

## A phase-based account of Finnish optional EPP

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## Background: EPP

- ▶ Finnish is an SVO language
  - (1) Pekka osti tämän kirjan.  
Pekka.NOM bought this.ACC book.ACC  
'Pekka bought this book.'
- ▶ OVS and other word orders are common
  - (2) Tämän kirjan osti Pekka.  
this.ACC book.ACC bought Pekka.NOM  
'Pekka bought this book.' / 'This book was bought by Pekka.'
- ▶ The subject position cannot be empty unless the verb is contrasted (see e.g. Välimaa-Blum, 1988, 78–79; Vainikka, 1989; Vilkuna, 1995, 250 and Kaiser, 2006).
  - (3) \*Osti Pekka tämän kirjan.  
bought Pekka.NOM this.ACC book.ACC

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- ▶ **Extended Projection Principle EPP**: the structural requirement that the subject position must be filled (Chomsky, 1981, 1995)

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## Optional EPP

(6) Sataa vettä. / Vettä sataa.  
rain.PRES.3SG water.PAR water.PAR rain.PRES.3SG  
'It is raining.'

(7) Tarvitaan työpaikka. / Työpaikka tarvitaan.  
need.PASS job.PAR job.PAR need.PASS  
'A job is needed.'

1. What are the exact contexts where the EPP is obligatory?

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## Background: Finnish optional EPP

**Optional EPP**: Certain impersonal constructions permit an empty subject position (Holmberg and Nikanne, 2002)

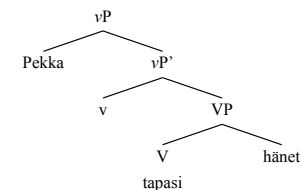
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|-----|---|-----|---|
| (4) | a. Weather expressions<br>Sataa vettä.<br>rain.PRES.3SG water.PAR<br>'It is raining.' | (5) | d. Unaccusatives<br>Syttyi sota.<br>ignite.PAST.3SG war.NOM<br>'A war broke.'                                     |
|     | b. Passive<br>Tarvitaan työpaikka.<br>need.PASS job.NOM<br>'A job is needed.'         |     | e. Experiencer construction<br>Harmittaa.<br>annoy.caus.PRES.3SG<br>'I'm annoyed.' / 'It's annoying.'             |
|     | c. Existential clauses<br>On kylmä.<br>be.PRES.3SG cold<br>'It is cold.'              |     | f. Necessive construction<br>Täytyy lähteä kotiin.<br>must.PRES.3SG leave.INF home.ILL<br>'I/we have to go home.' |

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## Background: Phase-based derivation

- ▶ Phase theory (Chomsky, 2000, 2001, 2008): the derivation of an expression proceeds in incremental chunks, phases.
- ▶ CP and vP are phases.
- ▶ Phase impenetrability condition: Only the edge of a phase (the head and its specifiers) remains accessible at the next higher phase (Chomsky, 2001, 2004).

(8) Pekka tapasi hänet.  
Pekka.NOM met him/her  
'Pekka met him/her.'

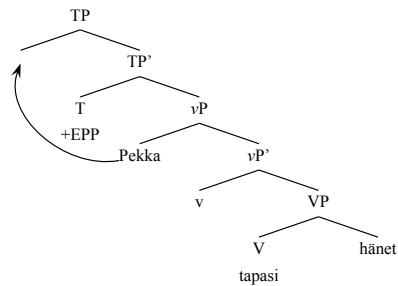


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## Background: Phase-based derivation

- ▶ Only the edge of vP is visible for movement to Spec,TP

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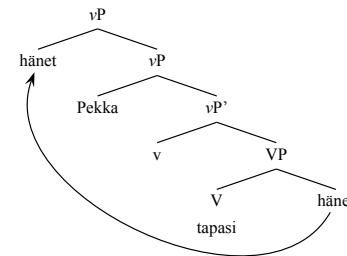
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## Background: Phase-based derivation

Scrambling of the object to the edge of vP.

