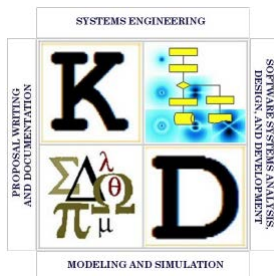




Implications of Gould's Kinterminology Analysis System

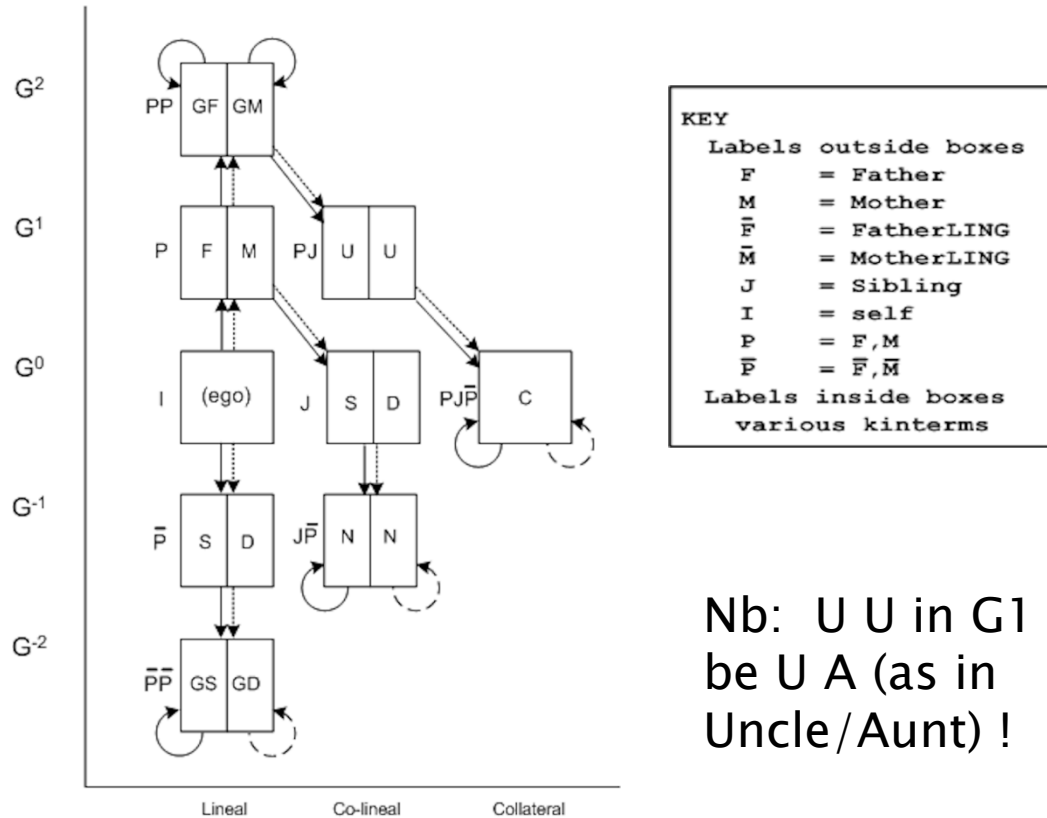
David Kronenfeld

UCR Anthropology Dept
Kronenfeld Designs (MTS)



English Kinterm Kingraph

Minimal Version, Terms only (no modifiers)

