# LOT Summerschool 2003 Tilburg Typology: interpreting world-wide patterns of variation Michael Cysouw <br> cysouw@zas.gwz-berlin.de 

## Monday: On establishing a typology <br> Tuesday: What it means to be rare

Wednesday: What can typology tell us about possible languages?
Thursday: What do numbers mean?
Friday: Towards a (dia)chronic typology

## 1 Collecting oddities

A sample (cf. Rijkhoff \& Bakker 1998) can show which linguistic types are common among the world's languages, but it cannot be used to analyse a type that is possible, yet uncommon.

It is good practice to amend each large-scale typology with a detailed investigation of uncommon types (cf. Plank \& Schellinger 1997). By collecting these 'exceptional' examples a deeper understanding of the possible variability of human language can be reached.

In the today's session, I will report on 494 examples of more or less rare patterns of person marking as attested in 367 different languages.

To get an indication of the relative meaning of these 367 languages, I compared this collection to the sample of the World Atlas of Linguistic Structures (WALS), which consists of 200 languages. Of the 367 languages, only 63 are part of the WALS-200-sample (also counting near matches, i.e. very close relatives). This means that my 367 languages are roughly comparable to a hypothetical typological sample of about $367 *(200 / 63)=1165$ languages.

## 2 The common person paradigms



| I | we two | we |  |
| :---: | :---: | :---: | :---: |
|  | you | you two | you'all |
| s/he | they two | they |  |


|  | I + you | $I+$ you'all |
| :---: | :---: | :---: |
| I | I + one other | $I+$ others |
| you | you two | you'all |
| s/he | they two | they |

Frequencies of person paradigms ( based on the data from Forchheimer 1953; data as counted by Ingram 1978)

| 6 or 9 person paradigm | 24 | $33.8 \%$ |
| :--- | :--- | :--- |
| 7 or 11 person paradigm | 25 | $35.2 \%$ |
| other structures | 22 | $31.0 \%$ |
| Total | 71 | $100 \%$ |

Of my collection of 367 languages with uncommon structures, 63 are also among the WALSsample ( $31.5 \%$ ). This means that if I had taken the WALS-sample for this investigation, I would have found that $31.5 \%$ of the languages in the sample have a deviant structure somewhere in their person marking.

## 3 Fairly common person paradigms

| minimal/augmented (8 person) |  |
| :---: | :---: |
| $\mathrm{I}+$ you | $\mathrm{I}+$ you'all |
| I | we |
| you | you'all |
| s/he | they |


| unit-augmented (12 person) |
| :---: | :---: | :---: |
| I +you $\mathrm{I}+$ you two <br> $\mathrm{I}+$ you'all  <br> I $\mathrm{I}+$ one other <br> $\mathrm{I}+$ others  <br> you you two <br> you'all  <br> s/he they two <br> they  |

Attested cases of minimal/augmented and the unit-augmented paradigms

|  | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Independent <br> pronouns |
| :--- | :--- | :--- | :--- | :--- |
| 8 or 12 person paradigm | 11 | 23 | $\mathbf{7 8}$ | 77 |

Using the approximation as proposed above, the attested 78 languages are about $6.7 \%$ of the world's language.

Siewierska and Bakker (forthcoming) found 15 cases of such paradigmatic structures in a representative sample of 393 of the world's languages ( $3.8 \%$ ).

These six common paradigms account for about $75 \%$ of the world's languages. What about the other quarter?

## 4 Horizontal Homophony

Attested cases of number syncretism

|  | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Independent <br> pronouns |
| :--- | :--- | :--- | :--- | :--- |
| 3rd no number |  | (many) |  |  |
| 2nd and 3rd no number | 12 | 16 | $\mathbf{3 9}$ | 7 |
| 1st, 2nd and 3rd no number | 25 | 30 | $\mathbf{6 0}$ | 20 |
| 1st no number | 2 | 4 | $\mathbf{5}$ | 2 |
| 2nd no number | 3 | 3 | $\mathbf{9}$ | 3 |
| 1st and 2nd no number | 2 | 2 | $\mathbf{4}$ | 0 |
| 1st and 3rd no number | 3 | 3 | $\mathbf{3}$ | 1 |
| 1 singular = 2 plural | 2 | 2 | $\mathbf{2}$ | 0 |
| 2 singular = 1 plural | 2 | 2 | $\mathbf{5}$ | 1 |
| 3 singular = 2 plural | 2 | 2 | $\mathbf{2}$ | 0 |

