

Argument clauses – (how) many of them may be DPs¹

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1. Prologue

(1) **Case Principle**

(cf. Chomsky & Lasnik 1995: 561)

Every realised DP/ NP must be assigned abstract case. A chain is visible for Θ-marking if it contains a case-position.

(2) **Case Principle (amended)**

One link of every argument chain is assigned abstract case.

- Central claims:

1. There is a strong correlation between the category of an argument and its position in the sentence.
2. Only arguments bearing abstract case (DPs and PPs) can stand in a canonical argument position which is always also a case position.
3. Only determined nominal arguments (i.e. DPs) can bear abstract case.
4. The options languages have for the distribution of argument clauses depend on the options they have for nominalising, determining and case-marking clauses.

2. Problem

There are many languages characterised as SOV where CPs may occur (and do so predominantly) in postverbal position. Well known examples are Dutch, German, Hindi, Bengali and Farsi (Standard Persian) (Examples from Öhl & Lotfi, *to appear*).

(3) a. Ich habe die Antwort (ACC) **gewusst**.

(German)

I – have – the – answer – known

'I knew the answer.'

b. Ich habe **gewusst**, [_{CP} dass [_{IP} Katzen Milch mögen]].

(German)

I – have – known – that – cats – milk – like

'I knew that cats like milk.'

(4) a. Man in doxtar rā **didam**.

(Persian)

I – DET – girl – OBJ – saw

'I saw this girl.'

b. Man **midānam** [_{CP} ke [_{IP} gorbehā šir dust dārand]].

(Persian)

I – know – that – cats – milk – like – have

'I know that cats like milk.'

On the other hand, SOV languages like Japanese or Korean do not have such an asymmetry. Both nominal and clausal objects precede the verb. However, CP arguments are overtly case marked the same way as DPs. (Josephs 1976: 313ff; Kaiser & al. 2001: 69)

(5) Mary wa [_{PP} [_{CP} John ga koohii o nomu no] o] mi-ta

Mary – TOP – John – NOM – coffee – ACC – drinks – CMP – ACC – seePST

'Mary saw that John drank coffee'.

¹ This presentation partly builds on joint work with Ahmad R. Lotfi (Isfahan). In addition, I would like to thank Agnes Korn, Horst Lohnstein and Anna Roussou for help, comments and discussion. I also would like to thank Arne Martinus Lindstad, Yuko-Shige Tamura, Svetlana Poljakova and Kristine Uzule for providing native data. All remaining mistakes are my own.

3. Proposal

3.1. Determiners, Case Marking and CPs in Persian and German

Prs. allows preverbal CP objects optionally. It is exactly in this case, however, that it is obligatory to use *in* as a DET preceding the conjunction *ke* (henceforth SUB), and exactly like nominal objects, object sentences may be marked by the particle *rā*. According to Ghemeishi (1997), Lotfi (1998) and Karimi (2003: 91), *rā* is a case marker occurring with specific direct objects. We assume as its categorical status that of a *postposition* (cf. Öhl 2003: 185; cf. Blake 2001: 165), roughly comparing to Jp. *o*.

- (6) a. Man [_{PP} [_{DP} **in** [_{CP} **ke** [_{IP} gorbehā šir dust dārand]]]] **rā**] midānam. (cf. Öhl & Lotfi, *to appear*)
 I – DET – SUB – cats – milk – like – have – ACC – know
 'I know that cats like milk.'
 b. *Man [_{CP} **ke** [_{IP} gorbehā šir dust dārand]]] midānam.
 c. *Man [_{DP} **in** [_{CP} **ke** [_{IP} gorbehā šir dust dārand]]]] midānam.

A DET is also obligatory with a clause in subject position:

- (7) [_{DP} (***In**) [_{CP} **ke** [_{IP} gorbehā šir dust dārand]]]] tabi'l ast. (cf. Öhl & Lotfi, *to appear*)
 DET – SUB – cats – milk – like – have – natural – is
 'That cats like milk is natural.'