- ▶ Pronouns are discourse-anaphors and move to the edge of vP (see López, 2009).
- ▶ Subjects with a new information focus may stay in-situ.

- (10) Hänet tapasi Pekka.  
s/he.ACC met Pekka.NOM  
'Pekka met him/her.' / 'He/she was met by Pekka'



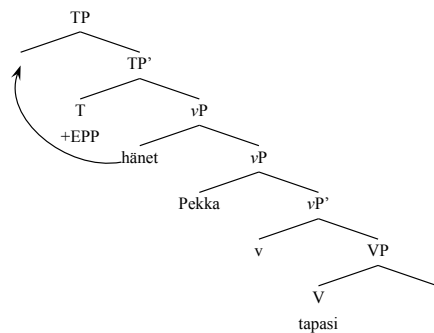
- ▶ **Scrambling** within the vP: optional short-distance discourse-related movement

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## Background: Phase-based derivation

- ▶ EPP-movement selects its target from the edge of vP

- (11) Hänet tapasi Pekka.  
s/he.ACC met Pekka.NOM  
'Pekka met him/her.' / 'He/she was met by Pekka'



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## The EPP generalization

- (12) **The EPP generalization for Finnish**  
EPP on T is obligatory in a Finnish finite clause if the edge of vP is filled.

The edge of vP may contain:

1. a subject argument
2. a locative, temporal or instrumental adverbial (i.e. an adverbial belonging to a referential category, as defined in Holmberg (2005))
3. a discourse-anaphoric element, such as a pronoun

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## The EPP generalization

Note that inserting an expletive is a possible strategy to satisfy the EPP:

- (13) Sitä osti Pekka kirjan.  
EXPL bought Pekka.NOM book.ACC  
'Pekka bought a book.'

Consequences:

1. The movement to Spec,TP is a formal operation independent on discourse.
2. The discourse properties of Spec,TP are a side-effect of movement operations within the vP

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## The EPP-movement of the subject is not sensitive to discourse

- ▶ In transitive clauses, the subject argument is the default element to occupy the subject position (Hakulinen and Karlsson, 1979, 306, Vilkuna, 1989).
- ▶ The finite clause subject may move to Spec,TP regardless of its discourse properties (Reinhart, 1981) (Vilkuna, 1989; Holmberg, 2005; Brattico, 2016).

- (14) a. Aboutness  
Mitä tähän lauluun tulee, kuka tahansa oppii sen.  
what this.to song.to comes who.NOM ever.NOM learns it.ACC  
'As for this song, anyone learns it.'
- b. Referentiality  
Kuka osti tämän lehden?  
who.NOM bought this.ACC paper.ACC  
'Who bought this paper?'
- c. Existential presupposition  
Kukaan ei osaa soittaa tätä pianoa  
no-one.NOM not can play this.PAR piano.PAR  
'No-one can play this piano.'

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## The EPP generalization

Predictions

1. The EPP movement is not sensitive to discourse properties of the subject
2. The argument structure of the finite clause correlates with the EPP
  - ▶ Transitive and unergative constructions typically require the Spec,TP to be filled
  - ▶ Passive and unaccusative constructions tolerate an empty Spec,TP
3. The presence of certain adverbials is associated with EPP
4. Only the elements that are inside the next lower phase are relevant for the EPP
5. The movement of the object argument and other vP-internal phrases is regulated by discourse.

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## The argument structure of the finite clause correlates with the EPP

Transitive and unergative constructions: the subject occupies the Spec,vP and the Spec,TP cannot be empty.

- (15)
- a. \*osti Pekka pyörän. (without emphasis on the verb)  
buy.PAST.3SG Pekka bike.ACC
  - b. \*Juoksee Pekka. (without emphasis on the verb)  
run.PRES.3SG Pekka.NOM

Generic subjects also trigger EPP

- (16) (Holmberg, 2010)
- a. Täällä saa työtä jos puhuu saksaa.  
here gets work if speaks German  
'You get a job here if you speak German.'
  - b. \*Saa työtä jos puhuu saksaa. (unless the verb is contrasted)

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## The argument structure of the finite clause correlates with the EPP

Passives: the external argument is suppressed in Finnish passives (Manninen and Nelson, 2004).

