Tunen syntax and information structure
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CHAPTER 7

Discontinuous DPs

7.1 Introduction

It is generally assumed that material that belongs together semantically will be
contiguous syntactically, a notion that has been expressed in Behagel's (1932) First
Law,[1] otherwise formulated as the *principle of iconic distance* (or *principle of iconicity
of distance*; Newmeyer 1992:761-762, Schultze-Berndt 2022:866, cf. Haiman 1983:782),
the *proximity principle* (Givón 1985:202), the *Principle of Domain Integrity* (Rijkhoff
1990, 2002:239-260), and the *Contiguity Principle* (Fanselow and Ćavar 2001, 2002).
In generative terms, this means that any nominal modifier base-generated as part of
a DP is predicted to remain contiguous with the head noun throughout the syntac-
tic derivation, unless there is some other factor driving a violation of this iconicity
principle (406).

(406)   **Contiguity Principle**
        "material that is contiguous at one step in the derivation (that is, e.g., merg-
        ed as a single phrase) should remain contiguous unless other principles
        force a violation of contiguity."

                                                        (Fanselow and Ćavar 2002:86)

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[1]"'Das oberste Gesetz ist dieses, daß das geistig eng Zusammengehörige auch eng zusam-
mengestellt wird' [The principal law is this: that what belongs together semantically is also placed
together syntactically]" (Behagel 1932:4, as cited and translated in Rijkhoff 2002:253).

As such a principle has been proposed to hold crosslinguistically, violations of it are of particular interest. This chapter looks at discontinuous noun phrases (*discontinuous DPs*) in Tunen, which (appear to) deviate from the Contiguity Principle in (406) in having a split between a modifier (e.g. numeral, quantifier) and a noun it modifies semantically.

The consensus of previous literature is that discontinuous DPs are found when there is a different information-structural status between the noun and the modifier (Fanselow and Ćavar 2002; Fanselow and Féry 2006; Louagie and Verstraete 2016, a.o.). This difference in information-structural status is then the driving force for the difference in syntactic position, and so does not truly constitute a violation of the Contiguity Principle: the different syntactic position of noun and modify iconically reflect a different information-structural status. For example, German and Chichewa both have a Top...Foc construction where a noun is topicalised via A'-movement to the left-periphery while the modifier remains low due to being in focus, as exemplified in (407)-(408) below.[2]

(407) **Interessante Bücher** hat sie mir **keine aus   Indien** empfohlen
       interesting   books   has she me none from India   recommended
       'She has not recommended any interesting books from India to me. '
                                     (German (Germanic), Fanselow and Ćavar 2002:65)

(408) **Mbûzi** atsíkáná á   mfúmu a-a-gul-á   **zákúd-a.**
       10.goats 2.girls   2.ASSOC 9.chief SM.2-PERF-buy-FV SM.10-black
       Lit. 'Goats, the chief's girls have bought black (ones).'
                                     (Chichewa (Bantu); Mchombo 2006:147)

In these examples, the initial element is topical and the modifier is focal, showing a split in IS between the modifier and the rest of the DP corresponding to the split in syntactic position. Another type of discontinuous DP construction found in the literature is the Foc...Comment construction. Like the Top...Foc construction, this construction is formed with A'-movement to the left periphery, but this time the leftmost rather than rightmost component is focal, as shown for a corrective focus context in Yucatec Maya in (409).

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[2]Throughout this chapter, I indicate the head noun and its modifier(s) in boldface. Transcriptions and glosses are otherwise unchanged from their source, unless otherwise indicated. I assume the background knowledge on generative syntax (e.g. the notions of A-movement and A'-movement) introduced in Chapter 2 section §2.3.

(409)   Context: 'Did three boys hit you?'

     Ma'!   **X-ch'úuppal-o'ob** jats'-ik-en   **óox-túul**=i'.

     NEG   F-girl-PL   hit-INCMPL-B.1SG three-CL.AN=LOC

     'No! Three GIRLS hit me.'

                         (Yucatec Maya (Mayan), Skopeteas et al. 2020:628)

We therefore see that languages may vary in the exact nature of the IS difference between head noun and modifier, but the explanation of discontinuity as being driven by a difference in IS between the two elements remains applicable in all cases, thus remaining compatible with the Contiguity Principle in (406).

In a study of variation in the nominal domain in Bantu languages, Van de Velde (2022:909) reports that discontinuous DPs appear to be "very rare" in Bantu, with only four Bantu languages known to have them, namely Chichewa (ISO 639-3 [nya]; Guthrie code N30; Malawi/Zambia/Mozambique), Ganda ([lug]; JE15; Uganda), and Tunen. An additional Bantu language with discontinuous DPs to be added to this list is Basaá (A46, Cameroon), based on recent work by Bassong (2021).[3]

Chichewa discontinuous DPs have been studied in detail by Mchombo (2004, 2006) and Mchombo et al. (2005). As seen above in (408), the Chichewa discontinuous DP construction consists of a left-peripheral expression, often requiring indexation on the verb. In generative terms, these constructions are analysed as formed by A'-movement of the noun to an information-structural position within the clausal left periphery (see Mchombo et al. 2005 for an analysis within the Lexical Functional Grammar framework).

In Basaá, discontinuous DPs are shown by Bassong (2021) to involve one element taking a left-peripheral position while the other element remains postverbal. An example is given in (410) below, where the numeral *bí-sámal* 'six' is discontinuous from the rest of the noun phrase.

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[3]Note that this inclusion of Basaá strictly speaking goes against Bassong's (2021) argument that the Basaá constructions are not true instances of discontinuous DPs, in that he argues that the modifier and head noun are base-generated in separate DPs, making the discontinuity only apparent. I come back to this question of analysis in section §7.2.4. For current purposes, I take any apparently discontinuous DP construction as relevant for consideration.

(410) Context i: There was only a set x of nice and unpleasant books such that out of x, I bought only six nice ones. I may have bought three unpleasant ones as well.
Context ii: #There was a set x of different items such as books, pens, clothes etc. such that I bought only six nice books (as opposed to other items).
Context iii: #There was a set x of nice books such that out of x, I bought only six nice ones.

bí-kaat bi-lâm gw-ɔ́n mɛ bí-sɔ́mb **bí-sámal.**
8-books 8-nice 8-FOC I   PST2-buy 8-six
'I bought six nice (as opposed to unpleasant) books.'

(Basaá (Bantu); Bassong 2021:13)

The Basaá discontinuous DP constructions therefore appear to be similar to Chichewa in having an IS-driven split formed by movement of one constituent to a left-peripheral position. Ganda discontinuous DPs, however, are formed somewhat differently. They are described by Givón (1974) as being formed from a modifier that takes the augment, which is a pre-prefix found in some Bantu languages (see e.g. Halpert ms., Katamba 2003:107-108; Van de Velde 2019 for overviews). Such augmented modifiers may be discontinuous from the noun they modify semantically, as shown in (411). The discontinuous construction in (411b) is said to differ from the contiguous version (411a) in having a non-restrictive interpretation (Van de Velde 2022:907).

(411) a. **o-mu-sajja o-mu-rungi** agenze
AUG-1-man AUG-1-good left
'The good man left.' (restrictive)

b. **o-mu-sajja** agenze **o-mu-rungi**
AUG-1-man left   AUG-1-man-good
'The man left, the good one.' (non-restrictive)
(Ganda (Bantu); Givón 1974, cited in Van de Velde 2022:907, adapted)

In Tunen, discontinuous DPs have been highlighted in previous work by Mous (1997, 2003), the latter forming the source for Van de Velde's (2019; 2022) statements about Tunen. The Tunen discontinuous DPs have a different structure from the languages seen above. Firstly, Tunen does not have the augment pre-prefix or any traces of it — as is common for a Northwestern Bantu language (Van de Velde 2019:2429) — meaning that there is no alternation between augmented and augmentless nouns and modifiers and so no discontinuity of the type seen in Ganda

(411). Secondly, rather than consisting of a noun (phrase) A'-moved to the left periphery as in the German, Yucatec Maya, Chichewa, and Basaá examples seen above, Tunen discontinuous DPs appear in a S-O-V-Mod structure where neither element is in a left-peripheral position, as exemplified in (412).

(412)   Context: 'What do you see?'
        mέ ndɔ **tunoní** sinǝ **tɔ́lál**.
        /mɛ   ᴴndɔ **tɔ-noní** sinǝ **tɔ́-lálɔ́**/
        SM.1SG PRS   13-bird   see   13-three
        'I see three birds.'   [EO 225]

Here, the numeral modifier *tɔ́lál* 'three' is syntactically separated from the noun *túnɔni* 'birds' that it modifies by the verb *sinǝ* 'see'. We therefore have a discontinuous DP construction. However, the discourse context is term focus on the entire object, including the modifier, as shown by the context question of an object question. This means that the DP is discontinuous, with an apparent mismatch between syntactic constituency and semantic/pragmatic interpretation. As I showed in the previous chapter, the preverbal object position is driven by formal movement rather than an information-structural (IS) trigger, and the object noun is still *v*P-internal, not having A'-moved to the clausal left periphery (in other words, not having raised above Neg/T). We therefore see discontinuous DPs that are not clearly explained by the Contiguity Principle introduced in (406) above and that differ empirically from what has been reported in other Bantu languages.

The goal of this chapter is to present a description and analysis of S-O-V-Mod constructions such as (412) in Tunen, investigating the extent to which the discontinuity is driven by IS. First, a descriptive overview of discontinuous DPs in Tunen will be given. By controlling for IS context, I show that the postverbal modifier position is pragmatically-neutral, with IS not the driving force for discontinuous DPs in Tunen, in contrast to what has been reported for other languages and what was previously reported for Tunen (Mous 1997, 2003; Van de Velde 2019, 2022). I then consider the details of the construction, showing that only the S-O-V-Mod type is felicitous and showing that it is frequent for numeral and quantifier modifiers, available for adjectives, and unavailable for associatives (i.e., the genitive). Next, I provide a formal syntactic analysis of the construction, for which I consider the two main analytical approaches in the literature: (i) the modifier is base-generated in a separate DP from the head noun (meaning that discontinuity is only apparent), and (ii) the modifier and noun are base-generated as part of the same DP and are split via movement. I then reflect on the consequences for the general model of Tunen's syntax. Before discussing the Tunen data, I first give some further background in-

formation on discontinuous DPs crosslinguistically and the formal analyses that have been proposed for them in the generative framework.

7.2 Background

7.2.1 Defining discontinuity

Discontinuous DPs are discussed under many different terms within the literature, being also known as *discontinuous noun phrases/discontinuous NPs* (Skopeteas et al. 2020), *split DPs/split NPs/XP-split constructions* (Fanselow and Ćavar 2002), *split topicalisations*, *split scrambling*, *separation constructions*, *discontinuous* (*nominal*) *expressions* (Bliss 2012; Louagie and Verstraete 2016) and sometimes referred to in terms of *left branch extraction* or the *left branch condition* (Ross 1967; Bošković 2005; Skopeteas et al. 2020). I adopt the definition of discontinuity given in (413) and use the general term *discontinuous DPs* as a descriptive label for constructions with discontinuity following this definition (413).

> (413) **Discontinuity**
> "the dislocation of elements in a discontinuous noun phrase involves the separation of the head noun from its determiner, article, quantifier, or an adjective modifying it"   (Fanselow and Féry 2006)

I use the term 'DP' here to refer to what may be called noun phrase (or 'NP') in other frameworks, following generative syntax convention of assuming the determiner phrase rather than the noun phrase as the maximal XP in the nominal domain (Abney 1987 *et seq.*).[4] I use the term 'modifier' to refer to any determiner, demonstrative, article, quantifier, numeral, or adjective that associates semantically with a noun, without committing to all of these elements having the same syntactic structure (i.e., some may be adjuncts and others heads).

A related phenomenon to discontinuous DPs of the kind discussed in this chapter is *quantifier float* (or *Q-float*; Sportiche 1988; Bošković 2004; Klein 1976; Kayne

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[4]Note that within generative syntax, there is some debate as to whether DPs are universal, based on proposals that some languages only have NPs (see Bošković 2008 for such a proposal and Salzmann 2020; Köylü 2021 for recent overviews of resultant debate). For Tunen, there is clear language-internal evidence that a DP layer is projected, such as the existence of an overt determiner, namely the specific indefinite determiner *-mɔté* (Chapter 4 section §4.3.11 Kerr 2020). I therefore analyse Tunen as projecting a DP layer. For the other languages discussed in this chapter, I use the term "discontinuous DP" as a general term without taking a stance on whether a DP layer is projected.

1975), which is found with quantifiers such as 'all' and 'every'. Quantifier float constructions are analysed in generative terms as cases where a quantifier is found in a lower syntactic position instead of moving with the rest of the noun phrase. This is exemplified in English in (414) and (415) below, where the universal quantifier *all* may be contiguous with the rest of the noun phrase (414) or be stranded in a lower syntactic position (415).

(414)   a.   All the students left.

       b.   [All the students]$_i$ [$_{VP}$ t$_i$ left.]

(415)   a.   The students all left.

       b.   [The students]$_i$ [all t$_i$] [$_{V'}$ t$_i$ left.]   (Bošković 2004:692)

I will return to quantifier float as a potentially relevant phenomenon in the discussion of adverbial analysis of discontinuity in section §7.4.1.

Turning back to discontinuous DPs as defined following (413), we see that they can be identified by the presence of intervening material between a noun and its modifier. For example, in the Croatian example in (416) below, non-DP material intervenes between the noun *knijge* 'books' and the adjectival modifier *zanimljive* 'interesting', despite the fact that the sentence is interpreted with the adjective as a qualitative modifier of the noun.

(416)   **Knijge** mi je   Marija **zanimljive** preporučila.
        books   me has   Mary   interesting   recommended
        'Mary has recommended interesting books to me.'
                                     (Fanselow and Ćavar 2002:66)

As discussed in the previous section, such constructions are surprising as they appear to violate iconicity of syntactic constituency, formulated in generative terms under the Contiguity Principle (406). In observing discontinuous DPs, the question then is *why* a language would split up a DP rather than keep the contiguous structure that is assumed to be the default option. The answer proposed by Fanselow and Ćavar (2002:86) is that "XP-splits arise only if XP bears two different pragmatic or semantic functions", i.e., that discontinuous DPs arise in particular discourse contexts, such as contrastive focus on the modifier (with topicalised head noun). In this way, discontinuity no longer violates the Contiguity Principle or the principle of iconic distance, as the split between noun and modifier is iconic, indicating a difference in pragmatic or semantic interpretation. The hypothesis for investigating discontinuous DPs in Tunen is therefore that the discontinuity in S-O-V-Mod

structures such as (412) is motivated by a pragmatic or semantic interpretational difference between the noun and the modifier.

