

The role of D-features and case for clausal arguments

An account from Icelandic

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Clausal nominalization

- Clausal arguments often need to be preceded by an overt determiner (see clausal subjects below)
- Structurally speaking, the clausal argument is embedded into a DP projection (Roussou (1991); Knyazev (2016); Rosenbaum (1967); Þráinsson (1979); Hartman (2012) Pietraszko (2019) among many others)
- DP-layer explained in multiple ways: e.g. case assignment (Roussou (1991); Knyazev (2016)), factivity (Þráinsson (1979); cf. Kastner (2015)), referentiality (e.g. De Cuba and Ürögdi (2010))

- (1) [**(To)** oti efighe] apodhiknii tin enohi tis
the_{NOM} that left proves the_{ACC} guilt her
'The fact that she left proves her guilt' (M. Greek, Roussou (1991))
- (2) [**(In)** ke Maryam raft] ma'alum e
this_{NOM} that Maryam left clear is
'It is clear that Maryam left' (Persian, Hartman (2012))

Clausal nominalization

- Clausal objects: certain verbs tend to take CPs as objects or CPs embedded into a DP projection, see e.g. (Kastner (2015)):
 - (3) volunteer stance: I **think/believe**/... [CP that he went there]
 - (4) factive: Mary **knows/remembers**/... [DP \emptyset [CP that the money was still there]]
 - (5) response stance: I **agree/accept**/... [DP \emptyset [CP that this is not the right solution]]
- Also the distinction between *hope*-verbs and *capture*-verbs in Alrenga (2005), Takahashi (2010):
 - (6) * [That the Giants would win the World Series] was hoped by most baseball fans -> CP
 - (7) [That these nouns behave differently] is captured by this formulation of the rule -> DP

First data from Icelandic

- What do the Icelandic data tell us in relation to clausal nominalization?
- Clausal subjects in Icelandic in pre-verbal position are **systematically pronounless** when structural case is assigned, in contrast with lexical case (the determiner is the distal demonstrative *það* ('that')):

(8) [(**Það**) að ég sé ríkur] breytir öllu því sem þú hélt
that_{NOM} that I am rich changes all that which you thought
um mig
about me

'The fact that I am rich changes everything you thought about me'

(9) [*(**Þess**) að hann væri farinn] varð ekki vart
that_{GEN} that he was gone became not noticed

'The fact that he left went unnoticed'

First data from Icelandic

- In Spec,T, clausal arguments must be nominalized regardless of case. This is also systematic:

(10) a. [(**Pað**) að ég sé ríkur] breytir öllu því sem þú
that_{NOM} that I am rich changes all that which you
hélst um mig
thought about me

‘The fact that I am rich changes everything you thought about me’

b. Breytir [***(pað)** að ég sé ríkur] öllu því sem þú
changes that_{NOM} that I am rich all that which you
hélst um mig?
thought about me

‘Does the fact that I am rich change everything you thought about me?’

First data from Icelandic

- Icelandic seems to make no real distinction between volunteer stance, factive and response stance verbs when structural case is assigned, since the determiner can surface with all categories:

- (11) Ég held (**það**) að við eigum að selja bílinn
I think that_{ACC} that we have to sell car.the
'I think we have to sell the car'
- (12) Ég harma (**það**) að ég sé ekki búinn að senda
I regret that_{ACC} that I am not finished to send
umsóknina
application.the
'I regret the fact that I did not send my application'
- (13) Karl samþykkir (**það**) að einhver annar stjórnir
Karl_{NOM} accepts that_{ACC} that someone else leads
fundinum
meeting.the
'Karl accepts the fact that someone else leads the meeting'

First data from Icelandic

- There is no distinction either between *hope*-verbs and *capture*-verbs:

(14) Þeir vona (**það**) að liðið sigri
they hope that_{ACC} that team.the wins
'They hope that the team wins'

(15) Umræðan endurspeglar (**það**) að lögin eru ekki
discussion.the reflects that_{ACC} that laws.the are not
almenn lög
general laws
'The discussion reflects the fact that the laws are not general laws'

