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 Conference of the Languages of the Caucasus, 7–9 December 2007
 Max Planck Institute for Evolutionary Anthropology, Leipzig

Vertical Ellipsis in Tsakhur and Adyghe¹

The research work on ellipsis has been mostly based on data of languages which strongly restrict what we call here **vertical ellipsis** (in the subordinate clause with an antecedent in the main clause, or vice versa), but allow **horizontal ellipsis** (between coordinated clauses) more freely, cf. the well-known facts of English:

Gapping:

- (1) John played piano, and (//*whenever) Max ___ sax.

Stripping:

- (2) The critics praised your book, and (*someone told me that) ___ the poem too.

Right-Periphery Ellipsis (=Right-Node Raising):

- (3) Mary ate ___ and (//*after) Bill cooked the rice.

VP-ellipsis (4), **N'-ellipsis** (5), and **Sluicing** (6) occur with subordinate clauses (rightward only):

- (4) a. Mary met Sue at Stanford although John didn't ___.
 b. *Mary didn't ___, although John met Sue at Stanford.
- (5) a. John criticized Bill's arguments whenever Bill criticized John's ___.
 b. *John criticized Bill's ___, whenever Bill criticized John's arguments.
- (6) a. John bought something, although I don't know what ___.
 b. *Although I don't know what ___, John bought something.

In some languages of the Caucasus, left-, right-, up- and downward vertical ellipsis is normal with **adjunct clauses**, cf. constructions with temporal converbs in *-inGal* and *-mē* in **Tsakhur** (East Caucasian, the Lezgetic branch):

- (7) i-na me-r zakatala rajon-ē-qa girx_o-inGal,
 this-ATR.ABS again-COH.1 Zakatala district-IN-ALL1 come.PF-TEMP
 ___ dost-ā-ši-s Xabar-o-b ha-w-ʔ-u.
 friend-PL-OBL-DAT story.3-AUX-3 3-do-PF

When he_i came back to Zakataly district, he_i told this story to his friends.

- (8) a. aXn-ē-qa sjo i-w-č'-u-mē, ___ gi-b-Ril-na
 lair-IN-ALL bear.3 3-enter-PF-LIM 3-begin.PF-ATR
 mīr hāʔ-a. **UP- and RIGHTWARD**
 growl 3-do-IPF
- b. gi-b-Ril-na mīr hāʔ-a, aXn-ē-qa
 3-begin.PF-ATR growl 3-do-IPF lair-IN-ALL
 sjo i-w-č'-u-mē. **UP- and LEFTWARD**
 bear.3 3-enter-PF-LIM
- c. sjo gi-b-Ril-na mīr hāʔ-a, aXn-ē-qa ___
 bear.3 3-begin.PF-ATR growl 3-do-IPF lair-IN-ALL
 i-w-č'-u-mē. **DOWN- and RIGHTWARD**
 3-enter-PF-LIM

¹ The investigation was supported by the RGNF grant 06-04-00194a "Syntax of a Polysynthetic Language".

- d. aXn-ē-qa i-w-č'-u-mē, sjo gi-b-Ril-na
 lair-IN-ALL 3-enter-PF-LIM bear.3 3-begin.PF-ATR
 mīr hāʔ-a. **DOWN- and LEFTWARD**
 growl 3-do-IPF
 When the bear_i got into the lair, it_i began to growl.

Likewise with a **relative clause**:

- (9) a. a-b-īni darman-in malhammadī-s kumag
 3-bring.PF-AOBL medicine-ERG Muhammad-DAT help.4
 h-id_j-aʔ-in.
 NEG-do.PF-A
 The medicine brought by him(self) didn't help Muhammad
- b. malhammad-ē a-b-īni darman-in kumag
 Muhammad-DAT 3-bring.PF-AOBL medicine-ERG help.4
 h-id_j-aʔ-in.
 NEG-do.PF-A
 The medicine brought by Muhammad_i didn't help (him_{i,j})

With **argument clauses**, however, upward ellipsis is normally impossible in Tsakhur:

- (10) a. zābit-ē amīr ha-w-ʔ-u esker-ā-ši-s,
 officer-ERG order.3 3-do-PF soldier-PL-OBLPL-DAT
 mašin-ē-qa gi-w-ʔar-as.
 lorry-IN-ALL PL-get-POT
 The officer ordered the soldiers to get in the truck.
- b. zābit-ē amīr ha-w-ʔ-u, esker-ā-r
 officer-ERG order.3 3-do-PF soldier-PL-NOMPL
 mašin-ē-qa gi-w-ʔar-as.
 lorry-IN-ALL PL-get-POT
 The officer ordered (someone) that the soldiers should get in the truck.
 *The officer ordered the soldiers to get in the truck.

