry. 1982. Dalabon dual-subject prefixes, kinship categories, and generation skewing. In Jeffrey Heath, Francesca Merlan and Alan Rumsey (eds.) Languages of kinship in Aboriginal Australia. 1982:1-18.

Evans, Nicholas. 2003. Context, culture and structuration in the languages of Australia. Annual Review of Anthropology 32:13-40.

Triangular kin terms and multiple perspective

A number of Australian languages have special kinship registers developed to encode dual perspective when talking about kin – or, perhaps more accurately, to triangulate between speaker, addressee and referent in referring to kin, by simultaneously encoding the relation of both speaker and hearer to the referent, thereby indexing the nature of the speaker-hearer relationship across a wide range of relationship types

Cf the 'pragmatically implicit anchor' in English

(a) Where 's mum?

Possible readings are:

Where's my mum? (esp. if said by a child), i.e. egocentric

Where's your mum? (esp. if said to a child), i.e. tucentric

Where's our mum? (e.g. if said between siblings), i.e. nostrocentric

Where's his/her mum? (e.g. said empathetically about a child in the universe of discourse), i.e. altercentric

Evans, Nicholas. 2006. View with a view: towards a typology of multiple perspective. *Berkeley Linguistics Society* 93-120.

Garde, M 2013, *Culture, Interaction and Person Reference in an Australian Language*, John Benjamins Publishing Company, Amsterdam/Philadelphia.

Merlan Francesca. 1989. Jawoyn relationship terms: interactional dimensions of Australian kin classification. *Anthropological Linguistics*. 31:227-64.

A fourth solution: triadic terms

A fourth possibility (implicit in Dubois' formulation, though not pursued there) is to *triangulate* on the referent: use a term which simultaneously calculates the kinship relationship from two perspectives at once, as illustrated by the following two terms from Bininj Gun-wok (Mayali dialect):

- (8a) Algarrng baleh ka-yo?
 Your.mother.my.daughter where 3sg-lieNPst
 'Where is the one who is my daughter and your mother?' ("Where's mum?")
- (8b) Aldoingu ka-yo kuréh.

 My.mother.your.daughter 3sg-lieNPst there

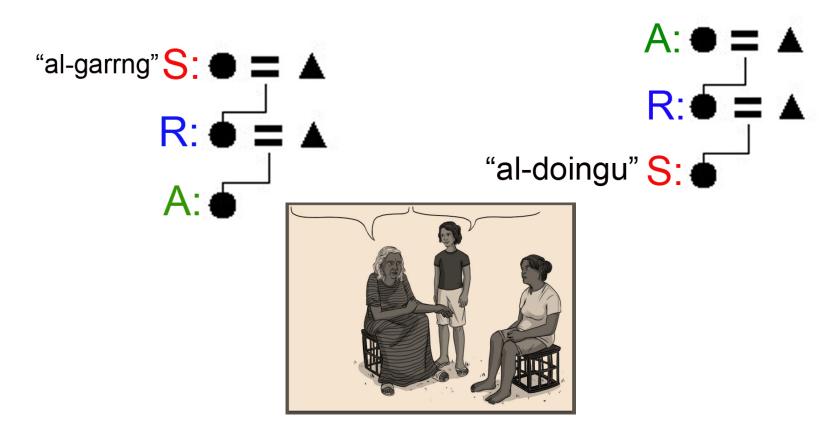
 'The one who is my mother and your daughter is over there.'

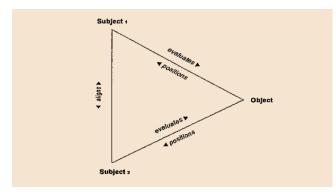
 ("Mum's over there.")



Now looking at some Kunderbi terms more closely:

We can model the conditions for using them correctly by superposing the speaker (S) and addressee (A) relations to the referent (R) on the genealogical relations between the three entities:





The 'stance triangle' (Dubois 2007)

Some sample terms for referring to 'mother' in Kunderbi, out of c. 150 distinct Kunderbi lexemes

Djongok 'the one who is my mother-in-law and your mother; we being husband and wife'

Kakkak 'the one who is my mother and your mother's mother; you being my mother'

Karrangh 'the one who is my brother's wife and your mother, you being my brother's son'

Karrard 'the one who is my mother and your mother-in-law; we being husband and wife'

Makkah 'the one who is my mother and your father's mother, you being my nephew/niece'

I.e. Kunderbi terms *triangulate* on the referent, by using a term which simultaneously calculates the kinship relationship from two perspectives at once. The ability to do this is highly valued, as fine, courteous speech – and is typically not acquired fully until the 20s or later.