- All of these verbs can take a DP, e.g. the demonstrative *þetta* ('this')

First data from Icelandic

- Does this mean that nominalized clauses are always possible in Icelandic? Not really
- In caseless positions, they are impossible exactly like non-clausal DPs (perhaps nominalized clauses are automatically allowed as soon as a DP is a possible complement):

- (16) a. *Ég ætla **þetta**
I intend this
Lit.: 'I intend this'
- b. Ég ætla [(***það**) að fara í bíó]
I intend that_{ACC} to go in cinema
'I intend to go to the cinema'
- (17) a. Ég heyrði **þetta**
I heard this_{ACC}
'I heard this'
- b. Ég heyrði [(**það**) að hann væri farinn]
I heard that_{ACC} that he were gone
'I heard that he left'

Claim

- The presence of nominalized or pronounless clauses in Icelandic is mainly determined by D-features and case assignment:
 - **D-feature checking:** if a D-feature must be checked by the relevant argument, that argument must be a DP (nominalized clause). This applies to all arguments that surface in Spec,T and Spec,Appl in Icelandic
 - **Case assignment:** Pronounless clauses (which I consider to be CPs) are always allowed with structural case but not with lexical case (apart from some exceptions). If they can not check lexical case features, probably structural case does not provide case features at all (possible consistency with *Dependent Case Theory*, see Marantz (2000) and much subsequent work)
- In progress: verbs that exceptionally accept pronounless clauses even if they assign lexical case could have a caseless selectional pattern

Properties of Icelandic

- V2-language
- *það* ('that') precedes clausal arguments and can be inflected per gender, number and case (*það* is a neuter inflectional form)
- *það* has generally no impact on the meaning of the sentence (but it can also be adopted as a discourse anaphor (Práinsson (1979)))
- Rich inflectional system with four cases (nominative, accusative, dative, genitive)
- Inflectional forms of *það*: **það**_{NOM}, **það**_{ACC}, **því**_{DAT}, **þess**_{GEN}
- *það* can precede *that*-clauses, infinitives, embedded questions, temporal clauses and if-clauses (and also non-clausal PPs expressing time, we will discuss this later)
- *það* can surface before all types of arguments and complements (subjects, direct objects, indirect objects, nominal predicates, prepositional complements, nominal and adjectival complements).
- We are going to focus in this talk on **subjects, direct objects and indirect objects**

Pronounless clauses and structural case

- Pronounless clauses systematically show up in instances of structural case assignment (outside Spec,T)
- This pattern neutralizes all possible semantic influences from e.g. verbs
- Could these arguments be CPs or are they for example DPs where case can remain unrealized (e.g. Knyazev (2016))?

(18) [(**Pað**) að ég sé ríkur] breytir öllu því sem þú hélt um mig
that_{NOM} that I am rich changes all that which you thought about me
'The fact that I am rich changes everything you thought about me'

(19) Björk harmaði [(**pað**) að rannsakendurnir sendu ekki umsóknina]
Björk_{NOM} regretted that_{ACC} that researchers.the sent not application.the
'Björk regretted it that the researchers didn't submit their application'

(20) Nánast öllum í hópnum leiðist [(**pað**) að Karl sé alltaf
nearly everyone_{DAT} in group.the is bored that_{NOM} that Karl_{NOM} is always
sá eini sem talar á þessum fundum]
that one who speaks in these meetings
'Almost everyone in the group find boring that Karl is always the one who

Extraction

- Extraction is possible when *það* does not surface (see Wood (2012); Práinsson (1979); Ingason (2018)):

- (21) a. Þeir ákváðu [(**það**) að heimsækja Ólaf]
they decided that_{ACC} to visit Ólafur_{ACC}
'They decided to visit Ólafur'
- b. Ólaf_i ákváðu þeir [(***það**) að heimsækja _____i]
Ólafur_{ACC} decided they that_{ACC} to visit
- (22) a. Ég gleymdi [(**því**) að hitta Söru]
I forgot that_{DAT} to meet Sara_{ACC}
'I forgot to meet Sara'
- b. Söru_i gleymdi ég [(***því**) að hitta _____i]
Sara_{ACC} forgot I that_{DAT} to meet

Remarks

Pronounless arguments are not extraction islands. If they were DPs, no extraction should be allowed regardless of *það*. CP complements must therefore exist.