7.2.2 Inventory of discontinuity

Fanselow and Ćavar (2002) identify two types of discontinuous DPs, *pull splits* and *inverted splits*. Pull splits preserve the order of noun and modifier as found in contiguous DPs, while inverted splits show the opposite order, as shown in Table 7.2.

Contiguous DP order	Pull split	Inverted split
NP-Mod	NP ... Mod	Mod ... NP
Mod-NP	Mod ... NP	NP ... Mod

Table 7.2: Possible types of discontinuous DPs based on order of noun and modifier in contiguous DPs, where '...' indicates intervening material.

For example, Fuchs (2017:3) shows that Georgian, a language with Mod-N order in contiguous DPs, allows both inverted splits and pull splits, as in (417).

(417) a. Context: The boys in the class were divided into groups of various sizes and assigned different taks in preparation for Maya's birthday party. Two boys brought the cake, one boy bought paper plates, and four boys went to buy balloons. Mentioning one more thing some boys were assigned to do, Nino...

      bitʃ'-ma Maya-s c'ign-i **sam-ma** uq'ida.
      boy-ERG Maya-DAT book-NOM three-ERG bought
      'As for boys, three (boys) bought Maya a book.'

    b. Context: Nino is very superstitious. She has been noticing that everything today has been happening in sets of three. Three dogs barked at her this morning, three students failed the test, and three plates broke this morning. Her friend Mariam says another thing that happened that involved a set of three...

      sam-ma Maya-s c'ign-i **bitʃ'-ma** uq'ida.
      three-ERG Maya-DAT book-NOM boy-ERG bought
      'As for threes, (three) boys bought Maya a book.'   (Fuchs 2017:3)

Not all languages with discontinuous DPs allow both types of split, however. Fanselow and Ćavar (2002) suggest that all languages with discontinuous DPs allow inverted splits, while only some language allow pull splits. For Tunen, I will show that inverted splits are not possible, with discontinuous DPs always matching the order of nominal modifiers in contiguous DPs (for which see Chapter §4.5.2).[5]

7.2.3 Discontinuity crosslinguistically

Discontinuous DPs are found in various languages across the world, including but not limited to the Bantu languages seen above (Van de Velde 2022; Bassong 2021), Croatian (Fanselow and Ćavar 2002), German (Fanselow and Féry 2006), Georgian (Fuchs 2017), Hungarian (Fanselow 2013), Old Romanian (Nicolae 2019), Yucatec Maya (Skopeteas et al. 2020), various Australian languages (Hale 1983; Louagie and Verstraete 2016; Schultze-Berndt 2022), and various Algonquian languages (Reinholtz 1999; Lochbihler 2009; Bliss 2012, i.a.).

While discontinuous DPs are found in many languages, they are often treated as a marginal phenomenon. This is linked to their low textual frequency and the restricted discourse contexts in which they appear. For example, in a typological study of over 100 Australian languages, Louagie and Verstraete (2016) report that only 1-5% of noun phrases are discontinuous, with such constructions limited to particular discourse functions, namely contrastive focus.[6]

Early work on discontinuity linked the phenomenon to "nonconfigurational" syntax, for example in Reinholtz's 's (1999) work on Swampy Cree and Hale's (1983) work on Warlpiri. Here, the idea was that modifiers could be discontinuous from their nouns due to a broader property of certain languages as having a loose order of elements. More recent approaches have however challenged the dichotomy between non-configurational languages and grammatical role-oriented languages (see e.g. Surányi 2016). In the Bantu context, there is evidence that IS influences word order (see Downing and Hyman 2016; Downing and Marten 2019; Morimoto 2000, 2006; Kerr et al. 2023 and references therein), but this varies between languages (Kerr et al. 2023). Chapter 6 showed that Tunen's basic word order is consistent across grammatical roles, in other words providing evidence for configura-

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[5]Note in relation to the formal analyses to be seen in section §7.2.4 below that the Tunen pattern of pull splits without inverted splits would only constitute a violation of Fanselow and Ćavar's (2002) generalisation if it can be shown that the noun and modifier in Tunen are base-generated as part of the same DP and separated through movement, rather than being base-generated as separated constituents. I return to this analytical question in section §7.4.

[6]Note that a more insightful statistic would be to compare the number of contiguous noun phrases consisting of a noun and modifier to the number of discontinuous ones, as the percentage of noun phrases in natural discourse that are modified (and therefore possible to split) is unknown.

tionality (see also Kerr to appear; Kerr et al. 2023). Because we see a strong influence of grammatical roles on Tunen's clausal word order, the validity of an explanation of discontinuous DPs being available due to non-cofigurationality is already questionable. However, if the Tunen discontinuous DP construction itself can be shown to be conditioned by IS, this would provide some evidence for influence of discourse roles on Tunen morphosyntax.

7.2.4   Theoretical analyses

As discontinuous DPs have been found in many languages, various formal analyses have been made of these constructions. A key analytical question is whether there is in fact one DP underlyingly, or whether there are two different DPs – one in which the noun is found and another in which the modifier is generated. The former analysis type concerns true discontinuity, while the latter type can be taken to only have *apparent discontinuity* (as the material was never together in the syntax). We therefore see two main types of analytical approaches: base-generation accounts (where discontinuity is apparent) and movement accounts (where discontinuity arises during the syntactic derivation). Movement accounts can in turn be split into subextraction and copy+deletion accounts, as we will see below. I review the core properties of each analysis type here.

7.2.4.1 Base generation accounts

The base generation type of account argues that discontinuity is only apparent, as the modifier and noun are not in fact base-generated as part of the same DP. An example of such an account is given in (418) below. Here, one DP is base-generated within the TP and moved to a higher peripheral position, while another DP (as indicated by the different indexation) is base-generated in the clausal left periphery.

(418)
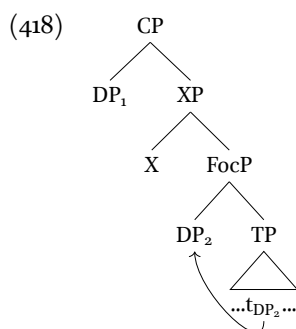
Under an ellipsis account, only part of the DP_1 and DP_2 are pronounced at Spell-Out, giving the impression that the noun and modifier are from the same DP, while they are in fact different DPs throughout the syntactic derivation. The same effect is derived in a *pro*-form account by positing that one of the DPs contains a phonologically null *pro* element rather than the lexical noun.
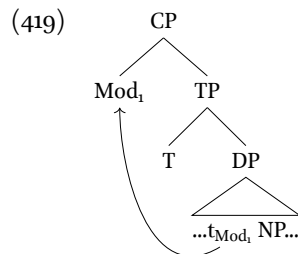
Base generation accounts of this kind were suggested by Hale (1983) for Warlpiri and have been significant in debates regarding nominal licensing and discourse configurationality since then. A base generation account is for example proposed for discontinuous DPs in Blackfoot (Algonquian) by Bliss (2012), who argues against a focus movement account and proposes that the NP is merged in its theta position (for Case, i.e., licensing reasons) while modifiers are base-generated as *v*P adjuncts.

One puzzle outstanding from such accounts is how the correct semantics applies given the noun phrases are never syntactically linked in the derivation. For the Bantu context, the ϕ-feature agreement visible by morphological noun class prefixes would therefore need to be derived through a different relationship than an Agree relation within the same DP, for example through a pragmatic mechanism relying on the noun class of available referents in the discourse context. Alternatively, agreement can arise through the *pro*-form account.

One point to make regarding base generation accounts is that any DP base-generated in the clausal left periphery should not show traces of A'-movement, e.g. reconstruction and binding (Chapter 2 section §2.3.4). If such effects are found, this can instead be taken as evidence in favour of a movement account. Movement traces have therefore played a large part in determining between base generation and movement analyses in the literature (see e.g. Skopeteas et al. 2020 for the application of a detailed set of movement diagnostics applied to the investigation of discontinuous DPs in Yucatec Maya).

7.2.4.2 Traditional movement accounts

In movement accounts, the modifier and noun are base-generated as part of the same DP, with discontinuity arising through movement. Traditionally, this was formalised in terms of *subextraction*, namely movement of a sub-part of the DP. A subextraction account is illustrated in (419), showing a discontinuous DP construction in which the modifier has moved to a left-peripheral position.

(419)

```
              CP
           ┌──┴──┐
        Mod₁     TP
         ↑     ┌──┴──┐
         │     T     DP
         │        ┌───┴───┐
         └────...t_Mod₁ NP...
```

Under such an account, discontinuous DP constructions originate from the same DP underlyingly, which is split up by subextraction of the modifier. It is possible for further movement operations to apply, e.g. for (remnant) movement to apply to the DP, such that the NP may also surface in a different position from its base position. The crucial point is that the modifier has sub-extracted, leading to a syntactic discontinuity between modifier and the head noun.

Lochbihler (2009) provides a subextraction account of discontinuous DPs in Algonquian languages, proposing that they are derived through A'-movement of a modifier, triggered by a contrastiveness feature [uCon]. This featural proposal is made on the basis of previous work on Ojibwe (Kathol and Rhodes 1999; Tourigny 2008) and Swampy Cree (Russell and Reinholtz 1995) which found that dislocated structures correspond to focus or contrast contexts and so can be formally modelled as subextraction driven by an IS feature.

While various subextraction accounts exist, this type of analysis has been challenged in more recent work. The crucial point relates to island effects (following Ross 1967). As Fanselow and Ćavar (2002) discuss, attested discontinuous structures would involve movement out of islands if analysed as deriving through subextraction. The attestation of such discontinuous DP constructions is therefore at odds with the theory of islands. As a result of this issue, later work has adopted the copy+deletion approach as an alternative type of movement analysis.

7.2.4.3 The Copy+deletion approach

As introduced in Chapter 2 section §2.3, Minimalist syntax (Chomsky 1993, 1995 *et seq.*) subsumes the Government and Binding theory (GB) operation *Move* into *Merge* (specifically *Internal Merge*). In the Copy theory of movement introduced as part of the Minimalist Programme, movement involves copying the moved material, with lower copies subsequently elided at PF. This is the approach to discontinuity advocated for in Fanselow and Ćavar (2002) as a fix for the incorrect island predictions of a subextraction account. As the movement involved is not the same

as the A'-movement required in the traditional movement account, no island violations are made.

An example of the copy+deletion approach is given in (420) below, which shows that a full copy of the DP is made at each movement stage. In this example, the original copy is entirely elided at PF (as indicated by the strikethrough on the TP-internal DP), while the upper copies (in SpecFocP and SpecCP) may have partial deletion. This leads to the noun and modifier appearing to be discontinuous.

(420)

```
              CP
             /  \
          DP₁    XP
                /  \
               X    FocP
                   /  \
                 DP₁   TP
                       /\
                    ...D̶P̶₁̶...
```
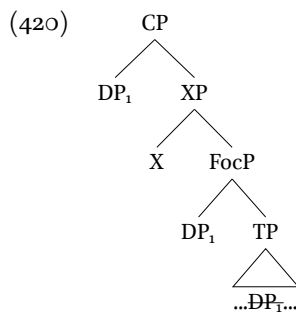
The copy+deletion approach is therefore another type of movement approach. It differs from the subextraction approach in proposing movement of the entire DP rather than just a sub-part of it, making different empirical predictions in terms of island constraints. One important note is that the copy+deletion approach requires a model of ellipsis that results in part of both the lower and upper copies being deleted. As ellipsis applies within both DPs, it is sometimes referred to as *scattered deletion* (Bošković 2005) or *distributed deletion* (Fanselow and Ćavar 2001, 2002). The constraints assumed in one's analysis of ellipsis mechanisms will therefore make empirical predictions regarding the nature of discontinuous DPs that are predicted to be possible in the language, as I will come back to in section §7.4.2 when considering how such an analysis extends to Tunen.

7.2.4.4 Empirical diagnostics

In teasing apart the different possible analyses, the key question is whether there is evidence for the noun and modifier as being moved versus base-generated as different DPs. Various such diagnostics have been provided in the literature, including morphological case (mis)matching and definiteness morphology. For example, in some languages such as German and Hungarian (Fanselow 2013), morphological mismatches are possible between discontinuous nouns and their modifiers, as in (421) below, where the contiguous DP (421a-b) has 'weak inflection' of the quan-

tifier *kein* 'no', while in the discontinuous variant (421c-d), only strong inflection (*keines*) is possible.

(421) a. Ich habe **kein Geld.**
           I   have no   money
           'I have no money.'

  b. *Ich habe **keines** *Geld*.

  c. **Geld** habe ich **keines**.

  d. ***Geld** hab ich **kein**.   (Fanselow 2013:11, adapted)

Such morphological mismatches between contiguous and discontinuous DPs have been used by some authors as an argument against subextraction accounts and in favour of accounts with base-generation of the topic and the modifier (Ott 2011, 2012; Fanselow 1988, 2013). The logic is that if discontinuous DPs allow for morphological patterns not found in contiguous DPs, they are not analysable in terms of the assumed Agree operations, indicating that the two elements are actually separate in the underlying syntax. An alternative analytical possibility suggested by Fanselow (2013) is that morphological processes (can) apply at a late stage of the derivation after movement. Such discontinuous DPs are therefore significant for discussions of the syntax-morphology interface in terms of the order of operations.

Another type of morphological mismatch is that of morphological case marking. An example of such case concord effects in contiguous versus discontinuous DPs is given in Fuchs (2017), who shows that Georgian split noun phrases show case concord effects that differ from contiguous noun phrases. In discontinuous DPs, case morphology is obligatory on both the left-peripheral modifier and the noun (422b), whereas in contiguous DPs, only the noun takes case morphology (422a).