In **Adyghe** (West Caucasian, the Circassian branch), with all kinds of subordinate clauses, adjuncts and complements alike, both upward and downward vertical ellipsis is available (first noticed for Kabardian complement clauses in Kumaxov, Vamling 1998: 101):

Complement subordinate clause (-n-ew infinitive)

- (11) a. [pšaše-m wered qə-ʔ_we-n-ew] ___ faj
 girl-ERG song DIR-sing-POT-ADV want
- b. ___ faj [pšaše-m wered qə-ʔ_we-n-ew]
 want girl-ERG song DIR-sing-POT-ADV
 (She)_{i,j} wants the girl_i to sing a song
- c. pšaše-r faj [___ wered qə-ʔ_we-n-ew]
 girl-ABS want song DIR-sing-POT-ADV
- d. [___ wered qə-ʔ_we-n-ew] pšaše-r faj
 song DIR-sing-POT-ADV girl-ABS хочет
 The girl_i wants to sing a song// wants her_j to sing a song

- (12) a. [___ pjəs'me-r ə-txə-n-ew] mə çəfə-r faj
 letter-ABS 3SG-write-POT-ADV this man-ABS want
 This man wants to write a letter // him/her to write a letter.
- b. [mə çəfə-m pjəs'me-r ə-txə-n-ew] ___ faj
 this man-ERG letter-ABS 3SG-write-POT-ADV want
 This man wants to write a letter. // He/she wants this man to write a letter.

Adjunct subordinate clause (-n-ew infinitive; meaning of purpose)

- (13) a. č'ale-m pče-r qə-ʔ_wə-jə-hə-ɸ [___ wəne-m jə-ha-n-ew]
 boy-ERG door-ABS DIR-PRV-3SG-open-PST house-ERG 3SG-enter-POT-ADV
- b. [___ wəne-m jə-ha-n-ew] č'ale-m pče-r qə-ʔ_wə-jə-hə-ɸ
 house-ERG 3SG-enter-POT-ADV boy-ERG door-ABS DIR-PRV-3SG-open-PST
 The boy opened the door to enter the house // for someone to enter the house.
- c. ___ pče-r qə-ʔ_wə-jə-hə-ɸ [č'aler wəne-m jə-ha-n-ew]
 door-ABS DIR-PRV-3SG-open-PST boy-ABS house-ERG 3SG-enter-POT-ADV
- d. [č'ale-r wəne-m jəhanew] ___ pče-r qə-ʔ_wə-jə-hə-ɸ
 boy-ERG house-ERG 3SG-enter-POT-ADV door-ABS DIR-PRV-3SG-open-PST

The boy opened the door to enter the house. // He/she opened the door for the boy to enter the house.

Adjunct subordinate clause (the temporal ze-___-m converb)

- (14) a. [pšaše-m ə-š qə-ze-λeɸ_wə-m], ___ qe-ɸə-ɸ
 girl-ERG 3SG-brother DIR-REL-see-ERG DIR-cry-PST
- b. ___ qe-ɸə-ɸ [pšaše-m ə-š qə-ze-λeɸ_wə-m]
 DIR-cry-PST girl-ERG 3SG-brother DIR-REL-see-ERG
 (She)_{i,j} cried, when the girl_j saw her brother
- c. pšaše-r qe-ɸə-ɸ [___ ə-š qə-ze-λeɸ_wə-m]
 girl-ABS DIR-cry-PST 3SG-brother DIR-REL-see-ERG
- d. [___ ə-š qə-ze-λeɸ_wə-m] pšaše-r qe-ɸə-ɸ
 3SG-brother DIR-REL-see-ERG girl-ABS DIR-cry-PST
 The girl_i cried, when she_{i,j} saw her brother.

