

Reconstruction of morphosyntactic function: Non-spatial usage of spatial case marking in Tsezic

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Table 1. Reconstructions of locational markers.

| Proto-Tsezic reconstruction | Approximate meaning in spatial domain | Gloss |
|-----------------------------|---------------------------------------|-------|
| *-t- | contact | CONT |
| *-ʔa- | in, inside | IN |
| *-ʃ- | under | SUB |
| *-ʃ'o- | on top, above | SPR |
| *-qo- | attached to | AT |
| *-de- | near, by (animates) | APUD |
| *-ho- | near, by (inanimates) | AD |
| *-yo | near, close | NEAR |

Table 2. Reconstructions of directional markers.

| Proto-Tsezic reconstruction | Approximate meaning in spatial domain | Gloss |
|-----------------------------|---------------------------------------|-------|
| *-∅ | essive ('location') | NULL |
| *-r/l | lative ('orientation towards a goal') | LAT |
| *-s | ablative ('movement from, or out of') | GEN |

Table 3. Spatial case markers in Tsezic.¹

| | Hinuq | CONT | IN | SUB | SPR | AT | APUD | AD | |
|-------------------|----------|----------|-------------|----------|-------------|------------|------------|------------|-----------|
| Essive | | -t | -V/ma | -ʃ | -ʃ'o | -qo | -de | -ho | |
| Lative | | -t-er | -V/ma-r | -ʃ-er | -ʃ'o-r | -qo-r | -de-r | -ho-r | |
| Ablative/Genitive | | -t-es | -V/ma-s | -ʃ-es | -ʃ'o-s | -qo-s | -de-s | -ho-s | |
| Ablative | | -t-ezo | -V/ma-zo | -ʃ-ezo | -ʃ'o-zo | -qo-zo | -de-zo | -ho-zo | |
| Directive | | -t-edo | -V/ma-do | -ʃ-edo | -ʃ'o-do | -qo-do | -de-do | -ho-do | |
| | Tsez | CONT | IN | SUB | SPR | AT | APUD | AD | |
| Essive | | -t | -ā | -ʃ | -ʃ'(o) | -q(o) | -de | -x(o) | |
| Lative | | -t-er | -ā-r | -ʃ-er | -ʃ'o-r | -qo-r | -de-r | -xo-r | |
| Ablative | | -t-āy | -ā-y | -ʃ-āy | -ʃ'-āy | -q-āy | -d-āy | -x-āy | |
| Versative | | -t-xor | -ā-ʃor | -ʃ-xor | -ʃ'-āʃor/ār | -q-āʃor/ār | -d-āʃor/ār | -x-āʃor/ār | |
| | Khwarshi | CONT | IN | SUB | SPR | AT | AD | NEAR | |
| Essive | | -t | -(m)a | -ʃ | -ʃ'o | -qo | | -ho | -yo |
| Lative | | -t-ul | -(m)a-l | -ʃ-ul | -ʃ'o-l | -qo-l | | -ho-l | -yo-l |
| Ablative | | -t-zi | -(m)a-zi | -ʃ-zi | -ʃ'o-zi | -qo-zi | | -ho-zi | -yo-zi |
| Versative | | -t-yul | -(m)a-yul | -ʃ-yul | -ʃ'o-yul | -qo-yul | | -ho-yul | -yo-yul |
| Translative | | -t-yuʒaz | -(m)a-yuʒaz | -ʃ-yuʒaz | -ʃ'o-yuʒaz | -qo-yuʒaz | | -ho-yuʒaz | -yo-yuʒaz |
| Terminative | | -t-q'a | -(m)a-q'a | -ʃ-q'a | -ʃ'o-q'a | -qo-q'a | | -ho-q'a | -yo-q'a |
| | Bezhta | CONT | IN | SUB | SPR | AT | APUD | NEAR | |
| Essive | | -t | -ʔ | -ʃ | -ʃ'a | -qa | -doy | -ya | |
| Lative | | | -ʔ-il | | -ʃ'a-l | | -doy-l | -ya-l | |
| Ablative/Genitive | | -t-so | -ʔ-is | -ʃ-so | -ʃ'a-s | -qa-s | -doy-s | -ya-s | |
| Ablative | | -t-la | -ʔ-la | | -ʃ'a-la | | | | |
| Directive | | -t-daa | -ʔ-daa | | -ʃ'a-daa | | -doy-da | -ya-daa | |
| Translative | | -t-laʃ'ā | -ʔ-(la)ʃ'ā | | -ʃ'a-laʃ'ā | | | -ya-laʃ'ā | |
| | Hunzib | CONT | IN | SUB | SPR | AT | APUD | | |
| Essive | | -t | -V | -ʃ | -ʃ'(o) | -g(o) | -dər | | |
| Ablative/Genitive | | -t-sə | -V-s | | -ʃ'o-s | -go-s | -dər-sə | | |
| Translative | | -t-ʃ'i | -V-ʃ' | | -ʃ'o-ʃ' | | -dər-ʃ'i | | |
| Directive | | -t-do | -dα-α | | | | -dər-do | | |

