CASE COMPETITION IN HEADLESS RELATIVES

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ACC	accusative
DAT	dative
DEM	demonstrative
GEN	genitive
INF	infinitive
M	masculine
NOM	nominative
N	neuter
PL	plural
PRES	present tense
PST	past tense
PTCP	participle
REL	relative marker
SG	singular

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Case competition

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Chapter 9

Deriving the unrestricted type

In Chapter 6, I suggested that languages of the unrestricted type have two possible light heads, which are part of the derivation under different circumstances. The first possible light head can part of the derivation used when the internal and external case match, and it appears when the internal case is more complex than the external one. The second possible light head can be part of the derivation when the internal and the external case too, and it appears when the external case is more complex than the internal one.

In the first possible light head, the light head corresponds to the phi- and case-feature part of the relative pronoun. The phi- and case-features are spelled out by a portmanteau morpheme, just as they are in the internal-only type of language. This means that the features of the relative pronoun and the light head are spelled out in such a way that they form the constituents shown in Figure **??**.

These lexical entries lead to a grammaticality pattern as shown in Table 9.1.

Table 9.1: Grammaticality in the unrestricted type (part 1)

situation	lexical entries		containment	deleted	surfacing
	LH	RP			
$K_{INT} = K_{EXT}$	$[K_1[\phi]]$	$[REL], [K_1[\phi]]$	structure	LH	RP_{INT}
$K_{INT} > K_{EXT}$	$[K_1[\phi]]$	$[REL], [K_2[K_1[\phi]]]$	structure	LH	RP_{INT}

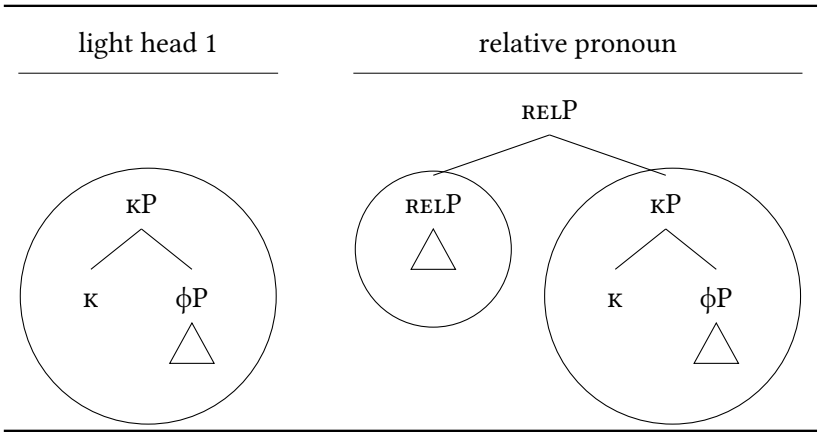


Figure 9.1: LH-1 and RP in the unrestricted type

First consider the situation in which the internal and the external case match. The situation here is identical to the one in the internal-only type of language. The light head consists of a phi- and case-feature portmanteau. The relative pronoun consists of the same morpheme plus an additional morpheme that spells out the feature REL. These lexical entries create such syntactic structures that the light head structurally forms a constituent within the relative pronoun. Therefore, the light head can be deleted, and the relative pronoun that bears the internal case surfaces.

Consider now the situation in the internal case wins the case competition. Here situation is identical to the one in the internal-only type of language too. The light head consists of a phi- and case-feature portmanteau. The relative pronoun consists of a phi- and case-feature portmanteau that contains at least one more case feature than the light head (K_2 in Figure 9.1) plus an additional morpheme that spells out the feature REL. These lexical entries create such syntactic structures that the light head structurally forms a constituent within the relative pronoun. Therefore, the light head can be deleted, and the relative pronoun that bears the internal case surfaces.

In Chapter 4, I showed that Old High German is a language of the unrestricted type. In this chapter, I show that Old High German light heads and relative pronouns have this type of structure described in Figure 9.1. I give a compact version of the structures in Figure 9.2.