Nominative clausal subjects

- As said, pronounless subjects are allowed in Spec,C, but not in Spec,T (this also happens in Mainland Scandinavian languages, see e.g. Josefsson (2006:footnote 12)):

- (23) a. [(**Pað**) að ég sé ríkur] breytir öllu því sem þú
that_{NOM} that I am rich changes all that which you
hélst um mig
thought about me
'The fact that I am rich changes everything you thought
about me'
- b. Breytir [*(**pað**) að ég sé ríkur] öllu því sem þú
changes that_{NOM} that I am rich all that which you
hélst um mig?
thought about me
'Does the fact that I am rich change everything you thought
about me?'

- If pronounless clauses were DPs, one would expect them to surface in Spec,T, assuming that structural case is compatible with them

Clausal subjects with lexical case

- Two additional patterns observable in clausal subjects
- When lexical case is assigned to subjects, pronounless arguments are entirely ruled out:

- (24) a. [***P**ess) að hann væri farinn] varð ekki vart
that_{GEN} that he was gone became not noticed
'The fact that he left went unnoticed'
- b. Varð [***p**ess) að hann væri farinn] ekki vart?
became that_{GEN} that he was gone not noticed
'Did the fact that he left go unnoticed?'

Remarks

Pronounless clausal subjects are incompatible with lexical case features.

If-clauses as nominative subjects

- If the clausal subject can not bear a θ -role, it must be nominalized even if nominative case is assigned:

- (25) a. Eyðileggur [***(**það**)** ef hann kemur] allt planið?
ruins that_{NOM} if he comes all plan.the
'Does it ruin all the plan if he comes?'
- b. [***(**Það**)** ef hann kemur] eyðileggur allt planið
that_{NOM} if he comes ruins all plan.the
'It ruins all the plan if he comes'

Remarks

The fact that the if-clause must be nominalized even if it surfaces in Spec,C and nominative case is assigned suggests that a silent DP projection embedding a CP might not be an option -> either fully realized DPs or bare CP arguments exist

CPs and Spec,T

- How can CPs be subjects if they are unable to surface in Spec,T? Do we have to follow Koster (1978) and consider subjects topics? If yes, what is the subject then?
- Option 1: An **invisible expletive** is the subject in Spec,T. Icelandic has a topic expletive *það* which can be realized only before the finite verb:¹

(26) **Það** rignir / Rignir (***það**)?
it rains / rains it
'It is raining / Is it raining?'

¹The overt determiner *það* is homophonous with the expletive, so one might wonder whether the determiner can actually be a personal pronoun rather than a demonstrative pronoun. There is much evidence against this possibility, see Garofalo (forthcoming).

- This option is problematic in Mainland Scandinavian languages since the expletive *det* ('it') must be realized after the finite verb:

(27) * [Att jag är rik] förändrade **det** ditt omdöme om mig
that I am rich changed it your opinion about me
Meant: 'The fact that I'm rich changed your opinion about me'
(Swedish)

CPs and Spec,T

- Option 2: Movement of a CP from Spec,Voice \rightarrow Spec,T
 \rightarrow Spec,C
- This option maintains that CPs are subjects since they reach Spec,T. However:
 - How can the D-feature in T be checked?
 - How can the CP be moved in the first place?
- Possible solutions? (Still work in progress):
 - Does the CP argument leave a DP-copy in Spec,T?
 - In Shahar (2008), English *it* is an underspecified NP-copy of a moved clausal argument
 - An unrealized DP-copy in Spec,T?
 - Movement justified by θ -role? Possible θ -feature in T triggering movement of CPs and DPs?