¹ In Khwarshi, all locational markers ending in /o/ have an allomorph ending in /a/. In Bezhta, the IN-Lative and the IN-Ablative/Genitive have allomorphs in which the epenthetic vowel /i/ is either /a/, /e/ or /o/. Also in Bezhta, the APUD morpheme *-doy-*, as found in the texts that we used, is listed as *-der-* in Kibrik & Testelefs (2004). This is possibly a dialectal difference.

Table 4. Non-spatial contexts for case marking.

| Role | Label | Construction |
|------------------|------------------------|--------------------------------------|
| Addressees | TALK | talk [to somebody] |
| | TELL | tell [to somebody] |
| | SHOUT | shout [at somebody] |
| | SAY | say [to somebody] |
| | ASK | ask [somebody] |
| | BEG | beg [somebody] |
| | EXPLAIN | explain [to somebody] |
| | TEACH | teach [to somebody] |
| | ORDER | order [somebody] |
| Human objects | MARRY | marry [a man] |
| | FEAR | fear [somebody] |
| | BELIEVE | believe [somebody] |
| | LISTEN | listen [to somebody] |
| Recipients | GIVE (PERMANENTLY) | give X as a gift [to somebody] |
| | GIVE (TEMPORARILY) | give X to hold [to somebody] |
| | SHOW | show X [to somebody] |
| Possessors | INALIENABLE POSSESSION | [somebody] has a daughter |
| | ALIENABLE POSSESSION | [somebody] has money |
| Subjects | AGE | [somebody] is X years old |
| | NAME | [somebody] is called X |
| | FIND | [somebody] finds X |
| Objects | EXCHANGE | give X away [for something else] |
| | PURPOSE/GOAL | go with the goal to get [something] |
| | LOOK | look [at something] |
| | METAPHORICAL LOCATION | talk [about something] |
| Causees | CAUSATIVE | cause [somebody] to do X |
| Potential agents | POTENTIAL | [somebody] can do X |
| | ABLE | [somebody] is able to do X |
| Reasons | NATURAL FORCE | [because of something] X happened |
| Converbs | SIMULTANEOUS | [while X happened] ... |
| | TERMINATIVE | [until/before X happened] ... |
| | CAUSAL | [because X happened] ... |
| | POSTERIOR | [after X happened]... |
| Time indications | TIME SPAN | something happened [during period X] |
| | TIME POINT | something happened [at time X] |

(1) Khwarshi (Z. Xalilova, p.c.): recipient of GIVE

- a. *ise heʰʂe ite-l tuʂ-i*
 he.ERG book she.OBL-LAT give-PST.W
 ‘He gave her the book.’ (forever, as a gift)
- b. *ise heʰʂe ite-ʝo-l tuʂ-i*
 he.ERG book she.OBL-NEAR-LAT give-PST.W
 ‘He gave her the book.’ (only for a certain time)

(2) Hunzib (van den Berg 1995: 69): subject of AGE

oʉ-s oqʹe-n rig ʂi li
 s/he.OBL-GEN four-and ten.OBL year be
 ‘S/he is forty years old.’

(3) Tsez (B.Comrie, fieldnotes): subject of FIND

elo ʝita-r bercinaw kid ʝ-esu-n
 there she.OBL-LAT beautiful girl(II) II-find-PST.UNW
 ‘She found a beautiful girl there.’