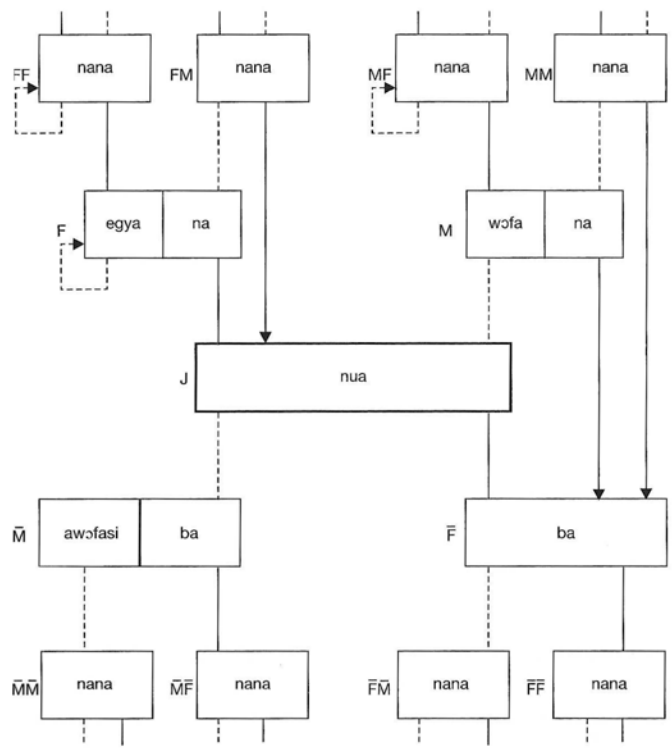


Nb: U U in G1 should be U A (as in Uncle/Aunt) !

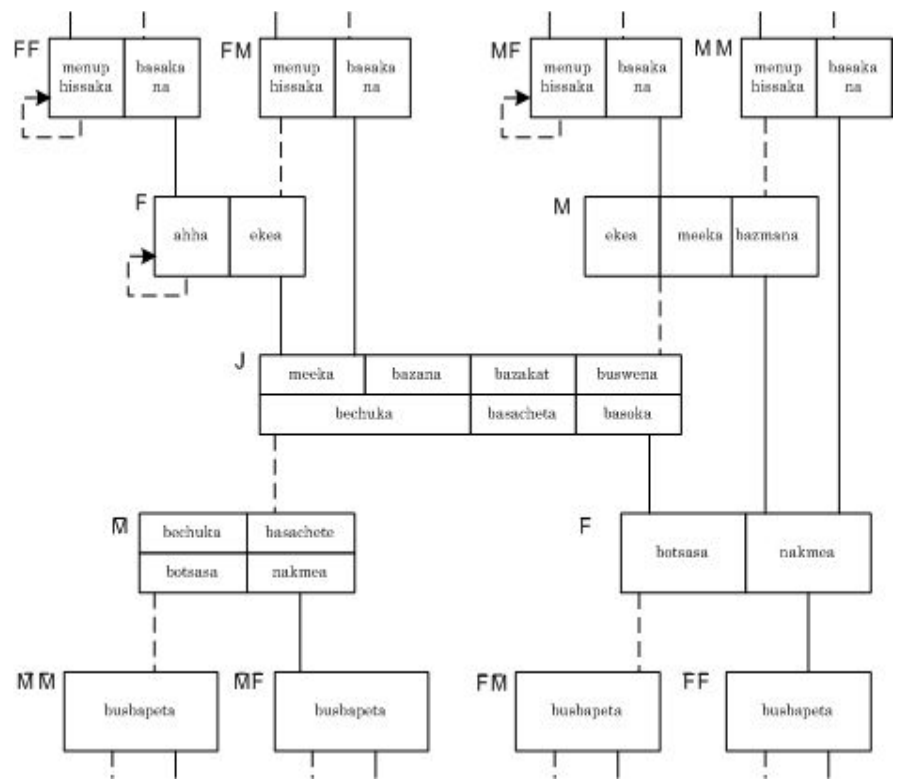
Equivalence: $M \leftrightarrow F$ (and, reciprocally) $\bar{M} \leftrightarrow \bar{F}$
 $PPP \leftrightarrow PP$ (and, reciprocally) $\bar{P} \bar{P} \bar{P} \leftrightarrow \bar{P} \bar{P}$



Fanti Skewed vs Crow Language Kingraphs



Fanti Skewed



Crow Language

Crow-type Equivalences:

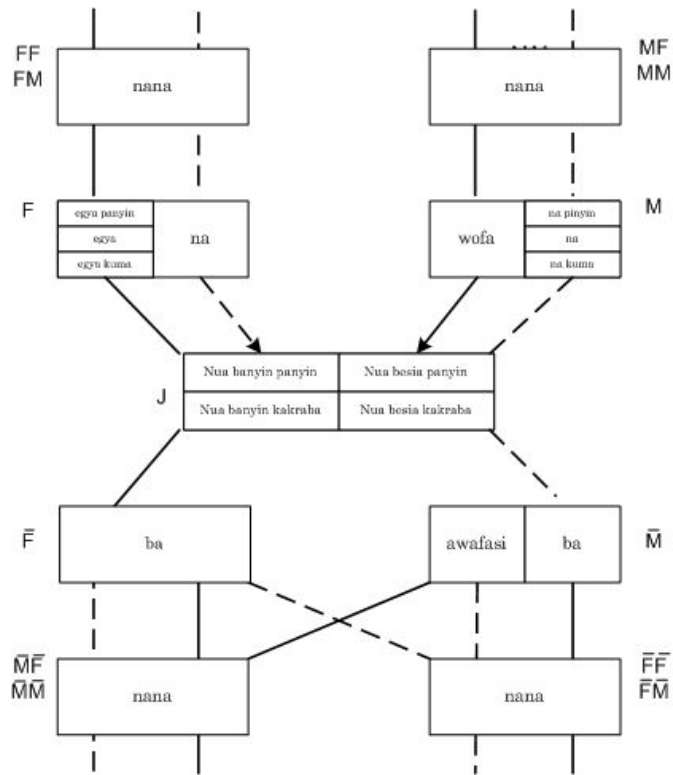
General Classificatory:
Specific Crow Type:
(and reciprocally)

$I \leftrightarrow J \leftrightarrow MM \leftrightarrow FF$
 $MF \leftrightarrow F$
 $FM \leftrightarrow F$



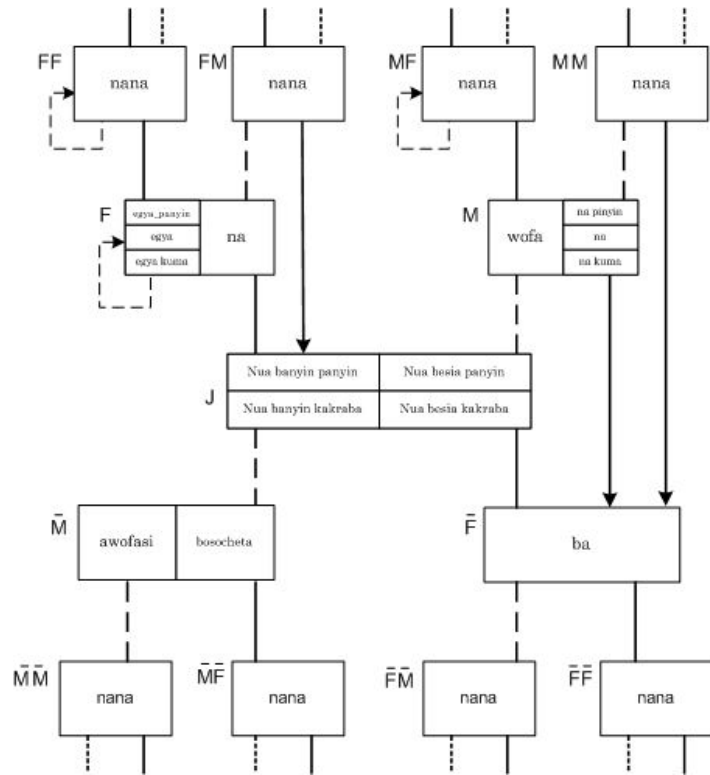


Fanti Unskewed vs. Fanti Skewed Kinterms



Kingraph for Fanti Unskewed (with modifiers)