(422) a. Maya-s   c'ign-i   **p'at'ara(*-m)** **bitʃ'-ma** uq'ida.
           Maya-DAT book-NOM small-ERG   boy-ERG bought
           'The small boy bought Maya a book.'

  b. **p'at'ara*(-m)** Maya-s   c'ign-i   **bitʃ'-ma** uq'ida.
      small-ERG   Maya-DAT book-NOM boy-ERG bought
      'The small boy bought Maya a book.'   (Fuchs 2017:4)

Fuchs uses these data to argue that the noun and modifier are base-generated as separate DPs, with Mod-N order. The case suffix attaches at the right of the DP. In (422b), NP ellipsis applies, meaning that the case suffix attaches to the modifier.

Another diagnostic used is definiteness marking. For example, Nicolae (2019) links the availability of discontinuous noun phrases to definiteness marking of determiners in Old Romanian. Here, diachronic variation in availability of discontinuous DPs is linked to variation in grammaticalisation of determiners, affecting whether a nominal has a DP layer or just an NP (cf. Abney 1987; Bošković 2005, 2008; Salzmann 2020; Köylü 2021 on generative theories of the DP/NP distinction; fn4).

Finally, diagnostics related to A'-movement can be used as evidence in favour or against movement accounts. These include binding, reconstruction effects, and island violations (although cf. section §7.2.4 above on the copy+deletion approach as a possible movement approach compatible with apparent island violations).

Unfortunately, most of these diagnostics are language-specific and cannot be applied to Tunen. Tunen does not have a strong/weak inflection difference of the kind used as diagnostic for movement in the German data in (421). Tunen also does not have morphological case-marking on nouns and adjectives — as is common for a Bantu language (see e.g. Diercks 2012; Van der Wal 2015) — meaning that morphological case mismatches of the kind found in Georgian (422a) are not applicable. Likewise, Tunen does not have a system of definite and indefinite articles,[7] and so an account reliant on definiteness marking of the kind applied to Old Romanian by Nicolae (2019) is inapplicable to Tunen.

It is important to note here that the A'-movement diagnostics commonly invoked in discussions of discontinuous DPs — with island violations crucial for the choice between movement analyses — are inapplicable to Tunen under my analysis, as I will propose that the discontinuous DPs are derived via A-movement rather than A'-movement to the clausal left periphery. As the construction in Tunen is formed by A movement, A'-movement diagnostics therefore do not apply.

The remaining diagnostics available for diagnosing the underlying structure of Tunen discontinuous DPs are thus somewhat limited. These include noun class agreement (i.e., the possibility for mismatches in agreement morphology between a noun and its modifier in discontinuous versus contiguous DPs), any prosodic evidence for syntactic position, and different interpretational predictions of structural configurations (which we will see in discussion of adverbial versus non-adverbial analyses). I will review the language-specific evidence for the syntactic position of Tunen nouns and modifiers in section §7.3, after first introducing previous work on discontinuous DPs in Tunen.

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[7] I showed in Chapter 4 section §4.3.11 and Chapter 6 section §6.2.5 that Tunen has a specific indefinite determiner *-mɔté*; as I discuss in Kerr (2020), this determiner is not an article, in that it is not obligatory and does not alternate with a nonspecific/definite counterpart.

7.2.5 Prior work on discontinuity in Tunen

While no detailed account of discontinuous DPs has been provided for Tunen, their existence has been mentioned as a point of interest in earlier studies on the language. For example, Mous (1997, 2003), argues that modifiers in Tunen can be discontinuous when in contrastive focus (423), with numerals "mostly" appearing in a discontinuous position, as in (424).

(423) mὲ-ná   **ìmìtὲ**   yὲ mʷ**ə́nífí** índí **mè-ŋéŋ** ò hὲlɔ́bátɔ̀
    1SG-HOD.PAST 9:calabash 9:of 6:water give:H 9-big   LOC 19:child
    'I gave the BIG water calabash to the child.' (Mous 1997:133; Mous 2003:305)

(424) èbàkó ná   émɔ̀à **nèbɔ́à** lúmwə́ **nétɔ̀tὲ**
    lizard HOD.PAST dog   medicine hitH   one
    'The lizard hit the dog by magic.'   (Dugast 1975:63, via Mous 2003:305)

This description of discontinuously-positioned modifiers as being contrastive relates to Mous' (1997; 2003) more general proposal of a postverbal contrastive position, as I discussed and argued against in Chapters 5 and 6. In relation to numerals, Mous argues that their postverbal placement is due to their "selectional property" and "somewhat loose" semantic relations with the head noun (Mous 2003:305).

According to Mous, high tone spread (HTS; see Chapter 4 section §4.2) does not apply from the verb to the following modifier in the discontinuous DP construction, which he takes as indication for the modifier forming a separate syntactic phrase. This is seen in (423), where the H tone of the verb *índí* 'give' has not spread onto the first tone-bearing unit of the modifier *mèŋéŋ* 'big' (data from Mous' elicitation). However, there are three issues with this empirical diagnostic. Firstly, this diagnostic relies on the assumption that prosodic phrasing matches syntactic phrasing, which, while a valid null hypothesis, should not be taken to be an absolute correlation (see e.g. Selkirk 2011). Secondly, it is still unclear exactly how robust this diagnostic is in the first place (Mous, p.c.; Chapter 4 section §4.2). A more thorough empirical investigation controlling for H tone specification of verbs is therefore needed before it can be treated as reliable evidence for the syntactic position of a postverbal element. Thirdly, the diagnostic, even if valid, is of limited use for the diagnosis of the syntactic phrasing of discontinuous DPs in Tunen. This is because many of the modifiers that can be discontinuously-positioned in Tunen already carry a H tone on their first tone-bearing unit. For example, numerals such as *-mɔté* 'one' always take a noun class agreement prefix that is H-toned (Chapter 4 Table 4.10), e.g. *ɔ́mɔté* 'one' (class 1), *némɔté* 'one' (class 5) (a regular property of

numerals in Bantu languages, with the H tone on the numeral prefix reconstructing to Proto-Bantu). As discussed in Chapter 4 section §4.2.6, Tunen has the following phonological pattern regarding realisation of underlying H tones:

(425)   **Realisation of underlying H tones**

      a.   /H/ → H

      b.   /H-H/ → H

This means that it is impossible to identify whether a verb with final H tone has spread its H tone to the first TBU of a following quantifier or numeral modifier, as the H tone realised may just be the independently-present H tone from the numeral prefix without an additional H tone, i.e., situation (425a) instead of situation (425b). While the HTS test could still apply to discontinuous DPs formed with adjectives that begin with a L-toned prefix, this accident of phonology means that it is not possible to diagnose syntactic phrasing via H tone spread for discontinuous quantifiers and numerals, which we will see form most of the dataset in Tunen.

In Isaac's (2007) study of participant reference in six texts from the Dugast 1975 text corpus, he found that discontinuous DPs in Tunen are also available for the introduction of referents into a narrative. Importantly and in contrast to Mous' proposal that discontinuous DPs reflect contrastive focus on the modifier, this means that discontinuous DPs are not restricted to contrastive focus on modifiers. Isaac notes that discontinuous nominal modifiers in Tunen always agree in noun class with the preverbal head noun (Isaac 2007:61-2), and also argues that the postverbal modifiers are not necessarily sentence-final, as they can precede other adjuncts (426).

(426)   a   ná-kā   **hikumukumu** nibə̀ **hímòti** o-bés'   ò   nuiy.
        SM.1 PST-AND 19.old_person meet 19.one INF-bathe LOC river
        'He met an old woman bathing in the river.'
                      (Dugast 1975, cited in Isaac 2007:61, glosses adapted)

Isaac (2007) follows Longacre (1995) in drawing a distinction between discourse *participants* and *props*, where props are defined as canonically inanimate or non-volitional animates (Isaac 2007:20-21). Isaac reports that discontinuous DPs are used for 13/260 prop references and 5/1400 participant references in the sample of six Dugast (1975) texts he studied, with "nearly all" of the discontinuous constructions used for props occurring when introducing the prop into the discourse. Discontinuous references to participants, on the other hand, are frequently used

for re-activation (i.e., mentioning a participant that was not referred to in the previous clause) (Isaac 2007:161). He therefore writes in summary that "[m]ost examples of discontinuous noun phrases are found for introductions" (Isaac 2007:172), highlighting that Tunen is unusual for a Bantu language in its "common use" of discontinuous noun phrases for first mentions and re-activation (Isaac 2007:178).

Isaac's (2007) study is therefore interesting in showing that discontinuous DPs are not restricted to the context of contrastive focus on the modifier as reported by Mous (1997). Isaac's study is however limited by only studying six texts with no detailed investigation of the range of IS contexts compatible with discontinuous DPs, instead focussing on a general description of participant reference in Tunen. Isaac (2007) also reports a limitation in himself not being familiar with Tunen, and therefore being solely reliant on Dugast's transcriptions, leading to uncertainty particularly around tone patterns and phonological phrasing. Finally, by nature of being a corpus study, there is no negative evidence that can be used to confirm the ungrammaticality of certain constructions (cf. Chapter 3 section §3.2.2).

One final point from previous studies to pick up on is that Mous (1997) and Isaac (2007) both show that relative clauses modifying objects may be discontinuous from the head noun, as in (427) below, where the theme object *ébōk* 'place' is discontinuously modified by the relative clause *òy' abák ìnyɔ́ twɔ̀n* 'where his mother usually sat', with the verb *inəni* 'show' intervening (**O-V-Rel**).

(427) a   n'   **ébōk** inəni **òy'**   **abák**   **ìnyɔ́**   **twɔ̀n.**
       SM.1   PST   7.place show   REL.7   SM.1.be.DUR   9.mother   sit
       'He showed (him) the place where (his) mother usually sat.'
                              (Dugast 1975, cited in Isaac 2007:62, glosses adapted)

This ability for relative clauses to discontinuously modify objects is likely due to extraposition motivated by heaviness, as is common crosslinguistically with relative clauses (see e.g. Ross 1967; Culicover and Rochemont 1990). I will come back to this availability of discontinuous relative clauses in terms of the possible analysis of other modifiers as reduced relatives (as proposed in e.g. Cinque 2010).

In summary, then, previous work by Mous (2003) analysed discontinuous DPs in Tunen as driven by contrastive focus on the nominal modifier, while Isaac's (2007) study of Dugast (1975) texts pointed out the additional use of discontinuous DPs for the introduction of props and (to a lesser extent) participants into the discourse. The extent to which the discontinuous DP construction in Tunen can or must be used in different IS contexts therefore remains to be tested, especially in light of expectations from the Contiguity Principle (406) regarding the correlation between syntactic discontinuity and IS. In the next section, I present my fieldwork study

which tested the extent to which IS conditions discontinuous nominal expression in Tunen, which therefore serves to test Mous' (1997; 2003) hypothesis that discontinuity correlates with contrastive focus. I also discuss discontinuous DPs found in natural speech, further expanding upon Isaac's (2007) observations, and I discuss the syntactic material that can and cannot be discontinuous, in order to arrive at a more complete overview of the Tunen discontinuous DP construction.

7.3 Empirical investigation

This section is divided into two subsections. Section §7.3.1 investigates the different IS contexts in which discontinuous DPs are found in Tunen, thus testing the hypothesis that discontinuous modifier placement corresponds to a separation in IS interpretation between noun and modifier. Section §7.3.2 then investigates which types of syntactic material can be discontinuously-positioned in Tunen.

7.3.1 Information-structural restrictions on discontinuity

7.3.1.1 Focus on modifier only

As seen in sections §7.1-7.2 above, the crosslinguistic pattern for discontinuous DPs is that they are found when there is a split in IS status between the noun and its modifier. Focus on the modifier only is therefore predicted to be a felicitous discourse context for a discontinuous DP in Tunen. This is what was previously argued by Mous (1997, 2003) (section §7.2.5). This prediction is borne out in my field data, as (428) illustrates.

(428) Context: 'How many people do you see?' (+ picture; focus on modifier only)
 mɛ́ ndɔ **bɛndɔ** sinə **báfandɛ.**   (S-O-V-Mod)

 /mɛ   ᴴndɔ   **bɛndɔ**   sinə   **bá-fandɛ́**/
 SM.1SG   PRS   2.person   see   2-two

 'J'en vois [deux]₍ғᴏᴄ₎.'
 'I see [two]₍ғᴏᴄ₎ people.'   [JO 542]

  Note however that discontinuous DPs are not the only available word order when only the modifier is in focus: S-V-O-Num is also possible (429a). O-Num-V, on the other hand, was judged as degraded (429b).[8] The discontinuous order is the

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[8]These data show consultant JO's judgements in this session; note that O-Num-V order is attested and found for example in the Tunen Bible translation (based on the Book of Matthew; CABTAL 2019; see Chapter 2 section §2.5.3; Chapter 3 section §3.4.2). I will discuss what the variability in judgements may mean in terms of the formal analysis and grammaticalisation in section §7.4.

most common order in this context and was provided across consultants, often as the first response within an elicitation context.

(429)   Context: 'How many people do you see?' (+ picture; focus on modifier only)

    a.   mɛ́ ndɔ sinə **bɛndɔ báfandɛ.**   (S-V-O-Mod)

        /mɛ   ᴴndɔ sinə **bɛndɔ   bá-fandɛ́**/

        SM.1SG PRS   see   2.person 2-two

        'Je vois deux personnes.'

        'I see two people.'   [JO 541]

    b.   ?mɛ́ ndɔ **bɛndɔ báfandɛ́** sinə.   (?S-O-Mod-V)

        /mɛ   ndɔ **bɛndɔ   bá-fandɛ́** sinə/

        SM.1SG PRS 2.person 2-two   see

        'Je vois deux personnes'

        'I see two people.'   [JO 543]

The following example in (430) provides confirmation of Mous' example (423), showing that modifiers can be discontinuously-positioned both in the context of information focus and for more contrastive focus types (here, corrective focus; see Chapter 2 section §2.2 and Chapter 5 on focus types).

(430)   bɔ́ɔ, mɛ ná **imítə́** indiə **mɛŋɛ́ŋ** ɔ hɛlɔ́batɔ, (tátá ɔ mɛ́⤓tɛ́tɛ́).

