Differential Object Marking and Nominal Licensing[*]

Ümit Atlamaz[†]

Rutgers University

LSA 2018 Annual Meeting, Salt Lake City, UT, January 4 - 7, 2018

1   Introduction

Differential Object Marking (DOM) is a pervasive phenomenon. Bossong (1985) highlights the presence of DOM in 300 languages. DOM comes in different forms:

- **Case** (Turkish, Hindi, **Kashmiri**)
- Clitic Doubling (Macedonian)
- Agreement (Swahili, **Senaya**)
- Preposition (Italian, Spanish)

The pervasiveness raises questions about a unified analysis:

(1)   a.   Is there a cross-linguistically common property among the differentially marked objects?
       b.   Why are nominals differentially marked?
       c.   How are they differentially marked?

What is common?
Cross-linguistically, objects that are differentially marked have some "marked" discourse features related to definiteness, specificity, and/or animacy. Aissen (2003) shows that an object is more likely to be differentially marked if it is on the higher end of what might be called discourse prominence hierarchies (Silverstein 1976; Comrie 1979; Croft 1988).

(2)   **Animacy Hierarchy**
      1/2 > 3 Pronoun > Name > Human > Animate > Inanimate

(3)   **Definiteness Hierarchy**
      Pronoun > Name > Definite > Specific > Nonspecific

Language Specific Requirements
Languages differ in terms of cut-off points on these scales for DOM. (Aissen 2003)

- Turkish : **Pronoun** > **Name** > **Definite** > **Specific** > Nonspecific
- Hebrew : **Pronoun** > **Name** > **Definite** > Specific > Nonspecific

Why and How?
- Morphological realization of a feature (Næss 2004; de Hoop and Malchukov 2008)
- Dependent Case (Baker and Vinokurova 2010; Baker 2015)
- Differentiation of two arguments (Aissen 2003)
- **Licensing** (Kalin, to appear)

[†]umitatlamaz@gmail.com

This Talk

Presents an account of DOM based on "marked" nominal licensing and default case assingment.

2   DOM in Kashmiri

Kashmiri is a Dardic/Indo Aryan language spoken in Jammu and Kashmir state of India. It is an aspect-based split-ergative language with DOM regulated by a Person Hierarchy.

2.1 Perfective Clauses (No DOM, No Person Hierarchies)
Transitive subjects are marked with ergative (ERG) case while objects are morphologically unmarked (Ø).
Agreement cross-references the object. (= indicates clitics. True agreement is the innermost affix.)

(4)   tse   v_ich-**i**=th=as   b_i   / *me
      2SG.ERG saw-**F.SG**=2SG=1SG **1SG.**Ø / 1SG.DAT
      'You saw me (female).'   (Wali and Koul 1997)

2.2 Imperfective Clauses (DOM, Person Hierarchy)
Transitive subjects are morphologically unmarked (Ø) and agreement cross-references the subject.

DOM
Specific animate objects get dative case, while inanimate or non-specific ones are morphologically unmarked.

(5)   az   vuchan   daaktar **mariiz-as** waarpaathyii.
      today see.FUT.3PL doctors patient-DAT carefully
      'Today, the doctors will examine the patient carefully.   (Bhatt 2013)

(6)   az   vuchan   daaktar waarpaathyii **mariiz**
      today see.FUT.3PL doctors carefully   patient.ø
      'Today, the doctors will examine a patient carefully.   (Bhatt 2013)

(7)   hu   ch-u   **p'a:l**_i tul-a:n.
      3SG.Ø be.PRES-M.SG **cup.Ø** lift-PTCP.PRES
      'He is lifting the cup.'

Person Hierarchy
DOM in Kashmiri is further restricted by what has been called a Person Hierarchy. Nichols (2001) and Béjar and Rezac (2009) identify the hierarchy as in (8).

(8) $1 > 2 > 3$

Incorporating the DOM facts above, I revise the hierarchy as in (29).

(9)   **Kashmiri Animacy Hierarchy (KAH)**
      $1 > 2 >$ Animate $>$ Inanimate

Kashmiri DOM Generalization with KAH
If the object is higher than or equal to the subject on the person hierarchy, $O \geq S$, then the object is dative. Otherwise, it remains unmarked. This is formally stated in (10).