Relative clauses

- (15) a. ___ qə-ɸ_wetə-ɸ [çəf-ew šak_we-m šx_wenč'ə-r
 DIR-find-PST man-ADV hunter-ERG gun-ABS
 ze-r-jə-š'a-ɸe-r]
 REL-3SG-3SG-sell-PST-ABS
- b. [çəf-ew šak_we-m šx_wenč'ə-r ze-r-jə-š'a-ɸe-r]
 man-ADV hunter-ERG gun-ABS REL-3SG-3SG-sell-PST-ABS
 ___ qə-ɸ_wetə-ɸ
 DIR-find-PST
 He_{i,j} found the man who had sold the gun to the hunter_i

Shapsug dialect of Adyghe

Informants often produce left- & upward ellipsis of an NPs spontaneously, especially when the matrix clause conveys new and unexpected information:

- (16) we žər-žərew qa-q'w-a. ___ faj-ep [rwəslan-e wered q-jə-q'w-e-n-ew]
 you SELF DIR-say-IMP want-NEG Ruslan-ERG song DIR-3-say-POT-ADV
 Sing yourself! Ruslan doesn't want to sing.
- (17) wə-žak'e wə-ps. ___ me-x'əne-x [p:šaše-me wə-z-a-λeɤwə-g'e]
 2-beard 2-shave 3-fear-PL girl-ERG.PL 2-REL-3PL-see-INSTR
 Shave your beard. The girls get frightened when they see you.

The phenomenon is apparently related to polysynthesis:

- (18) Kadiweu, Waikuru family, Brazil (Sandaló 1997)
 ___ y-owo-God [me y-ema:n João Maria]
 3ERG-know-TRNS COMP 3ERG-love John Mary
 John_i knows that he_i loves Mary
 lit. (He_i) knows that John_i loves Mary
- (19) Navajo, Na-Dene Family, North America, in head-internal relative clauses (Hale 1983):
 [ada'a'da'a ashkii at'ééd yiyiiltsa'ne'e] ___ yidoots'os
 yesterday boy girl 3O-3S-see.REL 3O.3S.kiss
 a. He/she_i will kiss the girl which the boy_j saw yesterday
 b. He_i will kiss the girl which the boy_i saw yesterday
- (20) Passamaquoddy, Algonquian (Brüning 2005):
 Litahasu ['-tahcuwi-tkon-ku-l Susehp hesis-ol
 thinks.3 must.arrest-INV-OBV Joseph his.elder.brother-OBV
 not nucihqonket]
 this policeman
 lit: He_i thinks that Joseph_i's older brother the policeman must arrest him_i
- (21) Nootka (Nuuchahnulth), Wakashan (Davis, Wojdak 2004):
 wawaaʔiš [ʔen čatšiλwɨtas-(ħuk) Christine sapnii ʔamiiλik]
 is.saying that knead-(3ABS) Christine bread tomorrow
 Christine is saying that she is gonna knead bread tomorrow, lit. (She_i)-is-saying that Christine_i is
 gonna knead bread tomorrow

The problem with Principle C

- (22) Principle C of the Binding Theory (Chomsky 1981; Reinhart 1983):
 Referential expression is free (=not bound)

- (23) a. *John_i sees John_i
 b. *John_i knows, that I see John_i
 c. *He_i sees John_i
 d. *He_i knows, that I see John_i
 e. *pro_i sees John_i
 f. *pro_i knows that I see John_i

Within a single clause Principle C is valid:

Shapsug dialect

- (24) pro lene Ø-j-epλə
 Lena 3-3-look
 He is looking at Lena
 *Lena is looking at herself

- (25) mwərat:-e mwərat: (j)ə-λeκ_wə-κ
 Murat-ERG Murat 3-see-PST
 Murat_i saw Murat_{*i/j}

No binding:

- (26) [rwəslan-e jə-haʒe] rwəslan q-je-šq'a-žə-κ-ep
 Ruslan-ERG 3-dog Ruslan DIR-3-know-RFC-PST-NEG
 Ruslan's_i dog didn't recognize Ruslan_i

The subordinate clause is really embedded in Adyghe

Evidence from Negative Concord argues for a usual embedded structure of polypredicative constructions. Negative pronouns must be licensed by the negative form of the verb (27). Negative verb can license a negative pronoun in the same (27a, 28b) or in an embedded clause (28a), but not in the superordinate clause (28c, 29b).