System Equivalences:
 Specific Cheyenne Type $X \leftrightarrow J$
 General Classificatory $I \leftrightarrow J \leftrightarrow \bar{M}\bar{M} \leftrightarrow \bar{F}\bar{F}$



Kingraph for Fanti Skewed (with modifiers)

Equivalences:
 Specific CrowType $M\bar{F} \leftrightarrow \bar{F}$ (and, reciprocally $F\bar{M} \leftrightarrow F$)
 General Classificatory $I \leftrightarrow J \leftrightarrow \bar{M}\bar{M} \leftrightarrow \bar{F}\bar{F}$



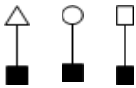



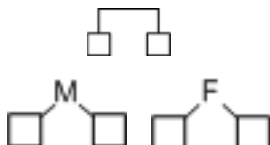
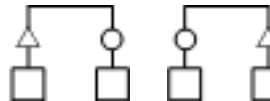
In-laws and Siblings

	father	father's father	spouse's father	note
English	father pa	grandfather grandpa	father-in-law	add modifier
Spanish	padre papa	abuelo	suegra	replacement
Swedish	far	farfar wife husband	svärfar hustru far makens far	descriptive

	brother	spouse's brother
English	brother	brother-in-law
Spanish	hermano	cuñado
Swedish	bror	svåger wife's brother fru bror husband's brother makens bror

	son / child	son's / child's son	daughter's husband
English	son child	grandson grandchild	son-in-law
Spanish	hijo hija	nieto nieta	yerno
Swedish	son barn	barnbarn barnbarn	svärson

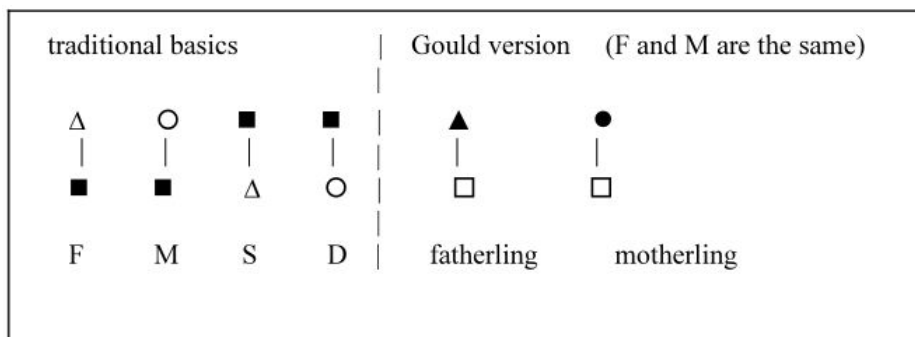
GoULD Notational System

Parent – Child ■ – Ego (Self) △ – F (Father) ○ – M (Mother) □ – P (Parent)	
\bar{F} – Fatherling; Inverse of Father (i.e. refers to a man's child of either sex)	
\bar{M} – Motherling; Inverse of Mother (i.e., refers to a woman's child of either sex)	
\bar{P} – Someone's child	
I – Identity relationship, refers to self	
J – Refers to sibling ($\bar{F}\bar{F}$ or $\bar{M}\bar{M}$)	
X – Focal cross-cousin ($F\bar{M}$, $M\bar{F}$ written ($\bar{F}\bar{M}$, $\bar{M}\bar{F}$)	

- μ in kintype strings indicate a male ego (if initial on the string) or alter (if terminal)
- ϕ indicates a female ego (if initial) or alter (if terminal)
- Relative products such as XY refers to “X’s Y”
- \leftrightarrow refers to structural equivalence where in any longer expression either of the equivalent elements can be replaced by the other)
- \approx refers to a concurrence; a local, structurally irrelevant, equivalence between the item to the left of the sign and the item to the right, as in $X \approx Y$
- // as with Romney’s system, a pair of slashes encloses an expression whose reciprocal is also included in the indicated category



Gould Notational System (Cont.)