The following examples show that nominal arguments in Persian are marked the same way as the sentential arguments above:

- (8) a. Man **in** doxtar **rā** didam. (cf. Öhl & Lotfi, *to appear*)
 I – DET – girl – ACC – saw
 'I saw this girl.'
 b. **In** pesar to **rā** did.
 DET – boy – you – ACC – saw.
 'This boy saw you.'

The Persian SUB *ke* is optional if (and only if) the CP follows the verb.

- (9) Man **midānam** [_{CP} (**ke**) [_{IP} gorbehā šir dust dārand]]. (cf. 4b)
 I – know – that – cats – milk – like – have
 'I know that cats like milk.'

3.2. Persian *in*: DET or Pronoun?

In more traditional accounts, Prs. *in* is regarded as a demonstrative pronoun that is the syntactic object of the main clause predicate, whereas the CP introduced by *ke* has an attributive function. Compare:

- (10) I know that, that cats like milk.
 (11) To **in** pesar **rā** didi, man **ān** doxtar **rā** didam. (cf. Öhl & Lotfi, *to appear*)
 you –this – boy – ACC – saw – I – that – girl – ACC – saw
 'You saw this boy and I saw that girl.'

Therefore, these DETs have been classified as demonstratives in traditional grammar. Since they can be used as demonstrative pronouns, too, preverbal CPs are often regarded as attribute clauses that are adjoined to a NP headed by *in*, which is then categorised as a deictic pronoun.

! Persian *wh*-object-clauses seem to show that this cannot be the whole picture.

- (12) *Man **in** če ke to maxfi mikoni **rā** midānam. (cf. Öhl & Lotfi, *to appear*)
I – DET – *what* – CMP – *you* – *hide* – *do* – ACC – *know*
'I know what you're hiding'

- (13) a. Man **ān** če (ke) to maxfi mikoni **rā** midānam. (cf. Öhl & Lotfi, *to appear*)
I – DET – *what* – SUB – *you* – *hide* – *do* – ACC – *know*
b. Man **ān** če **rā** ke to maxfi mikoni midānam.
'I know what you're hiding'

! **īn** and **ān** are definite determiners specific to argument clauses.

! **ān** in (13) is a DET specified for the selection of a *wh*-feature.

- (14) Man **ān** čis-i **rā** midānam ke to maxfi mikoni. (cf. Öhl & Lotfi, *to appear*)
man **ān** [che, **rā** [_C [_{IP} to _t maxfi mikoni]]] **rā** midānam (cf. Öhl & Lotfi, *to appear*)

3.3. Different kinds of Complementisers

- (16) Credo [_{ForceP} [_{Force} che [_{TOPP} domani, [_{FocP} questo, [_{TopP2} a Gianni [_{FinP} [_{IP} gli dovremo dire]]] (cf. Rizzi 1997: 295)
think₁stsg – CMP – tomorrow – this – to – John – himDAT – must₁stpl-FUT – sayINF

- (17) a. *Credo, a Gianni, **che** avrebbero dovuto dirgli la verità. (Italian; cf. Rizzi 2001: 289)
think-1stsg – DAT – G. – that – AUX-PQP-SUBJ-3.pl – must-PII – say-INF – DET – *truth*
'I think that they should have told the truth to John.'
b. Non so, [_{ForceP} [_{TopP} a Gianni [_{IntP} [_{Int} **se** [... [_{IP} avrebbero potuto dirgli la verità]...]] (cf. Rizzi 2001: 289)
NEG – know-1stsg – DAT – G. – if – AUX-PQP-SUBJ-3rdpl – can-PII – say-INF – DET – *truth*
'I do not know if they could have told the truth to John'.

! *che* is a mere SUB.

- (18) Un uomo **che** ritengo potergli parlare. (Italian; Rizzi 1997: 310)
a – man – SUB – believe-1stsg – can-to – talk
'A man of whom I believe that you can talk to him.'

- The Germ. CMP *dass*, which is specified for declarative argument clauses, cannot introduce a relative clause, neither can it, at least in the standard, an adverbial clause.²

- (19) a. Der Mann, **den** ich sehe. (German)
the – man – who – I – see
b. *Der Mann **dass** ich sehe.
the – man – SUB – I – see

- Similar observations have been made by Alexiadou (1997) and by Roussou (2000), who compared the Greek SUB *pou* to the CMPs *oti* and *an*.