Attested cases of number syncretisms involving the dual

|  | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Independent <br> pronouns |
| :--- | :--- | :--- | :--- | :--- |
| 3rd no dual | 4 | 4 | $\mathbf{5}$ | 5 |
| 2nd and 3rd no dual | 4 | 5 | $\mathbf{5}$ | 5 |
| 1st, 2nd, and 3rd no dual |  |  | (no dual) |  |
| 1st no dual | 3 | 3 | $\mathbf{3}$ | 3 |
| 2nd no dual | 4 | 4 | $\mathbf{4}$ | 3 |
| 1st and 2nd no dual | 4 | 5 | $\mathbf{6}$ | 2 |
| 1st and 3rd no dual | 1 | 1 | $\mathbf{1}$ | 1 |

- In total, there are 99 examples of paradigms that are in line with this hierarchy, which is $8.5 \%$ of the world's languages.
- Simply dismissing all other variants as being unusual or exceptions is a rather crude decision. After all, we are talking about in total 49 'exceptions' ( $4.2 \%$ ), half as much as the amount of examples that are in line with the hierarchy. A theory that only deals with the main generalisation (i.e. the person hierarchy) has only a limited explanatory force: it explains 99 cases, but it cannot explain another 49 cases.


## 5 Singular and group homophony (no clusivity)

Attested cases of person syncretisms in the singular

| Singular | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Independent <br> pronouns |
| :--- | :--- | :--- | :--- | :--- |
| First versus non-first | 10 | 15 | $\mathbf{3 1}$ | 1 |
| Third versus non-third | 9 | 10 | $\mathbf{1 1}$ | 1 |
| Second versus non-second | 3 | 4 | $\mathbf{8}$ | 0 |
| Completely syncretic | 2 | 3 | $\mathbf{4}$ | 0 |

Attested cases of person syncretisms in the non-singular

| Non-singular | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Independent <br> pronouns |
| :--- | :--- | :--- | :--- | :--- |
| First versus non-first | 16 | 23 | $\mathbf{4 2}$ | 15 |
| Third versus non-third | 11 | 15 | $\mathbf{2 4}$ | 11 |
| Second versus non-second | 5 | 10 | $\mathbf{1 1}$ | 0 |
| Completely syncretic | 3 | 5 | $\mathbf{6}$ | 0 |

## 6 Group homophony (with clusivity)

Attested cases of syncretisms between inclusive/exclusive and other persons

|  | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Independent <br> pronouns |
| :--- | :--- | :--- | :--- | :--- |
| Exclusive $=$ first person | 17 | 20 | $\mathbf{3 4}$ | 14 |
| Inclusive $=$ first person | 1 | 1 | $\mathbf{1}$ | 0 |
| Exclusive $=$ second person | 3 | 6 | $\mathbf{1 4}$ | 1 |
| Inclusive $=$ second person | 8 | 8 | $\mathbf{1 3}$ | 1 |
| Exclusive $=$ third person | 6 | 6 | $\mathbf{1 8}$ | 0 |
| Inclusive $=$ third person | 4 | 8 | $\mathbf{1 4}$ | 1 |

## 7 Homophony in minimal/augmented

| I + you | I + you'all |
| :---: | :---: |
| I | we |
| you | you'all |
| s/he | they |


| I + you | I + you'all |
| :---: | :---: |
| I | we |
| you | you'all |
| s/he | they |

Variants of minimal/augmented

|  | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Independent <br> pronouns |
| :--- | :--- | :--- | :--- | :--- |
| Minimal inclusive = exclusive | 3 | 3 | $\mathbf{4}$ | 4 |
| Augmented inclusive = exclusive | 5 | 8 | $\mathbf{1 1}$ | 7 |

## 8 Homophony in cross-section of dual \& clusivity

|  | dual | plural |
| :---: | :---: | :---: |
|  | I + you | $\mathbf{I}+$ you'all |
| I | I + one other | $\mathbf{I}+$ others |
| inclusive |  |  |
| exclusive |  |  |
| you | you two | you'all |
| s/he | they two | they |