Comparison of Goulds's Parent-Child Links With Traditional Ones

kintype	Gould notation	Romney notation
	M	+f
	F	+m
	MF	+f+m
	MJμ	+fom
	MJ	+fom-
	M	+fom-
	X	/+fom-/
		m-
	f-	
spouse	V	b =
husband	H or F	f = m
wife	W or	m = f

Comparison of Goulds's System with Romney's





Applying Equivalence Rules

Equivalence Rules

General Classificatory

$$I \leftrightarrow J \leftrightarrow MM \leftrightarrow FF$$

1. Generational (i.e., Hawaiian) Type

$$M \leftrightarrow F \text{ (and reciprocally, } M \leftrightarrow F)$$

2. Cheyenne Type

$$X \leftrightarrow J$$

3. Tamil (i.e., Dravidian) Type

$$FF \leftrightarrow MM; FM \leftrightarrow MF$$

(and reciprocally

$$FF \leftrightarrow MM; MF \leftrightarrow FM)$$

4. Seneca (i.e. Iroquois) Type

$$MF \leftrightarrow MM; FM \leftrightarrow FF$$

(and reciprocally

$$FM \leftrightarrow MM; MF \leftrightarrow FF)$$

5. Crow Type

$$FM \leftrightarrow F \text{ (and reciprocally } MF \leftrightarrow F)$$

6. Omaha Type

$$MF \leftrightarrow M \text{ (and reciprocally } FM \leftrightarrow M)$$

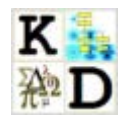
Example of Reduction

- Given a Kintype: e.g. A man's mother's mother's father's sister's son's daughter. Translate it into Gould notation, i.e. $\mu MMFJM\bar{F}\phi$
- What is that relationship's terminological category?
- Successively apply equivalence equations for the skewed Fanti system

Expression	Reduction Rule	Source ^a
$\mu MMFJM\bar{F}\phi$	$I \leftrightarrow J$ & Definition of I	GCE
$\mu MMFM\bar{F}\phi$	$FM \leftrightarrow F$	CtE
$\mu MMFF\phi$	Definition of J: FF	GCE
$\mu MMJ\phi$	$I \leftrightarrow J$ & Definition of I	GCE
$\mu MM\phi$	Fanti "grandrelative"	
MM	($MM \leftrightarrow PP$)	

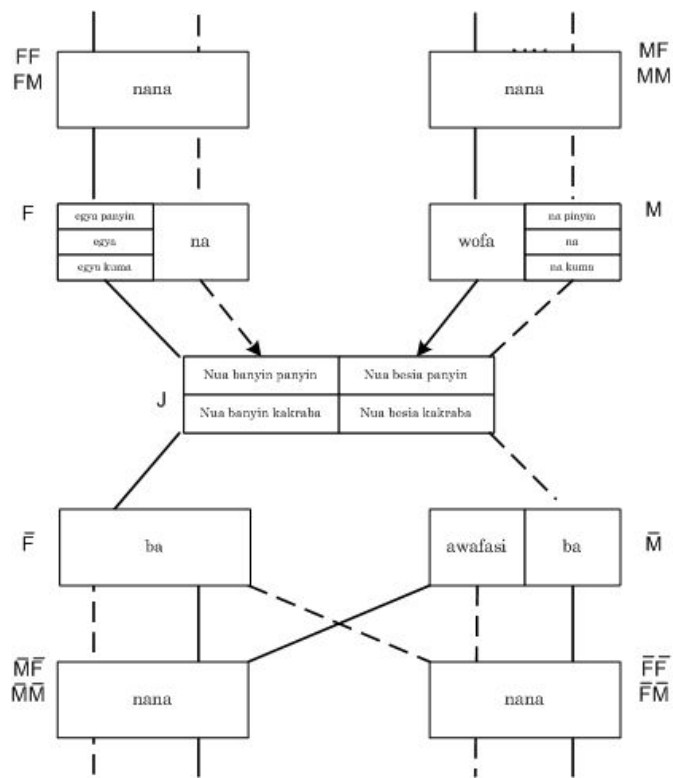
- The resulting expression is a "grandrelative" (the single term in Fanti that covers grandfather, grandmother, grandson, and granddqughter)

