TP is a phase in relative clauses

Amy Rose Deal
University of California, Santa Cruz

WCCFL 33, SFU
March 27, 2015

1 Introduction: cyclic movement in the relative clause

- Standard approaches to relativization posit Ā movement of a relative operator into the C domain, stopping along the way on the edge of any intermediate vP or CP phases.

  (1) the machine [$_{CP}$ OP that Bill [$_{vP}$ _ said [$_{CP}$ _ that he [$_{vP}$ _ bought _]]]]

  ▷ Cyclicity explains unboundedness and (at least some) island sensitivity

  ▷ Cyclicity in relativization is fully parallel to what happens in *wh*-movement (and other unbounded, island sensitive dependencies):

  (2) [$_{CP}$ What did Bill [$_{vP}$ _ say [$_{CP}$ _ that he [$_{vP}$ _ bought _]]]]

- I will argue that movement to Spec,CP in relative clauses is more cyclic than standardly assumed, and in particular, more cyclic than movement in *wh*-questions.

  (3) **TP is a phase in relative clauses**:
  The TP sister to relative C is a phase. TP otherwise is not a phase.

  ▷ Empirical consequence: Ā movement in RCs, but not *wh*-questions, must stop on the edge of the TP domain.

  ▷ Theoretical consequence: the phasal status of a projection is determined in part by its syntactic environment (Den Dikken 2007, Gallego 2007, Bošković 2014) – *not* simply by a categorical property.

- Roadmap: three case studies

  1. Relative pronoun placement in Nez Perce
     ▷ The operator is pronounced in its intermediate position on the TP phase edge.
  2. *That*-trace obviation in English relatives
     ▷ Checked features are deleted within the TP phase.
  3. Resumption patterns in Palestinian Arabic relatives
     ▷ The TP phase forms a barrier for extraction.

2 Cyclicity and relative pronoun placement in Nez Perce relative clauses

- Externally-headed relative clauses in Nez Perce:
  - ▷ Contain a case-marked relative pronoun (RP) and a gap inside the CP.
  - ▷ Contain the overt C *ke* (+ complementizer agreement as appropriate; Deal 2014).
  - ▷ Are used to relativize on all core argument positions (no syntactic ergativity).
  - ▷ Are postnominal.

(4) samx̂ [$_{CP}$ ko-nya kex *pro*$_{subj}$ 'a-sayqi-ca __]
shirt.NOM [$_{CP}$ RP-ACC C *pro*$_{subj}$ AGR-like-TAM __]
the shirt that I like

- Relative pronouns freely alternate between two positions (without semantic consequences)
  - ▷ "High position": immediately to the left of C, between C and the NP head
  - ▷ "Low position": immediately to the right of C, apparently inside the relative clause

(5) samx̂ [$_{CP}$ **ko-nya** kex *pro*$_{subj}$ 'a-sayqi-ca __] *High RP*
shirt.NOM [$_{CP}$ RP-ACC C *pro*$_{subj}$ AGR-like-TAM __]
the shirt that I like

(6) samx̂ [$_{CP}$ kex **ko-nya** *pro*$_{subj}$ 'a-sayqi-ca __] *Low RP*
shirt.NOM [$_{CP}$ C RP-ACC *pro*$_{subj}$ AGR-like-TAM __]
the shirt that I like

- Relative pronouns undergo Ā movement regardless of RP placement.
  - ▷ Unboundedness: the RP may be found one or more clauses away from the gap

(7) a. 'iniit **yox̂** ke Jack hi-hi-ce 'iin hani-ya _
house.NOM RP.NOM C Jack.NOM AGR-say-TAM 1SG.NOM make-TAM _
the house that Jack says he built

b. 'iniit ke **yox̂** Jack hi-hi-ce 'iin hani-ya _
house.NOM C RP.NOM Jack.NOM AGR-say-TAM 1SG.NOM make-TAM _
the house that Jack says he built

  - ▷ Island sensitivity: the RP may not be separated from the gap by an island

(8) Adjunct Island
* 'Isii hii-we-s haama { **ko-nim** kem / kem **ko-nim** }
who.NOM AGR-be-TAM man.NOM { RP-ERG C / C RP-ERG }
pro$_{subj}$ liloy-no'qa [c'alawí __ paa-ni-yo'qa cepeepy'ux̂tiis-ne]?
PRO.2SG be.happy-TAM [if __ AGR-make-TAM pie-ACC]
Who is the man that you would be happy if _ made pies?