- (a) Algarrng baleh ka-yo?
 Your.mother.my.daughter where 3sg-lieNPst 'Where is the one who is my daughter and your mother?' ("Where's mum?")
- (b) Aldoingu ka-yo kuréh.

 My.mother.your.daughter 3sg-lieNPst there

 'The one who is my mother and your daughter is over there.'

 ("Mum's over there.")

DuBois, John. 2007. The stance triangle. In Robert Englebretson (ed.) Stancetaking in Discourse. Amsterdam: John Benjamins.

Is kintax an Australian freak show? (a) Dyad terms

Dyad type	Language	Source	Example
Formed by adding 'possessive reciprocal' prefix <i>neel</i> - to kinship root	Koyukon Athabaskan	Krauss (2000)	neel-to' 'father and child' [lit. 'each other's father'; cf neel-ghale 'each other's packs']
Dyad suffix (though also allows extra 'shared experience' sense)	Mapudungun	Augusta 1905; Evans, Golluscio & Mellica (2010)	fotim-wen [o son-DYAD] 'father and son', but also misha-wen 'pair who have dined together from the same plate'
Family Group Classifiers [FGC]: Num + FGC + K 'group of Num, including a K'	Yi (TB; Southern China)	Bradley (2001)	sm ²¹ ma ³³ za ²¹ [three FGC.including.mother] 'mother + 2 children; but also e.g. father, mother and child'

Augusta, Félix José de. 1903. *Gramática araucana*. Valdivia: Imprenta Central L. Lampert.

Bradley, David. 2001. Counting the family: family group classifiers in Yi (Tibeto-Burman) languages. *Anthropological Linguistics* 43.1:1-17. Evans, Nicholas, Lucía Golluscio and Fresia Mellico. 2010. La construcción diádica en Mapudungun y sus implicancias tipológicas. *LIAMES* (*Línguas Indígenas Americanas*) 10: 49-66.

Krauss, Michael. 2000. Appendix H. Koyukon kinship. In Jette and Jones Koyukon Athabaskan Dictionary. , p. 815-822.

(b) kinship-sensitive pronouns and triangular kin terms

Phenomenon	Language	Reference	Example
Kinship-sensitive pronouns 1	Nagovisi (Bougainville Is., PNG)	Nash 1974	ne 'we' nenabora 'we[FZ/BC; HM/SW' nenamisira 'we[BW/HZ]' nii 'we [WM/DH]' ninga 'we [relationship uncertain, strangers] Plus 4 others
Kinship-sensitive pronouns 2	Angan languages (PNG Highlands), e.g. Menya	Whitehead 2004	yä-mät-qiye 'we two [F/S] qe-mät-aŋgi 'you two [F/S]' etc.
Triangular kin terms	Mẽbêngôkre (Jê, Brazilian Amazon)	Lea 1986, 2004	<i>aparidjwoj</i> 'the one who is your granddaughter or niece, and my daughter'

Lea, Vanessa. 1986. Nomes e *nekrets* Kayapó: uma concepção de riqueza. PhD thesis, Museu Nacional, Universidade Federal de Rio de Janeiro.

Lea, Vanessa. 2004. Aguçando o entendimento dos termos triádicos Měbêngôkre via os aborígenes australianos: dialogando com Merlan e outros. *Liames* 29-42.

Nash, Jill. 1974. *Matriliny and modernisation. The Nagovisi of South Bougainville*. Port Moresby & Canberra: New Guinea Research Unit.

Whitehead, Carl. 2004. *A reference grammar of Menya, an Angan language, Papua New Guinea*. Unpublished Ph.D. dissertation, University of Manitoba.

(c) kinship verbs

Widespread in North and Central America (including Iroquoian, Caddoan, Yuman, Uto-Aztecan) – semantics varies from Ilgar-style 'be K to', through 'call K' (e.g. in Yuman) or 'have as a K' (Hopi)

Their verbal status was first recognised by Cuoq (1866): Les noms, ou pour mieux dire, les verbes de parenté et d'affinité (puisqu'ils se construisent avec les préfixes verbaux),

systematised for Yuman by Abe Halpern (1942)

discussion of abstract root semantics by Kay (1975) (though without mentioning their verbal status) limited typological survey by Amith & Smith-Stark (1994)

recent discussion of Oneida terms by Koenig & Michelson (2010), examining the split of nominal and verbal properties and the relationship of noun vs status in the lexicon to argument structure (N vs N-1 arguments)

Amith, Jonathan D. & Thomas C. Smith-Stark. 1994a. Predicate nominal and transitive verbal expressions of interpersonal relations. *Linguistics* 32:511-547.

Cuoq, J.A. 1866. Études Philologiques sur quelques langues sauvages de l'Amérique. Montréal: Dawson Brothers.