Consider the first possible light head in Figure 9.2. These light heads (i.e. phi-

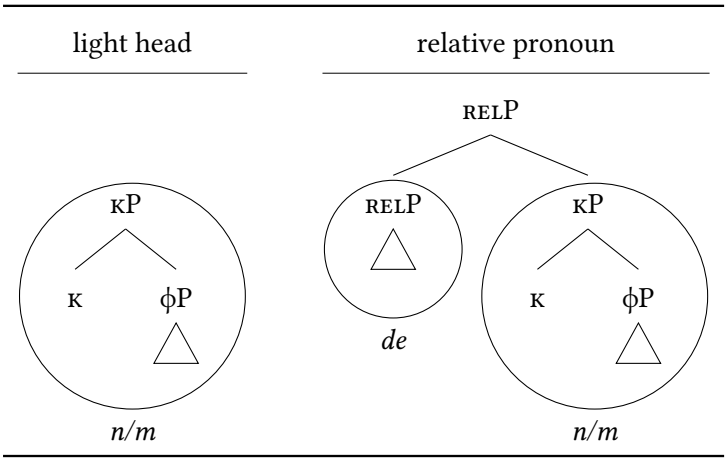


Figure 9.2: LH-1 and RP in Modern German

and case-features) in Old High German are spelled out by a single morpheme, indicated by the circle around the structure. They are spelled out as *n* or *m*, depending on which case they realize. Consider the relative pronoun in Figure 9.2. Relative pronouns in Old High German consist of two morphemes: the constituent that forms the light head (i.e. phi- and case features) and the RELP, again indicated by the circles. The RELP is spelled out as *de*. Throughout this chapter, I discuss the exact feature content of relative pronouns and light heads, I give lexical entries for them, and I show how these lexical entries form the constituents shown in Figure 9.2.

In the second possible light head, the light head corresponds to the phi- and case-feature part of the relative pronoun plus an additional feature X. This feature X is also present in the morpheme that spells out the feature REL. The phi- and case-features are spelled out by a portmanteau morpheme, just as they are in the internal-only type of language. The feature X is spelled out by a separate morpheme, which is the same morpheme that spells out X plus the feature REL. This means that the features of the relative pronoun and the light head are spelled out in such a way that they form the constituents shown in Figure **??**.

First consider the situation in which the internal and the external case match. The light head consists of a phi- and case-feature portmanteau and a morpheme that spells out the feature X, which corresponds to phonological form *X*. The relative pronoun consists of the same phi- and case-feature morpheme and a morpheme that

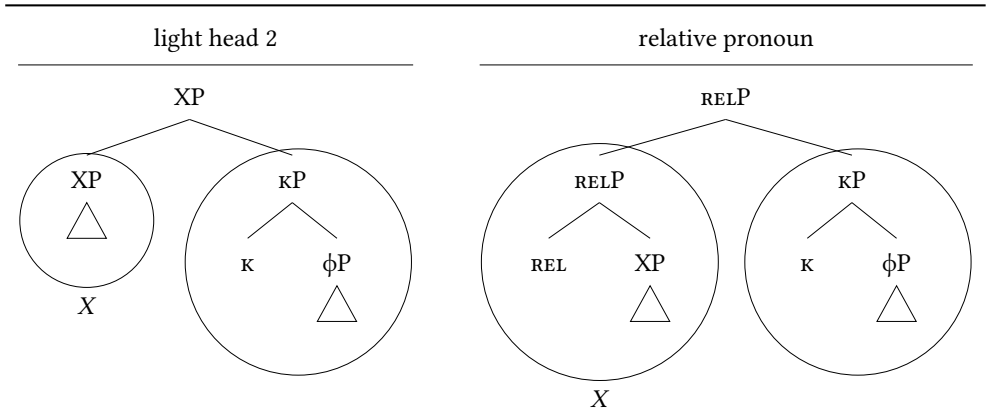


Figure 9.3: LH-2 and RP in the unrestricted type

spells out the feature X and the feature REL, which corresponds to the phonological form *X* too. When the internal and the external case match, the phonological form corresponding to the phi- and case features is identical between the light head and the relative pronoun too. These lexical entries create such syntactic structures that the light head and the relative pronoun are formally identical. Since there is formal containment, one of the elements can be deleted, and the the other one surfaces with its case.