    /bɔ́ɔ mɛ   ná   ɛ-mítə́   índíə́ mɛŋɛ́ŋa ɔ   hɛ-lɔ́batɔ tátá ɔ

    no   SM.1SG PST2 9-calabash   give   9.big   PREP 19-child   not PREP

    mɛ́ᴸtɛ́tɛ́a/

    9.small

    'Non, j'ai donné la [grande]$_{FOC}$ calebasse à l'enfant, (pas la petite).'

    'No, I gave the [big]$_{FOC}$ calabash to the child, (not the small one).'

                                           [EE+EB 1833]

Finally, when attempting to elicit mirative expressions (i.e., expressions of surprise/unexpectedness; see Van der Wal 2021; Cruschina and Bianchi 2021 and references therein), discontinuous DPs were found, as below. These can also be analysed as focus on the modifiers. Example (431) shows an instance with the universal quantifier *-kimə* 'all' and example (432) shows an instance with a numeral modifier.

(431)   Context: You are a farmer who has lost all of your animals, but by a stroke
        of luck, you find them all again.
        mɛ ná Húélɛ́ hóli ɛ́↓séá mɛ́ ná **biá↓míá bɛhɔ́sɛ** bɔŋɔ **bikim.**

        /mɛ   ná   Húélɛ́ hólíə́ ɛ-séá   mɛ́   ná   biá↓míá
        SM.1SG PST2   God   thank SM.7-say SM.1SG.DEP PST2 PRN.POSS.1SG.8

          bɛ-hɔ́sɛ   bɔ́ŋɔ́   bɛ́-kimə/
          8-horse   find   8-all
        'Je remercie Dieu comme j'ai retrouvé tous mes chevaux.'
        'I thank the Lord that I've found all my horses.'   [EE+EB 1827]

(432)   Context: You wake up after a party and see a surprising number of empty
        wine bottles.
        naánɛkɔla ɛkɔlakɔ́lá tɔ ka **mindíŋgə** nɛ́ákɛna **ɛ́námanɛ yɛ́ mɔ́luk!**

        /naánɛkɔla ɛ-kɔlakɔ́lá tɔ   ka   mɛ-ndíŋgə nɛ́ákɛna ɛ́-námanɛ
        yesterday   7-evening   SM.1PL   PST3 4-bottle   drink   4-eight

          yɛ́   mɔ́lukə/
          ASSOC.4 6.wine
        'Hier soir nous avons bu huit bouteilles de vin !'
        'We drank eight bottles of wine last night!'   [JO 1941]

Example (432) additionally shows that a discontinuous numeral modifier may
be followed by an associative phrase. We will see later in section §7.3.2 that the as-
sociative phrase cannot be the sole discontinuous element. The numeral *ɛ́námanɛ*
'eight' here could function here as a pronominal ('eight ones').

7.3.1.2. Focus on whole DP

As mentioned in the introduction to this chapter (section §7.1), discontinuous DPs
are also possible in Tunen when the semantic scope of the focus is the whole DP,
i.e., the head noun + modifier (433) (repeated from (412)). This shows a mismatch
between syntactic contiguity and semantic scope of focus.

(433)   Context: 'What do you see?' (focus on whole DP)
        mɛ́ ndɔ **tunoní** sinə **tɔ́lál.**
        /mɛ   ᴴndɔ tɔ-**noní** sinə tɔ́-**lálɔ́**/
        SM.1SG PRS   13-bird   see   13-three
        'Je vois trois oiseaux.'
        'I see three birds.'   [EO 397]

Example (434) shows the same pattern, where a discontinuous DP construction is possible with focus on the whole DP, this time with a quantifier as the nominal modifier.

(434)   Context: A governor visits the school. Someone asks 'What did he give to the children?'
       a ná baná **bɛkɔa** índíɔ́kín **biɘnyi.**
       /a   ná   ba-ná   **bɛ-kɔa**   índíɔ́kínɔ́   **bɛ-ɘnyí**/
       SM.1 PST2 2-child 8-thing give.APPL 8-many
       'Il a donné beaucoup de choses aux enfants.'
       'He gave out a lot of things to the children.'   [JO 2329]

The compatibility between the S-O-V-Mod discontinuous DP construction and the IS context of focus on the entire DP (including the modifier) is thus significant in contrasting with the expectations from previous work on Tunen and the Contiguity Principle (406). Here, the discontinuous DP can be treated as a type of form-meaning mismatch, where there is a split in syntactic structure but not in semantic/pragmatic interpretation (as diagnosed in the examples above using the Q-A congruence test for information focus).

7.3.1.3. Predicate-Centred Focus

While we have so far seen discontinuous DPs for term focus, where part or all of the DP is in focus, they are also found in the Tunen dataset when the DP is part of the given material and therefore non-focal. An example of this is predicate-centred focus (PCF) contexts, where focus is on (part of) the verbal predicate and therefore not on the terms (cf. Chapter 2 Fig. 2.3). An example is the truth focus context in (435), where both the noun *tunoní* 'birds' and modifier *tɔ́fandɛ* 'two' are part of the given material (as part of the question), with only the positive polarity value of the proposition focal.

(435)   Context: 'Do you see two birds?' (truth focus)
       ɛ́ɛ, mɛ́ ndɔ **tunoní** sinɘ **tɔ́fandɛ.**
       /ɛɛ mɛ   ᴴndɔ tɔ-noní sinɘ tɔ́-fandɛ/
       yes SM.1SG PRS   13-bird see 13-two
       'Oui, je vois deux oiseaux.'
       'Yes, I see two birds.'   [EO 1408]

We can note here that the discontinuous DP construction provided in Mous (2003) (cf. (430)) is also felicitous in such a truth focus context, as in (436) below.

This shows that while such constructions are indeed compatible with contrastive focus on the nominal modifier, as Mous (1997, 2003) argues to be the discourse condition for using a discontinuous DP, this is not the only IS context in which such constructions are available.

(436)   Context: Did you give the large calabash of water to the child?
         (ɛ́ɛ,) mɛ ná **imitə yə mənífí** indi **mɛŋɛ́ŋ** ɔ hɛlɔ́batɔ.

         /ɛ́ɛ   mɛ   ná   ɛ-mítɔ́   yɛ   ma-nífɔ́ índíɔ́ mɛŋɛ́ŋa   ɔ
         yes SM.1SG PST2 9-calabash ASSOC.9 6-water give   9.big   PREP

            hɛ-lɔ́batɔ/
            19-child

         '(Oui,) j'ai donné la grand calebasse (de l'eau) à l'enfant.'
         (Yes,) I gave the large calabash of water to the child.'

                                                        [EE+EB 1830; cf. Mous (2003)]

    Finally, the example below from free dialogue shows a discontinuous DP used for a polar question (437b), while speaker EO responds using a discontinuous DP (437c), in a context where the numeral is contrastive.

(437)   Context: PM instructs EO in the QUIS map task.

    a.   (ɔ) ɛnɔ́mɛ ɔyéá yé ndɔ ákána ɛndɛndélɛ **miɔkɔ́** yé lɛ **ɛ́lál**.

          /ɔ   ɛ-nɔ́mɛ   ɔyéá   yé   ᴴndɔ ákána ɛndɛndélɛ   **mi-ɔkɔ́**
          PREP 7-road REL.7 SM.7 PRS   leave straight_on 10.chicken

             yé   léá   ɛ́-lálɔ́/
             SM.10 be   10-three

          'Sur la route qui va tout droit il y a trois poules.'
          'The road that goes straight on has three chickens.'   [PM 686]

    b.   ɔ   ná   **miɔkɔ́**   bɔ́ŋɔ́ **ɛ́lálɔ́**?
          /ɔ   ná   **mi-ɔkɔ́**   bɔ́ŋɔ́ **ɛ́-lálɔ́**/
          SM.2SG PST2 10-chicken find 10-three

          'Tu as trouvé les trois poules?'
          'Have you found the three chickens?'   [PM 687]

    c.   mɛ ná **miɔkɔ́** bɔ́ŋɛ́ **í - í - ínisə**.
          /mɛ   ná   **mi-ɔkɔ́**   bɔ́ŋɔ́ **ɛ́-nisə**/
          SM.1SG PST2 10-chicken find 10-four

          'J'ai trouvé qu- qu- quatre poules'
          'I've found f- f- four chickens.'   [EO 688]

Example (437a) also shows that a discontinuous DP can be used to introduce a discourse referent. This is another IS context in which discontinuous DPs are found, which we can now turn to.

7.3.1.4 Thetics

Another type of non-term focus context in which discontinuous DPs are found is thetic constructions, in which no constituent is taken to be in focus (or rather, there is broad focus at the sentence level; Sasse 1987, 1996; Lambrecht 1994; Erteschik-Shir 2007; Chapter 2 section §2.2.3). Surprisingly, discontinuous DPs are also felicitous in such scenarios in Tunen, and attested in the natural speech corpus. As discussed in section §7.2.5 above, such constructions are used to introduce props and participants in the Dugast (1975) texts (Isaac 2007). Example (437a) and (438) show the same introducing function in natural speech from my field data.

(438)   Context: QUIS dialogue task:[9] EO has a picture from the end of a storyboard and must find out from PM (who has the rest of the storyboard) what happened before.

    a. mba **bɛndɔ** bá báka háaha **balal**, yaté bá ndɔ kɛ?

/mba	**bɛndɔ**	bá	bá-aka	háaha	**bá-lálɔ́**,	yaté	bá
but	2.person	SM.2	be-DUR	DEM.PROX.LOC	2-three	what	SM.2

ᴴndɔ	kɛa/
PRS	do

     'Mais il y a trois personnes ici, que font-elles ?'
     'But there are three people here, what are they doing?'   [EO 581]

    b. Context: After concluding the explanation.
     mhm. ɔ́↓há **bɛndɔ** bá ndɔ wɛɛ́ya sinə **balal**.

/mhm	ɔhá	**bɛndɔ**	bá	ᴴndɔ	wɛ́ɛya	sinə	**bá-lálɔ́**/
PTCL	for_that	2.person	SM.2	PRS	PRN.1	see	2-three

     'Mhm. C'est pour ça que trois personnes le regardent.'
     'Mhm. That's why three people are looking at him.'   [PM 597]

Here, the numeral *balal* 'three' is not so relevant, rather the fact that a group of people have gathered, and yet the numeral is in a discontinuous position from the noun it modifies. There is no difference in structure between (438a), where the referent is first mentioned, and (438b), which concludes.

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[9] Dialogue task using Item 1 picture stimulus from QUIS Chapter 3 Task 15 (Eventives: Thetics and Categorical Utterances) Condition A (Skopeteas et al. 2006:121-125).

The presence of discontinuous DPs in thetics is interesting as a recent study by Schultze-Berndt (2022) reports the use of discontinuity in thetics in Australian languages. Schultze-Berndt argues that such a strategy is in fact iconic, in preventing a thetic clause being considered with a topic-comment split and instead packaging the information monolithically. Note here that the constructions involve discontinuous subject DPs; I will return to the relevance of subject vs object DPs for Tunen in section §7.5.4, after first providing an analysis of discontinuous object DPs.

7.3.1.5 Empirical summary of IS contexts

So far, we have seen that discontinuous DPs in Tunen are not restricted to the context of contrastive focus on the nominal modifier. They are also available when the entire DP is in focus, but also when the DP is part of the background – either as part of a PCF construction or in a thetic construction. The postverbal modifier position is therefore a pragmatically-neutral position rather than a position dedicated to a particular information-structural interpretation. This finding stands in contrast to the earlier presentation of Mous (1997, 2003) and is of crosslinguistic interest in going against expectations from the Contiguity Principle (406). In summary, while dicontinuous DPs were predicted to be low-frequency strategies available in particular discourse contexts, results from my fieldwork and analysis of Dugast (1975) texts showed that they are high-frequency and compatible with multiple IS contexts in Tunen, as shown in Table 7.4 below.

IS context	S-O-V-Mod?
Focus on modifier only	✓
Focus on whole DP (N+Mod)	✓
Predicate-centred focus	✓
Thetics/new discourse referents	✓

Table 7.4: Availability of the Tunen S-O-V-Mod discontinuous DP construction in different IS contexts.

Having seen the range of IS contexts in which discontinuous DPs occur, we can now turn to the syntactic material that may be discontinuous.

7.3.2 Syntactic restrictions on discontinuity

We have already seen many examples with numerals, which constitute the majority of examples in the data. However, discontinuity in Tunen is not restricted to

numerals, as will be covered in more detail in this section.

7.3.2.1. Numerals and quantifiers

We have seen already that both numerals and quantifiers can be discontinuous; see e.g. (428), (433), (432) above for examples with numerals and (431), (434) for examples with quantifiers. We can now ask whether there are any restrictions on which numerals and quantifiers can be split from the head noun.

In terms of numerals, many Bantu languages show a difference in cardinal numerals below 5 taking an agreement prefix and numerals above 5 not doing so (Meeussen 1967; Van de Velde 2019), leading to the question as to whether some numerals are adjectival. In Tunen, numerals up to 9 take an agreement prefix (see Chapter 4 section §4.3.3; Dugast 1971). All Tunen numerals appear to be able to be positioned discontinuously, with (432) above showing the availability of discontinuity for the numeral *-námanɛ* 'eight'. I am not aware of any restriction on which numerals can be discontinuously-positioned, although I have not tested discontinuous DPs with numerals above 10 and the numeral data from discontinuous DPs in natural speech were all numerals lower than 9.

In terms of quantifiers, some languages show a restriction that discontinuous DPs/quantifier float constructions are limited to universal quantifiers only. Example (439) below shows (following (434) above) that the ability for quantifiers to be discontinuously-positioned extends to other quantifiers in Tunen than the universal quantifier *-kimə* 'all'. We see here that the contiguous O-Q-V order is degraded (439a), while the discontinuous O-V-Q (439b) and the postverbal V-O-Q (439c) orders are grammatical. The degradation of O-Q-V order shows a different judgement for those to be seen in (445) below regarding adjectives, but matches consultants' dispreference for O-Num/Q-V orders.