- (20) a. Nomizo [_{CP} [_{ForceP} **oti** [den [_{FinP} tha [_{IP} to agorasi]...]] (cf. Roussou 2000: 66)
think-1stsg – COMP – NEG – FUT – ObjCl – buy-3rdsg
'I think he won't buy it.'

² Note that Ohg. *thaz* was a SUB which could introduce all kinds of adverbial clauses. ModG. developed specific CMPs, but at least some varieties inherited the use of *dass* in clauses other than argument and attributive clauses (cf. Öhl 2009).

b. Anarotjeme [CP [ForceP **an** [FinP tha [IP to agorasi]...]] (cf. Roussou 2000: 79)
wonder-1stsg – COMP – FUT – ObjCl – buy-3rdsg

'I wonder whether he will buy it.'

- Only *oti* but not *pou* can follow a topic. Only *pou* but not *oti* can introduce relative clauses.

(21) Nomízo [CP [TopP (ta míla) [ForceP **óti** [TopP (ta míla) den [FinP **tha** to [IP fai o Pétros]...]] think-1.sg – DET – apples – COMP – NEG – FUT – ObjCl – eat-3rdsg – DET – Peter

'I do not think Peter will eat those apples.'

(22) a. *xarika [to petros [CP **pou** [IP efevye]...]] (cf. Nicholas 1998: 60)
happy-PRET-1stsg – DET – Peter – COMP – leave-IMPERF

b. xarika [CP **pou** [TopP [ForceP [IP efevye to petros]...]]

'I was happy that Peter was leaving'.

(23) Thelun éna voitho [(^{*}ta anglika) **pou** ✓(ta anglika) **na** (ta) milai kala].
wollen – einen – Assistenten – SUB – das – Engl. – SBJ – ObjCL – spricht – gut
'Sie wollen einen Assistenten, der gut Englisch spricht.'

- Whereas *oti* is a genuine declarative CMP, *pou* is a mere SUB.

(24) a. Fovame **óti/ pou** efije. (cf. Roussou 2005)
fear-1stsg – COMP – left-3rdsg

b. Su ipa **óti/ *pou** aghorasa aftokinito.
I – told – COMP – bought-1stsg – car

c. Su ipa **pou** aghorasa aftokinito?
I – told – COMP – bought-1stsg – car

'Did I tell you that I bought a car?'

(25) a. **pou:** subordination/ relative marker (cf. Roussou 2000: 65, 79)
b. **oti, an:** complementisers indicating clause mood (decl., interr.)
c. **as:** particle indicating clause mood (imperative)
d. **den, min:** negative particle
e. **na, tha:** modal particles (subjunctive, future)

(26) [c **pou** [Topic/ Focus [Force **oti/ an/ na/ as** [Neg **den/ min** [Fin **tha/ t_{na/as}** [IP (clitics) V . . .]...]] (Roussou 2000: 79)

1. There are no SUBs in matrix clauses

2. Syntactically embedded clauses do not have illocutionary force.

⇒ These are arguments for the *differential hypothesis* that the 'C-Domains' of matrix clauses and syntactically embedded clauses do not have the same structure.

(27) **Syntactic Structure of the left periphery (C-Domain)**

matrix: [ForceP [hanging topic [scene setting adv. [left dislocation [list interpr. [contr.foc1 [contr.foc2 [inform. foc [FinP . . .]]]]]]] (Beninca&Poletto 2004: ex. 58)

embedded: [CP **SUB** [... [ModP **CMP/PTC** [... [Neg [FinP . . .]]]]] (Öhl 2004: 165; cf. Roussou 2000: 79)

All these assumptions are born out by Prs. (Öhl & Korn 2006: 139ff).

(28) kesī **ke** to dīde-ī emrūz raft. (Persian; Lazard 1992:229)
someone – SUB – you – have -seen – today – went

'Someone that you saw went away today.'

(29) a. nazdīk **ke** āmad ū-rā šenāxtam. (Lazard 1992:238)
near – SUB – came.3SG – s/he-FOC – recognised.1SG

'When s/he came near I recognised her/him.'