Halpern, Abraham. 1942. Yuma kinship terms. *American Anthropologist* 44:425-441.

Kay, Paul. 1975. The generative analysis of kinship semantics: a reanalysis of the Seneca data. Foundations of Language 13:201-214.

Koenig, Jean-Pierre & Karin Michelson. 2010. Argument Structure of Oneida Kinship Verbs. IJAL 76.2:169-205.

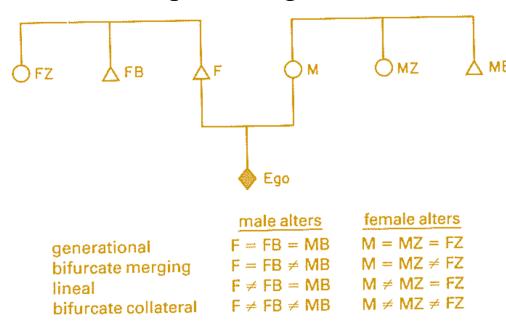
6. Tackling the core of kinship typology

- Sites of 'classic' typological differences
- +1 generation (Greenberg on universals)
- Affines (relevant to whether the system is 'universal'
- Sibs (Nerlove & Romney) including number of possibilities
- Grandparents' generation (cf Australian context)

Classic Kinship Typologies 1

Lowie 1928, 1929 /Kirchhoff 1932

Based on patterning of distinctions / syncretisms in +1 generation



1. Common 'Type names' in kinship literature e.g. Murdock

Generational: Hawaiian

Bifurcate merging: Dravidian, Iroquois

Lineal: Eskimo (Italian, English, modern Russian Bifurcate collateral: Sudanese (included Latin, old

Russian, old Germanic)

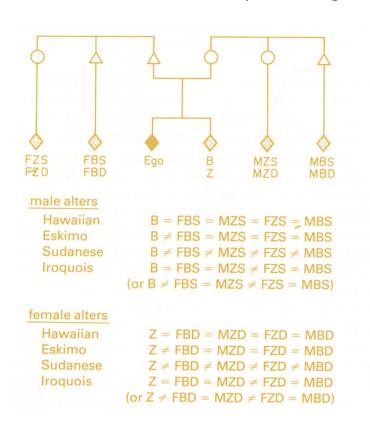
2. Note the logical possible but unattested type MB=F≠FB – Greenberg attributes this gap to the lack of any shared semantic characteristics between MB&F as against FB

The Lowie-Kirchhoff typology for first ascending genealogical level.

Kirchhoff, Paul. 1932. Verwandtschaftsbezeichnungen und Verwandtenheirat. *Zeitschrift für Ethnologie* 64:41-72. Lowie, Robert H. 1928. A note on relationship terminologies. *American Anthropolo*gist 30:263-267.

Classic Kinship Typologies 2

Murdock 1949: Based on patterning of distinctions / syncretisms in ego's generation



1. Common 'Type names' in kinship literature e.g. Murdock

Generational: Hawaiian

Bifurcate merging: Dravidian/Iroquois

Lineal: Eskimo

Bifurcate collateral: Sudanese

2. Note the logical possible but unattested type MB=F≠FB – Greenberg attributes this gap to the lack of any shared semantic characteristics between MB&F as against FB

Murdock, George Peter. 1949. Social Structure.

New York: Free Press.

Presumed 'harmonic traits' underly the use of the same typology for +1 and 0 generations

- 'Sudanese' system in Latin and Old Russian applied both at +1 and 0 levels
 Latin: F pater ≠ FB patruus ≠ MB avunculus, M mater ≠ MZ matertera ≠ FZ amita
 FS: frater ≠ FBS frater patruelis ≠ filius avunculi ≠ MS [frater] ≠ filius consobrinus ≠ FZS amitinus
- 2. Eskimo system in Italian and Modern Russian applies both at +1 and 0 levels Italian: F padre ≠ FB zio = MB zio, M madre ≠ MZ zia = FZ zia
- 3. Tamil and Warlpiri: Bifurcate merging (Iroquois, Dravidian) in +1 generation; sibs & parallel cousins vs cross-cousins in +0 generation, e.g. Warlpiri papadi eB, FBS vs wankili MBS

Essentialising typologies

- The classic types Imply coselection of traits
- But problems where they don't
- Unsatisfactory nature of 'mixed systems' in these typologies
- Better to allow for the fact that 'systems' are at best recurrent cooccurrences of pattern in different parts of the paradigm

Some examples of 'disharmonic' systems (where patterns aren't harmonic across subsystems)

- 1. Kala Lagaw Ya (Pama-Nyungan, Torres Strait):
- +1 generation is bifurcate merging (Dravidian/Iroquois)
- O generation is Hawaiian, with same-sex/opposite-sex semantics