(439)   The governor visits the school and is so excited that he gives out a lot of different things to the students.
Context 1: 'Did he give out a lot of things to the students?' (truth focus)
Context 2: 'What did he give to the students?' (term focus on object)

a.   ?a ná baná **bɛkɔa biəny** índíəkín.
/a   ná   ba-ná   **bɛ-kɔa   bɛ-ənyí**   índíəkíná/
SM.1 PST2 2-child   8-thing   8-many   give.APPL
Intd.: 'Il a donné beaucoup de choses aux enfants.'
Intd.: 'He gave out a lot of things to the children.'   [JO 2325]

b. a ná baná **bɛkɔa** índíə́kín **biənyi**.

/a   ná   ba-ná   **bɛ-kɔa**   índíə́kínə́   **bɛ-ənyí**/
SM.1 PST2 2-child 8-thing give.APPL 8-many

'Il a donné beaucoup de choses aux enfants.'
'He gave out a lot of things to the children.'   [JO 2326, 9]

c. a ná baná índíə́kín **bɛkɔa biənyi**

/a   ná   ba-ná   índíə́kínə́   **bɛ-kɔa**   **bɛ-ənyí**/
SM.1 PST2 2-child give.APPL 8-thing 8-many

'Il a donné beaucoup de choses aux enfants.'
'He gave out a lot of things to the children.'   [JO 2327, 30]

One question is whether numerals and quantifiers are grammatically distinct in Tunen. On a morphological level, both show a root with a noun class agreement prefix. In contiguous noun phrases, both follow the noun, and the relative position is free, as shown by the following minimal pairs (see also discussion of the Tunen noun phrase in Chapter 4 section §4.3.7).

(440) a. tɔ́ámé tɔbanána **tɔ́lálɔ́ tukimə** tɔ́ léá húátɔ ɔtɛnɛa.

/tɔ́ámɛ   tɔ-banána **tɔ́-lálɔ́** **tɔ́-kimə** tɔ́   léá húátɔ
PRN.POSS.1SG.13 13-banana 13-three 13-all   SM.13 be   finish.PTCP

ɔ-tɛnɛa/
INF-spoil

'Toutes mes trois bananes sont gâtées.', 'Mes trois bananes sont toutes gatées.'

'All three of my bananas have gone off.', 'My three bananas have all gone off.'   [PB 2014]

b. tɔ́ámé tɔbanána **tukimə tɔ́lálɔ́** tɔ́ léá húátɔ ɔtɛnɛa.

/tɔ́ámɛ   tɔ-banána **tɔ́-kimə** **tɔ́-lálɔ́** tɔ́   léá
PRN.POSS.1SG.13 13-banana 13-all   13-three SM.13-be finish.PTCP

húátɔ   ɔ-tɛnɛa/
INF-spoil

'Tous mes trois bananes sont gâtées.'

'All three of my bananas have gone off.', 'My three bananas have all gone off.'   [PB 2015]

(441) a. **baná bə́kimə bə́nis** báná masɔ́ma kiak !

        /**ba-ná bá-kimə bá-nisə** bá   ná   ma-sɔ́ma   kɛa-aka/

        2-child 2-all   2-four   SM.2 PST2 6-homework do-DUR

        'Tous les quatre enfants ont fait leurs devoirs !'

        'All four children did their homework!'   [EE+EB 1817]

     b. **baná bə́nis bə́kimə** bá ná masɔ́ma kiak !

        /**ba-ná bá-nisə bá-kimə** bá   ná   ma-sɔ́ma   kɛa-aka/

        2-child 2-four   2-all   SM.2 PST2 6-homework do-DUR

        'Tous les quatre enfants ont fait leurs devoirs !'

        'All four children did their homework!'   [EE+EB 1818]

Such inflectional and distributional data suggest that numerals and quantifiers may be the same category in Tunen, which in turn opens up analytical possibilities whereby numerals are quantifiers, grammatically speaking. However, my consultants did give slightly different judgements for numerals and quantifiers in discontinuous DPs: only the universal quantifier was accepted for attachment with the subject (442).

(442) a. **baná** bá ná masɔ́ma kiak **bə́kim**.

        /**ba-ná** bá   ná   ma-sɔ́ma   kɛa-aka **bá-kimə**/

        2-child SM.2 PST2 6-homework do-DUR 2-all

        'Tous les enfants ont fait leurs devoirs !'

        'All the children did their homework!'   [EE+EB 1820]

     b. ***baná** bá ná masɔ́ma kiak **bə́nis**.

        /**ba-ná** bá   ná   ma-sɔ́ma   kɛa-aka **bá-nisə**/

        2-child SM.2 PST2 6-homework do-DUR 2-four

        Intd.: 'Les quatre enfants ont fait leurs devoirs !'

        Intd.: 'The four children did their homework!'   [EE+EB 1819]

Example (442b) is somewhat contradictory to other examples of discontinuous DPs, where a discontinuous numeral was accepted as a modifier of a subject (e.g. (437a), (438a)). However, the data are interesting in that the consultants in this session then rejected a sentence with both a preverbal numeral and a postverbal quantifier (443).

(443) *baná **bɔ́nis** bá ná masɔ́ma kiak **bɔ́kim.**
/ba-ná **bá-nisə** bá ná ma-sɔ́ma kɛa-aka **bá-kimə**/
2-child 2-four SM.2 PST2 6-homework do-DUR 2-all
Intd.: 'Tous les quatre enfants ont fait leurs devoirs !'
Intd.: 'All four children did their homework!' [EE+EB 1821]

Further investigation is required to see how reliable these judgements are across speakers, and what differentiates the quantifier from the numeral syntactically. In the absence of clear arguments in favour of a unified analysis, I treat numerals and quantifiers as distinct within Tunen grammar.

7.3.2.2 Adjectives

Bantu languages are known to have a small number of adjectives (Van de Velde 2019). In Tunen, around 11 adjectives have been identified (Dugast 1971; Mous 2003; Chapter 4 section §4.3.4). While most instances of discontinuous DPs in my dataset are with cardinal numerals, Mous (2003) gives an example with an adjective *-ŋéŋa* 'big', which is translated with contrastive focus, as in (444) (repeated from (423)).[10]

(444) mè-ná **ìmìtɔ̀ yè mʷɔ̀nífí** índí **mè-ŋéŋ** ɔ̀ hɛ̀lɔ́bátɔ̀
/mɛ-na **e-mitə ye ma-nifə** indiə **me-ŋeŋ** ɔ
SM.1SG-PAT2 9-calabash ASSOC.9 6-water give 9-big PREP
hɛ-lɔbatɔ/
19-child
'I gave the BIG water calabash to the child.' (Mous 1997:133; Mous 2003:305)

As seen already in (430), this sentence was judged as grammatical by my consultants. The sentence was judged as felicitous both when the adjective was contrastively focussed (430) and when it was given (as was shown by a truth focus context; (436)).

Note that a discontinuous DP is not the only option here – a contiguous noun phrase is also possible in the same discourse contexts, as judged in (445) by the same consultants.

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[10]The first line and translation are presented as in the source. I have added further segmentation in the morpheme break line and adapted the glosses accordingly.

(445)   a.   ɛ́ɛ, mɛ ná **imítə́ mɛŋɛ́ŋ** indiə ɔ hɛlɔ́batɔ.

/ɛ́ɛ   mɛ   ná   **ɛ-mítə́**   **mɛŋɛ́ŋa**   índíə́ ɔ   hɛ-lɔ́batɔ/

yes   SM.1SG   PST2   9-calabash   9.big   give   PREP   19-child

'Oui, j'ai donné la grand calebasse (de l'eau) à l'enfant.'

'Yes, I gave the large calabash of water to the child.'   [EE+EB 1831]

b.   bɔ́ɔ, mɛ ná **imítə́ mɛŋɛ́ŋ** indiə ɔ hɛlɔ́batɔ, (tátá ɔ mɛ́↓tɛ́té).

/bɔ́ɔ   mɛ   ná   **ɛ-mítə́**   **mɛŋɛ́ŋa**   índíə́ ɔ   hɛ-lɔ́batɔ tátá

no   SM.1SG   PST2   9-calabash   big   9.give PREP   19-child   not

ɔ   mɛ́ᴸtɛ́tɛ́a/

PREP   small

'Non, j'ai donné la [grande]$_{FOC}$ calebasse à l'enfant, (pas la petite)'

'No, I gave the [big]$_{FOC}$ calabash to the child, (not the small one).'

[EE+EB 1834]

In general, discontinuous constructions with adjectives are not found much in the dataset. This absence of examples of discontinuous adjectives in my corpus may be explained by the relatively small number of adjectives in Tunen (Dugast 1971:153) and therefore by the frequency of constructions with adjectives rather than the frequency of discontinuous noun phrases themselves. In this sense, low textual frequency of discontinuous O-V-Adj constructions is a side-effect of low frequency of adjectives in the corpus and therefore possibly independent of the discontinuous/continuous distinction. Note also that the current dataset also does not allow for any meaningful comparison of different types of adjectives, due to the paucity of examples. A larger natural speech corpus and more targeted elicitation on adjectives in Tunen would help investigate this further in future work. For current purposes, examples such as (430) are significant in showing that at least some adjectives can be discontinuously-positioned in Tunen, meaning that a formal analysis must allow for discontinuous DPs formed with adjectival modifiers. I will reflect on the possibilities for the formalism further in section §7.4 below.

7.3.2.3 Can't split 'how many?'

The examples of discontinuous DPs seen so far have been in declaratives and polar questions. A remaining question is therefore whether the modifier 'how many?' can be split from a head noun in a constituent question. The examples in (446) show that the question word 'how many?' cannot be in-situ in the S-O-V-Mod modifier position (446a). Instead, a question of quantity is formed ex-situ, with the noun pied-piped with the 'how many' question word (446b).

(446) a. *ɔ́ ndɔ **tunoní** sin **tɔ́nɛ́á** ?

/ɔ ᴴndɔ tɔ-**noní** sinə **tɔ́-nɛ́á**/

SM.2SG PRS 13-bird see 13-how_many

Intd.: 'Combien d'oiseaux vois-tu?'

Intd.: 'How many birds do you see?' [EO 1402]

b. **tunoní tɔ́nɛ́á** ɔ́ ndɔ sin?

/tɔ-**noní** tɔ́-**nɛ́á** ɔ ᴴndɔ sinə/

13-bird 13-how_many SM.2SG PRS see

'Combien d'oiseaux vois-tu?'

'How many birds do you see?' [EO 226]

This unavailability of discontinuous placement of the interrogative 'how many?' follows the broader pattern that wh-words must be ex-situ in Tunen (as discussed in Chapter 4 section §4.5.8 and Chapter 5). As expected given the requirement for question words to be ex-situ and the ban on inverted splits, fronting the noun while leaving the wh-word in-situ is ungrammatical (447a). Forming a cleft while leaving the noun in-situ is also not possible (447b).

(447) a. ***tunoní** ɔ́ ndɔ sin **tɔ́nɛ́á**?

/tɔ-**noní** ɔ ᴴndɔ sinə **tɔ́-nɛ́á**/

13-bird SM.2SG PRS see 13-how_many

Intd.: 'Combien d'oiseaux vois-tu?'

Intd.: 'How many birds do you see?' [EO 1403]

b. ***tɔ́n**↓**ɛ́á** á ɔ́ ná **tuɔfɔ́** nɔf ?

/**ɔ́-nɛ́á** á ɔ na tɔ-ɔfɔ́ nɔfɔ/

13-how_many COP SM.2SG.REL PST2 13-fish catch

Intd.: 'Combien de poissons as-tu pêché?'

Intd.: 'How many fish have you caught?' [PM 1209]

However, a cleft is accepted when the object was moved (448). This gives an interpretation where the speaker cares only about the noun in question. In the example below, the addressee may have caught other sea-creatures such as crabs, but these are excluded.[11]

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[11]Note that it is hard to know for sure how many *á*'s are present underlyingly given that Tunen has a vowel elision rule (for which see Chapter 4 section §4.2). However, the subject marker is normally low-toned, so we know from the realised H tone that there is relative marking on that part of the sentence, supporting a cleft analysis, as discussed in Chapters 4 and 5.

(448) **tɔ́n[↓]έá á tuɔf(ɔ́)** (á) ɔ́ ná nɔf ?

     /tɔ́-nέá   á   tɔ-ɔfɔ́ á   ɔ́   na   nɔfɔ/

     13-how_many PREP 13-fish COP SM.2SG.REL PST2 fish

     'Combien de poissons as tu pêché?'

     'How many FISH have you caught?' (don't care about crabs, prawns etc.)

                                                           [PM 1210]

In summary then, question words differ from foci in declaratives in that they cannot be discontinuous from the head noun in the S-O-V-Mod construction, matching a more general syntactic characteristic of ex-situ question formation in Tunen (Chapter 4 section §4.5.8, Chapter 5).

7.3.2.4. Relative clauses

In addition to numeral and quantifier modifiers and adjectives, relative clauses modifying objects are frequently discontinuous (449), (450).

(449) mɛ ná **wááyέ múɘndu** siɘkin **ɔwánákáná ɔ bulí na móto**, tátá wɔ́n.

     /mɛ   ná   **wááyέ**   **mɔ-ɔ́ndu** siɘkinɘ **ɔwá-á-ánákáná**   **ɔ**

     SM.1SG PST2 DEM.DISC.1 1-woman see.DUR REL.1-SM.1.REL-leave PREP

        bɔ-lí   **na**   **móto**   tátá   wɔ́ni

        14-work with 6.motorcycle NEG.COP DEM.DIST.1

     'J'ai vu la femme qui est allée au travail avec le moto, pas l'autre.'

     'I saw the woman who went to work by motorbike, not the other one.'

                                                                    [PB 2019]

(450) mɛ ka ámɛ **yáyέá ibɘŋuluɘkɘ yí búsíɘ** siɘkinɘ ɔyέá á [↓]**ná ɔnd**, [...]

     /mɛ   ka   ámɛ   **yáyέá**   **ɛ-bɘŋuluɘkɘ yέ**   **búsíɘ** siɘkinɘ

     SM.1SG PST3 PRN.1SG PRN.POSS.1.7 7-car   ASSOC.7 front see.DUR

        ɔyέá   á   ^Lná   ɔ́ndɔ́/

        REL.7 SM.1 PST3.REL buy

     'Moi j'avais vu le premier véhicule qu'il a acheté, [..]'