(10)   If NP1 c-commands NP2,
         and NP2 $\geq$ NP1 on the KAH,
         then NP2 is DATIVE.

Examples

(11)   **b**_i   ch-u=s   **ts**_i   / *tse   tul-a:n.
       1SG.Ø be.PRES-M.SG=1SG **2SG.**Ø / 2SG.DAT lift-PTCP.PRES
       'I am lifting you.' $O_2 \not\geq S_1 =$ No DOM

2

(12) **hu**   ch-u   **tse**   / *tsɨ   tul-a:n.
      3SG.Ø be.PRES-M.SG **2SG.DAT** / 2SG.Ø lift-PTCP.PRES
      'He is lifting you.' $O_2 \geq S_3$ = DOM

(13) hu   ch-u   **humis**   / *hu   tul-a:n.
      3SG.Ø be.PRES-M.SG **3SG.DAT** / 3SG.Ø lift-PTCP.PRES
      'He is lifting him.' $O_{anim} \geq S_{anim}$ = DOM

(14) hu   ch-u   **p'a:l**ɨ   tul-a:n.
      3SG.Ø be.PRES-M.SG **cup.Ø** lift-PTCP.PRES
      'He is lifting the cup.' $O_{inanim} \ngeq S_{anim}$ = No DOM

(15) hu   ch-u   lə**dk-as**   / *lədkɨ tul-a:n.
      3SG.Ø be.PRES-M.SG **boy-DAT** / boy-ø lift-PTCP.PRES
      'He is lifting the boy.' $O_{anim} \geq S_{anim}$ = DOM

Snapshot of DOM in Kashmiri

(16)

S \ O	1	2	Anim	Inanim
1	—	Ø	Ø	Ø
2	DAT	—	Ø	Ø
Anim	DAT	DAT	DAT	Ø
Inanim	DAT	DAT	DAT	DAT

Specificity
The generalization in (10) does not make any reference to **specificity**. (5) - (6) shows that specificity plays a role in DOM.

2.3 Kashmiri Summary
- NO DOM in perfective clauses; Object agreed with
- DOM in imperfective clauses
- DOM is restricted by Animacy Hierarchy
- Specific NPs get DOM

3   Assumptions

3.1   Case

Ergative Case is either lexical (Woolford 1997; Legate 2008) or dependent (Marantz 1991; Baker 2015; Levin and Preminger 2015).

In particular, I assume that case is assigned by one of the following rules proposed by Marantz (1991). I conflate Marantz's *default case* and *unmarked case*.[1]

(17)   Revised Case Realization Disjunctive Hierarchy
     a.   Lexically governed case (Inherent or lexical)
     b.   Dependent case
     c.   Default case (environment sensitive)

- **Default case** is the *elsewhere* case that is assigned when no other case realization rule is applicable.
- Default case is usually syncretic with another case in a given language as it is the *elsewhere* case.
- Overt case projects a KP above the NP/DP (Lamontagne and Travis 1986)
- Morphologically unmarked (Ø) means no case at all. (Kornfilt and Preminger 2015)

---

[1]Nothing hinges on this assumption.

3.2   Specificity

- Following Diesing (1992) and Bhatt and Anagnostopoulou (1996), I assume that specific nominals must leave VP. This is supported by the position of the VP adverb in (5)-(6) repeated below in (18)-(19).
- Assuming a phase-based syntax, the landing site for this movement is Spec, vP (phase edge).
- The only role of specificity is determining the position of the object in the structure.
- In Kashmiri, specificity doesn't play a role on the "markedness" of a noun.

(18)   az   vuchan   daaktar **mariiz-as** <u>waarpaathyii</u>.
       today see.FUT.3PL doctors patient-DAT <u>carefully</u>
       'Today, the doctors will examine the patient carefully.   (Bhatt 2013)

(19)   az   vuchan   daaktar <u>waarpaathyii</u> **mariiz**
       today see.FUT.3PL doctors <u>carefully</u>   patient.ø
       'Today, the doctors will examine a patient carefully.'   (Bhatt 2013)

4   Proposal

Generalization
Some (but not all) nouns must be licensed via agreement.[2] For Example, PCC in Basque.