- (27) a. zjə qe-κ_wa-κ-ep
 nobody DIR-go-PST-NEG
 Nobody came
- b. *zjə qe-κ_wa-κ
 nobody DIR-go-PST-NEG
- (28) a. [zjə qe-κ_wa-κ-ew] s-š_wešə-r-ep
 nobody DIR-go-PST-NEG 1SG-think-DYN-NEG
 I think that nobody came
- b. [zjə qe-mə-κ_wa-κ-ew] s-š_wešə
 nobody DIR-NEG-go-PST-ADV 1SG-think
 I think that nobody came
- c. *[a-r qe-mə-κ_wa-κ-ew] zjə š_wešə
 he-ERG DIR-NEG-go-PST-ADV nobody think
 Nobody thinks that he came
- (29) a. zjə feja-κ-ep [a-r səmež'ə-n-ew]
 nobody want-PST-NEG he-ABS sick-POT-ADV
 Nobody wanted him to fall ill
- b. *zjə feja-κ [a-r mə-səmež'ə-n-ew]
 nobody want-PST he-ABS NEG-sick-POT-ADV
 Nobody wanted him not to fall ill

Free pronouns: no Principle C violation of the (23d) type

(30), cf. (11)

- a. [pšaše-m wered qə-ʔ_we-n-ew] a-r faj
 girl-ERG song DIR-sing-POT-ADV she-ABS want
- b. a-r faj [pšaše-m wered qə-ʔ_we-n-ew]
 she-ABS want girl-ERG song DIR-sing-POT-ADV
 (She)_i wants the girl_j_{*i} to sing a song

(31), cf. (13)

- a. **a-š'** pče-r qə-ʔ_wə-jə-hə-ɤ [č'alər wəne-m jə-ha-n-ew]
he-ERG door-ABS DIR-PRV-3SG-open-PST boy-ABS house-ERG 3SG-enter-POT-ADV
- b. [č'ale-r wəne-m jə-ha-n-ew] **a-š'** pče-r qə-ʔ_wə-jə-hə-ɤ
 boy-ERG house-ERG 3SG-enter-POT-ADV **he-ERG** door-ABS DIR-PRV-3SG-open-PST

He/she opened the door for the boy to enter the house.

*The boy opened the door to enter the house.

(32), cf. (12b)

[mə çəfə-m pjəs'me-r ə-txə-n-ew] a-r faj
 this man-ERG letter-ABS 3-write-POT-ADV he-ABS want
 He/she wants this man to write a letter.

*This man wants to write a letter.

Semantic Binding of whatever there is in the “elliptic gaps”

Semantic binder must not c-command the bound anaphoric pronoun:

- (33) jə-he je-še [NP[NP šak_we pepč] jə-š_wəz]
 3SG-dog 3SG-know hunter every 3SG-wife

His_{i,j} dog knows every hunter_i's wife

- (34) ___ faj [a zə-m š'ətχ_wə-n-x-ew]
 ___ want he one-ERG praise-POT-PL-ADV

1) He wants that they praise only him.

2) Only he wants them to praise him

- (35) ___ je-šə [ekzamen-ew st_wədent pepč ə-tə-ke-r]
 ___ 3SG-know exam-ADV student every 3ERG-give-PST-ABS

He/she knows which exam every student passed.

Every student_i knows which exam he/she_i passed.

- (36) a. sabəj pepč g_wəš'əʔe je-s-tə-kaɤ [ž'eg_waɤe ___]
 kid every word 3SG-1SG-give-PST toy

qə-fe-s-š'efə-n-ew]

INV-BEN-1SG-buy-POT-ADV

I promised to every kid_i to buy him/her_{i,j} a toy.

- b. ___ g_wəš'əʔe je-s-tə-kaɤ [ž'eg_waɤe sabəj pepč
 ___ word 3SG-1SG-give-PST toy kid every

qə-fe-s-š'efə-n-ew]

INV-BEN-1SG-buy-POT-ADV

I promised to him_{i,j} to buy a toy for every kid_i

Shapsug dialect:

- (37) ___ qe-k_we-štə-x [zewəžjə čale-me z-j-a-p-q'_we-rem]
 DIR-go-FUT-PL all boy-ERG.PL REL-3-PL-2-call-CONV

All the boys_i will come when you call them_{i,j}.

They will come when you call all the boys.

(38) Semantic binding (e.g. bound anaphora) requires syntactic binding (i.e. coindexing + c-command)

(Bach, Partee 1980, Reinhart 1983:122–137; Heim, Kratzer 1998: 264; Büring 2005: 89–92)

- (39) a. The secretary he_i hired, thinks that $Domingo_i$ is despotic.
 b. *The secretary he_i hired, thinks that *each of the tenors_i* is despotic.
 c. *Each of the tenors_i* thinks that the secretary he_i hired is despotic.
- (40) a. *Which girl_i* told Sue that she_i got a detention?
 b. * She_i didn't know, *which girl_i* got a detention.