▷ Ā intervention: RCs are themselves islands, regardless of RP position

(9) * 'Ituu$_1$ *pro$_{subj}$* 'e-'pewi-se 'aayat-ona
what.NOM PRO.2SG AGR-look.for-TAM woman-ACC

[$_{CP}$ { **yox̂**$_2$ ke / ke **yox̂**$_2$ } __$_2$ ha-ani-tato __$_1$]?
[$_{CP}$ { RP.NOM C / C RP.NOM } __$_2$ AGR-make-TAM __$_1$]
What$_1$ are you looking for the woman who makes __$_1$?

Proposal:

The relative operator moves through an Ā outer spec of TP on its way to Spec,CP, and it may be pronounced in either position.

Optionality lies in PF interpretation of cyclic movement.

(10) a. samx̂ [$_{CP}$ **ko-nya** kex [$_{TP}$ <konya> [$_{TP}$ *pro$_{subj}$* 'a-sayqi-ca <konya>]]]
shirt [$_{CP}$ RP-ACC C [$_{TP}$ <RP-ACC> [$_{TP}$ *pro$_{subj}$* AGR-like-TAM <RP-ACC>]]]
the shirt that I like

b. samx̂ [$_{CP}$ <konya> kex [$_{TP}$ **ko-nya** [$_{TP}$ *pro$_{subj}$* 'a-sayqi-ca <konya>]]]
shirt [$_{CP}$ <RP-ACC> C [$_{TP}$ RP-ACC [$_{TP}$ *pro$_{subj}$* AGR-like-TAM <RP-ACC>]]]
the shirt that I like

> Three arguments for this analysis:

A. We correctly predict that there will be no syntactic or semantic difference at the clausal level correlating with RP position.

▷ Explanation for shared Ā properties

▷ Explanation for perceived semantic equivalence

▷ Correct prediction that RCs may be coordinated or stacked regardless of RP position:

(11) Stacking

Sepe-x-nim *pro$_{obj}$* cepeeletp'et [$_{CP}$ **yox̂** **kem** *pro$_{subj}$* hanii-ya __]
CAUSE-see-TAM *pro$_{obj}$* picture.NOM [RP.NOM C *pro$_{subj}$* make-TAM __]

[$_{CP}$ **kex ko-nya** *pro$_{subj}$* 'a-sayqi-ca __]!
[C RP-ACC *pro$_{subj}$* AGR-like-TAM __]
Show me the picture that you made that I like!

(12) Coordination

Mine hii-we-s samx̂ [$_{CP}$ kex **kon-ya** 'iin 'a-sayqi-ca __]
where AGR-be-TAM shirt.NOM [C RP-ACC 1SG.NOM AGR-like-TAM __]

kaa [$_{CP}$ **kon-ya** kem 'iim weet'u 'a-sayqi-ca __]?
and [RP-ACC C 2SG.NOM NEG AGR-like-TAM __]
Where is the shirt that I like and that you don't like?

B. For RPs themselves, we correctly predict high RPs to show signs of occupying the CP phase edge, and low RPs to behave as though fully internal to the CP phase.

Argument from case attraction:

▷ The case of the RP is standardly determined internal to the relative clause; it need not match the case of the head noun.

(13) a. Mine hii-we-s samx̂ **ko-nya** kex pro_{subj} 'a-sayqi-ca $\_\__{acc}$?
where AGR-be-TAM shirt.NOM RP-ACC C PRO.1SG AGR-like-TAM __
Where is the shirt that I like?

b. Pro_{subj} 'e-suki-ce 'aayato-na **yox̂** ke $\_\__{nom}$ hi-pay-n.
PRO.1SG AGR-recognize-TAM woman-ACC RP.NOM C __ AGR-arrive-TAM
I recognize the woman who just came in.

