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A Cross-Theoretic Analysis of Agreement in the Russian Determiner Phrase
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Section 1. Features Marked in the Russian DP

In Russian singular DPs, the determiner, adjective and noun must all bear uniform gender, number and case features.

(1) Masculine, Singular, Nominative

эт-от	высок-ый	мальчик	был	на фильме
et-ot	vysok-yi	malčik	byl	na filme
this-M.SNG.NOM	tall-M.SNG.NOM	boy.M.SNG.NOM	be.PST.M.SNG	at movie

'This tall boy was at the movie.'

(2) Feminine, Singular, Nominative

эт-а	высок-ая	девушк-а	бы-л-а	на фильме
et-a	vysok-aya	devušk-a	by-l-a	na filme
this-F.SNG.NOM	tall-F.SNG.NOM	girl-F.SNG.NOM	be-PST-F.SNG	at movie

'This tall girl was at the movie.'

(3) Masculine, Singular, Dative

эт-ому	высок-ому	мальчик-у	хоч-ет-ся	смотреть фильм
et-omu	vysok-omu	malčik-u	xoč-et-sya	smotret film
this-M.SNG.DAT	tall-M.SNG.DAT	boy-M.SNG.DAT	want-3.SNG-REFL	watch.INF movie

'This tall boy feels like watching a movie.'

(4) Feminine, Singular, Dative

эт-ой	высок-ой	девушк-е	хоч-ет-ся	смотреть	фильм
et-oi	vysok-oi	devušk-e	xoč-et-sya	smotret	film
this-F.SNG.DAT	tall-F.SNG.DAT	girl-F.SNG.DAT	want-3.SNG-REFL	watch.INF	movie

'This tall girl feels like watching a movie.'

Plural DPs in Russian must agree in number and case features. The distinction between masculine and feminine gender is lost in the plural.

(5) Masculine/Feminine, Plural, Nominative

эт-и высок-ие мальчик-и бы-л-и на фильме
et-i vysok-ie malčik-i by-l-i na filme
these-PL.NOM tall-PL.NOM boy-PL.NOM be-PST-PL at movie
'These tall boys were at the movie.'

(6) Feminine, Plural, Nominative

эт-и высок-ие девушк-и бы-л-и на фильме
et-i vysok-ie devušk-i by-l-i na filme
these-PL.NOM tall-PL.NOM girl-PL.NOM be-PST-PL at movie
'These tall girls were at the movies.'

(7) Masculine, Plural, Dative

эт-ым высок-им мальчик-ом хоч-ет-ся смотреть фильм
et-ym vysok-ym malčik-om xoč-et-sya smotret film
these-PL.DAT tall-PL.DAT boy-PL.DAT want-3.SNG-REFL watch.INF movie
'These tall boys feel like watching a movie.'

(8) Feminine, Plural, Dative

эт-ым высок-им девушк-ом хоч-ет-ся смотреть фильм
et-ym vysok-ym devušk-om xoč-et-sya smotret film
these-PL.DAT tall-PL.DAT girl-PL.DAT want-3.SNG-REFL watch.INF movie
'These tall girls feel like watching a movie.'

➠ What ensures case and feature uniformity throughout the DP in Russian (and other Slavic languages)?

A Note on Case Theory in GB

- structural case is assigned at S-structure by position
- specifier of finite Agr/Infl assigns nominative
- complement of V assigns accusative
- under Franks (1994) some forms of genitive in Russian are assigned structurally and compete with other structural cases for assignment
- oblique case is assigned at D-structure lexically

Section 2. Approaches to Feature and Case Agreement

- various proposals fail to theoretically account for, or even adequately describe, case and feature agreement in Russian.
- Franks (1995) has no formal mechanism
- Radford (1997) offers no conclusions
- Carstens (2000) does not account for case agreement
- Wechsler and Zlatić (2000) (not analyzed here) account for problems in subject predicate agreement, but no formal account of DP-internal case and feature sharing