^a GCE: General Classificatory Equivalences and
CtE: Crow-type Equivalence





Fanti Unskewed vs. Fanti Skewed Kinterms



Kingraph for Fanti Unskewed (with modifiers)

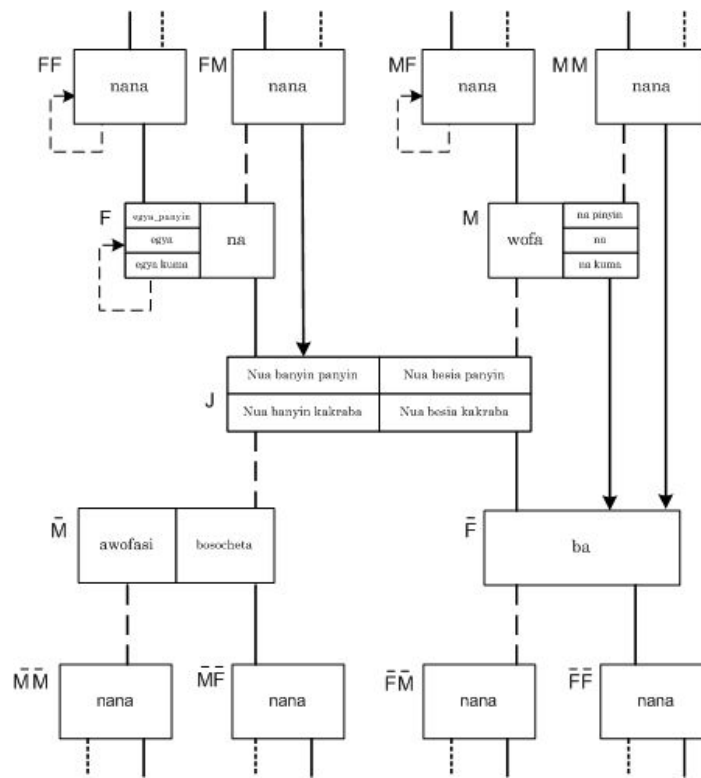
System Equivalences:

Specific Cheyenne Type

General Classification

$X \leftrightarrow J$

$I \leftrightarrow J \leftrightarrow \bar{M}\bar{M} \leftrightarrow \bar{F}\bar{F}$



Kingraph for Fanti Skewed (with modifiers)

Equivalences:

Specific Crow Type

General Classification

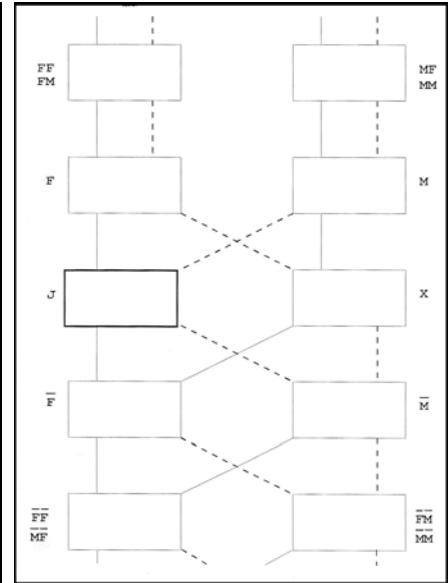
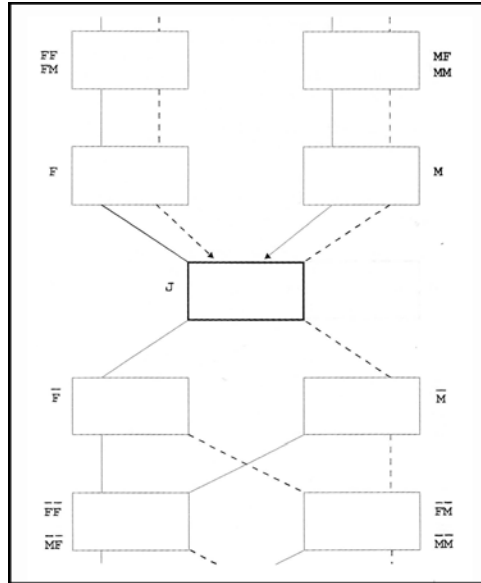
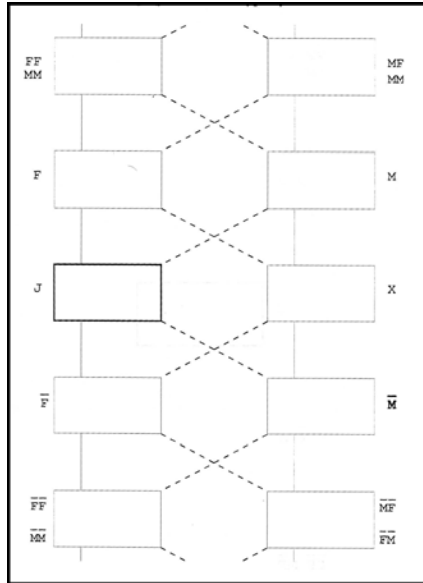
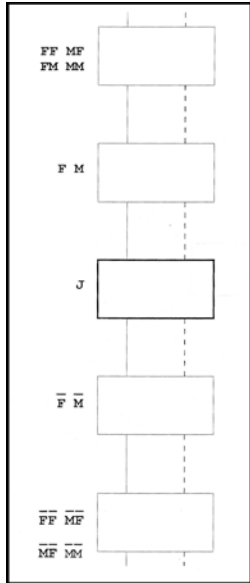
$M\bar{F} \leftrightarrow \bar{F}$ (and, reciprocally) $F\bar{M} \leftrightarrow F$

$I \leftrightarrow J \leftrightarrow \bar{M}\bar{M} \leftrightarrow \bar{F}\bar{F}$





Kingraphs of Unskewed Types



General Classificatory
 $I \leftrightarrow J \leftrightarrow MM \leftrightarrow FF$

Generational/Hawaiian
 $M \leftrightarrow F$ (and reciprocally, $M \leftrightarrow F$)

General Classificatory
 $I \leftrightarrow J \leftrightarrow MM \leftrightarrow FF$

Tamil/Dravidian
 $FF \leftrightarrow MM$; $FM \leftrightarrow MF$
 (and reciprocally
 $FF \leftrightarrow MM$; $MF \leftrightarrow FM$)

General Classificatory
 $I \leftrightarrow J \leftrightarrow MM \leftrightarrow FF$