- (17) a. Passive  
Tarvitaan työpaikka.  
need.PASS job.NOM  
'A job is needed.'  
b. Lähdettiin kotiin.  
go.PASS.PAST home.to  
'We/they went home.'

Unaccusatives: let us assume that nominative DP occurs in to the complement position.

- (18) Unaccusative  
a. Syttyi sota.  
ignite.PAST.3SG war.NOM  
'A war broke.'  
b. Saapui rastaia.  
arrive.PAST.3SG robins.PAR  
'(Some) robins arrived.'

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## Two types of empty subjects

1. The unpronounced pronoun / little *pro*-element.

- (21) (Me) veimme linnun ulos.  
we.NOM take.PAST.1PL bird.ACC out  
'We took a/the bird out.'

2. Generic subject

- (22) (Holmberg, 2010)  
Täällä saa työtä jos puhuu saksaa.  
here get.PRES.3SG work.PAR if speak.PRES.3SG German  
'You get a job here if you speak German.'

- ▶ Both of these elements trigger the EPP
- ▶ The *pro*-subject has to move to spec,TP (Hakulinen, 1976; Vainikka and Levy, 1999; Holmberg, 2005)
- ▶ The generic subject never moves (Holmberg, 2010)

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## Empty subject position?

Question: Is the subject position really empty? There are two phonologically empty subjects in Finnish, which are nevertheless present in grammar.

- (19) Experiencer construction  
Harmittaa.  
annoy.caus.PRES.3SG  
'I'm annoyed.' / 'It's annoying.'
- (20) Necessive construction  
a. Täytyy lähteä kotiin.  
must.PRES.3SG leave.INF home.ILL  
'I/we have to go home.'  
b. Sitä täytyy lähteä kotiin.  
EXPL must.PRES.3SG leave.INF home.ILL  
'I/we have to go home.'

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## Hypothesis 1: little *pro*

The necessive construction can be interpreted as having a specific reference. The reading is contextually determined.

- (23) a. (Minun) täytyy lähteä kotiin.  
I.GEN must.PRES.3SG leave.INF home.ILL  
'I/we have to go home.'
- (24) a. ?Täytyykö (sinun) lähteä kotiin?  
must.PRES.3SG 2SG.GEN leave.INF home.ILL  
'Do you have to go home?'  
b. ?Täytyykö (teidän) lähteä kotiin?  
must.PRES.3SG 2PL.GEN leave.INF home.ILL  
'Do you have to go home?'  
c. \*?Täytyykö (heidän) lähteä kotiin?  
must.PRES.3SG 3PL.GEN leave.INF home.ILL  
Intended: 'Do they have to go home?'

A piece of evidence against the presence of a *pro*-subject is the default agreement on the verb *täytyy* 'must'. The *pro*-subject is typically licensed under full phi-agreement and the agreement features enable identification of the subject NP (Rizzi, 1986).

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## Hypothesis 1: little *pro*

- ▶ *pro*-subject can normally bind a possessive suffix on the object argument.

- (25) *pro* pesin auto-ni.  
washed.1SG car-PX1SG  
'I washed my car.'
- (26) a. Minun täytyy pestä auto-ni.  
I.NOM must.PRES.3SG wash.INF car.NOM-PX1SG  
'I have to wash my car.'
- b. \*Täytyy pestä autoni.  
must.PRES.3SG wash.INF car.NOM.PX1SG
- c. \*Se täytyy pestä autoni.  
EXPL must.PRES.3SG wash.INF car.NOM.PX1SG
- d. Auto-ni täytyy pestä.  
car.NOM-PX1SG must.PRES.3SG wash.INF  
'My car needs to be washed.'

Sentence (d), where the object argument has moved to the subject position, the subject is necessarily interpreted as generic.