Brüning (2005: 105) claims explicitly that in Passamaquoddy the Principle (38) is NOT violated:

- (41) w-itapih-il litahasu [ma-te wen olomi-ye-w]
 3-friend-OBV think.3 NEG-EMPH someone go.3-NEG
 His friend thinks that nobody left.
 *Nobody_i's friend thinks that he_i left.

No relevant data yet from Navajo, Nootka, Kadiweu, or any other polysynthetic language.

Free pronouns cannot be semantically bound from below:

- (42) a-r me-g_wəʒe [sabəj pepč š_wəhaftən qə-r-a-tə-n-ew]
 he-ABS DYN-hope kid every gift DIR-3SG-3PL-give-POT-ADV
 He_{i,*j} hopes, that they will give a gift to every kid_j

Personal pronouns cannot either:

- (43) ___ š_wə-faj [zeč'e-m-jə qə-š_wə-š'ətχ_wə-n-x-ew]
 ___ 2PL-want all-ERG-COH DIR-2PL-praise-POT-PL-ADV
 You want everyone to praise you
 *You all want that they praise you

Referential expressions cannot be semantically bound at all:

- (44) mwərat zə-r mwərat jəpλə
 Murat only-ABS Murat look
 can only mean:
 Only Murat_i looks at Murat_{j,*i}
 *Only Murat looks at himself

Referential expressions cannot be semantically bound at all (Reinhart 1983); counterexamples from Thai and Zapotec (Lee 2003); NOT found in Adyghe).

- (45) Rome de Rome est le seul monument,
 Et Rome Rome a vaincu seulement (*J. du Bellay*)
 Rome is the only monument of Rome
 (there are no other monuments of Rome;
 *there are no other cities that are monuments of themselves)
 and only Rome defeated Rome
 (nothing else defeated Rome;
 *no other city defeated itself, e.g. Paris didn't defeat Paris etc.)

Possible explanations

i) Control?

Unrestricted Control?

Backward Control in Tsez (Polinsky, Potsdam 2002):

- (46) [kid-bā zija b-iš-r-a] j-oq-si
girl-ERG cow.ABS 3-eat-CAUS-INF 2-begin-PRF
The girl began to feed a cow.

ii) Raising?

There are several verbs in Adyghe that very probably allow Backward Raising (Polinsky 2007), but this cannot account for the “raising” into a thematic position.

iii) Movement?

(Beljaeva, Minor 2005)

No restrictions at all:

Complex NP Constraint

Shapsug dialect

- (47) a. rwəslan šeg_wəʁe [p:šaš-ew [əg_wə je[?]_wə-re-m] p:jəsmew
Ruslan hope girl-ADV like-DYN-ERG letter

qə-f-jə-txə-n-ew]

DIR-BEN-3-write-POT-ADV

Ruslan hopes that the girl who he likes writes a letter.

- b. ____ šeg_wəʁe [p:šaše [rwəslane əg_wə je[?]_wə-re-m] p:jəsmew
hope girl Ruslan like-DYN-ERG letter

qə-f-jə-txə-n-ew]

DIR-BEN-3-write-POT-ADV

- i) Ruslan hopes that the girl who he likes writes a letter
ii) He hopes that the girl who Ruslan likes writes a letter
iii) The girl who Ruslan likes hopes to write a letter

Likewise with semantic binding:

- (48) a. zewəže čale-xe šeg_wəʁe-x [p:šaš-e-x-ew [a-g_wə je[?]_wə-xe-m] p:jəsmew-xe
all boy-PL hope girl-PL-ADV 3PL-like letter-PL

qə-fe-r-a-txə-n-ew]

DIR-BEN-3-3PL-write-POT-ADV

All the boys hope that the girls that like them write letters.

- b. ____ šeg_wəʁe-x [p:šaše-xe [zewəže čele a-g_wə je[?]_wə-xe-m] p:jəsmew-xe
hope girl-PL-ADV all boy 3PL-like letter-PL

qə-fə-r-a-txə-n-ew]

DIR-BEN-3-3PL-write-POT-ADV

All the boys hope that the girls that like them write letters.

They hope that the girls that like all the boys write letters

iv) Ellipsis?

- (49) Everyone wants PRO to win ≠ Everyone wants everyone to win

- (50) *All the boys hope that all the girls...

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