	F	FeB	FyB	FeZ	FyZ	M	MyZ	MeZ	MyB	MeB
male	tati	tati	tati	ngaibat, kutapu	ngaibat, kutapu	apu	apu	apu	wadwam	wadwam
female	tati	tati	tati	ngaibat, kutapu	ngaibat, kutapu	apu	apu	apu	wadwam	wadwam

	еВ	yB	eZ	yZ		FBS	FBD	FZS	FZD	MBS	MBD	MZS	MZD
male	tukoiab	tukoiab	babat	babat	male	tukoiab	babat	tukoiab	babat	tukoiab	babat	tukoiab	babat
female	babat	babat	tukoiab	tukoiab	female	babat	tukoiab	babat	tukoiab	babat	tukoiab	babat	tukoiab

Some examples of 'disharmonic' systems (where patterns aren't harmonic across subsystems)

- 2. Southeast Ambrym (Oceanic, Vanuatu):
- +1 generation is Sudanese on paternal side but Dravidian on maternal side 0 generation is Dravidian on both sides but with same-sex/opposite-sex semantics

	F	FeB	FyB	FeZ	FyZ	M	MyZ	MeZ	MyE	B Me	В				
male	tame	рар	pap	tine	tine	nine	nine	nine	metu	ıo met	uo				
female	tame	рар	рар	tine	tine	nine	nine	nine	metu	ıo met	uo				
	10														
	еВ	уВ	e.	Z	yZ			FBS	FBD	FZS	FZD	MBS	MBD	MZS	M
male		_	\top		y Z ninne	male							MBD avukokon		M z

Some examples of 'disharmonic' systems

- 3. Western Bukidnon Manobo (Austronesian, Philippines):
- +1 generation is Eskimo/English/Russian type
 0 generation is Hawaiian (sibs=counsins) but with same-sex/opposite-sex (and sex of speaker for opposite sex)

	F	FeB	FyB	FeZ	FyZ	M	MyZ	MeZ	MyB	MeB
male	amey	anggam	anggam	aya'	aya'	iney	aya'	aya'	anggam	anggam
female	amey	anggam	anggam	aya'	aya'	iney	aya'	aya'	anggam	anggam

	eB	yB	eZ	yZ		FBS	FBD	FZS	FZD	MBS	MBD	MZS	MZD
male	suled	suled	etevey	etevey	male	suled	etevey	suled	etevey	suled	etevey	suled	etevey
female	me'emahan	me'emahan	suled	suled	female	me'emahan	suled	me'emahan	suled	me'emahan	suled	me'emahan	suled

Before leaving the classic kinship typologies

- Crow and Omaha systems unlike those just discussed, these are based on syncretisms across generations
- Crow: FZ = FZD = FZDD; F = FB ≠ FZS ≠ FZDS
- Omaha: MB = MBS = MBSS; M = MZ = MBD = MBSD
- Essentially these systems extend terms up and down lineages, typically for those lineages that lie outside one's own clan, and commonly based on the kin type that is the 'intersection point' between two clans

Crow skewing and matriliny in Trobriand kin terminology

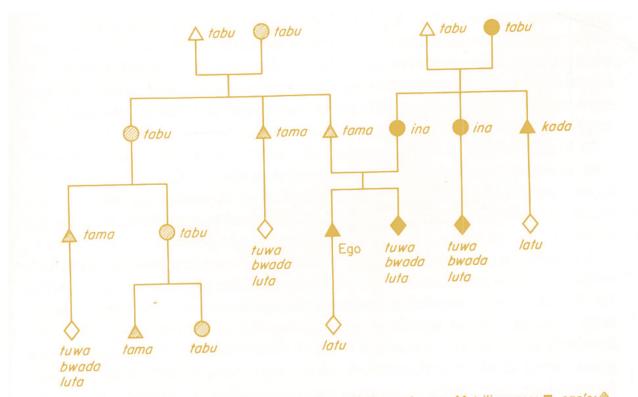


Fig. 4.3 Trobriander relationship terminology (partial), for male ego. Matrilineages: ■, ego's; ♦, ego's father's; ♦, others. Tuwa, elder same-sex sibling, etc.; bwada, younger same-sex sibling, etc.; luta, opposite-sex sibling.

Crow skewing of the terms tabu and tama in Kilivila (Trobriands, PNG):

Tabu: FM, FZ, FZD, FZDD, i.e. female members of father's matriline.