Syncretisms between various forms of clusivity

|  | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Independent <br> pronouns |
| :--- | :--- | :--- | :--- | :--- |
| Dual inclusive = dual exclusive | 3 | 6 | $\mathbf{7}$ | 5 |
| Plural inclusive = plural exclusive | 3 | 3 | $\mathbf{3}$ | 1 |
| Dual inclusive = plural inclusive | 3 | 3 | $\mathbf{3}$ | 3 |
| Dual exclusive = plural exclusive | 2 | 2 | $\mathbf{2}$ | 2 |

- no diagonals attested (yet)


## 9 Honorific uses of clusivity

Attested cases of honorific usage of clusivity

|  | No. of <br> stocks | No. of <br> genera | No. of <br> languages | Without <br> Austronesian |
| :--- | :--- | :--- | :--- | :--- |
| Inclusive as polite second person | 5 | 9 | $\mathbf{1 7}$ | 4 |
| Inclusive as humble first person | 1 | 3 | $\mathbf{5}$ | 0 |
| Inclusive as bonding first person | 3 | 3 | $\mathbf{3}$ | 3 |
| Inclusive as impolite first person | 2 | 3 | $\mathbf{4}$ | 4 |
| Exclusive as polite first person | 4 | 6 | $\mathbf{8}$ | 5 |

The politeness framework of Brown and Levinson (1987):

- Positive politeness "anoints the face of the addressee by indicating that in some respects, [the speaker] wants [the addressee's] wants" (Brown and Levinson 1987:70). In other words, positive politeness roughly amounts to share the addressee's attitudes.
- Negative politeness "consists in assurances that the speaker recognizes and respects the addressee's ... wants and will not ... interfere with the addressee's freedom of action" (Brown and Levinson 1987: 70). In other words, negative politeness roughly amounts to leave the addressee alone as much as possible

Bonding: Galela (West Papuan, Shelden 1991: 166)
pipi na-na-hike
money 2PL.SUBJ-INC.OBJ-give
'Please give us some money'
Shelden (1991) argues that this use is a way to relieve embarrassment on behalf of the speaker:
[This sentence] might be spoken in a situation where a man asks members of another family to give money to his own family. ... His own family is referred to by $n a$ - [inclusive], which is interpreted to mean 'exclusive polite'. Sociolinguistically, what happens is that by including the addressee grammatically, the man relieves his embarrassment for having to ask for money. (Shelden 1991: 166)

Impolite: Santali (Munda, Neukom 2001)
There is a special use of the pronoun for first person inclusive dual ala $\square$ : It is used instead of 1st person singular $i[$ in threatening language. It does not mean two persons, but it seems that the speaker considers himself connected with the addressee while threatening him. (Neukom 2001: 37)

Santali (Munda, Austro-Asiatic, Neukom 2001: 38-39)


## 10 How to deal with this variation?



## Major generalisations:

- The paradigm is 'complete'; or
- Horizontal Homophony Hierarchy: there is number syncretism according to the person hierarchy $1>2>3$; or
- Explicitness Hierarchy: there is a speaker-centred reduction of person marking to first versus non-first in paradigms without clusivity
these three generalisations leave 244 cases from 189 different languages unaccounted for (which amount to person marking in approximately $16 \%$ of the world's languages).


## References

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## Appendix

The counts that were presented in the present paper are based on the data described in various other publications by the present author (Cysouw 2003, forthcoming-a, $b$, in preparation- $b$, $a$ ). In these publications, complete reference to and full discussion of all examples is presented. For reasons of space, I will not repeat these lengthy discussions here, but simply list the name and genetic affiliation of the languages. The language names are ordered roughly according to geographical origin, starting in Africa, through Eurasia into the Pacific, followed by the Americas from north to south. Note that I have interpreted Papuan (i.e. the non-Austronesian languages from the Pacific) and non-Pama-Nyungan (i.e. those languages from Australia that do not belong to the PamaNyungan family) as stocks. Although I acknowledge that the genetic affiliation of these clusters is not demonstrated (but see Blake 1988 on non-Pama-Nyungan), I have still used these classifications because they show a strong similarity in their pronoun systems (cf. the 'unity in diversity' principle from Foley (1986: 9). The language names in italics are those in which the particular structure is attested in the independent pronouns. For these languages, I have here not further differentiated whether the same structure is also attested in any inflectional paradigm or not.