(20)   Strong PCC in Basque
       *DAT ≫ ABS where ABS = 1/2

(21)   Zuk   niri   liburu-a   saldu d-i-φ-da-zu.
       you.ERG me.DAT book-ART$_{SG}$.ABS sell 3.ABS-$\sqrt{}$-SG.ABS-1SG.DAT-2SG.ERG
       'You have sold the book to me.'

(22)   *Zuk   harakin-ari   niri   saldu n-(a)i-φ-o-zu.
       you.ERG butcher-ART$_{SG}$.DAT me.ABS sell 1.ABS-$\sqrt{}$-SG.ABS-3SG.DAT-2SG.ERG
       'You have sold me to the butcher.'   (Laka 1996)

Strong PCC is a result of the Person Licensing Condition (PLC). (Béjar and Rezac 2003; Preminger 2011)
Participant (1/2) features must be licensed.   (Béjar and Rezac 2003; Baker 2008; Preminger 2011)

But not always! When the clause misses an agreement probe, PCC effects disappear. (Preminger 2011)

(23)   Gaizki irudi-tzen φ-zai-φ-t   [zuk   ni   harakin-ari
       wrong look-IMPF 3.ABS-$\sqrt{}$-SG.ABS-1SG.DAT you.ERG me.ABS butcher-ART$_{SG}$.DAT
       al-tze-a].
       sold-NMZ-ART$_{SG}$.ABS
       'It seems wrong to me for you to sell me to the butcher.'   (Laka 1996)

(24)   **Person Licensing Condition** (Preminger (2011) version)
       A [participant] feature on a DP that is a viable agreement target (as far as its case, etc.), and for which there is a clausemate person probe, must participate in a valuation relation.

Deconstructing Preminger's PLC:

(25)   A nominal requires licensing if
       a.   it has a specific feature (PERSON)
       b.   it is in the same domain as an agreement probe (a PERSON probe)
       c.   it is a viable agreement target, i.e. has the right case etc.

If any of the conditions in (25) is not met, person licensing is not required.

---

[2]The idea that some but not all nominals must be licensed also forms the basis of Kalin (to appear). In Kalin's system, licensing refers to Abstract Case assignment via agreement. In the current work, licensing is in the sense of Person licensing as required by Person Licensing Condition.

Why does PLC exist?
Participant features must be anchored to speech operators by being "linked" to the clausal spine through agreement to get interpreted. (Baker 2008)

Extension to Animacy/Specificity
Animate/Specific nouns must be anchored to the speech act to be interpreted. (Kalin, to appear)

Proposal 1 – MLC
- Participant, Animate, Specific, etc. nominals are "marked" discourse features.
- Markedness is determined by language specific requirements drawn from universal tendencies like the Animacy Hierarchy ((2)) or the Definiteness Hierarchy ((3)).

(26)   **Markedness Licensing Condition (MLC)**
       If a marked nominal is in the same domain (a phase) as an agreement probe, it must be licensed via agreement with the probe.
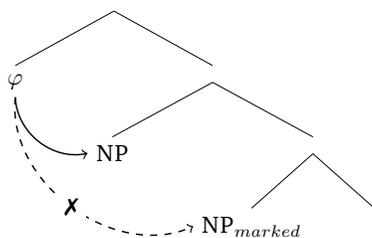
(27)   MLC violating structure

Satisfying the MLC
- Adding another probe.(Kalin, to appear)
- Removing the agreement probe
- **Removing the marked NP**
      Leaving it in the lower phase
      Encapsulating it (DOM)

Proposal 2 – DOM

(28)   In languages where overt case blocks agreement, DOM is obtained via default case assignment to satisfy the MLC vacuously, by removing the marked nominal from the agreement domain.

5   Accounting for Kashmiri

In Kashmiri, markedness is determined by (10) slightly modified as in (30) by making reference to the Kashmiri-specific animacy hierarchy. Marked nominals must be handled to satisfy the MLC.

(29)   **Kashmiri Animacy Hierarchy (KAH)**
        1 > 2 > Animate > Inanimate

(30)   If NP1 c-commands NP2,
        and NP2 $\geq$ NP1 on the KAH,
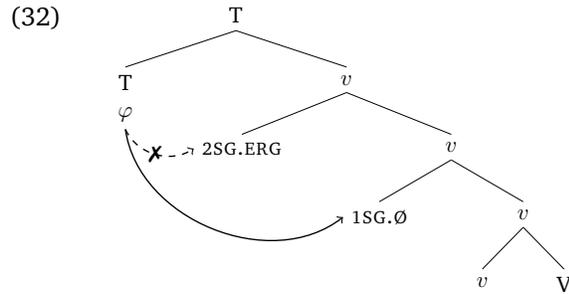   then NP2 is "MARKED".   **Markedness determined configurationally**

5.1 Perfective Clauses

Subject is ERG. No agreement with the subject. Agreement with the object. Never DOM.