- b. raftam **ke** ān ketāb-rā bexaram. (Lazard 1992:218)
went.1SG – SUB – DEM – book-FOC – buy.1SG
'I went to buy the book.'

- Use of *ke* in interrogative embedded clauses that are marked by an additional interrogative particle:

- (30) a. ū porsīd [CP **ke** [ModP **āyā** [FinP [IP man zabānšenāst xānde būdam]...]]] (Öhl 2004: 165)
he/she – asked – SUB – INT – I – linguistics – studied-had
b. He asked [CP [ModP **if** [FinP [IP I studied linguistics] ...]]]

- The most unmarked clause type *declarative* is presumably chosen by default.

- (31) a. (Man) midānestam [(**ke**) [pesar zabanšenāsi xāhad xānd]]
I - knew - SUB - boy - linguistics - FUT - studied
'I knew that the boy would study linguistics.'

3.4. On the semantics of CMPs

- (32) $\lambda p \lambda q [[OP_{w,t} : H(w_0) \wedge p(w,t)] q(w,t)]$ (Lohnstein 2005: 124)

The formula in (32) is a tripartite quantificational structure:

- $H(w_0) \wedge p(w,t)$ = restriction for the quantification over the proposition *q*
- $OP_{w,t}$ = quantifier over world- or time variables
- H = modal basis in the actual world w_0 (*epistemic, doxastic, bouletic, deontic, factual*).

- (33) ***The Logical Parameters of Clause Connectives*** (Lohnstein 2005: 124)

- A. the quantificational force of the operator $OP_{w,t}$ (universal vs. existential quantification)
- B. the types of the variables: world vs. time
- C. the specification of the background $H(w)$
- D. intensionalisation vs. extensionalisation of the propositions involved
- E. further lexical specifications of the connective

- (34) a. Egon lacht, falls Paul arbeitet. (conditional)
E. – laugh-3rdsg – COND – P. – work-3rdsg
b. $[\forall w: H(w_0) \wedge arbeit(w, Paul)] lach(w, Egon)$
c. H epistemic: $H^{ep}(w) = \{p | p \text{ is known in } w\}$
d. 'In all epistemically accessible worlds where Paul is working, Egon is laughing.'
e. SF(/falls/): $\lambda p \lambda q [[\forall w: H(w_0) \wedge p(w)] q(w)]$

- (35) a. Egon lacht, nachdem Paul gearbeitet hat. (Lohnstein 2005: 126)
E. – laugh-3rdsg – after – P. – work-PCPL(PRF) – AUX-3rdsg
b. $[\exists t_1: H(w_0) \wedge arbeit(t_2, Paul) \wedge (t_2 < t_1)] lach(t_1, Egon)$

- (36) SF(/dass/): $\lambda p \lambda q [[\forall w: w \in p = H(w_0)] q(w) = 1]$

- Use of *dass* means evaluation of the embedded proposition *q* as true before the background of the matrix proposition *q*, e.g.:³

- (37) a. Peter glaubt, dass er recht hat.
P. – believes – that – he – right – has

³ A similar, rather informal proposal was made by Öhl (2004: 167) on the grounds of empirical observations. The logical formulation developed here results from discussions with Horst Lohnstein, who had the same idea on the grounds of theoretical considerations.

- b. $p = \text{is-right}(\text{Peter})$
- c. $H^{\text{DOX}}(x, w_0) = \{p \mid \text{believe}(x, p)\}$
- d. $\Rightarrow q = \lambda p. \text{believe}(\text{Peter}, p)$

- (38) a. Peter hofft, dass er recht hat.
P. – hopes – that – he – right – has
- b. $p = \text{is-right}(\text{Peter})$
 - c. $H^{\text{BOUL}}(x, w_0) = \{p \mid \text{hope}(x, p)\}$
 - d. $\Rightarrow q = \lambda p. \text{hope}(\text{Peter}, p)$

- (39) A propositional operator Op in a given context c is *nonveridical* iff it holds that: $\llbracket Op p \rrbracket_c = 1 \rightarrow \llbracket p \rrbracket_c = 1$
 (cf. Giannakidou 1998: 106ff)