Consider now the situation in the external case wins the case competition. The light head consists of a phi- and case-feature portmanteau and a morpheme that spells out the feature X, which corresponds to phonological form *X*. The relative pronoun consists of the same phi- and case-feature morpheme and a morpheme that spells out the feature X and the feature REL, which corresponds to the phonological form *X* too. When the external case is more complex than the internal case (i.e. when the two cases differ), the phonological forms corresponding to the phi- and case features of the light head and the relative pronoun differ. However, the derivation in which the external case is more complex than the internal one goes through a stage in which the internal and the external case match. Therefore, at that stage, these lexical entries form such syntactic structures that the light head and the relative pronoun are formally identical. Since there is formal containment, one of the elements can be deleted, and the the other one surfaces with its case. Then, the more complex case is merged to the remaining element.

This chapter is structured as follows. First, I discuss the relative pronoun. I decompose the relative pronouns into the two morphemes I showed in Figure 7.2, and I show which features each of the morphemes corresponds to. I illustrate how different morphemes are combined into the given constituents. Then I discuss the light head. I argue that Modern German headless relatives are derived from a type of light-headed relative clause that does not surface in the language. I show that the light head corresponds to one of the morphemes of the relative pronoun (the KP in Figure 7.2). Finally, I compare the constituents of the light head and the relative pronoun. I show that the light head can be deleted when the internal case matches the external case or when the internal case is more complex than the external case. When the external case is more complex, I show that none of the elements can be deleted.

9.1 The Old High German German relative pronoun

- relative pronoun, show that it's a D

What is different here, is that the relative pronoun is a D-pronoun instead of a WH.

Relative and demonstrative pronouns are syncretic in Old High German (Braune 2018: 338). Table 9.2 gives an overview of the forms in singular and plural, neuter, masculine and feminine and nominative, accusative and dative. The pronouns consist of two morphemes: a *d* and suffix that differs per number, gender and case.[1,2]

The suffixes that combine with the *d* in demonstrative and relative pronouns also appear on adjectives. This is illustrated in Table 9.3.

I conclude from this that the suffix expresses features that are specific to being nominal, like number, gender and case. Not part of the suffix are features that are specific to being a demonstrative or relative pronoun, like anaphoricity and definiteness. I assume that these are expressed by the morpheme *d*.

split the suffix up in two morphemes

[1] *d* can also be written as *dh* and *th*, *ë* and *ē* can also be *e* and *é* (Braune 2018: 339).

[2] The suffix could also be further divided into a vowel and a suffix. As this is not relevant for the discussion here, I refrain from doing that.

Table 9.2: Relative/demonstrative pronouns in Old High German (Braune 2018: 339)

	N.SG	M.SG	feminine.SG
NOM	d-az	d-ër	d-iu
ACC	d-az	d-ën	d-ea/d-ia
DAT	d-ëmu/d-ëmo	d-ëmu/d-ëmo	d-ëru/d-ëro
	N.PL	M.PL	feminine.PL
NOM	d-iu	d-ē/d-ea/d-ia/d-ie	d-eo/-io
ACC	d-iu	d-ē/d-ea/d-ia/d-ie	d-eo/-io
DAT	d-ēm/d-ēn	d-ēm/d-ēn	d-ēm/d-ēn

Table 9.3: Adjectives on *-a-/-ō-* in Old High German Braune 2018: 300

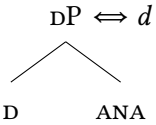
	N.SG	M.SG	feminine.SG
NOM	jung, jung-az	jung, jung-ēr	jung, jung-iu
ACC	jung, jung-az	jung-an	jung-a
DAT	jung-emu/jung-emo	jung-emu/jung-emo	jung-eru/jung-ero
	N.PL	M.PL	feminine.PL
NOM	jung-iu	jung-e	jung-o
ACC	jung-iu	jung-e	jung-o
DAT	jung-ēm/jung-ēn	jung-ēm/jung-ēn	jung-ēm/jung-ēn

In this section, I only discuss two forms: the nominative and accusative masculine singular relative and demonstrative pronoun. The nominative is *dër* and the accusative is *dën*. In what follows, I discuss the feature content of the morphemes *d*, *ër* and *ën*. I start with the features that are expressed by the suffixes *ër* and *ën*.