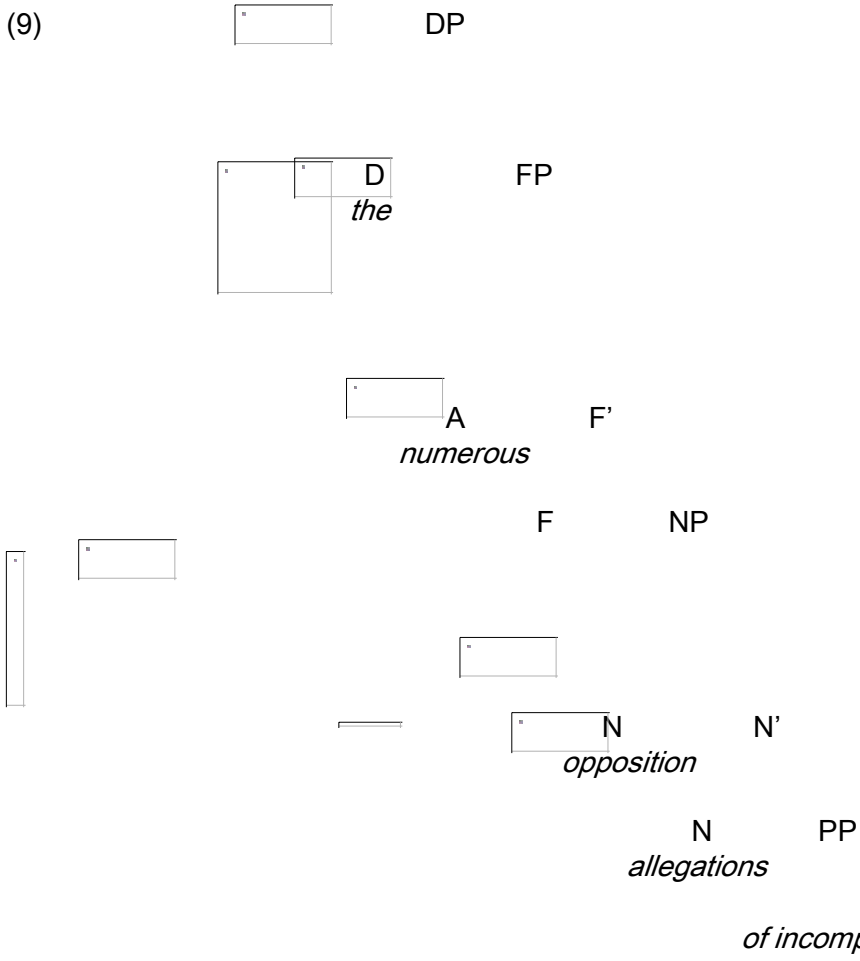
Section 2.1 Percolation (Franks 1995)

- inherent features (category, gender, number) of a noun project upwards
- adjectives are inserted only specified for category
- adjectives agree with the nouns they modify via coindexation of features
- the mechanism that ensures that feature coindexation between the N and Adj is unspecified (Franks 1995:25)
- case percolation from the NP downwards and to the AP is unspecified
- case and feature agreement occurs without movement

Section 2.2 Number and Case Percolation (Radford 1997) adopted from Cinque (1994)

- percolation *here* appears synonymous with checking theory
- "It will be apparent from [9] that *percolation* (like *movement*) always proceeds in an *upwards* direction, never *downwards*." (Radford 1997:191)

(9)



- The [Pl] features of N *allegations* raises to F, checking the [Pl] features of A *numerous*, then raises to D to check the [Pl] features of *the*. It is this last checking operation that gives the DP as a whole the [Pl] feature, making this feature salient for verbal agreement.
- "…it is less clear whether the noun *allegations* and the adjective *numerous* also carry nominative case. In languages (like Latin or Russian) with a much richer case morphology than English, nouns, attributive adjectives and determiners all inflect overtly for case. Hence we might conclude (on universalist grounds) that the determiner *the*, the

adjective numerous and the noun *allegations*
all carry covert nominative case in [9] and that they agree with each other in case as well as number with case agreement being treated via percolation…as above. On the other hand, since no nouns or adjectives overtly inflect for case in English, it might be argued to be against the spirit of *minimalism* to posit that nouns and adjectives carry case properties which are never overtly marked." Radford (1997:191)

- Under the former view, case needs to percolate upwards and the noun needs to enter the derivation with case.
- Under the latter view, only determiners carry case in English.

Section 2.3 (Carstens 2000)

(10a) K *attracts* F if F is the closest feature that can enter into a checking relation with a sublabel of K. Chomsky (1995:297)

(10b)
An uninterpretable head higher in the derivation attracts the nearest head lower in the derivation that can satisfy the higher head's feature(s).