3.5. V2 and CMP-drop

- (40) a. Jeder weiß, $[\text{ForceP} \text{ Katzen mögen Milch}]$.
everybody – knows – cats – like – milk
- b. $*[\text{ForceP} \text{ Katzen mögen Milch}], \text{weiß jeder.}$
 - c. $[\text{CP} \text{ Dass Katzen Milch mögen}], \text{weiß jeder.}$
that – cats – milk – like – everybody – knows

- (41) a. Ich habe niemals behauptet, $[\text{ForceP} \text{ das stimmt alles}]$.
I – have – never – claimed – this – is-right – all
 'I never claimed all this is right.'
- b. $*\text{Ich habe } [\text{ForceP} \text{ das stimmt alles}] \text{ niemals behauptet.}$
I – have – this – is-right – all – never – claimed
 - c. $*[\text{ForceP} \text{ das stimmt alles}] \text{ habe ich niemals behauptet.}$
this – is-right – all – have – I – never – claimed

- V2-clauses are always ForcePs and that ForcePs are not licensed as clause internal arguments.⁴

- (42) a. Ich habe $[\text{CP} \text{ dass das alles stimmt}] \text{ niemals behauptet.}$
I – have – that – this – all – is-right – never – claimed
- b. $[\text{CP} \text{ Dass das alles stimmt}] \text{ habe ich niemals behauptet.}$

- The verb in second position and CMPs are in complementary distribution.

- (43) *Ich habe niemals behauptet, [dass das stimmt alles].

V2-argument-clauses are restricted to *epistemic* and *assertive* verbs (cf. Öhl 2003: 165; Meinunger 2004: 315f ; for a list see Vikner 1995: 71).⁵

- (44) a. sie sagen, der Junge studiert Linguistik
they – say – DET – boy – linguistics – studies
- b. ich behaupte, am besten studiert der Junge Linguistik
I – claim – at – best – studies – DET – boy – linguistics
 'I claim it will be the best for the boy to study linguistics.'
 - c. ich glaube, LINGUISTIK studiert der Junge
I – believe – linguistics – studies – DET – boy

⁴ It has been already suggested by Reis (1997) that V2-argument clauses are adjoined rather than inserted in an A-position.

⁵ A similar observation has been made by Poletto (2000: 123ff) for Italian.

- V of other semantic classes (e.g. *factives*, *volitionals*) do not license constituent fronting in embedded clauses, and thus neither V2 nor CMP drop.

(45) a. *sie leugnen, Linguistik studiert der Junge
they – deny – linguistics – studies – DET – boy

b. *ich bezweifle, Linguistik studiert der Junge
I – doubt-on – linguistics – studies – DET – boy

c. *ich bin überrascht, Linguistik studiert der Junge
I – am – amazed – linguistics – studies – DET – boy

d. *ich erwarte, Linguistik studiert der Junge
I – expect – linguistics – studies – DET – boy

e. *ich will, Linguistik studiert der Junge
I – want – linguistics – studies – DET – boy

f. *ich befehle, Linguistik studiert der Junge
I – order – linguistics – studies – DET – boy

(46) a. jeg hevder (at) gutt-en studerer lingvistikk
I – claim – CMP – boy-DET – studies – linguistics

(Norwegian)

b. jeg vet (at) gutt-en studerer lingvistikk
I – know – CMP – boy-DET – studies – linguistics

c. jeg tror (at) gutt-en studerer lingvistikk
I – believe – CMP – boy-DET – studies – linguistics

d. de sier (at) gutt-en studerer lingvistikk
they – say – CMP – boy-DET – studies – linguistics

(47) a. jeg hevder (at) lingvistikk studerer gutt-en
I – claim – CMP – linguistics – studies – boy-DET

b. jeg vet (at) lingvistikk studerer gutt-en
I – know – CMP – linguistics – studies – boy-DET

c. jeg tror (at) lingvistikk studerer gutt-en
I – believe – CMP – linguistics – studies – boy-DET

d. de sier (at) lingvistikk studerer gutt-en
they – say – CMP – linguistics – studies – boy-DET