▷ Case attraction: the RP takes on the case of the head noun

(14) a. Mine hii-we-s samx̂ **yox̂** kex pro_{subj} 'a-sayqi-ca $\_\__{acc}$?
where AGR-be-TAM shirt.NOM RP.NOM C PRO.1SG AGR-like-TAM __
Where is the shirt that I like?

b. Pro_{subj} 'e-suki-ce 'aayato-na **ko-nya** ke $\_\__{nom}$ hi-pay-n.
PRO.1SG AGR-recognize-TAM woman-ACC RP-ACC C __ AGR-arrive-TAM
I recognize the woman who just came in.

▷ Proposal: case attraction results from DP-internal application of Agree.

∗ Case attraction is subject to locality conditions crosslinguistically (Bianchi 2000)

∗ Case attraction is optional, just like other case concord in Nez Perce (Deal, 2015)

▷ Low RPs cannot be case attracted: (See (16))

(15) a. samx̂ kex { ***yox̂** / **ko-nya** } pro_{subj} 'a-sayqi-ca $\_\__{acc}$
shirt.NOM C { *RP.NOM / RP-ACC } PRO.1SG AGR-like-TAM __
(Where is) the shirt that I like

b. 'aayato-na ke { ***ko-nya** / **yox̂** } $\_\__{nom}$ hi-pay-n
woman-ACC C { *RP-ACC / RP.NOM } __ AGR-arrive-TAM
(I recognize) the woman who just came in.

This follows from the phase-boundedness of Agree, given that the low RP is fully internal to the CP phase (in Spec,TP).

(16) Case attraction and RP position: summary

		RP position	
		Spec,CP	Spec,TP
RP case	CP-internal case (non-attraction)	Y	Y
	CP-external case (attraction)	Y	n

C. Since the TP position is an intermediate position, we correctly predict evidence of covert operator movement to Spec,CP.

Argument from complementizer form:

▷ Complementizer *ke(x/m)* appears only in Ā contexts: relative clauses and *wh*-questions (but not yes/no questions or non-relative declaratives)

(17) 'Ituu **kex** pro_{subj} hipi-se __?
what.NOM C pro_{subj} eat-TAM __
What am I eating?

▷ *Ke(x/m)* appears where Ā movement terminates – not in intermediate clauses

(18) kii hii-we-s 'iniit [$_{CP}$ yox̂ ke Jack hi-hi-ce
this.NOM AGR-be-TAM house.NOM [RP.NOM C Jack.NOM AGR-say-TAM

[$_{CP}$ __ ∅ ['iin hani-ya __]]
[__ C [1SG.NOM make-TAM __]]
This is the house that Jack says he built

▷ Cf. the famous Irish *aL*, which appears in every C along the path of Ā movement.

- All movement to Spec,CP is driven by [wh] features.
- Substantive [wh] features on C occur at the top of the Ā chain; purely formal [wh] features occur on C heads along on the path of Ā movement (cf. Rizzi 2006)
- Irish *aL* realizes [wh] of either variety.
- Nez Perce *ke(x/m)* realizes only substantive [wh].

▷ C is realized as *ke(x/m)* with low RPs just like with high ones:

(19) samx̂ [$_{CP}$?? **kex** ko-nya pro_{subj} 'a-sayqi-ca __]
shirt.NOM [$_{CP}$ C RP-ACC pro_{subj} AGR-like-TAM __]
the shirt that I like

To satisfy the substantive [wh] feature on C *ke(x/m)*, something must Ā move to Spec,CP. The relative operator does this even when the copy in Spec,TP is the one pronounced.

- Summary of this case study:

1. Cyclic movement of relative operators passes through an Ā position immediately subjacent to relative C, and the relative pronoun may be pronounced in that position.
2. I've proposed that the position in question is an outer spec of TP.
3. Cyclic movement through an XP edge is presumably driven by the need to escape the XP phase. So, if #2 is correct, then TP must be a phase in relative clauses.