     'I myself saw the first vehicle he bought, [...]   [PM 1045]

The discontinuous position of relative clauses is not the only possible construction; the relative clause may also be continuous before the verb (O-[Rel]-V; (451)) or continuous after the verb (V-O-[Rel]; (452)).

(451) (nɛɔfénɛ) Mə́tinə a ná **bɛlábɔ́néá bikimə** {ʔɔkɔlɔkɛn} ɔbéá **yamíá inyɔ́ a
↓ná táléáká** naánɛkɔla {ɔkɔlɔkɛn(a)} (nɛɔfén).

/(nɛɔfénɛ)	Mə́tinə	a	ná	**bɛ-lábɔ́néá**	**bé-kimə**	{ɔkɔlɔkɛna}	ɔbéá
(today)	Martin	SM.1	PST2	8-food	8-all	{taste}	REL.8

yamíá	**inyɔ́**	**a**	**ᴸná**	**táléá-aka**	naánɛkɔla
PRN.POSS.1SG.9	9.mother	SM.1	PST3.REL	cook-DUR	yesterday

{ɔkɔlɔkɛna}	(nɛɔfénɛ)/
{taste}	(today)

'Martin a goûté (aujourd'hui) toute la nourriture que ma mère a cuisiné hier.'

'(Today,) Martin has tasted all the food that my mother cooked (yesterday).'

[PM 498]

(452) bá l(ɛ) utíbíniə **ɛbɔ́ka ɔyéá mwití a ná fálɛ́**.

/ba	lɛa	ɔ-tibiniə	**ɛ-bɔ́ka**	**ɔyéá**	**mwití**	**a**	**ná**	**fáléa**/
SM.2	be	INF-observe	7-place	REL.7	PRN.OBJ.1	SM.1	PST2	tumble

'Ils sont en train d'observer l'endroit du la personne a degringolé.'

'They're looking at the place the guy fell.' [PM 582]

I suggest following Isaac (2007) that the variability in attachment of the relative clause may be related to independent factors such as prosodic weight. Given that relative clauses are frequently analysed as extraposed (see e.g. Ross 1967; Culicover and Rochemont 1990; Francis 2010), discontinuous relative clauses may thus be derived by a different syntactic mechanism than the discontinuous numeral, quantifier and adjective modifiers. Alternatively, however, an extraposition account as given for relatives could be extended to other modifiers, as suggested for adjectival expressions in Romance, which have been analysed as reduced relative clauses (Cinque 2010). I will return to this in section §7.4.

7.3.2.5. Can't split associative

As seen in Chapter 4, Tunen has the Bantu connective construction (also called the 'genitive' and the 'associative' construction, and glossed in my data with ASSOC for the associative marker) (Van de Velde 2013). The form of the construction in Tunen is $N_{Possessum}$-ASSOC-$N_{Possessor}$, where the associative marker agrees in noun class with the possessum (see Chapter 4). This is illustrated for contiguous noun phrases in (453)[12] and (454) below.

---

[12]The transcription line orthography has been adjusted to be consistent with the orthography in this thesis; an underlying line, gloss line, and English translation are added.

(453) **miɔkɔ́ yɛ muənd**

/mi-ɔkɔ́　yɛ　　mɔ-əndú/

9-chicken　ASSOC.9　1-woman

'la poule de la femme'

'the woman's chicken'　　　　　　　　　(Dugast 1971:133, adapted)

(454) hɛkɔkɛ búɔ́súɔ́ **bɔlábɔ́néá bɔ́ bɔ́nɛni.**

/hɛ-kɔkɛ　bɔ-ɔ́súɔ́　　　**bɔ-lábɔ́néá bɔ́**　　**ba-nɛni**/

19-kok　14-PRN.POSS.1PL.14　14-food　　ASSOC.14　2-Nen

'Le kok, c'est notre nourriture des Banen.'

'Kok is our food amongst the Banen.'　　　　　　　[JO 1329]

While some languages such as German allow for splits in genitive constructions (Fanselow and Ćavar 2002), discontinuous associative constructions in Tunen were rejected by my consultants, both for a scrambling-type left-peripheral discontinuous noun phrase (455a) and for the O-V-Mod type (455b). We also see in (455c) that the inverted split of N$_{Possessor}$ and ASSOC-N$_{Possessum}$ is also ungrammatical, as expected from the general finding that Tunen discontinuous DPs are pull splits.[13]

(455) Context: 'Which member of Marie's family did the teacher meet at the school?'

a. ****yɛ́ Malíá** múlɘ́liə a ka **inyə** nyánána (u isukul).

/yɛ　　**Malíá**　mɔ-lɘ́liə　a　ka　inyə　　nyánáná　ɔ

ASSOC.9　1.Maria　1-teacher　SM.1　PST3　9.mother　meet.RECIP　PREP

ɛ-sukúlu/

7-school

Intd.: 'Le maître a rencontré [la mère]$_{FOC}$ de Marie à l'école.'

Intd.: 'The teacher met Maria's [mother]$_{FOC}$ at the school.'　　[JO 2652]

b. **múlɘ́liə a ka **inyə** nyánána **yɛ́ Malíá.**

/mɔ-lɘ́liə　a　ka　**inyə**　nyánáná　**yɛ**　**Malíá**/

1-teacher　SM.1　PST3　9.mother　meet.RECIP　ASSOC.9　1.Maria

Intd.: 'Le maître a rencontré [la mère]$_{FOC}$ de Marie.'

Intd.: 'The teacher met [Maria]$_{FOC}$'s mother.'　　　　　[JO 2655]

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[13] For the remotely-elicited dataset in (456), the form ID in square brackets refers to the session number followed by the example number in this session.

c.   *múlə́liə a ka **yɛ́ Malíá** nyánána **inyə**.
/mɔ-lə́liə a   ka   yɛ   **Malíá** nyánáná **inyə**/
1-teacher SM.1 PST3 ASSOC.9 1.Maria meet.RECIP 9.mother
Intd.: 'Le maître a rencontré [la mère]_FOC de Marie.'
Intd.: 'The teacher met Maria's [mother]_FOC.'   [JO 2654]

(456) Context: Correction of falsehood 'The teacher met Johannes' father'.

a.   *bɔ́ɔ ! mulə́liə a ka **isə** nyánána **yɛ Malíá**.
/bɔ́ɔ mɔ-lə́liə a   ka   **isə**   nyánáná **yɛ**   **Malíá**/
no   1-teacher SM.1 PST3 9.father meet.RECIP ASSOC.9 1.Maria
'Non ! C'est le père [de Maria]_FOC que le maître a rencontré.'
'No! The teacher met [Maria's]_FOC father.'   [JO 71.85]

b.   *bɔ́ɔ ! mulə́liə a ka **yɛ Malíá** nyánána **isə**.
/bɔ́ɔ mɔ-lə́liə a   ka   **yɛ**   **Malíá** nyánáná **isə**/
no   1-teacher SM.1 PST3 ASSOC.9 1.Maria meet.RECIP 9.father
'Non ! C'est le père [de Maria]_FOC que le maître a rencontré.'
'No! The teacher met [Maria's]_FOC father.'   [JO 71.86]

Only contiguous orders were accepted for the associative construction, either the in-situ OV order (457)-(458a), or fronting or clefting of the entire DP (458b).

(457) Context: 'Which member of Marie's family did the teacher meet?'
múlə́liə a ka **inyə yɛ́ Malíá** nyánána (u isukul).
/mɔ-lə́liə a   ka   **inyə**   **yɛ**   **Malíá** nyánáná ɔ
1-teacher SM.1 PST3 9.mother ASSOC.9 1.Maria meet.RECIP PREP
  ɛ-sukulu/
  7-school
'Le maître a rencontré [la mère]_FOC de Marie.'
'The teacher met Maria's [mother]_FOC.'   [JO 2651]

(458)   Context: Correction of falsehood 'The teacher met Johannes' father.

    a.   bɔ́ɔ! mulə́liə a ka **isə yɛ Malíá** nyánan.

        /bɔ́ɔ mɔ-lə́liə a   ka   isə   yɛ   **Malíá** nyánáná/

        no   1-teacher SM.1 PST3 9.father ASSOC.9 1.Maria meet.RECIP

        'Non ! C'est le père [de Maria]_{FOC} que le maître a rencontré.'

        'No! The teacher met [Maria's]_{FOC} father.'   [JO 71.84]

    b.   bɔ́ɔ ! **Isə yɛ Malíá** mulə́liə a ka nyánán.

        /bɔ́ɔ **isə**   yɛ   **Malíá** mɔ-lə́liə a   ka   nyánáná/

        no   9.father ASSOC.9 1.Maria 1-teacher SM.1 PST3 meet.RECIP

        'Non ! C'est le père [de Maria]_{FOC} que le maître a rencontré.'

        'No! The teacher met [Maria's]_{FOC} father.'   [JO 71.79]

Finally, recall example (432) above where O-V-Num-Assoc-N was grammatical, suggesting that associates may sometimes be split from the head noun. This is not possible when only the associative is postverbally-positioned without a postverbal numeral (*O-Num-V-Assoc-N), as (459) shows.

(459)   *naánɛkɔla ɛkɔlakɔ́lá tɔ ka **mindíŋgə ɛ́námanɛ** nɛ́ákɛna **yɛ́ mə́lukə**.

    /naánɛkɔla ɛ-kɔlakɔ́lá tɔ   ka   **mɛ-ndíŋgə** **ɛ́-námanɛ** nɛ́ákɛna

    yesterday 7-evening SM.1PL PST3 4-bottle   4-eight   drink

    yɛ́   **mə́luk**/

    ASSOC.4 6.wine

    Intd.: 'Hier soir nous avons bu huit bouteilles de vin !'

    Intd.: 'We drank eight bottles of wine last night!'   [JO 1942]

In summary then, associatives cannot be split from the noun they modify in Tunen. This shows an empirical difference between Tunen and languages such as German that allow certain discontinuous DP constructions with genitives.

7.3.2.7. *na N*

Two other types of syntactic material could be considered other cases of discontinuity, but I believe are better thought to be separate types of constructions. The first is the comitative *na N* 'with/and N' construction, as is common to Bantu languages. Here, Tunen expresses conjoined noun phrases with *na N* construction, where *na* can be translated as 'and' or 'with'. The same form is used for instruments, e.g. go by bicycle, and possessives following the verb 'to be' to mean 'to have' (lit. 'to be with') (see Chapter 4 section §4.5.5).

While contiguous DPs are formed as N₁ na N₂ (460), the discontinuous pattern N₁ ... na N₂ is also found (461).

(460)   [...] **Ɛmánúwɛlɛ na Natanayélɛ** [...]
/ɛmánúɛlɛ   **na**   Natanayélɛ/
1.Emmanuel with 1.Nathaniel
'Emmanuel et Nathaniel'
'Emmanuel and Nathaniel'   [JO 527]

(461)   Étasɛ mí hu, **tɔmbaŋa** tɔ́ bénáka **na moló**, ékɛ tɔmbaŋa tɔ́ hɔ́á ɔ ɔbéna mba mɛ́ sumún.
/étasɛ   mɛ   =ᴴ   huə   **tɔ-mbaŋa** tɔ́   béná-aka **na**
very_soon SM.1SG PROC cover 13-peanut SM.13.SBJV cook-DUR with

    moló ékɛ   tɔ-mbaŋa tɔ́   hɔ́á   ɔ   ɔ-béna   mba   mɛ
    6.oil   when 13-peanut SM.13 finish PREP INF-cook then SM.1SG

    =ᴴ   sumunə/
    PROC remove

"Je vais couvrir, quand les arachides et l'huile vont finir de cuire, je vais enlever (de feu)."
"I'll put the lid on, when the peanuts and the oil have finished cooking, I'll take (them) off the heat."   [JO 1375]

(462)   **ɛmbɔ́ma** yɛ́ báka hɔ́ní **na bɛŋgwɛt.**
ɛ-mbɔ́ma yɛ́   bá-aka   hɔ́níɔ́   **na**   bɛ-ŋgwɛtɛ
7-field   SM.7 be-DUR DEM.DIST.LOC with 8-potato
'Il y a un champ de patates là-bas.'
'There's a potato field over there.'   [JO 1750]

This *na N* construction is analysed by Isaac (2007) as a case of discontinuity on par with other discontinuous modifiers. Although I tag some relevant cases as `discontinuous_DP` in the Dative database on account of this analytical possibility, I argue that the *na N* phrase is structurally and semantically different, as a PP rather than as a modifier within the DP. I therefore do not consider such constructions further here.

7.3.2.6. The -*átɔ* participle and secondary predication

The second phenomenon is participles formed with -*átɔ*. These participles are generally found in combination with a copular verb (Chapter 4 section §4.4.3), functioning as a passive (Chapter 5 section §5.6; Kerr to appear). However, they may also appear in the postverbal construction with non-copular verbs, as in the natural speech example in (463) below.

(463) ɔ ɔŋgɔ́ ɔ mɔkátá wɔ́ bɛnɔ́m, ɔ́ndɔ **hiaɲálɛ** nibəkə ɔmɔ́hɔ́yɛ **ténémáat.**

/ɔ   ɔŋgɔ́   ɔ   mɔ-kátá   wɔ́   bɛ-nɔ́mɛ   ɔ   ᴴndɔ   **hɛ-aŋálɛ**
SM.2SG find   PREP 3-hand   ASSOC.3 8-right   SM.2SG PRS   19-bicycle

nibə-aka   ɔmɔ́hɔ́yɛ́   **ténémá-átɔ**/
find-DUR   DEM.DISC.EMPH.LOC   stand-PTCP

'Suis à droite, tu vas trouver une bicyclette là-bas.'
'Take a right, you'll find a bike there.'   [PM 682]

While the participle *ténémáat* 'stood' could be considered here as a modifier of the noun *hiaɲálɛ* 'bicycle' originating in the same DP, I suggest an alternative analysis where the verbal participle is a form of secondary predication, and therefore do not consider such cases further here.

7.3.2.8. Empirical summary of splits

This subsection has shown that discontinuous modifier placement is common in Tunen with numerals and quantifiers, but is also found with adjectives. Associatives and the 'how many' construction cannot be discontinuously-positioned, while relative clauses may be. This distribution is summarised in Table 7.6 below.