(31) tse   vɨch-**i**=th=as   bɨ   / *me
      2SG.ERG saw-**F.SG**=2SG=1SG **1SG.Ø** / 1SG.DAT
      'You saw me (female).' $\mathbf{O}_1 \geq \mathbf{S}_2$ ((4))

(32)

```
              T
          ┌───┴───┐
          T        v
          φ    ┌───┴───┐
          ✗┄┄↗ 2SG.ERG   v
                      ┌───┴───┐
                  1SG.Ø↗      v
                           ┌──┴──┐
                           v     V
```

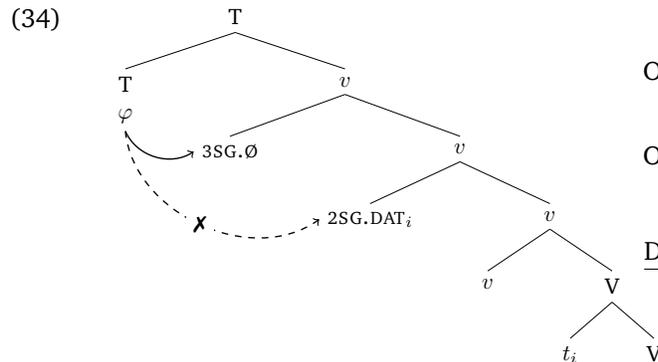Object is "marked", in this configuration.

<u>Object is always **licensable**. Never DOM.</u>

5.2 Imperfective Clauses

Subjects are morphologically Ø-marked. T agrees with the subject. Object is never agreed with.

(33) **hu**   ch-u   **tse**   / *tsɨ   tul-a:n.
      3SG.Ø be.PRES-M.SG **2SG.DAT** / 2SG.Ø lift-PTCP.PRES
      'He is lifting you.' $\mathbf{O}_2 \geq \mathbf{S}_3$ ((12))

(34)

```
              T
          ┌───┴───┐
          T        v
          φ    ┌───┴───┐
          ↗ 3SG.Ø      v
          ┊         ┌───┴───┐
          ✗┄┄↗ 2SG.DAT_i   v
                        ┌───┴───┐
                        v      V
                            ┌──┴──┐
                           t_i    V
```

Object is "marked", in this configuration.

Object cannot be licensed due to intervention.

<u>Default Case is assigned to satisfy the MLC. = DOM</u>

(35) **b**ɨ   ch-u=s   **ts**ɨ   / *tse   tul-a:n.
      1SG.Ø be.PRES-M.SG=1SG **2SG.Ø** / 2SG.DAT lift-PTCP.PRES
      'I am lifting you.' $\mathbf{O}_2 \not\geq \mathbf{S}_1$((11))

(36)

```
              T
          ┌───┴───┐
          φ        v
          ┊     ┌───┴───┐
          ↗ 1SG.Ø       v
          ┊         ┌───┴───┐
          ✗┄┄↗ 2SG.Ø       v
                        ┌───┴────┐
                        v       VP  ←Spell-Out
                            ┌────┴──┐
           Object Shift     t       V
```

Object is "**not** marked", in this configuration.