Clausal objects - Lexical case

- Verbs assigning lexical case tend to have a mandatory pronoun:

- (28) a. Ég fagna [***(því)** að ég skuli hafa hætt við flugið]
I rejoice that_{DAT} that I shall have cancelled flight.the
'I am happy that I have cancelled my flight'
- b. Þetta samsvarar [***(því)** að bókanirnar hafa aukist um
this corresponds that_{DAT} that bookings.the have increased about
30%]
30%
'This corresponds to the fact that the bookings have by 30%'
- c. Ég sakna [***(þess)** að María skuli ekki vera hér]
I miss that_{GEN} that María_{NOM} shall not be here
'I miss it that María is not here' (from Þráinsson 1979:230)
- d. Verkefnastjórinn krafðist [***(þess)** að skýrslunni yrði
project-manager.the demanded that_{GEN} that report.the became
skilað strax]
submitted immediately
'The project manager demanded that the report was submitted immediately'

Clausal objects - Lexical case

- There is, however, a subset of verbs which assign lexical case but can select pronounless complements:

- (29) a. Sara spáði [(**því**) að Gísli
Sara_{NOM} predicted that_{DAT} that Gísli_{NOM}
myndi sigra]
would win
'Sara predicted that Gísli would win'
- b. Lárus spurði [(**þess**) hvort María
Lárus_{NOM} asked that_{GEN} whether María_{NOM}
væri farin]
were gone
'Lárus asked whether María was gone'

- How can we explain the difference between verbs like *fagna* and *spá*?

Práinsson and the factivity hypothesis

- Práinsson (1979), following Kiparsky and Kiparsky (1971), proposes that *fagna*-verbs require *það* because they are emotive factives as they select more structurally complex arguments. *Spá*-verbs are non-factives, so they can select simpler arguments, i.e. CPs
- But there are also verbs like *harma* ('regret') and many other emotive factives selecting PPs where the pronoun is optional:

(30) Ég harma [(**það**) að ég skuli hafa hætt við flugið]
I regret that_{ACC} that I shall have cancelled flight.the
'I regret it that I have cancelled my flight'

(31) Allardyce er svekkur yfir [(**því**) að hafa fengið sparkið]
Allardyce_{NOM} is annoyed over that_{DAT} to have got kick.the
'Allardyce was annoyed about the fact that he was fired'

Þráinsson and the factivity hypothesis

- Also verbs like *krefjast* ('demand') require *það* even if they are not emotive factives

(32) Verkefnastjórinn krafðist [*(**þess**) að skýrslunni yrði
project-manager.the demanded that_{GEN} that report.the became
skilað strax]
submitted immediately
'The project manager demanded that the report was submitted
immediately'

- The factivity hypothesis has various exceptions to the rule.

það preceding prepositional phrases

- It is possible that *spá*-verbs have a caseless selectional pattern
- Similarities with PPs: *það* can surface before PPs expressing time:

(33) Reglurnar [frá (**því**) [PP í fyrra]] hafa breyst
Rules.the from that_{DAT} last year have changed
'The rules from last year have changed'

(34) Verðin eru ennþá að lækka [frá (**því**) [PP í júlí]]
prices.the are still to decrease from that_{DAT} in July
'The prices are still decreasing since July'

Remarks

Both PPs and CPs are resistant to case assignment and are nominalizable by *það*. The absence of *það* before PPs in the examples here above suggests that the PP complement could be selected caselessly. If this kind of pattern exists, we wonder whether it might be extended to clausal objects of *spá*-verbs as well. It is not clear, however, why *fagna*-verbs are not able to select complements caselessly.