3 Cyclicity and *that*-trace in English relative clauses

- The standard *that*-trace effect (Perlmutter, 1971):

  (20) a. Who did you say (*that) __ grows Meyer lemons?
  b. the woman who you said (*that) __ grows Meyer lemons

- An exception at the very top of relative clauses (Bresnan, 1972, ch 3):

  (21) a. the woman OP *(that) __ grows Meyer lemons
  b. Machines OP *(that) __ add have been used for thousands of years.

- Pesetsky and Torrego (2001): The basic *that*-trace effect in four steps:

  1. An idea about nominative case
     "Nominative case" is really the feature [T] on DP.
     Subjects and T^0 agree in ϕ features and in the feature [T].
  2. An idea about phases
     [T] on DP must be deleted before LF.
     Checking of [T] on DP happens in Spec,TP, but deletion of the checked feature is postponed until the whole phase is completed.
  3. An idea about English C^0_{wh}
     English C^0_{wh} has not only a [wh] feature, but also a [T] feature.
     Luckily, subject movement can check both [wh] and [T] on C^0:

     (22) $[_{CP}$ who$_{[T,wh]}$ $C_{[T,wh]}$ $[_{TP}$ <who> T $[_{VP}$ grows Meyer lemons]]

  4. An idea about *that*
     In object Qs, C checks [wh] against the object; to check [T], it can attract T^0 itself.
     The result is realized morphologically in embedded clauses as *that*:

     (23) $[_{CP}$ what$_{[wh]}$ $[_T$ that$]_i$+$C_{[T,wh]}$ $[_{TP}$ Mary$_{[T]}$ <T_i> $[_{VP}$ grows <what>]]

- The core *that*-trace facts now come out as simple matter of economy.

  The lower clause must be constructed by a derivation that accomplishes the needed feature checking via fewer steps of movement:

  (24) a. $[_{CP}$ who$_{[T,wh]}$ $C_{[T,wh]}$ $[_{TP}$ <who> T $[_{VP}$ grows Meyer lemons]]

  b. * $[_{CP}$ who$_{[T,wh]}$ $[_T$ that$]_i$+$C_{[T,wh]}$ $[_{TP}$ <who> T_i $[_{VP}$ grows Meyer lemons]]

- Returning to relative clauses:

(21) a. the woman OP *(that) __ grows Meyer lemons
b. Machines OP *(that) __ add have been used for thousands of years.

1. TP is constructed; [T] on the subject is checked:

(25) a. $[_{TP}\ [_{DP}\ \text{Op}\ ]_{[T,wh]}\ \ \text{T}\ \ [_{VP}\ \text{grows Meyer lemons}\ ]]$

2. Relative C merges. **TP becomes a phase.** The subject's checked [T] is deleted.

b. $[\ \ \text{Rel-C}_{[T,wh]}\ \ [_{TP}\ \ [_{DP}\ \text{Op}\ ]_{[wh]}\ \ \text{T VP}\ ]\ ]$

3. The subject must move to Spec,CP to check [wh], but this leaves [T] on C unsatisfied. C^0 is forced to satisfy its [T] feature by attracting T^0, resulting in *that*.

c. $[_{CP}\ [_{DP}\ \text{Op}\ ]_{[wh]}\ \ [_{T}\ \text{that}]_i\text{+Rel-C}_{[T,wh]}\ \ [_{TP}\ \ \text{t}\ \ \text{T}_i\ \ \text{VP}\ ]]$

Because [T] on the subject is deleted, C's needs can't be met with fewer movements.

- Summary of this case study:

1. Subjects maintain their checked [T] feature past the TP level, allowing them to check [T] on C – *except* when TP serves as the complement to relative C.
   In that case, they lose their checked [T] feature, obviating the *that*-trace effect.
2. Checked features are deleted upon phase completion, preparing for LF interpretation.
3. TP is not a phase in general, but the TP sister of relative C is a phase.