Table 7.6 reports the results for postnominal modifiers, as Tunen only has pull splits (N-V-Mod), with inverted splits (Mod-V-N) ungrammatical (cf. Table 7.2). Because of this, it is not possible for the Mod slot to be filled by a prenominal modifier, such as a demonstrative, the definite determiner, or the possessive (see Chapter 4 section §4.3.7). I will however return to the co-occurrence of prenominal and postnominal modifiers in section §7.5.2 as a relevant factor for further investigation into discontinuous DPs in Tunen.

As a final note regarding the nature of syntactic material that can be discontinuous, Fanselow and Ćavar (2002:94) report that "DP-splits can be well-formed in certain varieties of German only if the split phrase is a plural DP, or is projected from a mass noun." This restriction to plural nouns is likely language-specific: German singular nouns cannot form a DP by themselves, whereas in languages like

Modifier type	S-O-V-Mod?
Quantifiers	✓
Numerals	✓
Adjectives	✓
'how many'	✗
Associatives (genitive)	✗
Relative clauses	✓

Table 7.6: Ability for different items to be discontinuous from the head noun (S-O-V-**Mod**) in Tunen.

Tunen, singular nouns can stand alone.[14] As expected, there is no singular versus plural restriction on discontinuous DPs in Tunen, with discontinuous orders possible for both singular and plural nouns (464).

(464) a. mɛ́ ndɔ **hébanána** nɛ́á **hímɔti** ɔ bwɔs.
           /mɛ   ᴴndɔ   hɛ-banána   nɛ́á   hɛ́-mɔtɛ́   ɔ   bɔ-ɔsɛ́/
           SM.1SG PRS   19-banana   eat   19-one   PREP   14-day
           'Je mange une banane par jour.'
           'I eat one banana per day.'   [PN 350]

       b. mɛ́ ndɔ **tɔbanána** nyɛ́ **tɔ́fandɛ́** ɔ bwɔs.
           /mɛ   ᴴndɔ   tɔ-banána   nɛ́á   tɔ́-fandɛ́   ɔ   bɔ-ɔsɛ́/
           SM.1SG PRS   13-banana   eat   13-two   PREP   14-day
           'Je mange deux bananes par jour.'
           'I eat two bananas per day.'   [PN 351]

This lack of relevance of singular versus plural status of the DP in Tunen highlights the crosslinguistic variation in factors that are relevant or irrelevant for characterising discontinuous DPs in different languages.

7.3.3 Empirical summary

In summary, we see that discontinuous DPs in Tunen are always pull splits, with the same order of modifiers as in a contiguous DP. Numerals and quantifiers are

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[14]I follow Ferch's (2013) discussion of Shona DPs in considering these as bare (classified) nouns, i.e., nouns that are composed of a noun stem + class prefix, with no further modification.

frequently discontinuous, with examples of discontinuous adjectives rarer in the data but also found across speakers. The question word 'how many?' and associatives, on the other hand, cannot be split. Relative clauses modifying objects can be split, which is presumably due to independent mechanisms of extraposition motivated by prosodic heaviness. I also pointed out a few more points of interest, such as the non-influence of singular versus plural distinctions on the availability of splits.
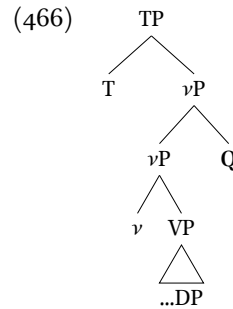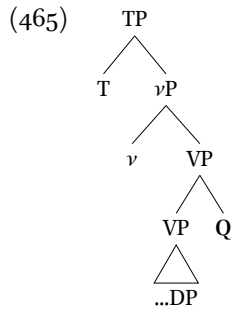
7.4   Formal analysis

Having now seen evidence that S-O-V-Mod discontinuity is found across IS contexts in Tunen and found for different modifiers, we can turn to an analysis of the underlying syntactic structure. As outlined in section §7.2.4 above, there are two main analyses of discontinuous DPs in the formal literature: (i) the noun and modifier are base-generated in different syntactic positions, and therefore discontinuity is only apparent, and (ii) the noun and modifier are base-generated as part of the same noun phrase, and discontinuity arises during the derivation through either subextraction or copy+deletion. I will evaluate the application of these different analyses to Tunen in turn.

7.4.1   Apparent discontinuity analyses

Some evidence in favour of a base-generation account for Tunen is that discontinuous numerals and quantifiers can be interpreted as modifiers of either the object or the subject. While not impossible to capture in a movement account, this is easier to account for if the modifier is base-generated in a postverbal position separate from the DP in which the head noun is found. Two such analyses are found in the literature: adverbial analyses on the one hand and analyses with base-generation of two DPs + ellipsis on the other.

7.4.1.1. Against an adverbial analysis

Discontinuous DPs and floating quantifier constructions have been captured by treating the quantifier as an adverbial modifier. For example, such an analysis is provided by Bošković (2004) as an account of floating quantifiers in English. The treatment of quantifiers as adverbial adjuncts means that different interpretations can be captured by different attachment heights, as in (465)-(466).

(465)
```
        TP
       /  \
      T    vP
          /  \
         v    VP
             /  \
           VP    Q
           /\
          ...DP
```

(466)
```
        TP
       /  \
      T    vP
          /  \
        vP    Q
        /\
       v  VP
          /\
         ...DP
```

However, there are four arguments against extending such an adverbial account to the Tunen discontinuous DPs. The first argument is that discontinuous modifiers in Tunen always show morphological noun class agreement with the head noun. This is a challenge for the adverbial account as Tunen adverbials do not inflect for noun class. This lack of noun class agreement on adverbials is illustrated in (467) and (468) below, where the adverbs *mɔŋéŋa* 'much' and *tɔfá* 'quickly' are invariant.[15]

(467) a. Context: '(He's a) Munen! I'm not lying to you.'
       a ka nyɔɔkɔ háaha ɔ uwəsú **mɔŋéŋ**.

/a	ka	nyɔ-aka	háaha	ɔ	uwəsú	**mɔŋéŋa**/
SM.1	PST3	work-DUR	DEM.PROX.LOC	PREP	PRN.1PL.POSS	much

       'Il a beaucoup travaillé ici chez nous.'
       'He worked a lot here in our region.'   [EO 1043]

   b. Context: 'When did the dog bark a lot?'
       ɛmɔ́á yé ná bɔ́mɔ́kɔ́ **mɔŋéŋa** nəbúlú.

/ɛ-mɔ́á	yé	ná	bɔ́mɔ́-aka	**mɔŋéŋa**	nɛ-búlú/
7-dog	SM.7	PST2	bark-DUR	much	5-night

       'Le chien a beaucoup aboyé [pendant la nuit]_FOC.'
       'The dog barked a lot [at night]_FOC.'   [JO 1105]

---

[15]Note that these examples also show that adverbials are free with respect to other postverbal adjuncts. In (467a) the adverbial is focal (in the context of a dialogue emphasising how someone should be considered a Munen despite being born elsewhere), while in (467b) the sentence-final non-argument 'at night' corresponds to the information focus.

(468) a. bə́ə́ní bɛndɔ bə́ə́ní bá ndɔ ɛŋganda bíínə **tɔfa ɛmbát.**

/bə́ə́ní   ba-ndɔ   bə́ə́ní   bá   ᴴndɔ ɛ-ŋganda   bínə

DEM.DIST.2 2-person DEM.DIST.2 SM.2 PRS   7-enganda dance

tɔfá   ɛmbáta/

quickly too_much

Les gens-là dansent l'enganda trop rapidement.'

'Those people over there dance the enganda too quickly.' [EE+EB 1836]

b. Malíá a ná bɛlama ɔ́ndɔ **tɔfá.**

/Malíá a   ná   bɛ-lama   ɔ́ndɔ **tɔfá**/

1.Maria SM.1 PST2 8-vegetable buy   quickly

'Maria a acheté des légumes rapidement.'

'Maria bought the vegetables quickly.'   [JO 2480]

Thus, taking morphological form as diagnostic for word category, Tunen modifiers do not appear to be adverbial, providing evidence against analysis of discontinuous modifiers as adverbial adjuncts. While this is by itself not conclusive evidence against the adverbial analysis, as noun class agreement can be derived by feature matching between two co-indexed phrases that were not base-merged together, I turn now to additional arguments that show further issues with the account.

The second issue with the adverbial analysis is that, while discontinuous noun phrases are far more frequently attested for numerals and quantifiers in Tunen, they are also available for adjectives, as seen in e.g. (430) above. Adjectives are much less clearly adverbial than quantifiers are, instead appearing to be qualificatory in nature. This again suggests that the modifiers in the S-O-V-Mod construction are not adverbial.[16]

The third issue is that under the adverbial analysis in (465)-(466) is that the modifier and DP do not form a constituent to the exclusion of other VP-internal material. However, evidence from constituency tests show that the noun and modifier do function as constituents in Tunen, as shown below for the fragment test (469), fronting (470), and clefting (471).

---

[16]It would also be possible to have an analysis of discontinuous DPs in Tunen where numerals and quantifiers are adverbial and therefore only apparently discontinuous, while adjectives are base-generated as part of the same DP as the head noun. Under metatheoretical concerns for parsimony (Chapter 3 section §3.2.1), I do not adopt this analysis here; if the data can be derived through one analysis, that is preferable.

(469) a. Context: 'How many people do you see?'
           bɛndɔ báfandɛ.
           /bɛndɔ   bá-fandɛ/
           2.person 2-two
           'Deux personnes.'
           'Two people.'   [JO 540]

       b. Context: 'What kind of flower do you see?'
           umbɔnd͡ʒiə mɔŋéŋ.
           /u-mbɔnd͡ʒiə   mɔ-ŋéŋa/
           3-flower   3-big
           'Une grande fleur.'
           'A big flower.'   [JO 2354]

(470) Context: 'How many children do you see?'
       mɔná ɔmɔtɛ mɛ́ ndɔ sin.
       /mɔ-ná ɔ́-mɔté mɛ   ᴴndɔ sinə/
       1-child one   SM.1SG PRS   see
       'Je vois un enfant.'
       'I see one child.'   [DM 147]

(471) Context: 'What kind of flower do you see?'
       umbɔnd͡ʒi mɔmɔakánɔ́ á mɛ́ ndɔ sin.
       /u-mbɔnd͡ʒi mɔ-nɔakánɔ́   á   mɛ́   ᴴndɔ sinə/
       3-flower   3-red   COP SM.1SG.REL   PRS   see
       C'est une fleur rouge que je vois.'
       'I see a red flower.', 'It's a red flower that I see.'   [JO 2350]

This does not mean that the analysis in (465)-(466) cannot apply for some modified DP constructions in Tunen, as it can be argued that the noun and modifier do not form a constituent when not adjacent to each other. However, it does mean that this cannot be the only account of modified DPs in Tunen. Based on the metatheoretical principle of parsimony introduced in Chapter 3 section §3.2.1, it would therefore be preferable to find an analysis of the discontinuous DP construction that also accounts for the analysis of contiguous DP constructions more generally.

Fourthly and finally, the adverbial account in (465)-(466) predicts that the modifier semantically modifies the event, rather than modifying the noun alone, as it is

attached as an adjunct within the verbal domain. While the semantic interpretation could be more thoroughly tested in future work using targeted elicitation and a larger natural speech corpus, this empirical prediction seems not to hold. For example, the discontinuous DP subject from the QUIS discourse task (EO explains to PM what happened earlier on in a cartoon sequence, elicited with a cartoon picture stimulus of three men by a tree; Skopeteas et al. 2006) involves the numeral 'three' (472). This clearly relates to a plural nominal referent and a single seeing event, rather than three seeing events.

(472)   Context: After concluding the explanation.
  mhm. ɔ́↓há **bɛndɔ** bándɔ wɛɛ́ya sinə **balal.**
  /mhm ɔhá   bɛndɔ bá ᴴndɔ wɛ́ɛya sinə **bá-lálɔ́**/
  PTCL for_that 2.person SM.2 PRS PRN.1 see 2-three
  'Mhm. C'est pour ça que trois personnes le regardent.'
  'Mhm. That's why three people are looking at him.'   [PM 597]

Other examples show the same lack of event semantic reading (e.g. (497) below from the Dugast (1975) text corpus). The adverbial account therefore requires additional explanation as to why the modifier is interpreted as modifying the noun rather than as modifying the event as a whole.

Taking these four arguments together, an adverbial adjunction account is therefore not well-motivated for discontinuous DPs in Tunen.

7.4.1.2 Base-generation of two DPs

An alternative base-generation account would be to posit two DPs, with ellipsis resulting in the modifier only spelled out in the lower one, as proposed for example for Georgian in Fuchs (2017).

If Tunen modifiers are base-generated in separate DPs, there is a question of how agreement arises. The common solution is to propose that the postverbal modifier is always base-generated with a head noun with which it agrees, with the head noun then elided. Alternatively, it could be suggested that agreement on the modifier is arrived at due to a *pro*-form or due to pragmatics, reflecting the noun class of available referents in the discourse situation. One suggestion for morphological matching of modifier and noun in a base-generation account is when the modifier and noun are linked by a binding relation. Such accounts are proposed for floating quantifiers in order to capture the dependency between the quantifier and head noun. For example, Doetjes (1997) argues that the adverbial quantifier in French floating quantifier constructions binds the trace of the moved DP, with the correct

inflectional morphology on the quantifier being spelled out through this binding relation. However, it is difficult to extend this specific analysis to Tunen because it predicts that the DP must move in order for the quantifier to be postverbal, while Tunen also allows V-O-Q constructions in which there appears to be no movement. In general, the Tunen data show a wider range of discontinuous material than is considered for the analyses of languages with quantifier float (Kayne 1975; Doetjes 1997; Bošković 2004, a.o.), meaning that the existing analyses cannot be readily adapted to capture the full Tunen data.

Another issue with the base generation type of analysis is that it requires either stipulation or an explanation of how ellipsis deletes the lower head noun. In other words, without a motivated theory constraining ellipsis of DP-internal copies at PF, the analysis lacks explanatory power and is too permissive. I therefore turn now to the alternative analysis type, whereby the modifier starts out as base-generated in the same DP as the head noun that is pronounced preverbally.