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## Hypothesis 2: generic subject

- (27) (Holmberg, 2010)  
Täällä saa työtä jos puhuu saksaa.  
here get.PRES.3SG work.PAR if speak.PRES.3SG German.PAR  
'You get a job here if you speak German.'

- ▶ Generic subject construction contains a subject (Hakulinen and Karttunen, 1973; Laitinen, 1995; Vainikka, 1989; Vainikka and Levy, 1999).
- ▶ Generic subjects are syntactically otherwise like other subjects (receive case, trigger agreement), but do not have a lexical form and are invisible for the EPP. Holmberg (2010)

- (28) \*Saa työtä jos puhuu saksaa.  
get.PRES.3SG work.PAR if speak.PRES.3SG German.PAR  
(unless the verb is contrasted)

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## Hypothesis 2: generic subject

Finnish 3rd person possessive suffix is a reflexive anaphor. Generic subject can bind reflexive anaphors, see Vainikka (1989, 232f.) and Laitinen (1995).

- (29) a. Pekka<sub>i</sub> pesi autonsa<sub>i/\*j</sub>.  
Pekka.NOM wash.PAST.3SG car.ACC.PX3  
'Pekka washed his car.'
- b. Siellä voi pestä autonsa.  
there can.PRES.3SG wash.INF car.ACC.PX3  
'One can wash his car there.'
- (30) a. \*Täytyy pestä autonsa.  
must.PRES.3SG wash.INF car.NOM.PX3
- b. \*?Sitä täytyy pestä autonsa.  
EXPL must.PRES.3SG wash.INF car.NOM.PX3
- c. Hänen täytyy pestä autonsa.  
s/he must.PRES.3SG wash.INF car.NOM.PX3  
'He must was his car.'

- ▶ Conclusion: the generic subject is not present.

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## The presence of certain adverbials trigger the EPP (preliminary)

Adverbials belonging to referential categories: locative, temporal or instrumental adverbials (but not e.g. manner or reason) trigger EPP (Holmberg, 2005)

- (31) a. Sataa rankasti vettä.  
rain.PRES.3SG hard water.PAR  
'It is raining heavily.'
- b. Sataa usein vettä.  
rain.PRES.3SG often water.PAR  
'It rains often.'
- c. \*?Sataa vettä huomenna. / Huomenna sataa vettä.  
rain.PRES.3SG water.PAR tomorrow tomorrow rain.PRES.3SG water.PAR  
'It will rain tomorrow.'
- d. \*?Sataa vettä Helsingissä. / Helsingissä sataa vettä.  
rain.PRES.3SG water.PAR Helsinki.in Helsinki.in rain.PRES.3SG water.PAR  
'It is raining in Helsinki.'

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## The presence of certain adverbials trigger the EPP (preliminary)

Note that also non-referential and non-topical adverbials trigger the EPP:

- (32) a. \*?Sataa vettä jossain. / Jossain sataa vettä.  
 rain.PRES.3SG water.PAR somewhere somewhere rain.PRES.3SG water.PAR  
 'It is raining somewhere.'
- b. \*?Ei syttynyt koskaan sota. / Koskaan ei syttynyt sota.  
 not ignite.PAST never war.NOM never not ignite.PAST war.NOM  
 'A/the war never broke.'

Preliminary generalization: These adverbials are adjoined to the vP.

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## The movement of the other elements is regulated by discourse

Proposal: discourse-anaphors move upwards (see López, 2009).

- (33) Discourse anaphoricity (de Hoop, 2003, p. 205)  
 A DP is anaphoric iff it refers to an object that has previously been mentioned in the discourse, and/or is part of the common ground.
- (34) Passives
- a. \*Tarvitaan hänet. / Hänet tarvitaan.  
 need.PASS s/he.ACC s/he.ACC need.PASS  
 'He/she is needed.'
- b. \*Tarvitaan häntä. / Häntä tarvitaan.  
 need.PASS s/he.PAR s/he.PAR need.PASS  
 'He/she is needed.'
- (35) Unaccusative
- a. \*Saapui hän. / Hän saapui  
 arrived.3SG s/he.NOM s/he.SG.NOM arrived.3SG  
 'She/he arrived.'
- b. # Sitten saapui hän. (without contrastive focus)  
 then arrived.3SG s/he.NOM  
 'Then s/he arrived.'