(11) DP [person, gender, number]

D [person] NumP

Num [num] NP

N [gender] XP

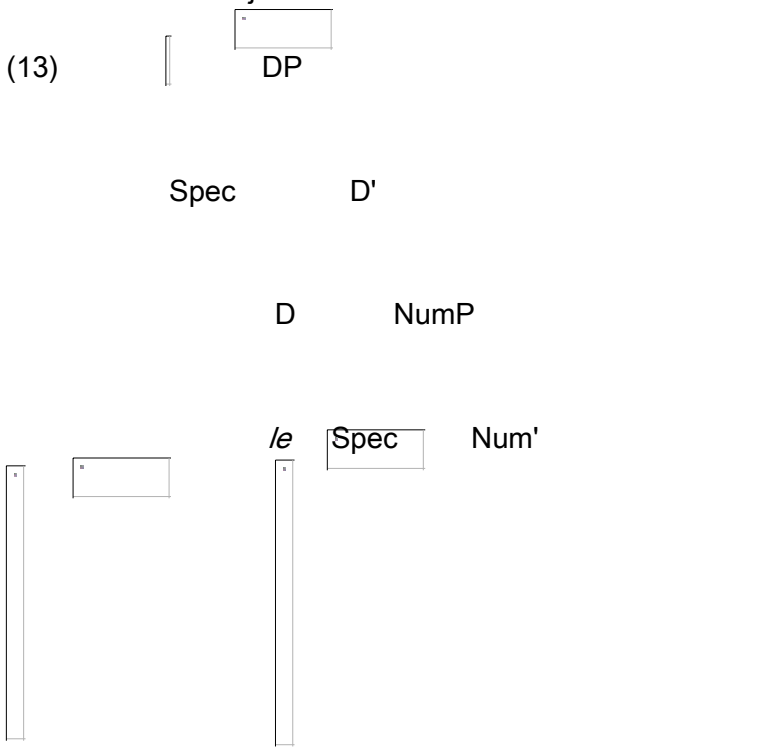
Concerns regarding (11)

- Percolation. Gender, number, and person must appear at the DP level to agree with the predicate, if the noun phrase is a subject. How do features accumulate there and no higher? Why are they not culled from lower within the XP?
- Feature spread. Chomsky (1995:278) posits that N bears person and number features: "*airplanes* [is] an N with the ϕ-features [plural], [-human], [3 person]."
- Functional heads. Would this structure hold for a bare noun that enters with fully inflected ϕ-features? Raising would appear to be unnecessary and barred on the grounds that the null D and null Num heads have only interpretable features.

(12) le mie case belle [Italian]
the.F.PL my.F.PL house.F.PL nice.F.PL
'my nice houses'

- the determiner, the possessive pronoun, the head noun, and adjective all bear feminine plural features.
- nP represents a “light noun” in a shell above the NP proper, on par with a “light verb.” In Bantu possessive structures, this is the position of *of*.
- However, N, Num, and D are posited to subcategorize morphologically and thus raise heads of a particular category. Thus D does not Attract an adjectival head.

(13)



(from the bottom up)

- N has no needs of its own and raises overtly to n and then to Num “motivated by assuming that n subcategorizes morphologically for N, and Num for n” Carstens (2000:328).
- n has its subcategorization needs met by N.
- Poss has gender and number uninterpretable features, both checked in the single movement to Spec Num (both adjoined heads check the specifier position). It raises for “reasons independent of agreement” Carstens (2000:329).
- Adj has uninterpretable gender and number features and appears stranded, causing the string to crash.
- Num has its subcategorization needs met by N.
- D has uninterpretable number and gender checked presumably by Num and N covertly (in the case of Italian).

The question this poses for Attract is how to avoid the AP being stranded below with unchecked uninterpretable features. To address this, Carstens posits that the gender and number features of A adjoin to Num to have both features checked at once by the adjoined Num-N complex. In so doing, she argues for Enlightened Self-Interest whereby either the target of movement or the mover may have uninterpretable features.

Section 3. The Probe-Goal Hypothesis of Clausal Agreement

- Probe-Goal is motivated when the topmost node carries an interface-uninterpretable feature. Chomsky (2001:5)

- "Interpretability of features is determined in the lexicon…" Chomsky (2001:5)

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I assume that Probe-Goal is at least as minimal as a head-to-head relation, if not a feature-to-feature relation. Inferred in Chomsky (2001:4)

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Probe β has one or more uninterpretable ϕ-features and it probes into its domain for the nearest head with a matching feature set. Goal α has interpretable ϕ-features and crucially, unvalued case, rendering it "active" in the derivation.

(14) 

β [-Inter]

α [+Inter]

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Structural case is not a feature per se, but a "reflex of an uninterpretable ϕ-set" of the Probe (Chomsky 2000:122). After Agree occurs, the uninterpretable features of β are deleted and the case of α is valued and deleted.