## Languages as counted in section 3:

- minimal/augmented paradigms

Yag Dii, Koh (Adamawa, Niger-Congo); Ebang, Moro (Kordofanian, Niger-Congo); Ngiemboon, Babungo, Limbum, Ghomala, Akoose (Bantoid, Niger-Congo); Dan, Northern Looma (Mande, Niger-Congo); Nuer (Nilotic, Nilo-Saharan); Gula Sara (Central Sudanic, Nilo-Saharan); Marghi, Gude, Lamang, Hdi, Lele, Fyer, Kulere, Sha, Dafo-Batura, Bokas (Chadic, Afro-Asiatic); Nivkh (isolate); Atta, Isnag, Itneg, Ilocano, Kalinga, Bontoc, Balangao, Kankanay, Ifugao, Kallahan, Agta, Ibaloi, Pangasinan, Sambal, Pampangan, Hanunoo, Tagalog, Tagbanwa, Batak, Binukid, some variants of Manobo, Maranao, Kalagan, Tboli, Blaan, Sangir, Tausag, Samal (Philippines, Austronesian); Hatam (West Papuan, Papuan); Montain Koiali (Koiarian, Papuan); Kemtuik (Nimboran, Papuan); Weri (Goilalan, Papuan); Santa Cruz, Nanggu, Reefs (East Papuan, Papuan); Maranungku, Malakmalak (Daly, non-Pama-Nyungan); Wardaman, Rembarrnga, Ngandi, Mangarayi, Nunggubuyu (Gunwingguan, non-Pama-Nyungan); Bardi, Nyulnyul, Nyikina (Nyulnyulan, non-Pama-Nyungan); Ndjébanna (Burarran, non-Pama-Nyungan); Tiwi (Tiwian, non-Pama-Nyungan); Uradhi (Pama-Nyungan); Ute, Northern Paiute, Kawaiisu, Tübatalabal (UtoAztecan); Southern Sierra Miwok (Miwok); Chayahuita (Cahuapanan)

## Languages as counted in section 4

- 2nd and 3rd no number

Mbay (Central Sudanic, Nilo-Saharan); Turkana, Teso, Lotuho, Maasai (Eastern Nilotic, Nilo-Saharan); Georgian, Svan (South Caucasian); Chukchee, Koryak, Kamchadal (Chukotko-Kamchatkan); Berik (Tor, Papuan); Kuman (East New Guinea Highlands, Papuan); Jéi (Trans-Fly, Papuan); Karo Batak, Acehnese (Sundic, Austronesian); Mekeo (Oceanic, Austronesian); Mandan, Assiniboine, Lakhota (Siouan); Coahuiteco (isolate); Kwakiutl, Heiltsuk (Wakashan); Xerente, Maxakali (Gé); Chulupi (Mataco-Guiacuruan); Huallaga Quechua (Quechuan); Kariña, Tiriyó, Carijona, Kashuyana, Wai Wai, Hixkaryana, Waimiri-Atroari, Arekuna, Akawaio, Wayana, Dekwana, Bakairí, Txikão (Carib)

- 1st, 2nd and 3rd no number

Ngiti, Logbara, Mamvu (Central Sudanic, Nilo-Saharan); Svan (South Caucasian); Lak, Megeb (NakhDagestanian); Chrau (Mon-Khmer, Austro-Asiatic); Nimboran (Nimboran, Papuan); Imonda, Amanab (Border, Papuan); Salt-Yui, Golin (East New Guinea Highlands, Papuan); Kiwai (Trans-Fly, Papuan); Nasioi (East Papuan, Papuan); Winnebago, Hidatsa, Crow (Siouan); Maricopa, Mojave, Diegueño, Yavapai, Yuma (Yuman); Nez Perce (Sahaptin); Wichita, Caddo, Pawnee (Caddoan); Menomini, Cree, Fox, Eastern Ojibwe, Southwestern Ojibwe, Passamaquoddy-Maliseet (Algonquian); Acoma Keresan (Keres); Kutenai (isolate); Washo (isolate); Huave (Huavean); Sierra Popoluca, Coatlán Mixe (Mixe-Zoque); Chalcatongo Mixtec, Ocotepec Mixtec, Yosondúa Mixtec, Diuxi-Tilantongo Mixtec (Mixtecan, Oto-Manguean); Chocho (Popolocan, Oto-Manguean); Pame, Chichimeco Jonaz, Ixtenco Otomí (Otopamean, Oto-Manguean); Jaqaru (Aymaran); Canela-Kraho, Xerente (Gé); Asheninca, Nomatsiguenga, Caquinte (Campa, Arawakan); Maká, Abipon, Mataco (Mataco-Guaicuruan); Tarma Quechua (Quechuan); Ayoreo (Zamucoan); Awa Pit, Paez (Barbacoan-Paezan); Pirahã (Mura)

- 1st no number

Marind (Marind, Papuan); Gadsup, Usarufa (East New Guinea Highlands, Papuan); Binandere (Binanderean, Papuan); Warrwa (Nyulnyulan, non-Pama-Nyungan).