This allows me to propose the following lexical entries for the two suffixes.

The *d* morpheme corresponds to definiteness and anaphoricity. Anaphoricity establishes a relation with another element in the (linguistic) discourse. Definiteness encodes that the referent is specific.

(1)



So, the two relative pronouns look like this.[3]

Headless relatives in which the relative pronoun starts with a *d*, such as in Old High German, seem to be linked to individuating or definite readings and not to generalizing or indefinite readings (cf. Fuß, n.d.). I illustrate this with the two examples I repeat from Chapter 4.

Consider the example in (2), repeated from Chapter 4. In this example, the author refers to the specific person which was talked about, and not to any or every person that was talked about.

(2) Thíz ist **then** **sie** **zéllent**
DEM.SG.N.NOM be.PRES.3SG$_{[NOM]}$ REL.SG.M.ACC 3PL.M.NOM tell.PRES.3PL$_{[ACC]}$
'this is the one whom they talk about'
not: 'this is whoever they talk about' (Old High German, Otfrid III 16:50)

Consider also the example in (2), repeated from Chapter 4. In this example, the author refers to the specific person who spoke to someone, and not to any or every person who spoke to someone.

[3] A question that arises here is how the case features can form a constituent to the exclusion of definiteness and anaphoricity. I come back to this issue in Chapter 10.

(3) enti aer ant uurta demo **zaimo**
and 3SG.M.NOM reply.PST.3SG$_{[DAT]}$ REL.SG.M.DAT to 3SG.M.DAT
sprah
speak.PST.3SG$_{[NOM]}$
'and he replied to the one who spoke to him'
not: 'and he replied to whoever spoke to him'
(Old High German, Mons. 7:24, adapted from Pittner 1995: 199)

Consider the light-headed relative in (4). *Thér* 'DEM.SG.M.NOM' is the head of the relative clause, which is the external element. *Then* 'RP.SG.M.ACC' is the relative pronoun in the relative clause, which is the internal element.

(4) eno nist thiz thér then ir suochet
now not be.3SG DEM.SG.N.NOM DEM.SG.M.NOM RP.SG.M.ACC 2PL.NOM seek.2PL
zi arslahanne?
to kill.INF.SG.DAT
'Isn't this now the one, who you seek to kill?'

The difference between a light-headed relative and a headless relative is that in headless relatives, either the internal or the external is absent. The absent element is the one that has the least complex case. This shows the presence of two elements in Old High German is optional.[4] In Old High German, there are three possible constructions: the internal and external element can both surface, only the internal element can surface and only the external element can surface. If only one of the two elements surfaces, this is the element that bears the most complex case, which is either the internal or the external one, as I have shown in Chapter 4. I assume that whether both or only one of the elements surfaces is determined by information structure. In (4), the external element *thér* 'DEM.SG.M.NOM' is the candidate to be absent. However, it seems plausible that this is emphasized in this sentence and that it, therefore, cannot be absent.

The light head in a light-headed relative is a demonstrative pronoun.

[4]This sharply contrasts with headless relatives in Modern German, which are always ungrammatical when both the internal and external elements surface. I come back to this in Chapter 7.