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If the Probe has a defective ϕ-feature set, that is, if it does not carry a full complement of gender, number, and person, it still has its ϕ-features deleted, but the Goal remains active and still viable to enter into further Agree operations, per Chomsky (2000:124).

➽ How well can the Probe-Goal hypothesis account for DP-internal agreement?

Section 4. Probe-Goal within the DP

- Carstens (2001) proposes modifications to the Probe-Goal hypothesis to account for feature agreement in the Italian DP (15) and (16).

(15) la mia casa bella [Italian]
the.F.SNG my.F.SNG house.F.SNG nice.F.SNG
'my nice house'

(16) le mie case belle [Italian]
the.F.PL my.F.PL house.F.PL nice.F.PL
'my nice houses'

- It is not ϕ-completeness that allows the Probe to value and delete case, but an "intrinsic structural case value" Carstens (2001:151).

- Neither D, A nor Poss have a case value to assign.

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Thus, D, A and Poss can Probe the N Goal successively, having their own number and gender features valued and deleted, but leaving the Goal still active.

- As far as ϕ-features within the DP, Carstens' account is viable for non-case inflected languages like Italian.

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Unexplored by Carstens is how the case of N is valued. Possibly not a problem if T, v or other case assigners can Probe into the DP to N without being obstructed or needing to value the case of other heads.

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Just as Chomsky (2000, 2001) posits that a Probe values case only once, Carstens (2001) posits that case assignment may only occur once.

Section 4. Probe-Goal and the Licensing of Case

- Chomsky (2000, 2001) cannot clearly account for feature or case agreement within the DP.

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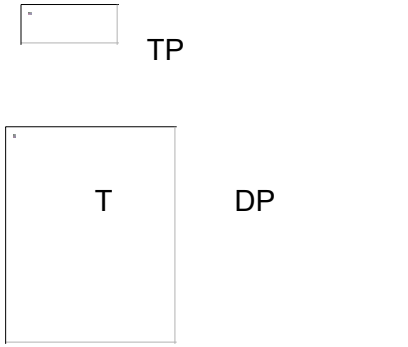
If we assume D, A and N all to have [+I] features, T cannot Probe and value case of each head, because T deletes its uninterpretable features after the first instance of Agree.

(17)



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No matter what the Probe is, it can only enter into a single Agree operation, necessarily leaving other heads without case or feature agreement or both.

- Carstens (2001) does not comment on the case relation between T and N, nor on possible case agreement within the DP.

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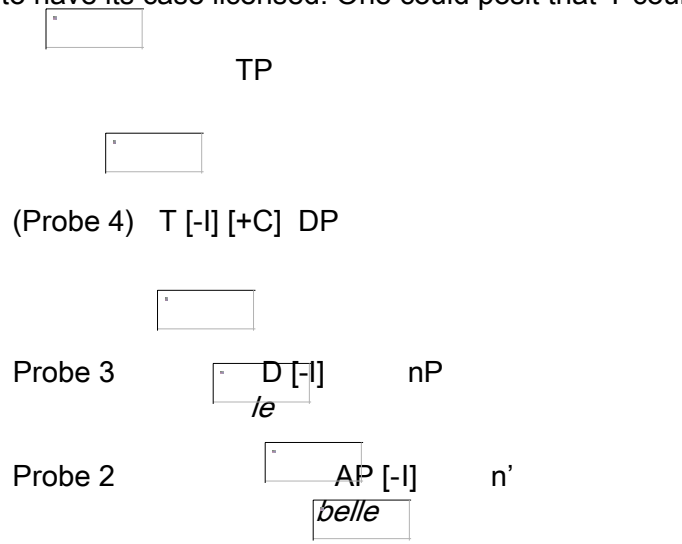
She proposes that D, A and Poss have [-I] features and successively Probe N for feature agreement (18). (Surface word order of (16) is accounted for by N raising within the DP.)

- Assuming some version of the Case Filter, *case*
needs to have its case licensed. One could posit that T could Probe N (13), although this is not considered by Carstens (2001).

(18)



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Carstens (2001) does allow for the features of N to be effectively spread through the DP, and with the assumed Probe 4, would allow for case licensing of the N as well.

➽

For languages (like Russian) with richer morphological marking in the DP, the question of how feature and case agreement obtains is still unaddressed.

Section 5. Probe-Goal during the Phase

- Keep in mind the goal: 4 lexical items (verb, determiner, adjective, noun) must share features
- These 4 items don't need to all agree with each other…
- …as long as a single item is agreeing with all others

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Given the proposal of phases in Chomsky (2001), I propose a modified form of Agree in which a Probe may continue to value case until the end of the phase.