(48) a. jeg forventer *(at) gutt-en studerer lingvistikk
I – expect – CMP – boy-DET – studies – linguistics

b. jeg er overrasket over *(at) gutt-en studerer lingvistikk
I – am – surprised – about – CMP – boy-DET – studies – linguistics

c. jeg vil *(at) gutt-en studerer lingvistikk
I – want – CMP – boy-DET – studies – linguistics

d. de benekter *(at) gutt-en studerer lingvistikk
they – deny – CMP – boy-DET – studies – linguistics

e. jeg tviler på *(at) gutt-en studerer lingvistikk
I – doubt – on – CMP – boy-DET – studies – linguistics

(49) a. *jeg forventer at LINGVISTIKK studerer gutten

b. *jeg er overrasket over at LINGVISTIKK studerer gutten

c. *jeg vil at LINGVISTIKK studerer gutten

d. *de benekter at LINGVISTIKK studerer gutten

e. *jeg tviler på at LINGVISTIKK studerer gutten

- (50) a. Ja dumaju, [_{CP} (čto) [_{FocP} lingvistiku [_{IP} mal'čik [_I] budet [_{VP} izučat']…]
I – think – CMP – linguistics – boy – will – studyINF (Russian; cf. Öhl 2003: 167)
- b. Ja dumaju, [_{CP} (čto) [_{FocP} lingvistiku [_{IP} v Valentinov den' nikto [_{VP} s'udovol'stviem učit' ne zaxočet]…]
I – think – CMP – linguistics – on – Valentine's – day – nobody – gladly – learn – NEG – want(FUT)-(PRF)
- (51) a. Ja otricaju, *(čto) mal'čik izučajet lingvistiku.
I – deny – that – boy – studies – linguistics
- b. Ja ožidaju, *(čto) mal'čik budet izučat' lingvistiku.
I – expect – that – boy – will – study – linguistics
- c. Ja byl udivljen, *(čto) mal'čik izučajet lingvistiku.
I – was – surprised – that – boy – studies – linguistics
- d. Ja sožaleju, *(čto) mal'čik izučajet lingvistiku.
I – regret – that – boy – studies – linguistics
- e. Ja somnevajus', *(čto) mal'čik izučajet lingvistiku.
I – doubt – that – boy – studies – linguistics
- f. Ja xoču, *(čto-)by mal'čik izučal lingvistiku.
I – want – that – PTC⁶ – boy – studied – linguistics

(52) *John regrets/ expects/ understands Mary studies linguistics.

3.6. Case and Clauses

- German *dass*-clauses are licensed in several clause internal positions. However, they must not be in the canonical argument position where case is assigned.

- (53) a. Ich habe niemals behauptet [_{CP} dass das alles stimmt].
I – have – never – claimed – that – this – all – is-right
- b. [_{CP} Dass das alles stimmt] habe ich niemals behauptet .
- c. Ich habe [_{CP} dass das alles stimmt] niemals behauptet
- d. *Ich habe niemals [_{CP} dass das alles stímmmt] behauptet.
- e. Ich habe niemals [_{DP} so etwas] behauptet.

- C is a *potentially nominal category* (Kayne 1984; cf. Müller&Sternefeld 1990, 37ff)⁷.

(54) ***The NP-Shell Hypothesis***

Müller (1993: 60)

All embedded finite clauses are NPs with a phonetically empty head.

3.7. CASE and DET above CP: revisiting the Persian evidence

- The object clause may follow the verb, and in this case the SUB *ke* is optional.

- (55) a. (Man) fekr ne-mikardam [(**ke**) pesar-e zabanšenāsi bexānad] (cf. Öhl & Lotfi, *to appear*)
I - thought - didn't - SUB – boy-DEF- linguistics – studies
 "I did not think that the boy would study linguistics."
- b. (Man) midānestam [(**ke**) pesar-e zabanšenāsi xāhad xānd]
I - knew - SUB - boy - linguistics - FUT - studied
 "I knew that the boy would study linguistics."

⁶ *by* is a marker of modality that is attached/ clitisised to CMP.