9.2 The Old High German light head

9.2.1 The extra light head

9.2.2 The light head

9.2.3 Possible predictions

- possible prediction: ext>int = def, int>ext = wh, not what we see, show 4 examples

9.3 Comparing constituents

9.3.1 With the extra light head

Consider the examples in (7), in which the internal nominative case competes against the external nominative case. The relative clauses are marked in bold, and the light heads and the relative pronouns are underlined. As the light head and the relative pronoun are identical it is impossible to see which of them surfaces. The internal case is nominative, as the predicate *senten* 'to send' takes nominative subjects. The relative pronoun *dher* 'REL.SG.M.NOM' appears in the nominative case. The external case is nominative as well, as the predicate *queman* 'to come' also takes nominative subjects. The light head *dher* 'DEM.SG.M.NOM' appears in the nominative case. (7a) is the variant of the sentence in which the light head is absent (indicated by the square brackets) and the relative pronoun surfaces. (7b) is the variant of the sentence in which the relative pronoun is absent (indicated by the square brackets) and the light head surfaces.

(5) a. quham [dher] **dher** **chisendit**
come.PST.3SG$_{[NOM]}$ DEM.SG.M.NOM REL.SG.M.NOM send.PST.PTCP$_{[NOM]}$
scolda **uuerdhan**
should.PST.3SG become.INF
'the one, who should have been sent, came'
(Old High German, Isid. 35:5)

b. quham dher [**dher**] **chisendit**
come.PST.3SG$_{[NOM]}$ DEM.SG.M.NOM REL.SG.M.NOM send.PST.PTCP$_{[NOM]}$

scolda **uuerdhan**
should.PST.3SG become.INF
'the one, who should have been sent, came'
(Old High German, Isid. 35:5)

In Figure 9.4, I give the syntactic structure of the light head at the top and the syntactic structure of the relative pronoun at the bottom.

Consider the example in (6), in which the internal accusative case competes against the external nominative case. The relative clause is marked in bold, and the light head and the relative pronoun are underlined. The internal case is accusative, as the predicate *zellen* 'to tell' takes accusative objects. The relative pronoun *then* 'REL.SG.M.ACC' appears in the accusative case. This is the element that surfaces. The external case is nominative, as the predicate *sin* 'to be' takes nominative objects. The light head *ther* 'DEM.SG.M.NOM' appears in the nominative case. It is placed between square brackets because it does not surface.

(6) Thíz ist [ther] [**then**] **sie**
DEM.SG.N.NOM be.PRES.3SG$_{[NOM]}$ DEM.SG.M.NOM REL.SG.M.ACC 3PL.M.NOM
zéllent
tell.PRES.3PL$_{[ACC]}$
'this is the one whom they talk about' (Old High German, Otfrid III 16:50)

matching + int wins

9.3.2 With the light head

- matching works! - ext wins doesn't work, so first larger syntactic structure: head needs to be up there, for instance cinque (he also says we need to have it up there) then: yes, at some point in the derivation, and then merge the k2

Consider the examples in (7), in which the internal nominative case competes against the external nominative case. The relative clauses are marked in bold, and the light heads and the relative pronouns are underlined. As the light head and the relative pronoun are identical it is impossible to see which of them surfaces. The internal case is nominative, as the predicate *senten* 'to send' takes nominative

subjects. The relative pronoun *dher* 'REL.SG.M.NOM' appears in the nominative case. The external case is nominative as well, as the predicate *queman* 'to come' also takes nominative subjects. The light head *dher* 'DEM.SG.M.NOM' appears in the nominative case. (7a) is the variant of the sentence in which the light head is absent (indicated by the square brackets) and the relative pronoun surfaces. (7b) is the variant of the sentence in which the relative pronoun is absent (indicated by the square brackets) and the light head surfaces.

(7) a. quham [dher] **dher** **chisendit**
come.PST.3SG$_{[NOM]}$ DEM.SG.M.NOM REL.SG.M.NOM send.PST.PTCP$_{[NOM]}$
scolda **uuerdhan**
should.PST.3SG become.INF
'the one, who should have been sent, came'
(Old High German, Isid. 35:5)