(4) Hunzib (Van den Berg 1995: 108): causee of CAUSATIVE

mahuhan-li-l abu-g si b-iʂʹe-kʹ-er
 neighbour-OBL-ERG father-AT.ESS bear(III) III-kill-CAUS-PRET
 ‘The neighbour made father kill the bear.’

Table 5. Non-spatial case marking in Tsezic.

| Function | Hinüq | | Tsez | | Khwarshi | | Bezhta | | Hunzib | |
|------------------------|-------|------|------|------|----------|-------|--------|-------|--------|------|
| | Loc | Dir | Loc | Dir | Loc | Dir | Loc | Dir | Loc | Dir |
| able | AT | NULL | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| age | AT | NULL | AT | NULL | AT | NULL | NULL | LAT | NULL | GEN |
| alienable possession | AT | NULL | AT | NULL | AT | NULL | AT | NULL | - | - |
| ask | AT | NULL | AT | NULL | AT | LAT | AT | NULL | AT | NULL |
| beg | AT | NULL | AT | NULL | AT | NULL | AT | NULL | - | - |
| believe | SPR | NULL | SPR | NULL | SPR | NULL | SPR | NULL | SPR | NULL |
| causal | - | - | AT | NULL | - | - | AT | NULL | AT | NULL |
| causative | AT | NULL | AT | NULL | AT | NULL | NULL | INSTR | AT | NULL |
| exchange | SUB | NULL | SUB | NULL | SUB | NULL | SUB | NULL | SUB | NULL |
| explain | AT | LAT | NULL | LAT | AT | LAT | NULL | LAT | - | - |
| fear | AT | NULL | AT | NULL | AT | NULL | AT | NULL | SPR | NULL |
| find | NULL | DAT | NULL | LAT | NULL | LAT | NULL | LAT | - | - |
| give (permanently) | NULL | DAT | NULL | LAT | NULL | LAT | NULL | LAT | IN | NULL |
| give (temporarily) | AT | NULL | AT | NULL | NEAR | LAT | AT | NULL | AT | NULL |
| inalienable possession | NULL | GEN | NULL | GEN | NULL | GEN | NULL | GEN | NULL | GEN |
| listen | AT | NULL | AT | LAT | AT | NULL | AT | NULL | - | - |
| look | SPR | LAT | SPR | LAT | AT | LAT | AT | NULL | AT | NULL |
| marry | AD | NULL | AD | NULL | AD | NULL | NULL | LAT | IN | NULL |
| metaphorical location | SPR | NULL | CONT | ABL | NULL | GEN | NULL | GEN | SPR | GEN |
| name | SPR | NULL | SPR | NULL | SPR | NULL | SPR | NULL | - | - |
| natural force | AT | NULL | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| order | AT | LAT | AT | LAT | NULL | LAT | NULL | LAT | - | - |
| posterior | NULL | GEN | NULL | GEN | NULL | GEN | NULL | GEN | NULL | GEN |
| potential | AT | NULL | AT | NULL | AT | NULL | - | - | - | - |
| purpose/goal | SPR | NULL | SPR | LAT | AD | NULL | IN | LAT | SPR | NULL |
| say | AT | LAT | AT | LAT | AT | LAT | AT | NULL | AT | NULL |
| shout | AT | LAT | AT | LAT | AT | LAT | AT | NULL | AT | NULL |
| show | NULL | DAT | AT | NULL | AT | NULL | NULL | LAT | IN | NULL |
| simultaneous | SPR | NULL | SPR | NULL | SPR | NULL | IN | NULL | IN | NULL |
| talk | AT | LAT | AT | LAT | AT | NULL | AT | NULL | AT | NULL |
| teach | AT | NULL | AT | NULL | AT | LAT | NULL | LAT | IN | NULL |
| tell | AT | NULL | AT | NULL | AT | NULL | AT | NULL | IN | NULL |
| terminative | SPR | LAT | SPR | LAT | AD | LAT | NULL | LAT | NULL | LAT |
| time point | SPR | NULL | SPR | NULL | SPR | NULL | SPR | NULL | - | - |
| time span | CONT | NULL | CONT | NULL | NULL | INSTR | IN | NULL | CONT | NULL |

Figure 1. Multidimensional scaling of the 35 functions according to their case marking in Tsezic.