Further evidence

- Nominalized passivized objects of *spá*-verbs can take a default *það* without case assignment, while *fagna*-verbs are not allowed to do so:

- (35) a. Sara spáði [(**því**) að Gísli myndi sigra]
Sara_{NOM} predicted that_{DAT} that Gísli_{NOM} would win
'Sara predicted that Gísli would win'
- b. [(**Það/Því**) að Gísli myndi sigra] var spáð
that_{DEF/DAT} that Gísli_{NOM} would win was predicted
- (36) a. Ég fagnaði [*****(**því**) að hann skyldi hafa útskrifast]
I rejoice that_{DAT} that he should have graduated
'I rejoiced about the fact the he graduated'
- b. [**Því** að hann skyldi hafa útskrifast] var fagnað
that_{DAT} that he should have graduated was rejoiced
- c. * [(**Það**) að hann skyldi hafa útskrifast] var fagnað
that_{DEF} that he should have graduated was rejoiced

Clausal indirect objects

- Only dative and accusative case are possible
- *Það* is always mandatory

(37) a. Ég veitti [***(því)** að Jón var að gráta] enga
I gave that_{DAT} that Jón_{NOM} was to cry no_{ACC}
athygli
attention_{ACC}

‘I paid no attention to the fact that Jón was crying’

b. Þessi ritgerð svipti [***(það)** að Konrad skyldi
this essay deprived that_{ACC} that Konrad_{NOM} should
hafa fórnað sér] öllu vægi í
have sacrificed himself all_{DAT} importance_{DAT} in
sögunni
story.the

‘This essay deprived the fact that Konrad sacrificed himself of all its importance in the story’

Clausal indirect objects

- When the accusative indirect object is passivized, it takes nominative case, as normally happens with transitive constructions (this might be the structural case normally assigned to objects (see e.g. Wood (2015))):

(38) Lögreglan svipti **hana** ökuskrteininu
police.the confiscated her_{ACC} driving license.the_{DAT}
'The police confiscated her driving license'

(39) Var **hún**/***hana** svipt ökuskrteininu?
was she_{NOM}/***ACC** confiscated driving license.the_{DAT}
'Was her driving license confiscated?'

Passivization and Spec,C

- Indirect objects must be nominalized in Spec,Appl and in Spec,T after passivization, but not in Spec,C:

- (40) a. Pessi ritgerð svipti [**(pað)** að Konrad skyldi hafa fórnað
this essay deprived that_{ACC} that Konrad_{NOM} should have sacrificed
sér] öllu vægi í sögunni
himself all importance in story.the
'This essay deprived the fact that Konrad sacrificed himself of all its
importance in the story'
- b. Var [**(pað)** að Konrad skyldi hafa fórnað sér] svipt öllu
was that_{NOM} that Konrad_{NOM} should have sacrificed himself deprived all
vægi í sögunni?
importance in story.the
'Was the fact that Konrad sacrificed himself deprived of all its importance
in the story?'
- c. [**(Pað)** að Konrad skyldi hafa fórnað sér] var svipt öllu
that_{NOM} that Konrad_{NOM} should have sacrificed himself was deprived all
vægi í sögunni
importance in story.the
'The fact that Konrad sacrificed himself was deprived of all its importance
in the story'

Passivization and Spec,C

- A CP argument is probably ruled out by a D-feature in Appl
- Spec,T and Spec,Appl are filter positions for CPs. But if the CP can escape the D-feature restrictions by moving to Spec,C, it is still grammatical
- Dative indirect objects, by contrast, must be DPs in Spec,C as well:

(41) [*(**Pví**) að Jón var að gráta] var engin athygli veitt
that_{DAT} that Jón was to cry was no attention given
'No attention was paid to the fact that Jón was crying'

Conclusions

- Icelandic clausal arguments are DPs and CPs
- The distribution of these two argument types is primarily affected by case and D-features
- Structural case, differently from lexical case, does not provide any case feature to check and is therefore compatible with CP arguments, which are resistant to case assignment
- Spec,T and Spec,Appl filter out CPs due to their D-features
- Open issues for further research: why is there a difference between verbs like *fagna* and *spá*? Why are the former unable to select CPs via caseless pattern? How can CPs be subjects even if they do not surface in Spec,T?

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