Tama: F, FB, FZS, FZDS
Given that marriage into this
clan would be considered
incestuous, the etymological
relationship to the colexified
meaning 'taboo' of this form in
many Oceanic languages is not
coincidental

(Diagram from Barnard & Good, Orig. from Malinowski 1932:434-5)

Formulating trait coselection in postessentialising typology

These examples show that

(a) there certainly are strong correlations between semantic patterns in different parts of the system, .comparable to Greenbergian implicational universals

```
E.g. [(B, FBS) \neq MBS] \rightarrow [(F, FB) \neq MB] (Dravidian, bifurcate merging) [B \neq FBS \neq MBS \neq MZS] \rightarrow [F \neq FB \neq MZ] (Sudanese)
```

(b) Going upwards, the corresponding correlations appear to be tendencies rather than absolute universals

E.g. $[(F, FB) \neq MB) \approx (B, FBS) \neq MBS$ (where $\approx > means$ 'tends to implicate (statistically)

To really test these implications we need as large a database as possible of the world's kinship systems

The parabank project

So far we have data for c. 375 families but these Are overwhelming concentrated in the Pacfic and we

Would like to extend our coverage

Please contact me if you could like to contribute (Simplest way to upload at present is to use the .xls spreadsheet distributed earlier



Glottobank is an international research consortium established to document and understand the world's linguistic diversity. Glottobank team members are pursuing this goal on two fronts. First, we have established five global databases documenting variation in language structure (Grambank), lexicon (Lexibank), paradigm systems (Parabank), numerals (Numeralbank), and phonetic changes (Phonobank). In doing so, we seek to develop new methods in language documentation, compile data on the world's languages and make this data accessible and useful. Second, we are developing methods to use this data to make inferences about human prehistory, relationships between languages and processes of language change. We anticipate data will begin to become available in 2018.

Grambank

Grambank is a database of structural (typological) features of language. It consists of 200 logically independent features (most of them binary) spanning all subdomains of morphosyntax. The Grambank feature questionnaire has been filled in, based on reference grammars, for over 500 languages. The aim is to eventually reach as many as 3,000 languages. The database can be used to investigate language prehistory, the geographical-distribution of features, language universals and the functional interaction of structural features.

Lexibank

Lexibank is a public database and repository for lexical data from the languages of the world. Currently, Lexibank contains lexemes and cognate judgments from ~2500 languages spanning Africa, Europe, Asia, the Pacific, and the Americas. The database will be used to refine cognate judgments, infer language relationships, construct language phylogenies, test hypotheses about language history, investigate factors that affect the mode and tempo of language evolution, model sound change, and facilitate quantitative comparisons with other types of linguistic data. The initial focus of Lexibank will be on compiling basic or core vocabulary, but ultimately the database will be expanded to include a full range of lexicon from all the world's languages.

Parabank

Parabank is a large database of selected paradigmatic structures found in the world's languages, focusing on the patterning of formal similarities and identities (or *syncretisms*) between cells in these paradigms (cf *I* vs *me* but *you* vs *you*). It is motivated by the observation that different languages and language families have significantly different patterns in their syncretisms and that at least some of these are stable through time. In addition, information arranged in matrices gains additional power because of the large number of values that can be calculated by comparing every cell with every other cell.

Because the paradigms we explore are ubiquitous across the world's languages, our working hypothesis is that paradigmatic syncretisms can provide significant signal to linguistic relationships in time, and the database is designed to allow the systematic exploration of morphosyntactic features by linguistic typologists and evolutionary biologists. Additionally, Parabank will be an important resource to assist in the identification and quantification of some of the important mechanisms in how the design space of language evolves. Initially, the database will assemble paradigms of free pronouns, verb agreement, and a subset of kin terms, with subsequent plans to incorporate demonstratives/interrogatives/indefinite pronouns/negative pronouns, numeral systems, and other promising linguistic subsystems with paradigmatic structure.

Parabank will be led by Nick Evans, Simon Greenhill and Kyla Quinn, all based at the Australian Research Council Centre of Excellence for the Dynamics of Language (CoEDL), at the Australian National University (ANU), but welcomes the participation of any interested researcher. Funding will primarily come from the CoEDL.

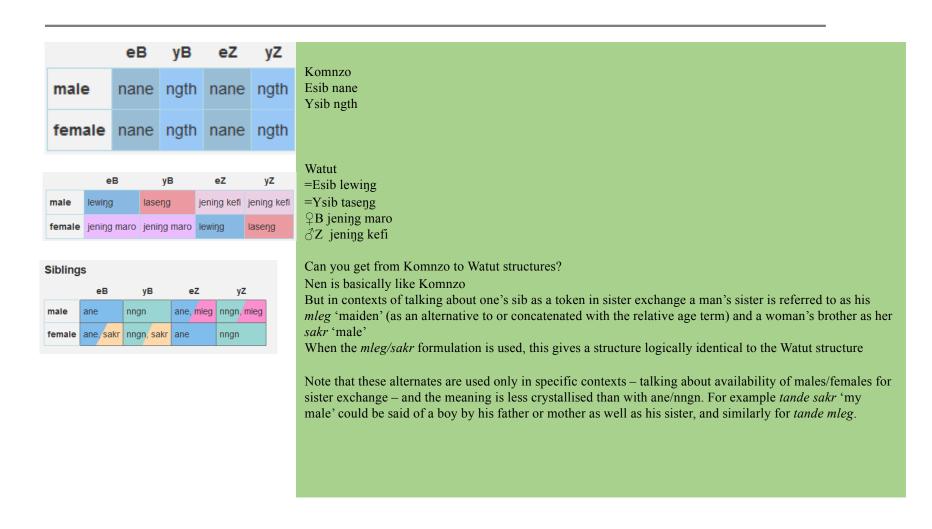
7 Diachronic semantics of kinship: six questions