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## The movement of the other elements is regulated by discourse

Intervention effects caused by discourse: a discourse-anaphoric subject argument can be in-situ only if it is prosodically emphasized:

- (36) a. Hän tapasi minut.  
 s/he.NOM met me.ACC  
 'S/he met me.'
- b. # Minut tapasi hän.  
 me.ACC met s/he.NOM  
 'S/he met me.'
- c. # Mitä Pekkaan tulee, hänet tapasin minä.  
 what Pekka.to comes s/he.ACC met I.NOM  
 'As for Pekka, I met him.'

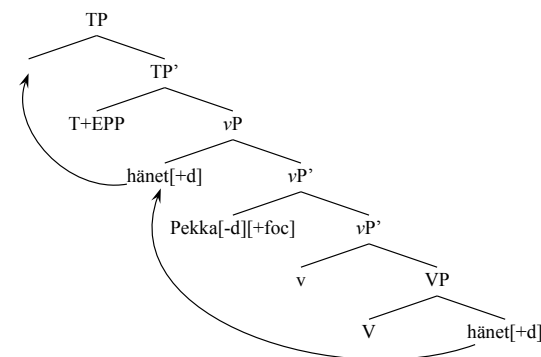
Disclaimer: the feature [+d] is only one of the properties that trigger scrambling within the vP. Especially context that do not contain a subject at the Spec,vP allow for more variation:

- (37) Kenelle tahansa sattuu vahinkoja.  
 who.to ever.to happen.3SG accidents.PAR  
 'Accidents can happen to anyone.'

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## The movement of the other elements is regulated by discourse

- (38) Hänet[+d] tapasi Pekka[-d][+foc].  
 s/he.ACC met Pekka.NOM



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## Only the elements in the next lower phase matter for the EPP

Scrambling-type properties:

- ▶ Movement to Spec,vP is not restricted to any single grammatical feature
- ▶ Movement takes place only short-distance (Pauli Brattico, p.c.),
- ▶ Movement can be optional

According to Kaiser (2000, 2002), Finnish ditransitive constructions may involve scrambling of discourse-old elements upwards in the structure.

(39)

- Tuon kirjan Pekka luuli että Merja kirjoitti \_\_!  
that book Pekka thought that Merja wrote  
'Pekka thought that Merja wrote **that book!** (not this book)
- ??Miksi tuon kirjan luultiin että Merja olisi kirjoittanut \_\_?  
why that book think.PASS.PAST that Merja would.have written  
Intended: 'Why it was thought that Merja wrote that book?'