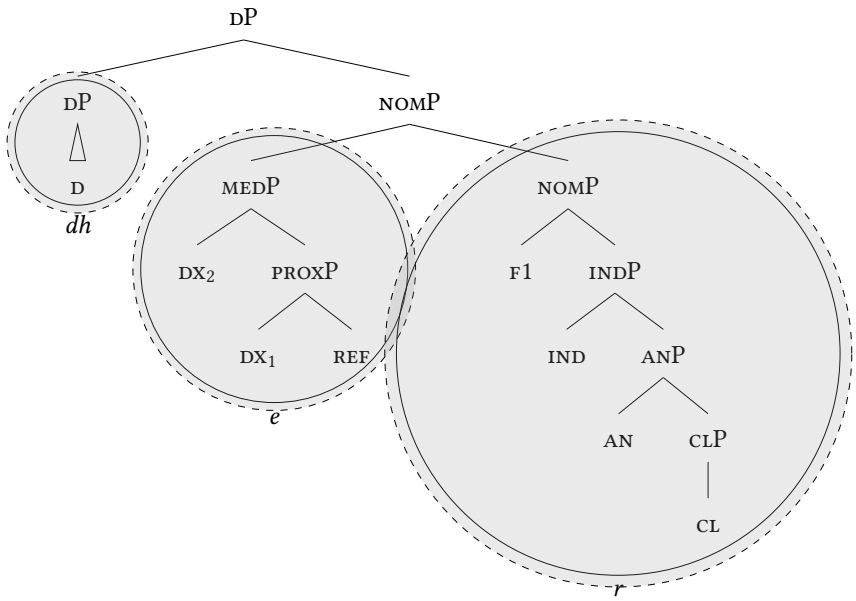
b. quham dher [**dher**] **chisendit**
come.PST.3SG$_{[NOM]}$ DEM.SG.M.NOM REL.SG.M.NOM send.PST.PTCP$_{[NOM]}$
scolda **uuerdhan**
should.PST.3SG become.INF
'the one, who should have been sent, came'
(Old High German, Isid. 35:5)

In Figure 9.4, I give the syntactic structure of the light head at the top and the syntactic structure of the relative pronoun at the bottom.

The relative pronoun consists of three morphemes: *dh*, *e* and *r*. The light head consists of three morphemes: *dh*, *e* and *r*. As usual, I circle the part of the structure that corresponds to a particular lexical entry, and I place the corresponding phonology under it. I draw a dashed circle around each constituent that is a constituent in both the light head and the relative pronoun. As each constituent of the light head is also a constituent within the relative pronoun, the light head can be absent. I illustrate this by marking the content of the dashed circles for the light head gray.

I explain this constituent by constituent. I start with the right-most constituent of the light head that spells out as *r* (NOMP). This constituent is also a constituent in the relative pronoun. I continue with the middle constituent of the light head that