- 2nd no number

English (Germanic, Indo-European); South American Spanish (Romance, European); Lamalera, Dawanese, Kisar, Sika, Roti (Timor, Austronesian); Koiari (Central and Southeastern, Papuan); Xokleng (Gé).

- 1st and 2nd no number

Big Nambas, Kwamera, Lenakel (Southern Oceanic, Austronesian); Warrwa (Nyulnyulan, non-Pama-Nyungan).

- 1st and 3rd no number

Classical Ainu (isolate); Tairora (East New Guinea Highlands); Dargi (Nakh-Dagestanian).

- 1 singular $=2$ plural

French (Romance, Indo-European); Vanimo (Sko, Papuan).

- 2 singular $=1$ plural

Suki (Gogodali-Suki, Papuan); Pipil, Milpa Alta Nahuatl, North Puebla Nahuatl, Huasteca Nahuatl (Aztec, UtoAztecan).

- $\mathbf{3}$ singular $=\mathbf{2}$ plural

German (Germanic, Indo-European); Midob (Central Sudanic, Nilo-Saharan).

## - 3rd no dual

Gothic (Germanic, Indo-European); Nganasan (Uralic); Limbu, Camling (Bodic, Sino-Tibetan); Kewa (East New Guinea Highlands).

- 2nd and 3rd no dual

Kilivila (Western Oceanic, Austronesian); Rapanui (Polynesian, Austronesian); Arapesh (Toricelli, Papuan); Yidi] (Pama-Nyungan); Kadiwéu (Mataco-Guicuruan)

- 1st no dual

Classical Arabic (Semitic, Afro-Asiatic); Ancient Greek (Indo-European); Aleut (Eskimo-Aleut).

- 2nd no dual

Mansi (Uralic); Sedang (Mon-Khmer, Austro-Asiatic); Yareba (Central and Southeastern, Papuan); Dhuwal (PamaNyungan).

- 1st and 2nd no dual

Buin (Bougainville, Papuan); Kapau (Angan, Papuan); Kwamera, Lenakel (Tanna, Austronesian); Tunica (isolate).

- 1st and 3rd no dual

Dizi (omotic, Afro-Asiatic)

## Languages as counted in section 5

- First versus non-first (singular)

Kenuzi-Dongola (Eastern Sudanic, Nilo-Saharan); Dutch, Icelandic (Germanic, Indo-European); Old Church Slavonic, Bulgarian, Macedonian, Serbocroatian (South Slavonic, Indo-European); Hindi (Indo-Aryan, IndoEuropean); Chukchee, Koryak, Kamchadal (Chukotko-Kamchatkan); Tsakhur, Akhvakh, Zakatal', Megeb (Nakh Dagestanian); Akha (Burmese-Lolo, Sino-Tibetan); Bunan, Dumi, Monpa, Newari, Tibetan (Bodic, Sino-Tibetan); Awyu, Wambon, Kombai (Central and South New Guinea, Papuan); Moraori (Trans-Fly, Papuan); Siroi (Rai Coast, Papuan); Chitimacha (Isolate); Awa-Pit, Guambino (Barbacoan); Lengua (Mascoian); Qawesqar (Alcalufan)

- Third versus non-third (singular)

Krongo (Kordofanian, Niger-Congo); English (Germanic, Indo-European); Lak, Hunzib (Nakh-Dagestanian); Svan (South Caucasian); Maltese (Semitic, Afro-Asiatic); Amele (Mabuso, Papuan); Waskia (Pihom-Isumrud-Mugil, Papuan); Nez Perce (Sahaptin); Winnebago (Siouan); Pame (Oto-Manguean)

- Second versus non-second (singular)

Icelandic, German, Gothic (Germanic, Indo-European); Spanish, Siciliano (Romance, Indo-European); Koiari, Ömie (Central and Southeast, Papuan); Ika (Chibchan)

- Completely syncretic (singular)

Italian, French (Romance, Indo-European); Icelandic (Germanic); Kapau (Angan, Papuan)