<u>Object does not need licensing. = No DOM</u>

6

(37)   az   vuchan   daaktar **mariiz-as**   waarpaathyii.
today see.FUT.3PL doctors patient-DAT carefully
'Today, the doctors will examine the patient carefully. $O_{anim,+specific} \geq S_{anim}$ ((5))
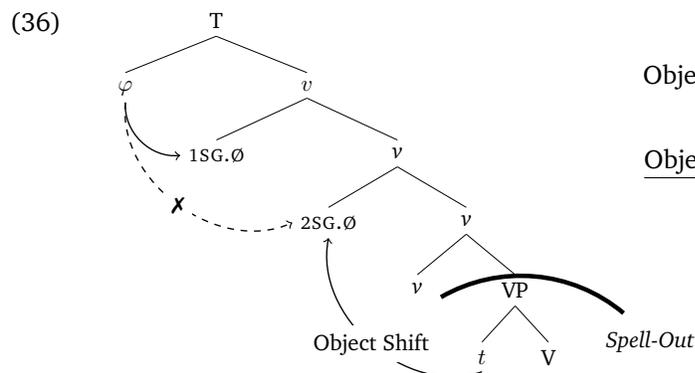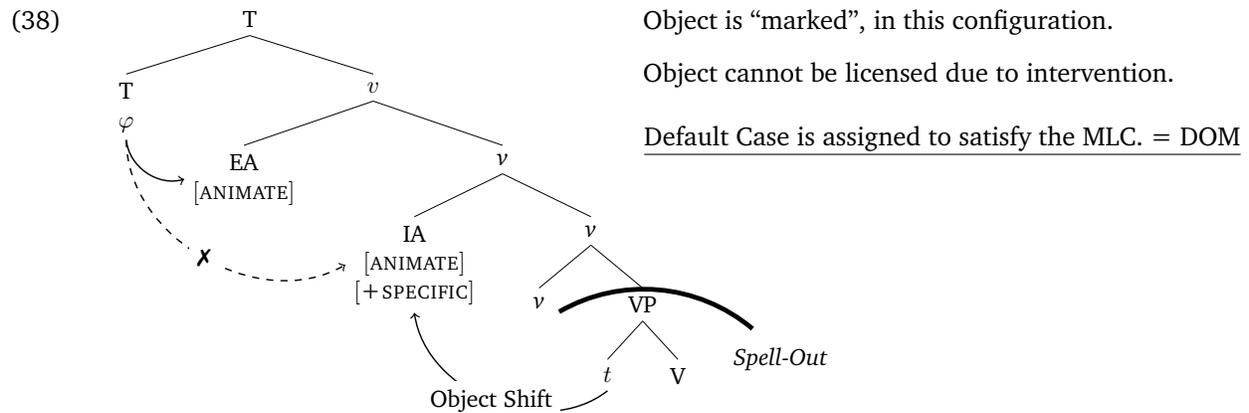
(38)

Object is "marked", in this configuration.

Object cannot be licensed due to intervention.

Default Case is assigned to satisfy the MLC. = DOM

(39)   az   vuchan   daaktar waarpaathyii **mariiz**
today see.FUT.3PL doctors carefully   patient.ø
'Today, the doctors will examine a patient carefully. $O_{anim,-specific} \geq S_{anim}$ ((6))

(40)

Object is "marked", in this configuration.

Object is not in the agreement domain (Phase).

MLC is satisfied. = No DOM
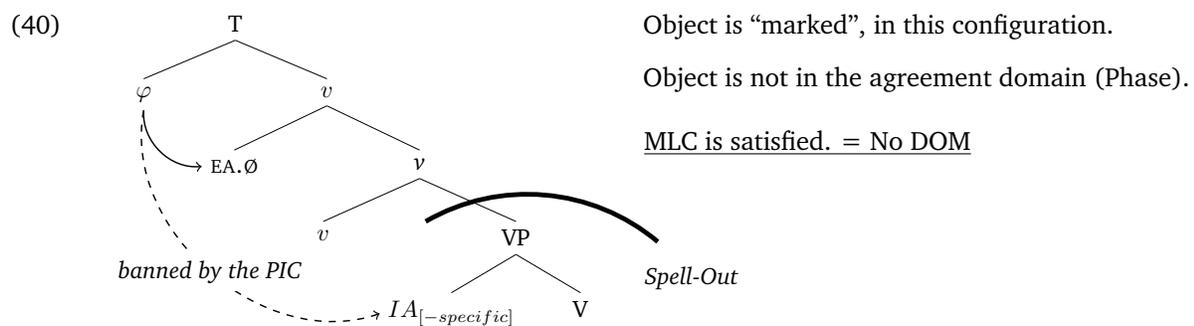
6   Asymmetric DOM

Some languages allow coordination of a differentially marked NP and an unmarked NP.[3]

(41)   Vi   una mujer y   **a**   Maria juntas   en el   parque.
see.PST.1SG a   woman and DOM Maria together in the park
'I saw a (some) woman and Maria together in the park.'   Spanish (Kalin and Weisser 2017)