NOM extra light head *dh-e-r*



NOM relative pronoun *dh-e-r*

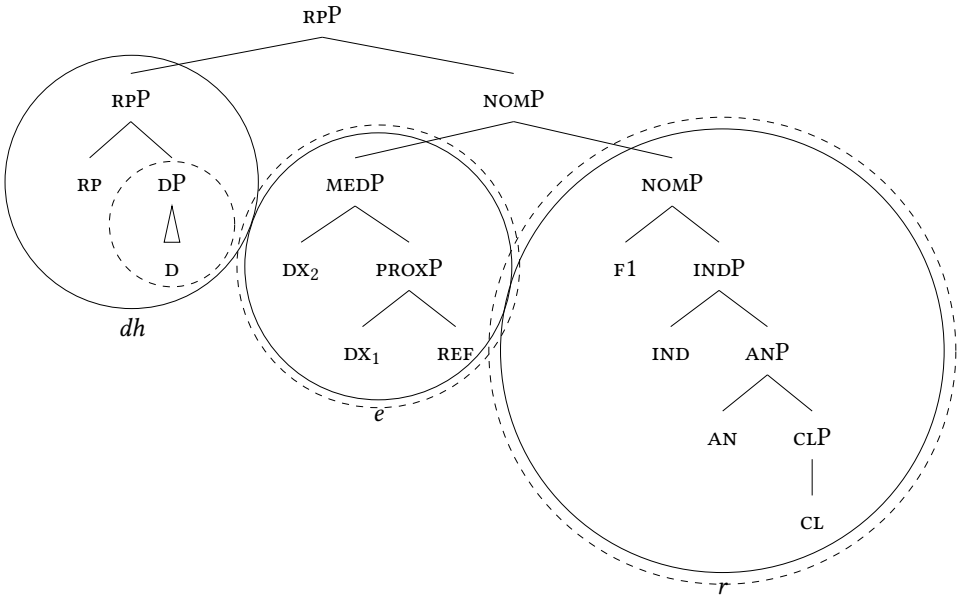


Figure 9.4: Old High German EXT_{NOM} vs. INT_{NOM} ⟶ *dher*

spells out as *e* (MEDP). This constituent is also a constituent in the relative pronoun. I end with the left-most constituent of the light head that spells out as *d* DP. This constituent is also a constituent in the relative pronoun, contained in RPP. All three constituent of the light head are also a constituent within the relative pronoun, and the light head can be absent.

Consider the examples in (8), in which the internal nominative case competes against the external accusative case. The relative clauses are marked in bold, and the light heads and the relative pronouns are underlined. The internal case is nominative, as the predicate *gisizzen* 'to possess' takes nominative subjects. The relative pronoun *dher* 'REL.SG.M.NOM' appears in the nominative case. It is placed between square brackets because it does not surface. The external case is accusative, as the predicate *bibringan* 'to create' takes accusative objects. The light head *dhen* 'DEM.SG.M.ACC' appears in the accusative case. This is the element that surfaces.

(8) ih bibringu fona iacobes samin endi fona
1SG.NOM create.PRES.1SG$_{[ACC]}$ of Jakob.GEN seed.SG.DAT and of
iuda dhen **[dher]** **mina**
Judah.DAT REL.SG.M.ACC my.ACC.M.PL mountain.ACC.PL
berga **chisitzit**
possess.PRES.3SG$_{[NOM]}$
'I create of the seed of Jacob and of Judah the one, who possess my mountains'

(Old High German, Isid. 34:3)

In Figure 9.5, I give the syntactic structure of the light head at the top and the syntactic structure of the relative pronoun at the bottom.

The relative pronoun consists of three morphemes: *dh*, *e* and *r*. The light head consists of three morphemes: *dh*, *e* and *n*. Again, I circle the part of the structure that corresponds to a particular lexical entry, and I place the corresponding phonology under it. I draw a dashed circle around each constituent that is a constituent in both the light head and the relative pronoun. As each constituent of the light head is also a constituent within the relative pronoun or is syncretic with one, the relative pronoun can be absent. I illustrate this by marking the content of the dashed circles