Cheyenne
 $X \leftrightarrow J$

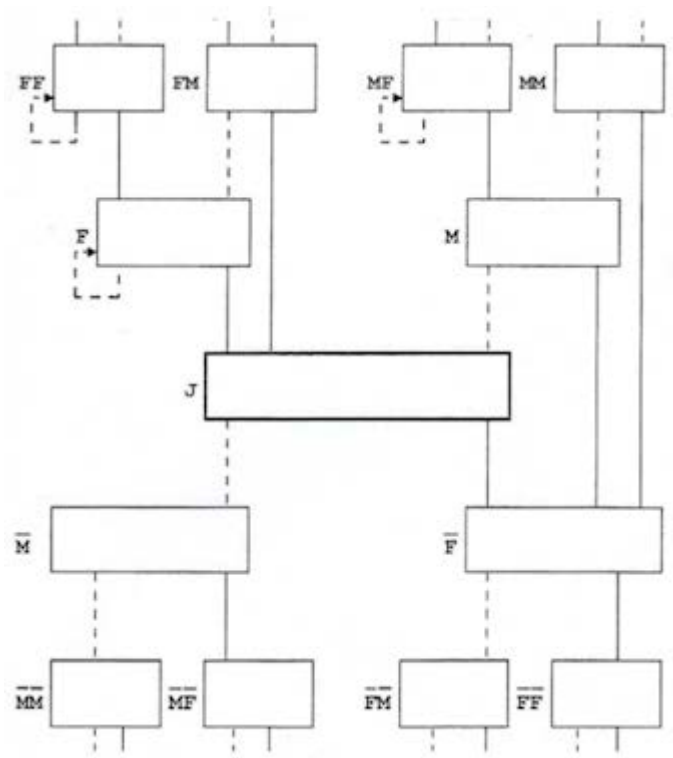
General Classificatory
 $I \leftrightarrow J \leftrightarrow MM \leftrightarrow FF$

Seneca/Iroquois
 $MF \leftrightarrow MM$; $FM \leftrightarrow FF$
 (and reciprocally
 $FM \leftrightarrow MM$; $MF \leftrightarrow FF$)

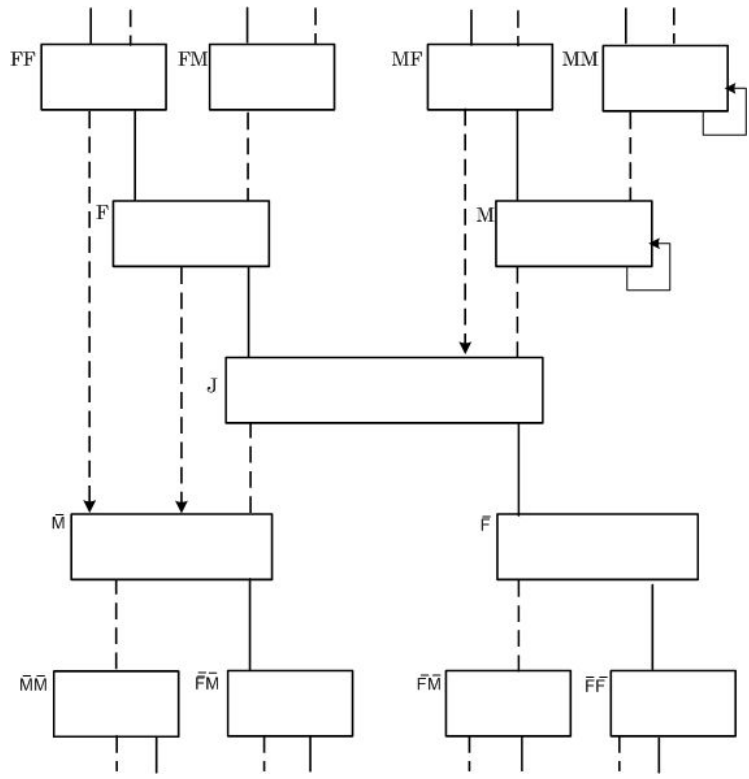




Kingraphs for Skewed Types



Kingraph for generic Crow-type
 Equivalences: General Classificatory: $I \leftrightarrow J \leftrightarrow \overline{MM} \leftrightarrow \overline{FF}$
 Specific Crow-type: $\overline{MF} \leftrightarrow \overline{F}$ (and reciprocally $\overline{FM} \leftrightarrow \overline{F}$)



Generic Omaha type
 Equivalences: General Classificatory: $I \leftrightarrow J \leftrightarrow \overline{MM} \leftrightarrow \overline{FF}$
 Specific Omaha type: $\overline{MF} \leftrightarrow \overline{M}$ (and reciprocally $\overline{FM} \leftrightarrow \overline{M}$)