4 Cyclicity and resumption in Palestinian Arabic

- Arabic dialects typically use resumptive pronouns instead of gaps in relative clauses. In Palestinian, resumptive pronouns are generally required:

(26) l-bint ʔilli šufti-*(ha)
the-girl that (you.F) saw-*(her)
the girl that you saw

(27) l-bint ʔilli fakkarti ʔinno *(hiy) raayḥa ʕal beet
the-girl that (you.F) thought that *(she) going to the house
the girl that you thought is going home

(28) l-bint ʔilli fakkarti ʔinno Mona ḥabbat-*(ha)
the-girl that (you.F) thought that Mona loved-*(her)
the girl that you thought that Mona loved

- But like many languages with resumptive relatives, Palestinian is subject to what McCloskey (1990) dubbed the 'Highest Subject Restriction' (HSR): the highest subject position in the relative clause cannot be occupied by a resumptive pronoun.

(29) l-bint ʔilli (*hiy) raayḥa ʕal beet
the-girl that (*she) going to house
the girl that is going home

- Shlonsky (1992, 2002): Resumption arises as a last resort when movement is blocked.
  - ▷ Operators in subject position may move to Spec,CP, but those in other positions cannot.
  - ▷ Shlonsky's implementation:
    - ∗ Spec,CP is an a A-position in Palestinian RCs (at S-Structure)
    - ∗ Movement of anything but the highest subject to Spec,CP violates minimality.

- The basic insight carries over into a model where Spec,CP is always an Ā position if:
    - ∗ TP is a phase in relative clauses
    - ∗ T^0 in Palestinian is not able to host a (formal) [wh] feature
  - ▷ An operator subject may move to Spec,TP (because of its subject properties) and then to Spec,CP (because of its [wh] feature)

(30) l-bint [$_{CP}$ OP_1 ʔilli [$_{TP}$ <OP_1>] [$_{TP}$ T+raayḥa [$_{vP}$ <OP_1>] v [<V> ʕal beet
the-girl [that [$_{TP}$ [$_{TP}$ going [$_{vP}$ v [to house
the girl that is going home

By [wh] *By [EPP]/Case*

    - ∗ Resumptives are a last resort: only a gap is possible in the highest subject position.
  - ▷ Anything but the highest subject is trapped in the TP phase by the PIC:
    - ∗ No independent motivation for movement to Spec,TP
    - ∗ No formal [wh] feature on T to facilitate successive-cyclic movement

(31) l-bint [$_{CP}$ OP_1 ʔilli [$_{TP}$ *pro* [$_{TP}$ šufti-**ha**$_1$]]]
the-girl [that [$_{TP}$ (you.F) [$_{TP}$ saw-her]]]
the girl that you saw

- The crucial phase boundary is TP, not vP:
  - ▷ Palestinian has object shift (Mohammad, 2000).

(32) [$_{TP}$ Subject T [$_{vP}$ **Object**$_1$ [$_{vP}$ <Subject> v [V <Object$_1$>]]]]

  - ▷ Shifted objects are vP external just like subjects are. But RPs are always required for object relatives – ability to escape TP is what matters, not vP.

- The filtering effect of TP holds only in relative clauses. In questions, both subjects and objects may move to Spec,CP:

(33) a. Miin l-ʔasad ʔakal __ mbarriḥ?
who the-lion ate __ yesterday
Who did the lion eat yesterday?

b. Miin __ ḥall l-muškile?
who __ solved the-problem
Who solved the problem?

This follows because TP is a phase only as the sister to relative C.

- Summary of this case study:

1. Only the highest subject is local to C in a way that favors movement over resumption.
   - ▷ The local subject may legally move to Spec,CP. So, resumption is impossible.
   - ▷ Movement to Spec,CP from any other argument position is ruled out by the PIC. So, resumption is obligatory.
2. Resumption divides subjects from all other DPs (including shifted objects) because only subjects reach the edge of the TP phase (and TP is a phase in relative clauses).
3. TP is not a phase in questions, explaining why there is not resumption.