## - First versus non-first (non-singular)

Wolof (Atlantic, Niger-Congo); Kunama (Nilo-Saharan - with clusivity in firt person); Icelandic (Germanic, IndoEuropean); Slovene, Upper Sorbian (Slavonic, Indo-European); Bunan, Rongpo (Bodic, Tibeto-Burman); Chukchee, Koryak, Kamchadal (Chukotko-Kamchatkan); Megeb (Nakh-Dagestanian); Kati, Kombai, Wambon, Awju (Central and South New Guinea, Papuan); Gadsup, Kalam, Fore, Wiru, Yagaria, Kewa, Kuman (East New Guinea Highlands, Papuan); Baruya, Kapau (Angan, Papuan); Amele (Mabuso, Papuan); Siroi (Rai Coast, Papuan); Magi, Yareba (Central and Southeastern, Papuan); Moraori, Kiwai (Trans-Fly, Papuan); Nez Perce (Sahaptin); Northern Paiute (Uto-Aztecan - with clusivity in first person) Chitimacha (isolate); Lengua (Mascoian); Warekena (Arawakan); Warao (isolate); Awa-Pit (Barbacoan); Qawesqar (Alcalufan); Mauritian Creole, Seychellois Creole, Réunion Creole, North Haitian Creole (French-based Creoles).

## - Third versus non-third (non-singular))

Dogon (Niger-Congo); Fongbe (Kwa, Niger-Congo); Kenuzi-Dongola (Eastern Sudanic, Nilo-Saharan); Tinan, Manchad, Primi (Bodic, Tibeto-Burman); Svan (South Caucasian); Lak, Dargi (Nakh-Dagestanian); Awa, Usarufa (East New Guinea Highlands, Papuan); Mombum (Central and South New Guinea, Papuan); Waskia (Pihom-Isumrud-Mugil); Tetun (Timor, Austronesian); Slave, Apache, Navaho, Kato, Hupa (Athabascan); Nez Perce (Sahaptin); Ika (Chibchan); Southern Haitian Creole (French Based Creole); Ndyuka, Sranan (English based Creoles).

- Second versus non-second (non-singular)

Bagirmi (Central Sudanic, Nilo-saharan); Midob (Eastern Sudanic, Nilo-Saharan); Dogon (Niger-Congo); Wolof (Atlantic, Niger-Congo); French (Romance, Indo-European); Hindi (Indo-Aryan, Indo-European); German (Germanic, Indo-European); Omié (Koiarian, Papuan); Orokaiva, Korafe (Binanderean, Papuan).

- Completely syncretic (non-singular)

Dutch, English (Germanic, Indo-European); Rongpo (Tibeto-Burman); Koiari (Central and Southeastern, Papuan); Waskia (Pihum-Isumrud-Mugil, Papuan); Una (Mek, Papuan).

Languages as counted in section 6

- Inclusive = first person

Binandere (Goilalan, Papuan).

- Exclusive = first person (these cases are also included in Error! Reference source not found. as examples of first person without number marking)
Ngiti (Central Sudanic, Nilo-Saharan); Svan (South Caucasian); Chrau (Mon-Khmer, Austro-Asiatic); Kwamera, Lenakel, (Tanna, Austronesian); Nimboran (Nimboran, Papuan); Imonda, Amanab (Border, Papuan); Tiwi (Tiwian, non-Pama-Nyungan); Warrwa (Nyulnyulan, non-Pama-Nyungan); Winnebago (Siouan); Wichita, Caddo, Pawnee (Caddoan); Menomini, Cree, Fox, Eastern Ojibwe, Southwestern Ojibwe, Passamaquoddy-Maliseet (Algonquian); Chalcatongo Mixtec, Ocotepec Mixtec, Yosondúa Mixtec, Diuxi-Tilantongo Mixtec (Mixtecan, Oto-Manguean); Chocho (Popolocan, Oto-Manguean); Huave (Huavean); Sierra Popoluca (Mixe-Zoque); Maká (Mataco-Guaicuruan); Tarma Quechua (Quechuan); Jaqaru (Aymaran); Canela-Kraho (Gé); Asheninca, Nomatsiguenga, Caquinte (Campa, Arawakan).
- Inclusive = second person

Menomini, Cree, Fox, Eastern Ojibwe, Southwestern Ojibwe, Passamaquoddy-Maliseet (Algonquian); Kiowa (Tanoan); Lavukaleve (East Papuan); Tiwi (Tiwian); Acehnese (Sundic, Austronesian); Diola-Fogny (Atlantic, Niger-Congo); Kulung (Kiranti, Sino-Tibetan); Sanuma (Isolate).