- (a) how can we use data from attested change, attested variation, and the distribution of attested patterns in the design space to constrain our models of change?
- (b) are there clear principles of 'diachronic coselection' such that changes in one part of the system depend upon, or entail, changes in another part (e.g. sibs and cousins wrt. parents and nuncles)
- (c) can we use (a), and other principles (e.g. sound change, etymology, loanword study), to reconstruct earlier kinship systems from their descendants?
- (d) can we relate changes in kinship systems to other changes in social structure and/or language contact?
- (e) are changes in kinship systems unidirectional or bidirectional?
- (f) can we realise Morgan's hope that the data on semantic organisation in kinship systems carries 'deep signal' going beyond that detectable by other historical methods

(a) Variation and change

- Change-from-variability postulate: all change from A to B is preceded by a stage where A and B coexist. Study variable systems is therefore crucial to understanding how kinship systems change
- Address terms as one trojan horse (back to Lavrovskij)
- Context as a second trojan horse

Parabank and the micro-macro problem



Variation in grandparent terms in Bininj Kunwok

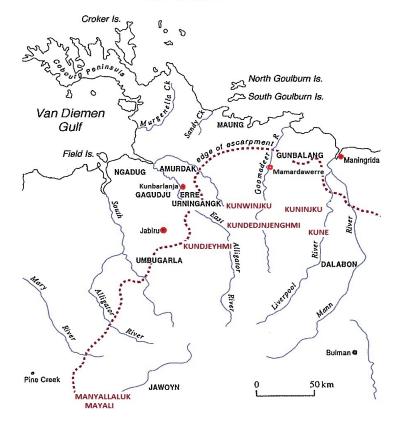
- Gunwinyguan language
- ~2000 speakers (1000 L1 speakers)
- Long-term contact with both closely related languages and with unrelated languages
- Regional lingua franca. Spread into other clan and language group areas
- Regional varieties:
 - Kunwinjku
 - Kune
 - Kundedjnjeghmi
 - Kuninjku
 - Kundjeyhmi
 - Manyallaluk Mayali



BININJ KUNWOK AND ITS DIALECTS



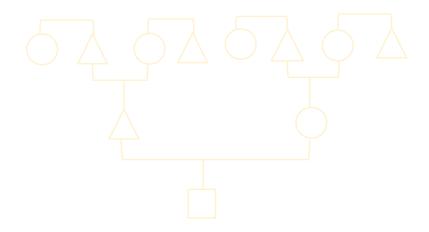
ARAFURA SEA



Ongoing PhD work by Alex Marley at ANU in the project 'Wellsprings of Linguistic Diveristy'

Variation in grandkin terms

	kin	- 1	П	Ш	IV	V	VI
Parallel kin	FF	Mawah	Mawah	Kakkak	Kakkak	Mawah	Mawah
	FFZ	Mawah	Kakkak	Kakkak	Kakkak	Mawah	Mawah
	MM	Kakkak	Kakkak	Kakkak	Kakkak	Kakkak	Kakkak
	MMB	Kakkak	Mawah	Kakkak	Kakkak	Kakkak	Kakkak
Cross kin	FM	Makkah	Makkah	Makkah	Mamamh	Mamamh	Makkah
	FMB	Makkah	Mamamh	Mamamh	Mamamh	Mamamh	Mamamh
	MF	Mamamh	Mamamh	Mamamh	Mamamh	Mamamh	Mamamh
	MFZ	Mamamh	Makkah	Mamamh	Mamamh	Mamamh	Makkah



Grouping:

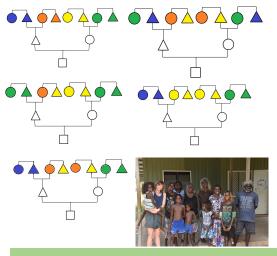
- Parallel kin + killelings der
- Cross kin (telgikahipdigi Tikile) r

E.g. kinsight app

New elicitation app being developed by Ben Foley and our CoEDL Tech Thread team to enable naturalistic collection of what kinship terms mean and how these may vary across



Can we use methods like this to detect ongoing change in the organisation of kinship systems in a population?