5 Conclusions

- These three case studies together make a convergent picture:
  - ▷ TP is a phase in relative clauses – i.e. as the sister to relative C.
    - ∗ Nez Perce: cyclic movement of relative pronouns through the TP edge (low RPs)
    - ∗ English: deletion of checked features upon TP completion (obviation of *that*-trace)
    - ∗ Palestinian: triggering of PIC effects (highest subject restriction)
  - ▷ TP is not otherwise a phase
    - ∗ English: retention of checked features upon TP completion in complement clauses (*that*-trace effect)
    - ∗ Palestinian: no PIC effects in questions (resumption only in relative clauses)
- ***Why*** is TP a phase (only) in relative clauses?
  - ▷ It must be that phasal status of a projection is determined in part by its syntactic environment (Den Dikken 2007, Gallego 2007, Bošković 2014) – *not* simply by a categorical property.
  - ▷ It cannot be that TP inherits or takes over phasehood from C in relative clauses, given the restriction on case-attraction of low RPs in Nez Perce. (RPs in Spec,TP are inside the CP phase and can't be case-attracted.)
  - ▷ It could be that TP takes over phasehood from *v* in relative clauses – perhaps, along the lines of Bošković 2014, because T ends the 'verbal' projection in relative clauses, and relative C is essentially part of the N system.

Appendix: Highest subject restriction effects by binding

- An alternative approach to the HSR: resumptive pronouns respect an Ā version of Condition B (Borer 1984, McCloskey 1990, 2006)

  (34) The Ā-Disjointness Requirement:
  A pronoun must be Ā-free in the least complete functional complex containing the pronoun and a subject distinct from the pronoun. (cf. Chomsky 1986)

- This analysis carries over straightforwardly into a binding theory where locality domains are defined in terms of phases (i.a. Lee-Schoenfeld 2004, Johnson 2007, Quicoli 2008, Hicks 2009, Despic To appear) if TP is a phase in relative clauses.

  (35) Ā-Disjointness, phase-based version:
  A pronoun must be Ā-free in the first phase that fully contains it.

  (36) l-bint [$_{CP}$ OP$_1$ ʔilli [$_{TP}$ *pro* ‖ [$_{TP}$ šufti-**ha**$_1$]]]
  the-girl [that [$_{TP}$ (you.F) ‖ [$_{TP}$ saw-her]]]
  the girl that you saw

  (37) l-bint [$_{CP}$ OP$_1$ ʔilli [$_{TP}$ *pro* ‖ [$_{TP}$ fakkarti ʔinno **hiy**$_1$ raayḥa ʕal beet
  the-girl [that [$_{TP}$ (you.F) ‖ [$_{TP}$ thought that she going to the house
  the girl that you thought is going home

  (38) * l-bint [$_{CP}$ OP$_1$ ʔilli [$_{TP}$ **hiy**$_1$ ‖ [$_{TP}$ raayḥa ʕal beet
  the-girl [that [$_{TP}$ she ‖ [$_{TP}$ going to house
  the girl that is going home

- As on the last resort approach, the crucial phase must be TP (and not vP) to explain the irrelevance of object shift to the HSR:

  (39) [$_{TP}$ Subject ‖ T [$_{vP}$ **Object**$_1$ [$_{vP}$ <Subject> ‖ v [V <Object$_1$>]]]]

- If we maintain that reconstruction into vP bleeds Ā disjointness, a further puzzle:

  Irish unaccusative DP subjects raise to Spec,TP and obey the HSR (McCloskey, 1996). If all vPs are phases (Legate 2003, Deal 2009), then reconstruction must not be able to obviate the Ā-disjointness requirement.

  (40) [$_{TP}$ Subject$_1$ T [$_{vP}$ ‖ v [V <**Subject**$_1$>]]]

Acknowledgements

Fieldwork for the Nez Perce portion of this project was conducted in Lapwai, ID, from 2007-2014. I gratefully acknowledge Nez Perce elders Bessie Scott and Florene Davis for sharing their language with me. I would also like to thank audiences at UC Santa Cruz, UMass, McGill, and UCLA; Pranav Anand, Rajesh Bhatt, and Michael Diercks; and anonymous reviewers for LI and WCCFL, for many useful comments and suggestions.