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- Pauli Brattico. Is Finnish topic prominent? *Acta Linguistica Hungarica*, 63(3):299–330, 2016.
- Noam Chomsky. *Lectures in Government and Binding: The Pisa Lectures*. Foris, Dordrecht, 1981.
- Noam Chomsky. *The Minimalist Program*. MIT Press, Cambridge, MA, 1995.
- Noam Chomsky. Minimalist inquiries: The framework. In Roger Martin, Davic Michaels, and Juan Uriagereka, editors, *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, pages 89–156. MIT Press, Cambridge, MA, 2000.
- Noam Chomsky. Derivation by phase. In Michael Kenstowicz, editor, *Ken Hale: A Life in Language*, pages 1–52. MIT Press, Cambridge, MA, 2001.
- Noam Chomsky. Beyond explanatory adequacy. In Adriana Belletti, editor, *Structures and Beyond: The Cartography of Syntactic Structures, volume 3*, pages 104–131. Oxford University Press, Oxford, 2004.
- Noam Chomsky. On phases. In Robert Freidin, Carlos Otero, and Maria-Luisa Zubizarreta, editors, *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*, pages 133–166. MIT Press, Cambridge, MA, 2008.
- Helen de Hoop. Scrambling in Dutch: optionality and optimality. In Simin Karimi, editor, *Word Order and Scrambling*, pages 201–216. Blackwell Publishing, Oxford, 2003.
- Auli Hakulinen. *Littepartikkelin -han/hän syntaksia ja pragmatikkaa*. Technical report, Åbo Akademi Forskningsinstitut, 1976.
- Auli Hakulinen and Fred Karlsson. *Nykysuomen lausoppia*. Finnish Literature Society, Helsinki, 1979.
- Auli Hakulinen and Lauri Karttunen. Missing persons: On generic sentences in Finnish. In C. Corum, T. C. Smith-Stark, and A. weiser, editors, *Papers from the 9th regional meeting of the Chicago Linguistic Society*, pages 157–171. Chicago Linguistic Society, Chicago, 1973.
- Anders Holmberg. Is there a little *pro*? Evidence from Finnish. *Linguistic Inquiry*, 36(4):533–564, 2005.
- Anders Holmberg. The null generic subject pronoun in Finnish: A case of incorporation in T. In Theresa Biberauer, Anders Holmberg, Ian Roberts, and Michelle Sheehan, editors, *Parametric Variation: Null Subjects in Minimalist Theory*, pages 200–230. Cambridge University Press, Cambridge, 2010.
- Anders Holmberg and Urpo Nikanne. Expletives, subjects and topics in Finnish. In Peter Svenonius, editor, *Subjects, Expletives, and the EPP*, pages 71–106. Oxford University Press, Oxford, 2002.
- Elsi Kaiser. A first look at the syntactic structure of Finnish ditransitive verbs. In J. Haugen and T. Louthain, editors, *Proceedings of the Twelfth Student Conference in Linguistics*, volume 38 of *MIT Working Papers in Linguistics*, pages 111–126, Cambridge, Mass., 2000.
- Elsi Kaiser. The syntax-pragmatics interface and Finnish ditransitive verbs. In M. van Koppen, E. Thrift, E. J. van der Torre, and M. Zimmermann, editors, *Proceedings of the 9th Annual Conference of the Student Organization of Linguistics in Europe (ConSOLE IX)*, Lund, 2002.
- Elsi Kaiser. Negation and the left periphery in Finnish. *Lingua*, 116:341–350, 2006.
- Lea Laitinen. *Nollapersoonaa -virittäjä*, 3:337–358, 1995.
- Luis López. *A Derivational Syntax for Information Structure*, volume 23 of *Oxford Studies in Theoretical Linguistics*. Oxford University Press, Oxford, New York, 2009.
- Satu Manninen and Diane Nelson. What is a passive? The case of Finnish. *Studia Linguistica*, 58(3):212–251, 2004.
- Tanya Reinhart. Pragmatics and linguistics: An analysis of sentence topics. *Philosophica*, 27(1):53–94, 1981.
- Luigi Rizzi. Null objects in Italian and the theory of *pro*. *Linguistic Inquiry*, 17:501–557, 1986.
- Anne Vainikka. *Deriving Syntactic Representations in Finnish*. PhD thesis, University of Massachusetts Amherst, 1989.
- Anne Vainikka and Yonata Levy. Empty subjects in Finnish and Hebrew. *Natural Language and Linguistic Theory*, 17(3):613–617, 1999.
- Riitta Valimaa-Blum. *Finnish Existential Clauses: Their Syntax, Pragmatics and Intonation*. PhD thesis, The Ohio State University, 1988.
- Maria Viikuna. *Free word order in Finnish: Its syntax and discourse functions*. Finnish Literature Society, Helsinki, 1989.
- Maria Viikuna. Discourse configurationality in Finnish. In Katalin É. Kiss, editor, *Discourse Configurational Languages*, pages 244–268. Oxford University Press, Oxford/New York, 1995.

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