Grandparent/great-uncle/aunt variants in Bininj Kunwork (Alex Marley PhD in prep)

Speaker A (bottom) sorts through a deck of photos of real relatives (top two, B, C) and records what each calls the other, e.g 'I call Jirat brother, he calls Lauren cousin, I call her cousin...' Automatic metadata capture; Not only can study variability of use in quasi-naturalistic setting but generates large numbers of broadly comparable utterances for input into TAP because of predictability and closed-set advantage

Re (a) and (b): inferring pathways from synchrony

We already saw that 'harmonic' systems have patterning in the +1 generation that is typologically consistent with the patterning in ego's generation: e.g. bifurcate merging in +1 (F=FB \neq MB); sibs=par.cou \neq xcous (e.g. B=FBS \neq MBS) in 0, Eskimo in +1 (F \neq FB=MB); sibs \neq cousins in 0

We have also seen that there are occasional 'disharmonic' exceptions,

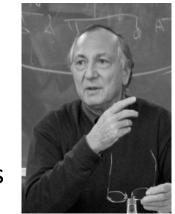
E.g. Kala Lagaw Ya: bifurcate merging (Dravidian) for parents/nuncles but Hawaiian for sibs/cousins

But it appears from our data so far (300 lgs) that there is a pattern to this: the simpler system will be in the 0 generation, never in the +1 generation (i.e. we haven't found systems that distinguish cross- from parallel cousins, but don't distinguish cross from parallel nuncles)

This means that to get from a Dravidian to a Hawaiian system the steps are constrained: first collapse terms in 0 generation then later reorganise +1

Re (e): Directionality

Assumptions about directionality were present right from the start of kinship studies, e.g. 19th Century anthropology believed its comparisons were studying the evolution of successively higher



forms of social structure (including property and the patriarchal family!) from an earlier primitive, promiscuous state

And this view still has its proponents:

'Are the observed transformations erratic, contingent, without fixed direction, or do they follow a certain line with no going back – broadly speaking, are they irreversible? If this is the case ... then terminologies not only change, they evolve... Now the cat is out of the bag. Not only do terminologies disappear or change in the sense of yielding to others, but those that replace them are not and cannot be just any terminology. If this were to be confirmed, kinship terminologies could be said to succeed each other along certain possible lines of evolution, laid out by the action of a few transformation rules.' (Godelier 1997:392)

But cf more rigorous modelling using phylogenetic comparative methods (e.g. Jordan 2013)



Sample: 208 Austronesian, 73 Bantu, matched to independent phylogenies

[T]he most likely evolutionary pathway in Austronesian... was a gain of the single-term "opposite-sex sibling"; this was then elaborated into two terms — "woman's brother"/"man's sister" — in a number of linguistic subgroups. Jumps from the absence of the distinction to the two-term situation were rare and often zero; collapses of "woman's brother"/"man's sister" back to the single "opposite-sex sibling" term were all zero....

A different dynamic exists in the Bantu languages... In common with Austronesian, the gains and losses of a single-term "opposite-sex sibling" from the state without the distinction are equivalent and frequent. However, the dynamics governing the gain and loss of the two-term "woman's brother"/"man's sister" state are exactly opposite to those found in Austronesian . Here, once the two-term state is gained it rarely collapses to a complete absence, but it seems to be gained from the no-distinction state frequently, and languages do not switch from a single-term to a two-term system

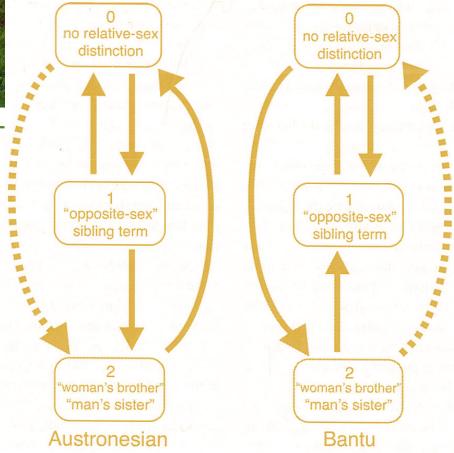
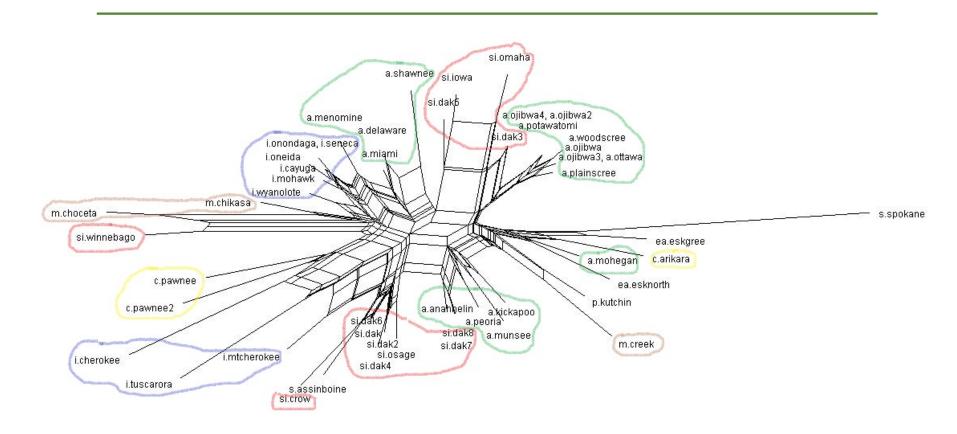