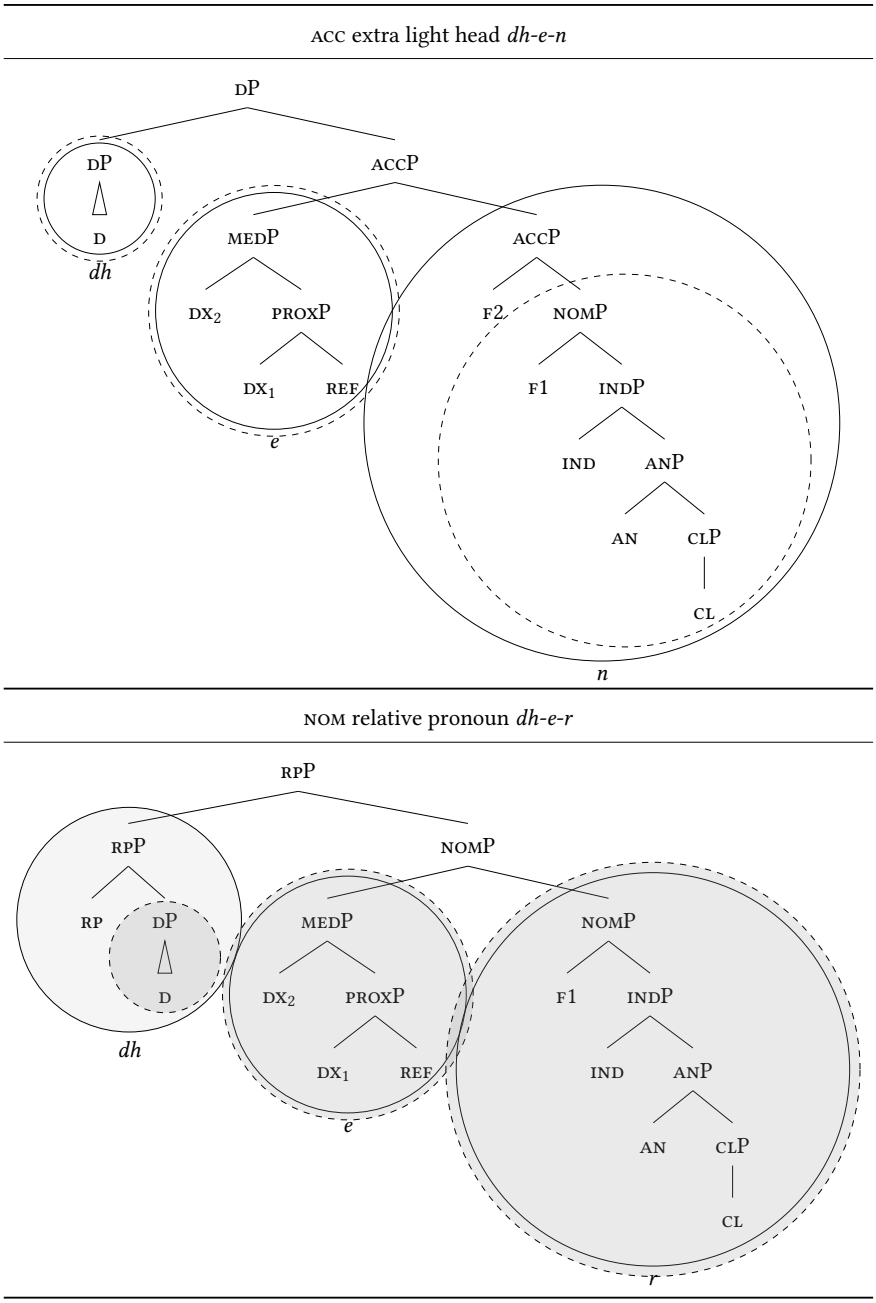


Figure 9.5: Old High German $\textsc{ext}_{\textsc{acc}}$ vs. $\textsc{int}_{\textsc{nom}}$ → *dhen*

for the relative pronoun gray.

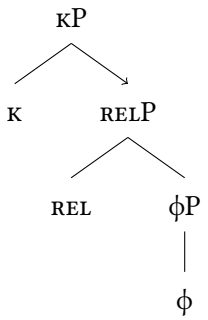
I explain this constituent by constituent. I start with the right-most constituent of the relative pronoun head that spells out as *r* (NOMP). This constituent is also a constituent in the light head, contained in ACCP. I continue with the middle constituent of the relative pronoun that spells out as *e* (MEDP). This constituent is also a constituent in the light head. I end with the left-most constituent of the relative pronoun that spells out as *d* RPP. This consituent is not contained in the light head, but it is syncretic with it. The DP is also spelled out as *d*. All three constituent of the light head are also a constituent within the relative pronoun or are syncretic with them, and the relative pronoun can be absent.

Gothic seems to be a variant of Old High German, in which there is also no single constituent containment. This time, the relative pronoun is not deleted by syncretism. Gothic has a separate suffix that spells out the feature REL. The light head deletes the relative pronoun, except for the suffix that spells out REL. The light head and the relative pronoun phonologically merge together, and the surface pronoun appears in the external case.

9.4 The hypothetical unrestricted language

It's languages that have syncretic form between the relative pronoun and the light head and syncretism. Because if you want single constituent containment, you only have a single constituent with case on top. In nano terms, you need this lexical entry:

(9)



Primary texts

Isid. Der althochdeutsche Isidor

Mons. The Monsee fragments

Otfrid Otfrid's Evangelienbuch

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