- At phase end, the features that have been valued in that phase are Spelled Out and barred from future Agree operations.

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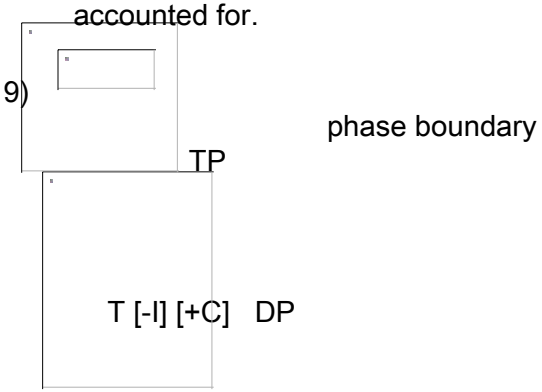
Given my hypothesis that T enters into Agree with each case-marked head to value abstract Case, both case and ϕ-feature uniformity are accounted for.

(19)



boy

- This proposal crucially relies on the nominal heads of the DP entering the derivation with [+I] features.

Section 6. Derivational Example

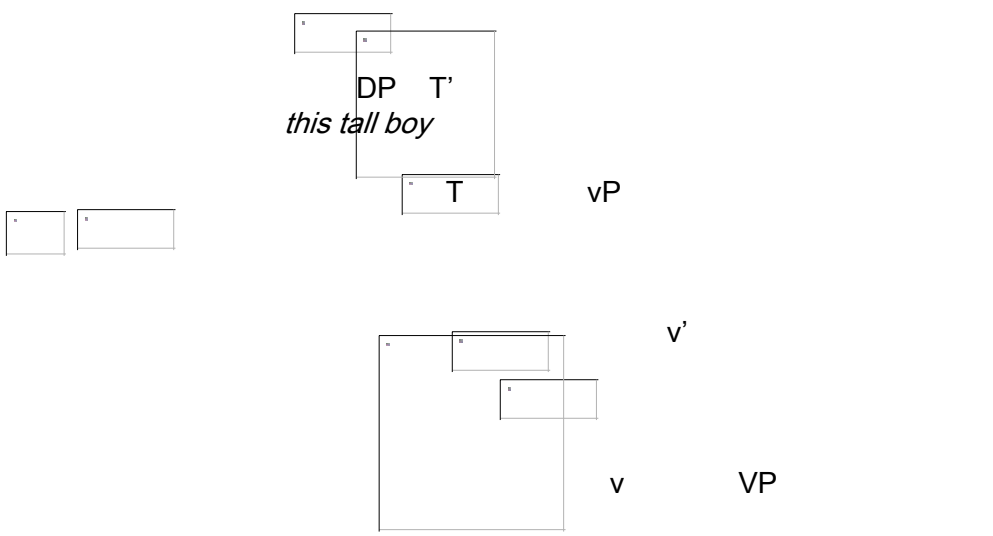
(20)

эт-от	высок-ый	мальчик	вид-ит	эт-у
et-ot	vysok-yi	malčik	vid-it	et-u
this-M.SNG.NOM	tall-M.SNG.NOM	boy-M.SNG.NOM	see-3.SNG	this-F.SNG.ACC

красн-ую	книг-у
krasn-uyu	knig-u
red-F.SNG.ACC	book-F.SNG.ACC

'This tall boy ~~sees~~ this red book.'

(21)



- Agree is powerful enough to license Case and uniform features to any number of case-marked heads within a DP, but prevents it from applying to DPs that entered into Agree in an earlier phase.

- This is a more economical approach than Carstens (2001) when considering the Russian DP. Although feature agreement in Russian could be accounted for under Carstens' hypothesis, case agreement would not. Additional mechanisms would be necessary to account for commonality of case (such as T entering into successive case assignment relations with each nominal head in the DP).

- By eliminating the Agree relation within the DP entirely, case and feature agreement can still be accounted for if the Probe serves as the common element that ensures feature agreement.

➠ Conclusion: I have presented one possible means of porting the Probe-Goal hypothesis to the nominal domain. While Carstens (2001) has attempted to unify the Agree relation between the clausal and nominal domains, her proposal fails to account for case uniformity within the Russian DP.

➠ Unlike other hypotheses that account for agreement in the clausal and nominal domains with two distinct proposals, the present proposal allows for a single Agree operation within both domains.

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