FIGURE 3.3. Models of evolution describing the elaboration of the "opposite-sex sibling" term in (a) Austronesian and (b) Bantu. Flow diagrams summarize transitions that accounted for over 70 percent of all models visited by the reversible-jump procedure. The absence of an arrow means that transition is set to 0. Dotted arrows mean that the transition includes zero values. Solid arrows are equivalent rates, i.e., those transitions happen with equal frequency.

Re (f) Neighbour net on Morgan N. American data



Broader conclusions

- 1. Relational kin logic is up there with space and time as part of human basic reasoning (and as e.g. a metaphorical source for projected reasoning)
- 2. In coevolutionary terms, complex kin reasoning is likely to have long preceded arithmetical reasoning (as shown by the many Aboriginal communities that have incorporated complex kinship algebra into elementary-school education, despite the very basic system of indigenous numerals)
- 3. Likely that kinship logic including various forms of complex and embedded chaining of kin relations is a central part of the juridical and moral systems of most cultures, driving both grammatical elaboration and categorial definition
- 4. This includes systemic elaborations in intermarrying multilingual speech communities (e.g. subsections)
- 5. Since it is small-scale societies which have been dominant in shaping human ways of speaking and thinking for more than 99% of our existence, these have disproportionate evidentiary value in our understanding of culture<>language coevolution yet as small, marginal speech communities they are by far the most endangered
- 6. The nexus of lexical typology, kinship studies, anthropology and methods for studying historical change has huge and broad relevance to deep problems about the nature of mind, culture, language and the huan past let's bring these fields back into more intense contact





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Bininj Gun-wok, Dalabon, Nen, Idi and Komnzo speaking communities



Grants: 'Nen and Tonda'; 'Iwaidja and Other Endangered languages of the Cobourg Peninsula'





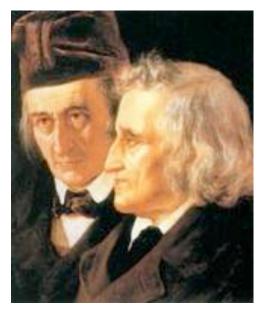


Australian Research Council: Grants 'Languages of Southern New Guinea', 'Reciprocals Across Languages' 'Social Cognition and language: the design resources of grammatical diversity' 'Wellsprings of Linguistic Diversity'

"Uncritical semantics is the myth of a museum in which the exhibits are meanings and the words are labels" (Willard

Quine) –

a myth which can be maintained as long as we deal with familiar languages which don't vary much in their semantic structures



two brothers
Zwei Brüder
twee broers
due fratelli
dos hermanos
dva brata

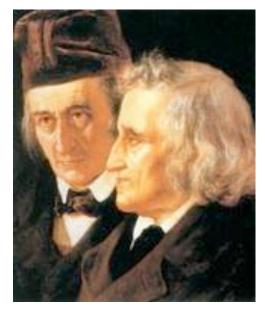


brother and sister
Bruder und Schwester
broer en zus
fratello e fratella
hermano y hermana
brat i sestra



two sisters
Zwei Schwestern
twee zussen
due sorelle
dos hermanas
dve sestry

But in Kayardild the world is carved at different joints: we cannot use 'brother' or 'sister' in the middle picture because a different word is used for opposite-sex siblings; on top of this there is a special suffix *-ngarrb* for 'kin dyads' ('pair such that one is [Kin:X] to the other')



Two brothers Zwei Brüder

thabujungarrb



Brother and sister
Bruder und Schwester

kularrinngarrb



Two sisters
Zwei Schwestern

yakukathungarrb

thabuju: older male same-sex sibling, kularrin(d): opposite sex sibling, yakukathu 'older female same-sex silbing