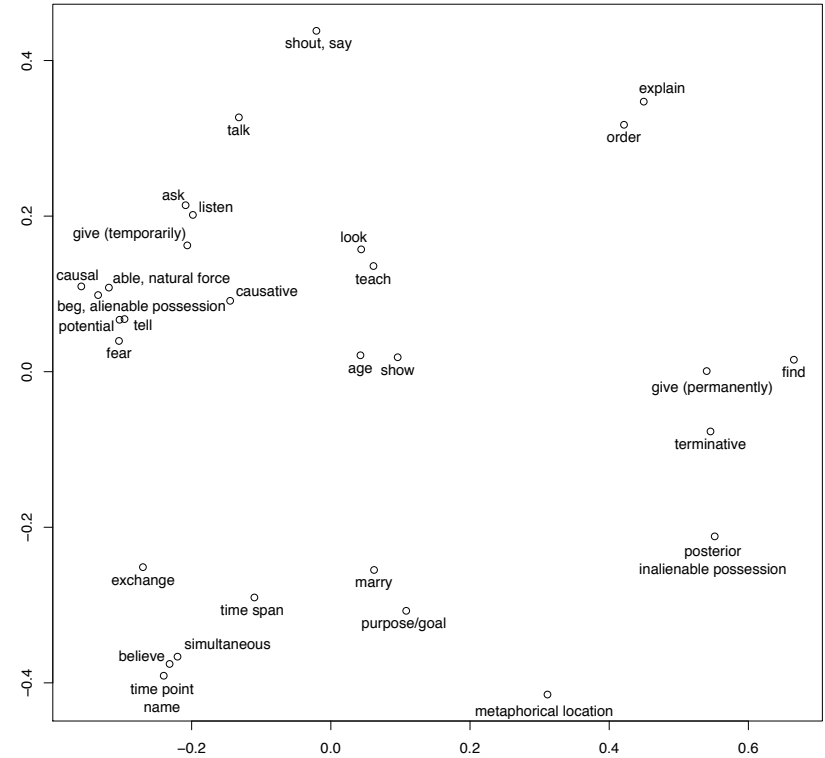


Figure 2. Directional marking in Tsez and Bezhta.

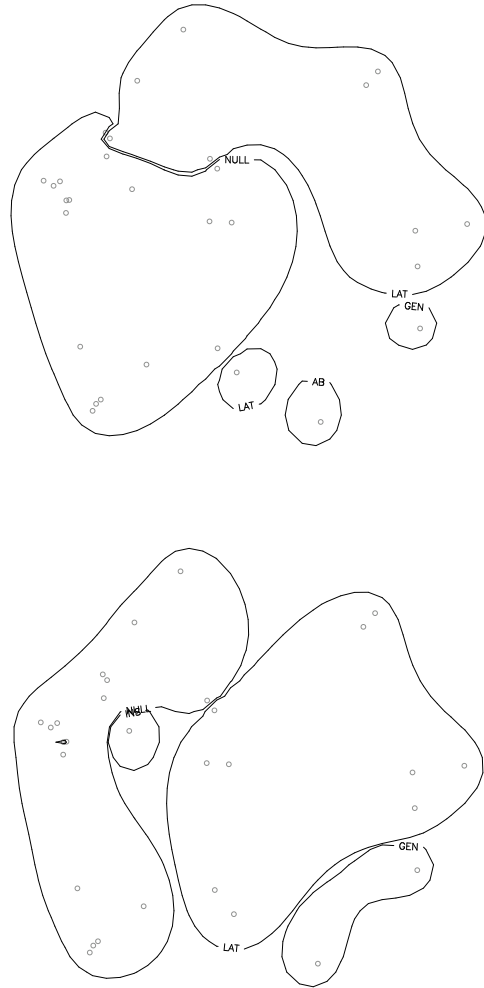


Table 6. Reconstruction of case for 'listen [to somebody]'.

| Language | Case | Reconstruction | | |
|----------|---------|-------------------|-------------|---------------|
| Khwarshi | AT.NULL | | | |
| Tsez | AT.LAT | proto-Hinuq/Tsez: | proto-West: | |
| Hinuq | AT.NULL | *AT.NULL | *AT.NULL | proto-Tsezic: |
| Bezhta | AT.NULL | | proto-East: | *AT.NULL |
| Hunzib | - | | *AT.NULL | |