Challenge for Movement/Dependent Case
Picking out only one of the conjuncts is impossible for movement/dependent case analyses.   (K&W 2017)
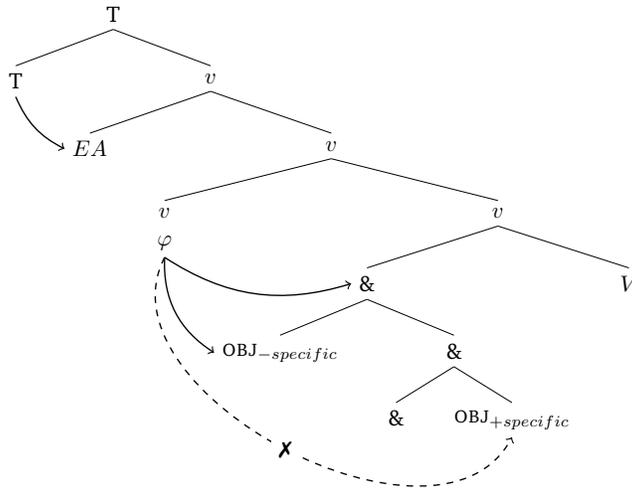
Challenge for Agree-assigned Case (Added Probes)
Béjar and Rezac (2009) and Kalin (to appear) claim that licensing (person and specificity/definiteness, respectively) is established by adding an extra probe into the structure.

---

[3] In a recent paper, Kalin and Weisser (2017) show that nine out of the eleven languages they survey allow asymmetric DOM.

(42)   T   **Intervention**

```
              T                    v
                  ↘ EA        v
                        v              v
                        φ
                        ↘    &              V
                        OBJ_{-specific}        &
                             ✗            &    OBJ_{+specific}
```

Default Case

Default Case view does not have any intervention issues as each nominal is evaluated with respect to the MLC. Only the NPs that violate the MLC get default case.
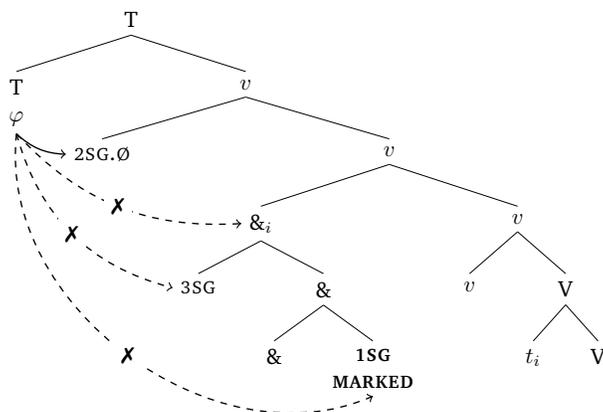
Kashmiri Asymmetric DOM

Kashmiri has asymmetric DOM.

(43) tsɨ   ch-u=kh   yi   tɪ   **me**   tul-a:n.
      you.Ø be.M.SG=2SG 3SG.Ø and 1SG.DAT lift-PTCP.PRES
      'You are lifting him and me.'

(44) tsɨ   ch-u=kh   **me**   tɪ   yi   tul-a:n.
      you.Ø be.M.SG=2SG 1SG.DAT and 3SG.Ø PTCP.PRES
      'You are lifting me and him.'

Structure of (43) is given in (45).

(45)   T

```
              T                    v
              φ
                  ↘ 2SG.Ø              v
                  ✗ ↘
                          &_i              v
                  ✗ ↘
                          3SG    &        v      V
                  ✗ ↘
                              &    1SG     t_i   V
                                   MARKED
```

In (45), the lower conjunct (1SG) is marked as it is being c-commanded by a lower-ranked pronoun (2SG).[4] This configuration violates the MLC unless the lower conjunct is removed from the agreement domain. Default case saves the structure.

---

[4]In fact, it is also being c-commanded by the higher conjunct(3SG). This raises some question about conjunctions in subject position. One might expect DOM marking in subject position unless agreement with the whole conjunction licenses the marked conjunct. Unfortunately, I don't have data to test this prediction at this point.

7   Conclusion

- Only marked nominals need licensing via agreement (to be "linked" to the speech act).