- Exclusive = second person

Lamalera, Dawanese, Kisar, Sika, Roti (Timor, Austronesian); Yabem, Sobei, Mekeo, Nehan, Central Buang (Western Oceanic, Austronesian); Ulithian (Micronesian, Austronesian); Southern Udihe (Tungusic); Burarra (Burarran, non-Pama-Nyungan); Tiwi (Tiwian, non-Pama-Nyungan).

- Inclusive = third person

Kwamera, Lenakel, North Tanna, Southwest Tanna, Whitesands (Tanna, Austronesian); Atchin (Remote Oceanic, Austronesian); Nalik (Western Oceanic, Austronesian); Muna (Sulawesi, Austronesian); Hatam (West Papuan); Athpare, Camling, Dumi (Kiranti, Tibeto-Burman); Huave (Huavean); Tupinambá (Tupí).

- Exclusive = third person

Kariña, Tiriyó, Carijona, Kashuyana, Wai Wai, Hixkaryana, Waimiri-Atroari, Arekuna, Akawaio, Wayana, Dekwana, Bakairí, Txikão (Carib); Kiowa (Tanoan); Shuswap (Salish); Binandere (Goilalan); Hatam (West Papuan); Diola-Fogny (Atlantic, Niger-Congo).

Languages as counted in section 7

- Minimal inclusive $=$ exclusive

Yaouré (Mande); Kunimaipa (Goilalan, Trans-New Guinea); Bunaba, Gooniyandi (Bunaban, non-Pama-Nyungan).

- Augmented inclusive = exclusive

Kunimaipa (Goilalan, Papuan); Hatam (West Papuan, Papuan); Bardi, Nyulnyul (Nyulnyulan, non-Pama-Nyungan); Burarra (Burarran, non-Pama-Nyungan); Tiwi (Tiwian, non-Pama-Nyungan); Assiniboine, Lakhota, Iowa (Siouan); Pech (Chibchan); Guató (Macro-Gé).

## language as counted in section 8

- Dual inclusive = dual exclusive

Jiarong (Tibeto-Burman); Tuaripi (Eleman, Papuan); Guhu-Samane, Korafe (Binanderean, Papuan); Moi (West Papuan, Papuan); Yava (Geelvink Bay, Papuan); Kuku-Yalanji (Pama-Nyungan).

- Plural inclusive $=$ plural exclusive

Samo (Central and South New Guinea, Papuan); Tanimbili (Remote Oceanic, Austronesian); Coos ('Oregon Penutian').

- Dual inclusive = plural inclusive

Savosavo (Yele-Solomons, Papuan); Ngankikurungkurr (Daly); Yagua (Isolate).

- Dual exclusive = plural exclusive

Wik-Munkan (Pama-Nyungan); Ponapean (Micronesian, Austronesian).

## Languages as counted in section 9

- Inclusive as a polite second person

Muna, Konjo, Bajau, Wolio, Sa’dan, Duri, Palu (Sulawesi, Austronesian); Toba Batak, North Maluku Malay, Sulawesi Malay (Sundic, Austronesian); Tetun (Timor, Austronesian); Malagasy (Borneo, Austronesian); Hawaiian (Polynesian, Austronesian); Ainu (Isolate); Limbu (Kiranti, Tibeto-Burman); Cuzco Quechua (Quechuan); Tamil (Dravidian).

- Inclusive as a humble first person

Sawu (Bima-Sumba, Austronesian); Toba Batak, Sulawesi Malay (both Sundic, Austronesian); Duri, Palu (both Sulawesi, Austronesian).

- Inclusive as a bonding first person

Galela (West Papuan); Tzeltal (Mayan); Tamil (Dravidian).

- Inclusive as an impolite first person

Santali (Munda, Austro-Asiatic); Vietnamese (Mon Khmer, Austro-Asiatic); Malayalam, Tamil (both Dravidian).

- Exclusive as a polite first person

Minangkabau, Malay (both Sundic, Austronesian); Malagasy (Borneo, Austronesian); Kharia, Ho (both Munda, Austro-Asiatic); Vietnamese (Mon Khmer, Austro-Asiatic); Tamil (Dravidian); Auca (unclassified).