Table 7. Reconstruction of case for 'order [somebody]'.

| Language | Case | Reconstruction | | |
|----------|----------|-------------------|-------------|---------------|
| Khwarshi | NULL.LAT | | | |
| Tsez | AT.LAT | proto-Hinuq/Tsez: | proto-West: | |
| Hinuq | AT.LAT | *AT.LAT | *NULL.LAT | proto-Tsezic: |
| Bezhta | NULL.LAT | | proto-East: | *NULL.LAT |
| Hunzib | - | | *NULL.LAT | |

Table 8. Reconstruction of case for simultaneous converb.

| Language | Case | Reconstruction | | |
|----------|----------|-------------------|-------------|---------------|
| Khwarshi | SPR.NULL | | | |
| Tsez | SPR.NULL | proto-Hinuq/Tsez: | proto-West: | |
| Hinuq | SPR.NULL | *SUPER.NULL | *SUPER.NULL | proto-Tsezic: |
| Bezhta | IN.NULL | | proto-East: | *?.NULL |
| Hunzib | IN.NULL | | *IN.NULL | |

Figure 3. Unique optimal (unrooted) tree on the basis of non-spatial case marking (according to Maximum Parsimony).

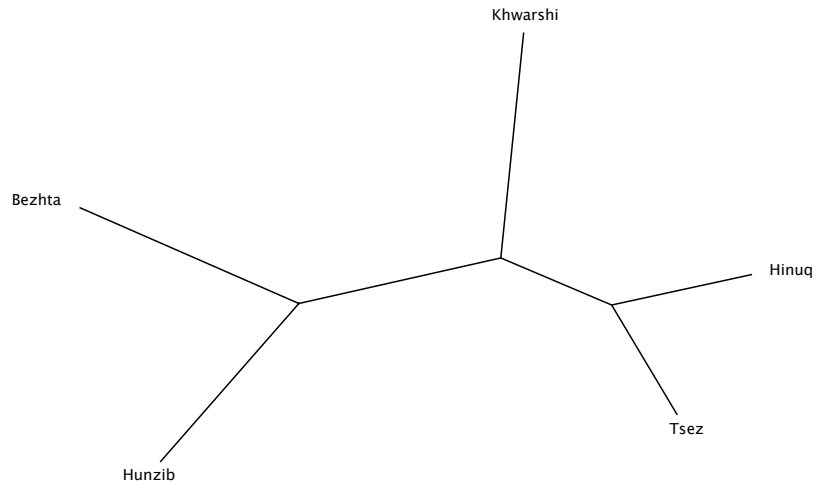
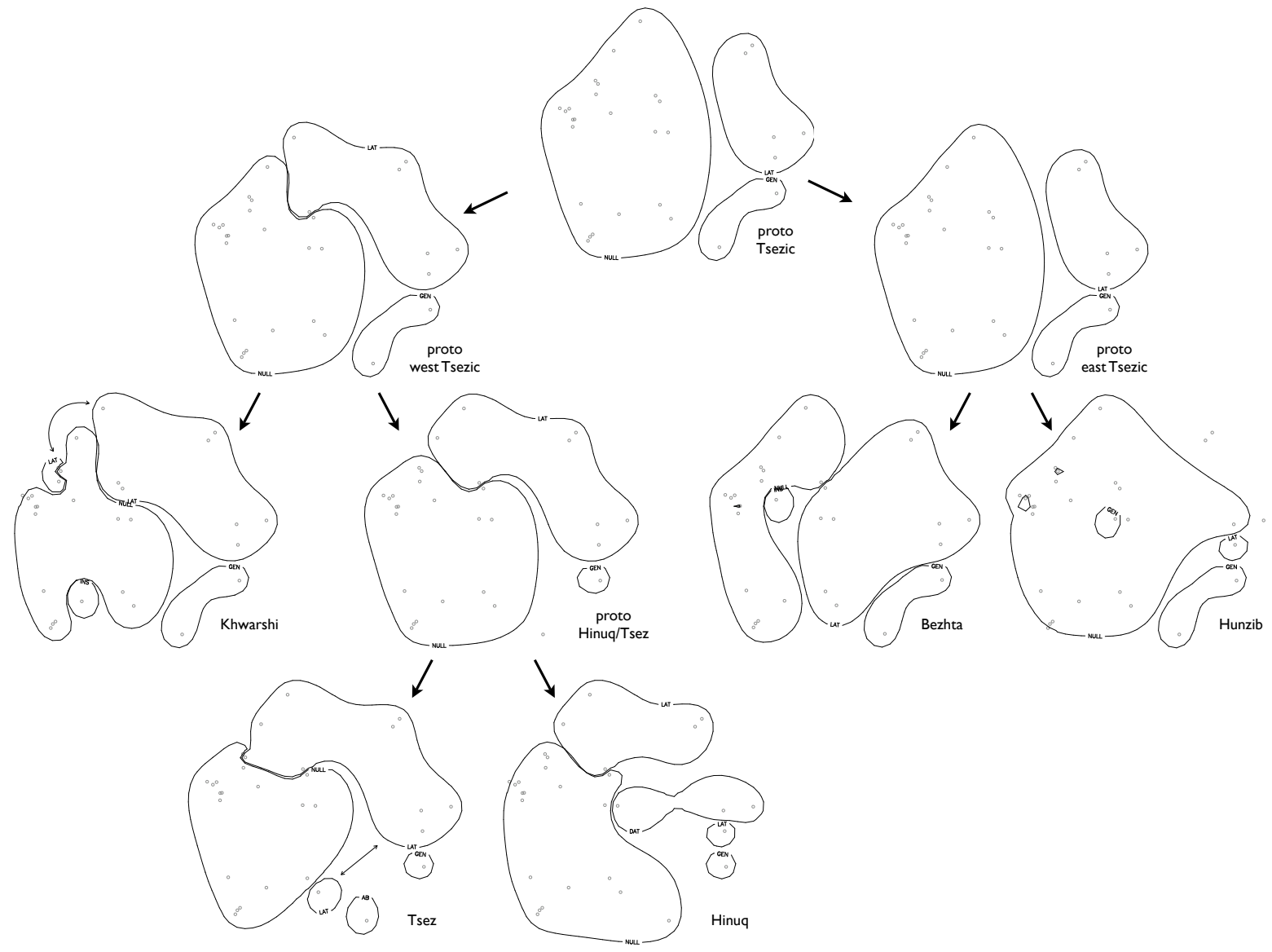