- Markedness is language specific, drawn from universal tendencies.

     Binary in many languages, configurational in Kashmiri

- In configurations where a marked nominal cannot be licensed (due to intervention)
  Default case assignment can remove the marked NP from the agreement domain to vacuously satisfy the licensing condition. (If case blocks agreement in the language)

- Default case is the *elsewhere* case. This is why DOM case is usually syncretic with another case in a given language (mostly DATIVE).

- Default case is not freely assigned. It is assigned only to satisfy some well-formedness conditions (like the MLC).

- Agreement does not assign case. In fact, it prevents default case assignment to a nominal.

8 Appendix: Extension to Senaya

The theory of DOM presented in this paper makes a clear prediction about nominal licensing. If a language does not have overt case that blocks agreement or does not have case at all, unlicensed "marked" nominals will cause ungrammaticality. Senaya (Neo-Aramaic) is one such language. It is a split-agreement (agreement reversal) language with no overt case marking on NPs.

Imperfective Clauses
- Subjects are always agreed with.
- Subject agreement is marked with **S**-suffixes while object agreement is marked with **L**-suffixes
- Objects are agreed with only when specific.

(46) **Āna** (xa) <u>ksūta</u> xazy-**an**-<u>ā</u>.
       I   a   book.F see.IMPF-S.1SG-L.3FS
       'I see a (specific) book (e.g. on the table).'
       (Object is specific, indefinite, inanimate, unaffected.)   (Kalin, to appear)

(47) **Āna** (xa) ksūta   kasw-**an**.
       I   a   book.F write.IMPF-S.1SG
       'I will write a book (e.g., someday, about something, I don't know what).'
       (Object is nonspecific, indefinite, inanimate, affected.)   (Kalin, to appear)

Question 1 – DOM via agreement
Why are specific objects agreed with while non-specific objects aren't?

Perfective Clauses
- Only subjects agreed with.
- Subject agreement marked with **L**-suffixes.
- Objects are never agreed with.
- **Specific objects are banned**.

(48) **Āyet** ksū-wā-**lox**.
       You   write.PFV-PST-L.2MS
       'You wrote (a long time ago).'
       (Subject is agentive, specific, definite, animate.)   (Kalin, to appear)

(49) *Axnī **ō**   **ksūta**   ksū-lan.
       we   that book.F write.PFV-L.1PL
       Intended: 'We wrote that book.'   (Kalin, to appear)

Question 2 – Ban on specific objects
Why are specific objects banned in perfective clauses?

Senaya Perfective vs. Imperfective

The difference between imperfective and perfective clauses is the extra Asp head in imperfective clauses, which introduces another agreement probe. (Kalin and van Urk 2015)

Answer 1
DOM via agreement can be explained by the Phase Impenetrability Condition.

(50)   Imperfective clause with a **specific** object

```
                    TP
              ┌──────┴──────┐
              T            AspP
          ┌───┴───┐    ┌────┴────┐
          T      CL  Asp_IMPF    vP
        φ-probe       φ-probe  ┌──┴──┐
        (L-suffix)    (S-suffix) Subj  v
                                   ┌───┴───┐
                          Obj_specific    v
                                        ┌─┴─┐
                                        v   VP
                                          ┌─┴─┐
                                          V   Obj
```

(51)   Imperfective clause with a **non-specific** object

```
                    TP
              ┌──────┴──────┐
              T            AspP
          ┌───┴───┐    ┌────┴────┐
          T      CL  Asp_IMPF    vP
        φ-probe       φ-probe  ┌──┴──┐
        (L-suffix)    (S-suffix) Subj  v
                                     ┌──┴──┐
                                     v     VP
                                         ┌─┴─┐
                                         V   Obj

                    banned by the PIC
```

Answer 2
Specific objects in perfective clauses are banned because there is nothing to license or encapsulate them.

(52)

```
                    TP
              ┌──────┴──────┐
              T            AspP
          ┌───┴───┐    ┌────┴────┐
          T      CL  Asp_PFV     vP
        φ-probe              ┌────┴────┐
        (L-suffix)          Subj       v
                                     ┌──┴──┐
                            Obj_specific   v
                                         ┌─┴─┐
                                         v   VP
                                           ┌─┴─┐
                                           V   Obj
```

References

Aissen, Judith. 2003. Differential object marking: Iconicity vs. economy. *Natural Language & Linguistic Theory* 21 (3): 435–483.