⁷ According to Müller & Sternefeld (1990), this is the reason why *wh*-Fs are generated in SPEC/C, whereas topics are in a deeper SPEC position.

- c. Noam Chomsky miguyad [(ke) góvve-ye zabān-e bashari fetri ast]
N.C. –says – SUB – ability-EZF – languageEZF – human – innate – is
 "Noam Chomsky says (that) the human language faculty is innate."
- d. Skinner mo'taġed bud [(ke) farāgiri-ye zabān šarti šodan-e āškār ast]
Skinner – convinced – was – SUB - acquisition-EZF – language – conditioning – clear – is
 "Skinner was convinced language acquisition was a clear case of conditioning."

- This is also true if the extraposed clause is a *wh-in-situ*-interrogative.

- (56) Man midānam [(ke) to če rā maxfi mikoni]
I – know – you – what – ACC – hide – do (cf. Öhl & Lotfi, *to appear*)

- Three basic distributional options:

- (57) a. Man **pro_i** midānam [_{CP} (ke) zamin gerd-e];
I – know-1stsg-pres – SUB – the – earth – round-is (cf. Öhl & Lotfi, *to appear*)
- b. Man [[_{DP} **in**]_i rā] midoonam [_{CP} ke zamin gerd-e];
I – this – ACC – know – SUB – the – earth – round-is
- c. Man [[_{DP} **in** [_{DP} ke zamin gerd-e]] rā] midānam.
I – DET – SUB – the – earth – round-is – ACC – know-1stsg-pres
 "I know that the earth is round."

- (58) a. Man midānam ([_{CP} ke] [_{VP} gorbehā šir dust dārand]).
I – know – SUB – cats – milk – like – have
 'I know that cats like milk.'
- b. [_{DP} **In** [_{CP} ke [_{VP} gorbehā šir dust dārand]]] tabi'i-ye.
this – that – cats – milk – like – have – natural – is
 'That cats like milk is natural.'
- c. Man [_{DP} **in** [_{CP} ke [_{VP} gorbehā šir dust dārand]] rā] midānam.
I – this – SUB – cats – milk – like – have – ACC – know
 'I know that cats like milk'

- How is case structurally represented?

- (59) a. Man [_{PP} **vase** [_{DP} in [_{CP} ke [_{TP} autobus biyād]]] vā-istādam.
I – for – DET – SUB – bus – comes – wait (cf. Öhl & Lotfi, *to appear*)
 "I'm waiting for the bus to come."
- b. Man [_{PP} **be** [_{DP} in [_{CP} ke u nayāmad]] e'terāz dāram
I – to – DET – that – s/he – not-came – objection – have
 "I have an objection to him/her not showing up."
- c. Man [_{PP} **az** [_{DP} in [_{CP} ke u nayāmad asabāni šodam]]
I – from – DET – that – s/he – not-came – angry – became
 "I got angry as s/he didn't show up."
- d. Man mimānam [_{PP} **tā** [_{DP} in [_{CP} ke [_{TP} to biyāyi]…]]
I – stay – till – DET – SUB – you – come
 "I wait till you come."

- (60) a. I am expecting [_{KP} ACC [_{DP} the bus]]
 b. I am waiting [_{KP} for [_{DP} the bus]]

- (61) a. John asked the time.
 b. John wondered *(about) the time.

- (62) a. John asked what time it was.
 b. John wondered (*about) what time it was.

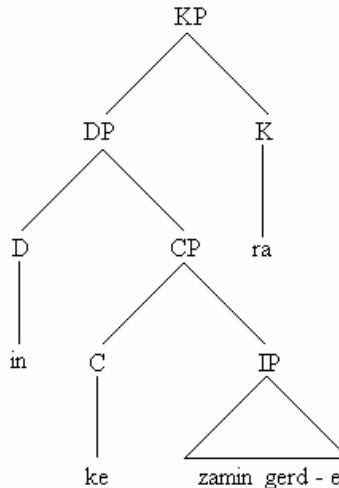
(63) **Generalisation on Case Marking of Clauses**

(cf. Öhl & Lotfi, *to appear*)

Languages that do not have PP-clauses do not case mark CPs overtly.