Table 9. Reconstructions of non-spatial case marking.

| Functions | proto-Hinuq/Tsez | | proto-West Tsezic | | proto-East Tsezic | | proto-Tsezic | |
|------------------------|------------------|------|-------------------|------|-------------------|------|--------------|------|
| | Loc | Dir | Loc | Dir | Loc | Dir | Loc | Dir |
| able | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| age | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| alienable possession | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| ask | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| beg | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| believe | SPR | NULL | SPR | NULL | SPR | NULL | SPR | NULL |
| causal | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| causative | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| exchange | SUB | NULL | SUB | NULL | SUB | NULL | SUB | NULL |
| explain | NULL | LAT | NULL | LAT | NULL | LAT | NULL | LAT |
| fear | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| find | NULL | LAT | NULL | LAT | NULL | LAT | NULL | LAT |
| give (permanently) | NULL | LAT | NULL | LAT | NULL | LAT | NULL | LAT |
| give (temporarily) | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| inalienable possession | NULL | GEN | NULL | GEN | NULL | GEN | NULL | GEN |
| listen | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| look | SPR | LAT | AT | LAT | AT | NULL | AT | NULL |
| marry | AD | NULL | AD | NULL | - | NULL | - | NULL |
| metaphorical location | - | - | NULL | GEN | NULL | GEN | NULL | GEN |
| name | SPR | NULL | SPR | NULL | SPR | NULL | SPR | NULL |
| natural force | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| order | AT | LAT | NULL | LAT | NULL | LAT | NULL | LAT |
| posterior | NULL | GEN | NULL | GEN | NULL | GEN | NULL | GEN |
| potential | AT | NULL | AT | NULL | - | - | AT | NULL |
| purpose/goal | SPR | NULL | SPR | NULL | SPR | NULL | SPR | NULL |
| say | AT | LAT | AT | LAT | AT | NULL | AT | NULL |
| shout | AT | LAT | AT | LAT | AT | NULL | AT | NULL |
| show | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| simultaneous | SPR | NULL | SPR | NULL | IN | NULL | - | NULL |
| talk | AT | LAT | AT | NULL | AT | NULL | AT | NULL |
| teach | AT | NULL | AT | NULL | - | NULL | - | NULL |
| tell | AT | NULL | AT | NULL | AT | NULL | AT | NULL |
| terminative | SPR | LAT | NULL | LAT | NULL | LAT | NULL | LAT |
| time point | SPR | NULL | SPR | NULL | SPR | NULL | SPR | NULL |
| time span | CONT | NULL | CONT | NULL | CONT | NULL | CONT | NULL |