Baker, Mark C. 2015. *Case:Its Principles and its Parameters*. Cambridge University Press.

Baker, Mark C. 2008. *The syntax of agreement and concord*. Vol. 115. Cambridge University Press.

Baker, Mark, and Nadezhda Vinokurova. 2010. *On tense and copular verbs in nonverbal predications in Sakha*. Tech. rep. Rutgers University.

Béjar, Susana, and Milan Rezac. 2009. Cyclic agree. *Linguistic Inquiry* 40 (1): 35–73.

Béjar, Susana, and Milan Rezac. 2003. Person licensing and the derivation of PCC effects. *AMSTERDAM STUDIES IN THE THEORY AND HISTORY OF LINGUISTIC SCIENCE SERIES 4*: 49–62.

Bhatt, Rajesh, and Elena Anagnostopoulou. 1996. "Object shift and specificity: Evidence from ko-phrases in Hindi". In *Papers from the 32nd Regional Meeting of the Chicago Linguistics Society*, vol. 1122.

Bhatt, Rakesh Mohan. 2013. *Verb movement and the syntax of Kashmiri*. Vol. 46. Springer Science & Business Media.

Bossong, Georg. 1985. *Empirische Universalienforschung*. Vol. 14. Narr.

Comrie, Bernard. 1979. Definite and Animate Direct Objects: A Natural Class. *Linguistica Silesiana* 3:13–21.

Croft, William. 1988. Agreement vs. case marking and direct objects. *Agreement in natural language: Approaches, theories, descriptions*: 159–179.

de Hoop, Helen, and Andrej L Malchukov. 2008. Case-marking strategies. *Linguistic Inquiry* 39 (4): 565–587.

Diesing, Molly. 1992. Indefinites. *Linguistic Inquiry Monograph* 20.

Kalin, Laura. to appear. Licensing and Differential Object Marking. *Syntax*.

Kalin, Laura, and Coppe van Urk. 2015. Aspect splits without ergativity. *Natural Language & Linguistic Theory* 33 (2): 659–702.

Kalin, Laura, and Philipp Weisser. 2017. Asymmetric DOM in coordination and why this is fatal for movement-based approaches. *Manuscript*.

Kornfilt, Jaklin, and Omer Preminger. 2015. "Nominative as no case at all: an argument from raising-to-accusative in Sakha". In *Proceedings of the 9th Workshop on Altaic Formal Linguistics (WAFL9)/Ed. by Andrew Joseph and Esra Predolac (MIT Working Papers in Linguistics# 76)*. 109–120.

Laka, Itziar. 1996. A brief grammar of Euskara, the Basque language.

Lamontagne, Greg, and Lisa Travis. 1986. The case filter and the ECP. *McGill Working Papers in Linguistics* 3 (2): 51–75.

Legate, Julie Anne. 2008. Morphological and abstract case. *Linguistic Inquiry* 39 (1): 55–101.

Levin, Theodore, and Omer Preminger. 2015. Case in Sakha: are two modalities really necessary? *Natural Language & Linguistic Theory* 33 (1): 231–250.

Marantz, Alec. 1991. *Case and licensing. Ms*.

Næss, Åshild. 2004. What markedness marks: the markedness problem with direct objects. *Lingua* 114 (9): 1186–1212.

Nichols, Lynn. 2001. The syntactic basis of referential hierarchy phenomena: Clues from languages with and without morphological case. *Lingua* 111 (4-7): 515–537.

Preminger, Omer. 2011. Asymmetries between person and number in syntax: a commentary on Baker's SCOPA. *Natural Language & Linguistic Theory* 29 (4): 917–937.

Silverstein, Michael. 1976. Hierarchy of features and ergativity. In *Grammatical categories in Australian languages*, ed. R. M. W. Dixon, 112?171. Canberra: Australian Institute of Aboriginal Studies.

Wali, Kashi, and Omkar Nath Koul. 1997. *Kashmiri: A cognitive-descriptive grammar*. Psychology Press.

Woolford, Ellen. 1997. Four-way case systems: Ergative, nominative, objective and accusative. *Natural Language & Linguistic Theory* 15 (1): 181–227.