References

Bianchi, Valentina. 2000. Some issues in the syntax of relative determiners. In *The syntax of relative clauses*, ed. Artemis Alexiadou, Paul Law, André Meinunger, and Chris Wilder, 53–81. Amsterdam: John Benjamins Publishing Company.

Borer, Hagit. 1984. Restrictive relatives in modern Hebrew. *Natural Language and Linguistic Theory* 2:219–260.

Bošković, Željko. 2014. Now I'm a phase, now I'm not a phase: On the variability of phases with extraction and ellipsis. *Linguistic Inquiry* 45:27–89.

Bresnan, Joan. 1972. Theory of complementation in English syntax. Doctoral Dissertation, MIT.

Chomsky, Noam. 1986. *Knowledge of language*. New York: Praeger Publishers.

Deal, Amy Rose. 2009. The origin and content of expletives: Evidence from "selection". *Syntax* 12:285–323.

Deal, Amy Rose. 2014. Properties of probes: evidence from Nez Perce complementizer agreement. Paper presented at NELS 45, MIT.

Deal, Amy Rose. 2015. Plural exponence in the Nez Perce DP: a DM analysis. Ms, UC Santa Cruz.

Despic, Miloje. To appear. Phases, reflexives and definiteness. *Syntax* .

den Dikken, Marcel. 2007. Phase extension: Contours of a theory of the role of head movement in phrasal extraction. *Theoretical Linguistics* 33:1–41.

Gallego, Ángel J. 2007. Phase theory and parametric variation. Doctoral Dissertation, Universitat Autònoma de Barcelona.

Hicks, Glyn. 2009. *The derivation of anaphoric relations*. John Benjamins.

Johnson, Kyle. 2007. In search of phases. In *Phrasal and clausal architecture*, ed. Karimi Simin, Vida Samiian, and Wendy K. Wilkins, 146–166. John Benjamins Publishing Company.

Lee-Schoenfeld, Vera. 2004. Binding by phase: (non-)complementarity in German. *Journal of Germanic Linguistics* 16:111–171.

Legate, Julie Anne. 2003. Some interface properties of the phase. *Linguistic Inquiry* 34:506–516.

McCloskey, James. 1990. Resumptive pronouns, Ā-binding and levels of representation in Irish. In *The syntax and semantics of modern Celtic languages*, ed. Randall Hendrick. San Diego: Academic Press.

McCloskey, James. 1996. Subjects and subject positions in Irish. In *The Syntax of the Celtic languages : a comparative perspective*, ed. Robert D. Borsley and Ian Roberts, 241–283.

McCloskey, James. 2006. Resumption. In *The companion to syntax*, ed. Martin Everaert and Henk van Riemsdijk. Blackwell.

Mohammad, Mohammad A. 2000. *Word order, agreement, and pronominalization in standard and Palestinian Arabic*. Benjamins.

Perlmutter, David. 1971. *Deep and surface structure constraints in syntax*. Holt, Rinehart and Winston.

Pesetsky, David, and Esther Torrego. 2001. T-to-C movement: Causes and consequences. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 355–426. MIT Press.

Quicoli, A. Carlos. 2008. Anaphora by phase. *Syntax* 11:299–329.

Rizzi, Luigi. 2006. On the form of chains: criterial positions and ECP effects. In *WH-movement: moving on*, ed. Lisa Lai-Shen Cheng and Norbert Corver, 97–133. MIT Press.

Shlonsky, Ur. 1992. Resumptive pronouns as a last resort. *Linguistic Inquiry* 23:443–468.

Shlonsky, Ur. 2002. Constituent questions in Palestinian Arabic. In *Themes in Arabic and Hebrew syntax*, ed. Jamal Ouhalla and Ur Shlonsky, 137–160. Dordrecht, The Netherlands: Kluwer Academic Publishers.

Amy Rose Deal
ardeal@ucsc.edu
http://people.ucsc.edu/∼ardeal/