Figure 4. Development of directional case marking.



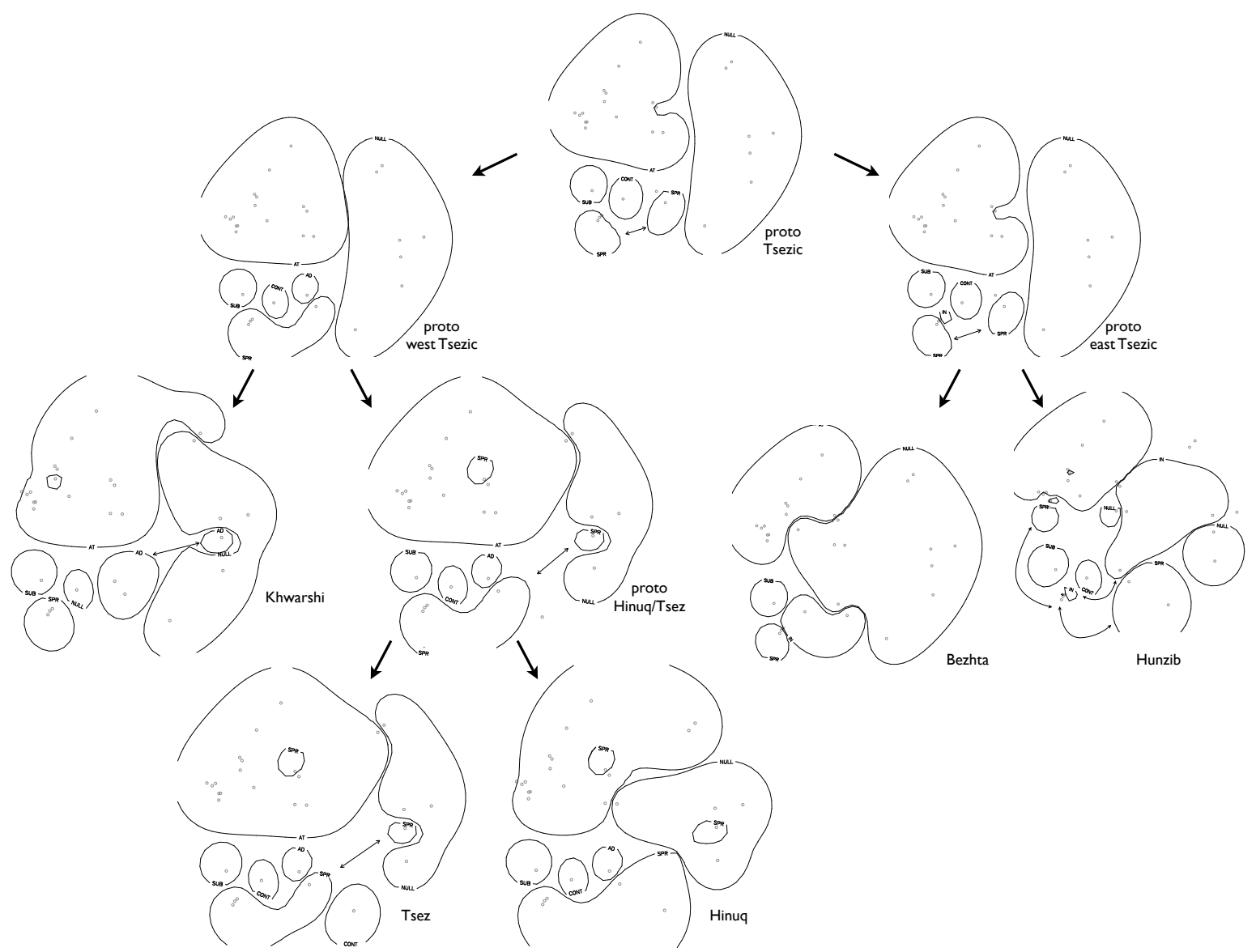
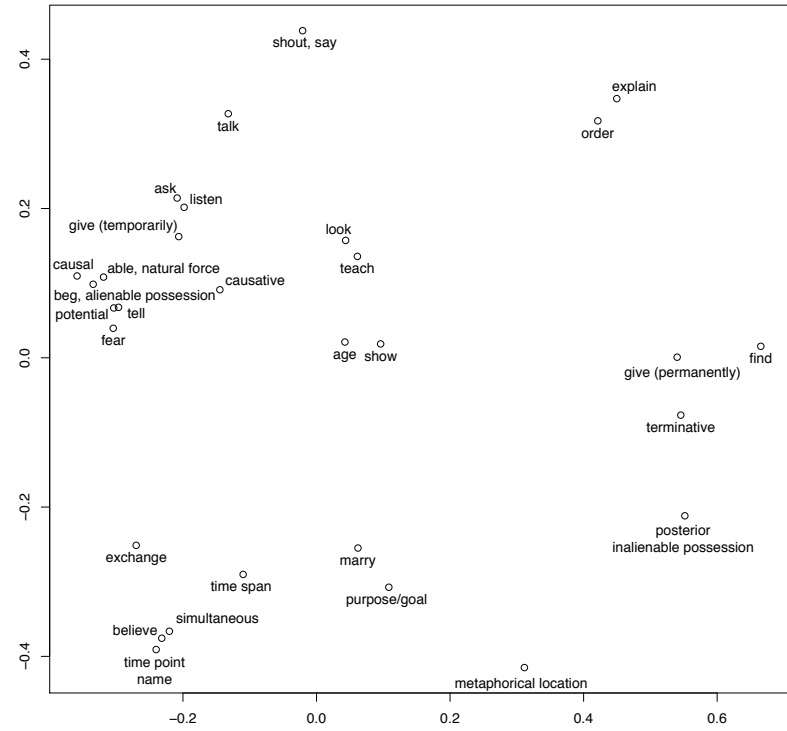
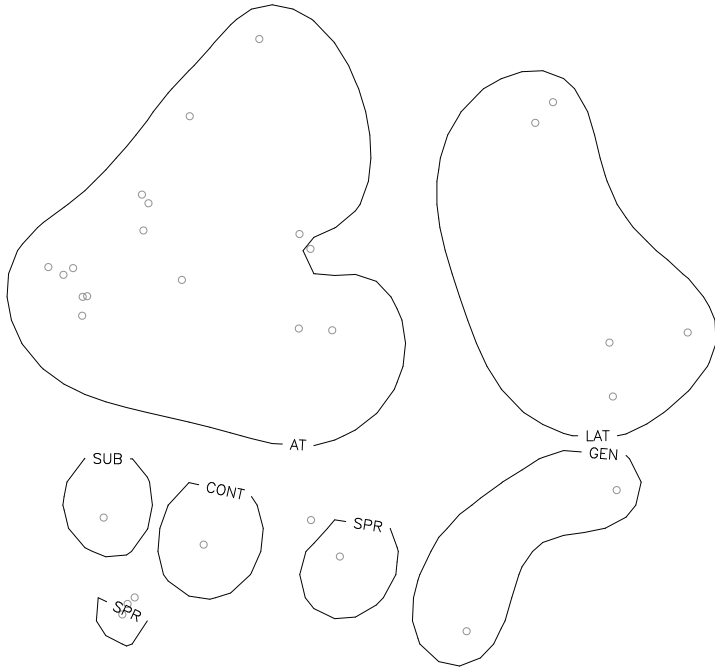


Figure 5. Development of locational case marking.

Figure 6. Summary of non-spatial case marking for proto-Tsezic.



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