(64)

(cf. 57)



- (65) *(To) óti spudázi glossología, den vlápti.
 PRON – CMP – *studies* – *linguistics* – NEG – harm

(Greek)

'That he studies linguistics does not harm.'

- (66) a. *(Tas) ka viņš dejooja mums patika
 DET/PRON – SUB/CMP – he – danced – usDAT – amused

(Latvian)

'That he danced amused us.'

- b. *(Tas) ka viņš mācās lingvistiku viņam nekaiš.
 DET/PRON – SUB/CMP – he – studies – *linguistics* – himDAT – NEGharm

'That he studies linguistics does not harm him.'

4. Prosit⁸

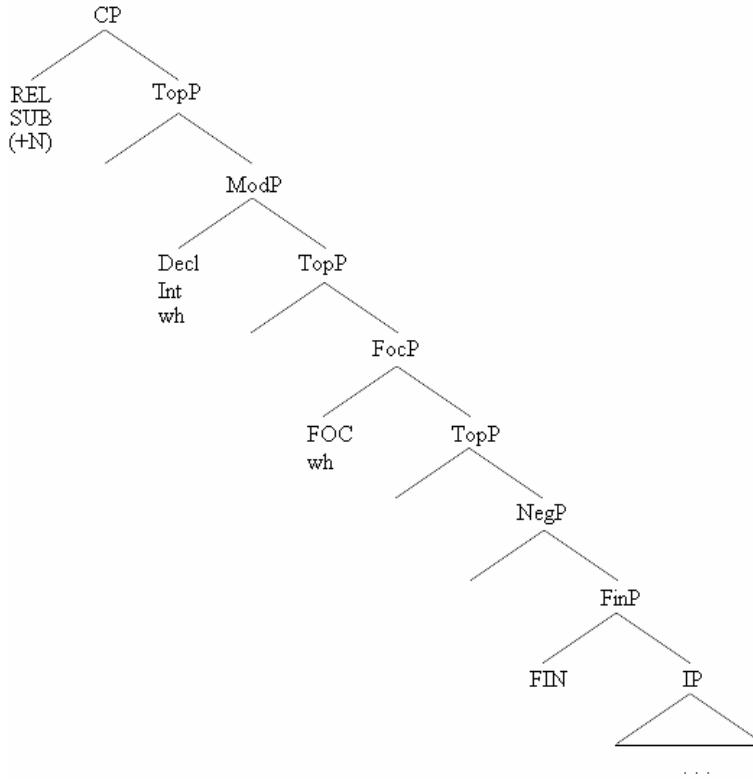
- Only case marked arguments can occur in a canonical A-position, which is a case position (e.g. SPEC/AgrO). If and only if a language is parametrically able to realise the case of clauses, it can have CPs in a canonical argument position.
- Clauses may occur in a preverbal case position if a language parametrically has the option to case mark CPs. If a language realises case overtly by means of adpositions, CPs can be overtly case marked, like in Persian and Japanese. Before the realisation of abstract case, a phrase must be selected by D°. If a language realises D° overtly, case marked CPs also have an overt determiner, like in Persian.
- D° selects phrases of the category [N]. Subjunctions realise a categorial feature [N] of a functional head selecting clausal arguments. Thus, CPs are in fact nominals that can be determined and case marked.
- Languages like German do not have case marking of CPs and cannot have them in the preverbal A-position. However, the CP may move to the topic position in the so called *prefield*, skipping SPEC/AgrO.

⁸ Optative of lat. *prodesse* 'be of use'.

5. ForcePs, which may be logical but are no syntactic complements, are not generated in a Θ -position but in an extraclausal position to the right. CMP-drop-clauses are generated in such a position universally.
6. There are three logical options for structural complements of verbs selecting clauses:
 - Clauses that are arguments of non-assertive verbs project neither ForceP, TopP nor FocP and must be selected by a nominal head.
 - Clauses that are arguments of assertive verbs can project TopP and FocP and can also be selected by a nominal head.
 - Clauses that are arguments of assertive Verbs may project ForceP, TopP and FocP and may occur without a nominal head. This option is restricted to a clause external position.

(67)

(adapted from Rizzi 1997)



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