7.4.2   True discontinuity analyses

If Tunen discontinuous DPs are truly discontinuous, the noun and modifier must be base-generated as part of the same DP and then be split during the syntactic derivation. Supporting evidence for this kind of base-generation + movement/copying account is the noun class agreement facts, namely that discontinuously-positioned modifiers in Tunen match in noun class with the head noun. This morphological match in noun class is straightforward to capture if the modifier originated in the same DP as the head noun, with Agree applying before movement via Merge (see Chapter 2 for background on Agree/Merge). If cases are found where the modifier and noun have class mismatches, this would be a challenge for the base-generation account, as an explanation would have to be found for the morphological mismatch. However, all my examples and those in the Dugast (1975) texts studied by Isaac (2007) show identical noun class agreement and no difference with the noun class agreement found on modifiers of contiguous DPs (cf. the German strong/weak inflectional distinction and the Georgian case mismatches seen in section §7.2.4).

One piece of evidence that separates Tunen from other languages with discontinuous DPs analysed in the literature is the lack of a unifying trigger for movement. While languages like German have been captured by IS features driving A'-movement to the clausal left periphery, no such IS restriction was found in Tunen, as covered in section §7.3.1 above.

For these reasons, I suggest that discontinuous modifiers in Tunen arise as a by-product of the formally-conditioned object movement discussed in Chapter 6, whereby the object is raised to a *v*P-internal preverbal position (SpecVoiceP) from

an underlyingly postverbal position (the complement of V). To follow up on this intuition and build a full analysis, we first need a model of the internal structure of the Tunen DP. I turn to this now.

7.4.2.1 The structure of the Tunen DP

As there is no previous formal model of the Tunen noun phrase, I will now build up a proposal. Recall firstly from Chapter 4 section §4.3.7 that the order of modifiers in Tunen contiguous DPs is D(em)-N-Adj-Num/Q (Table 7.8, repeated from Table 4.16), as shown in (473) below for Dem-N-Adj-Num, (474a) for D-N, and (474b) for wh-N (see Chapter 4 section §4.3 and Dugast 1971; Mous 2003 for further evidence).

D			
Dem	Noun	Adj	Num
Poss			Q
wh			

Table 7.8: Linear order of Tunen nominal modifiers.

(473) tɔéyɛ tɔbanána tɔfítitiə tɔté↓téá tɔ́fandɛ
/tɔéyɛ   tɔ-banána tɔ-fititiə tɔ-tɛtɛ **tɔ́-fandɛ́**/
DEM.PROX.13 13-banana 13-black 13-small 13-two
'ces deux petites bananes noires'
'these two small black bananas'   [JO, 844]

(474) a. [...] **ɔmɔtɛ́** mɔndɔ [...]
/ɔ́-mɔtɛ́ mɔ-ndɔ/
1-one   1-person
'[...] quelqu'un'
'[...] somebody'   [PM 1189]

    b. **ɛ́yánɛ́** mɔndɔ wa ɛŋɔŋɔ [...]
/ɛ́yánɛ́ mɔ-ndɔ wɔ   ɛ-ŋɔŋɔ/
1.which 1-person ASSOC.1 7-politics
'Quel politicien [...]'
'Which politician [...]'   [PM 334]

I assume the base structure of DPs in Tunen given in (475) below. Here, quantifiers and numerals are taken to be adjuncts attached to the number phrase (NumP), given that the current data show no clear difference in ordering between the two.[17] As adjectives are obligatorily closer to the root (473), I take these to be adjuncts to the *n*P, i.e., adjoining at a lower level of the structure.

(475)
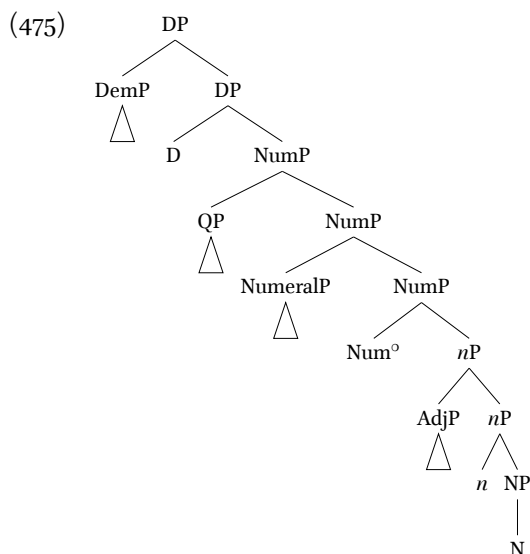
The next step of the analysis is to account for how the surface order of nominal modifiers is generated by movement operations from the base structure in (475). There are two main types of analyses to derive the surface order of nominal modifiers found in Bantu languages within the literature: (i) N-to-D movement and (ii) phrasal movement.

The N-to-D movement approach is characterised by head movement of N up to D. Such an approach has been previously applied to Bantu languages including Shona (S10; Carstens 2017) and Basaá (A43; Bassong 2021) (although see Bruening 2020 and references therein for arguments against it). The application of the N-to-D analysis for the Tunen base structure (475) results in the proposal in (476).[18]

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[17] In order to avoid confusion between Num as head of the number phrase NumP and Num as in a numeral modifier, I indicate the head as Num° in the tree structures throughout this chapter.

[18] I represent head movement as resulting in complex head movement with the higher head as a suffix in the same way as discussed for head movement in the verbal domain in Chapter 6.

(476)
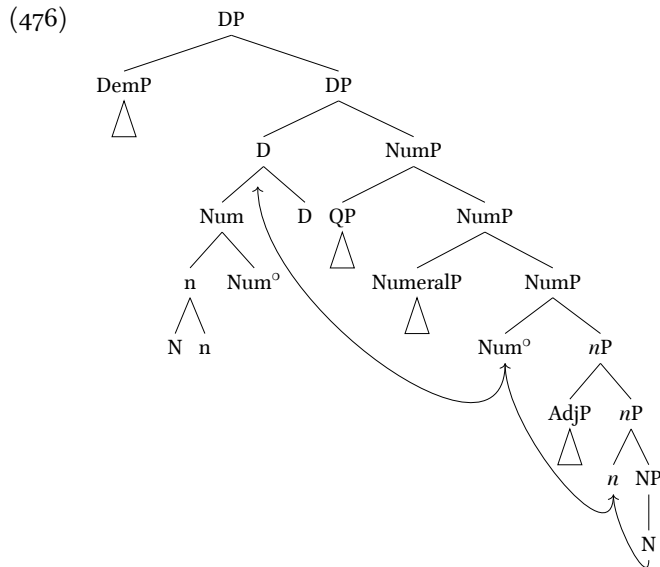
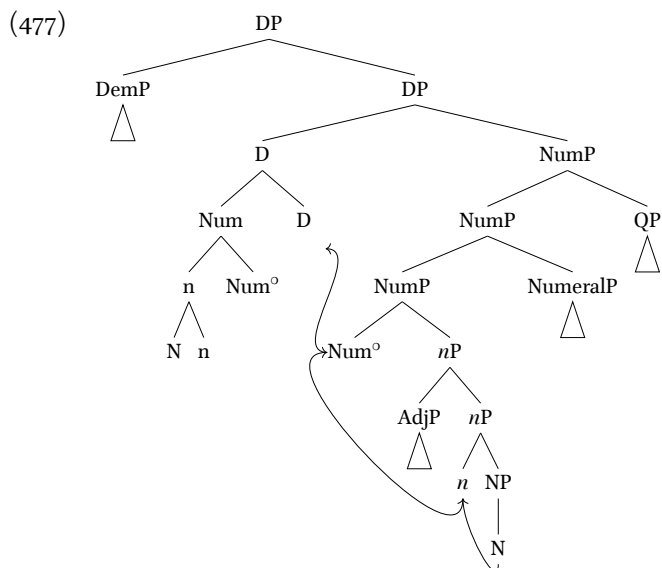An issue for applying such an N-to-D analysis for Tunen in my account is that I take the indefinite determiner *-mɔté* seen in (474a) above to be the spellout of the D head (Kerr 2020). This determiner obligatorily precedes the head noun and is a separate phonological word (474a), which is not expected if D+N form a complex head (under the proposal of the syntax/morphology interface assumed here; see Chapter 6 for arguments in favour of such an approach within the verb phrase). In other words, the analysis in (476) predicts spell-out of (476) as *mɔndɔ ɔ́mɔté* (N-D) instead of the attested *ɔ́mɔté mɔndɔ* (D-N). Unless *-mɔté* is reanalysed as phrasal, occupying SpecDP (akin to Carstens's 2008 analysis of demonstratives in Swahili), this is a problem for the head movement analysis.[19]

Even if the phrasal analysis of the *-mɔté* determiner is accepted, the head movement analysis must be modified in order for the structure to linearise as D-N-Adj-Num and not *D-N-Num-Adj. One possible solution is to allow for right adjunction of nominal modifiers (as in Carstens 2008, 2017 but against the strict Antisymmetric approach of Kayne 1994). If right adjunction is permitted, then the N-to-D analysis can be adjusted to (477), which generates the correct D-N-Adj-Num order.[20]
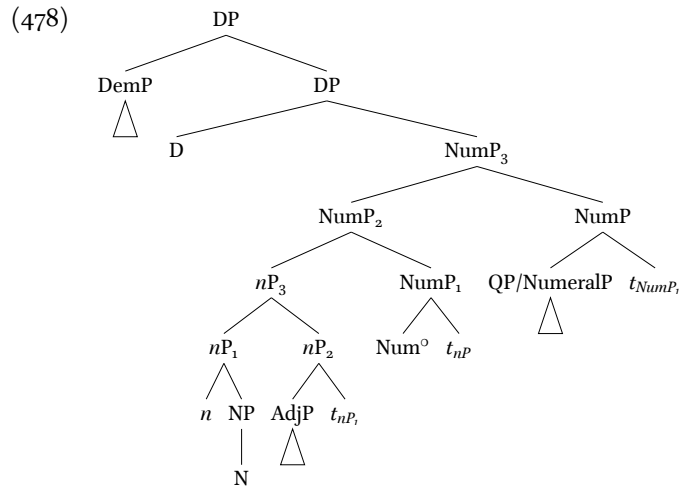
---

[19]Accounting for Tunen demonstratives is however unproblematic for the head movement approach, as they could indeed be taken to be located in SpecDP as phrases, and therefore linearised prenominally.

[20]Note that I also used right adjunction in Chapter 6 for adjuncts in the 'X' position.

(477)

```
                        DP
            ┌───────────┴───────────┐
          DemP                      DP
           △              ┌─────────┴─────────┐
                          D                  NumP
                    ┌─────┴─────┐      ┌───────┴───────┐
                  Num          D      NumP            QP
               ┌───┴───┐           ┌───┴───┐          △
               n     Num°        NumP    NumeralP
            ┌──┴──┐           ┌────┴────┐     △
            N    n          Num°        nP
                                    ┌────┴────┐
                                  AdjP       nP
                                   △      ┌───┴───┐
                                          n      NP
                                                 │
                                                 N
```

While this analysis accounts for the word order of contiguous DPs, it makes the prediction that the noun alone cannot be subextracted via phrasal movement, as it is not a phrase. Instead, it is a complex head, predicting that D+N must remain together also in discontinuous DPs. I will show in section §7.4.2 that this is a problematic restriction for attempts to derive Tunen's discontinuous DPs. First, however, I will show the phrasal movement alternative.

The phrasal movement account involves movement of XP constituents, as has been widely discussed in the literature on nominal syntax crosslinguistically in relation to Greenberg's Universal 20 (see e.g. Greenberg 1963; Cinque 2005; Rijkhoff 1990, 2002). There are different orders of nominal modifiers found crosslinguistically, some more common than others and other orders not being attested at all. Tunen's D-N-Adj-Num order is one of the attested orders, and can be derived in the models proposed in the literature. This is illustrated in (478) below, following Cinque's (2005) approach, which relies on phrasal roll-up (where the phrase must contain the head noun).

(478)

```
                        DP
              ┌─────────┴─────────┐
            DemP                  DP
             △          ┌─────────┴─────────┐
                        D                 NumP₃
                              ┌────────────┴────────────┐
                            NumP₂                      NumP
                     ┌────────┴────────┐        ┌───────┴───────┐
                   nP₃              NumP₁    QP/NumeralP   t_NumP,
                 ┌──┴──┐          ┌──┴──┐       △
               nP₁    nP₂       Num°  t_nP
              ┌─┴─┐  ┌─┴─┐
             n  NP AdjP t_nP,
                 │   △
                 N
```

Alternatively, if right adjunction is taken to be possible (again departing from Kayne 1994), then the Tunen DP can be analysed directly as in (479).

(479)

```
                    DP
           ┌────────┴────────┐
         DemP                DP
          △         ┌────────┴────────┐
                    D               NumP₂
                          ┌──────────┴──────────┐
                        NumP₁               QP/NumeralP
                  ┌───────┴───────┐             △
                Num°            nP₂
                          ┌───────┴───────┐
                        nP₁             AdjP
                       ┌─┴─┐             △
                      n  NP
                          │
                          N
```
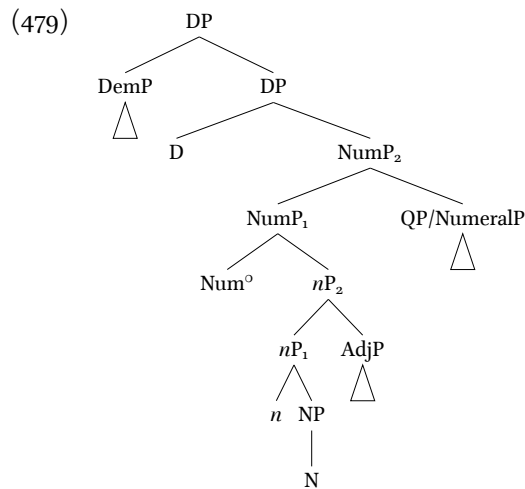
This model makes different predictions about syntactic constituency than the N-to-D analysis in (477) did, as N+D do not form a complex head in (479) and therefore may be split in subsequent movement operations.

Based on the issues with the N-to-D analysis, I take (479) as the working hypothesis for the structure of Tunen DPs. With this model of contiguous DPs in place, we can turn now to its application to the discontinuous DP cases.
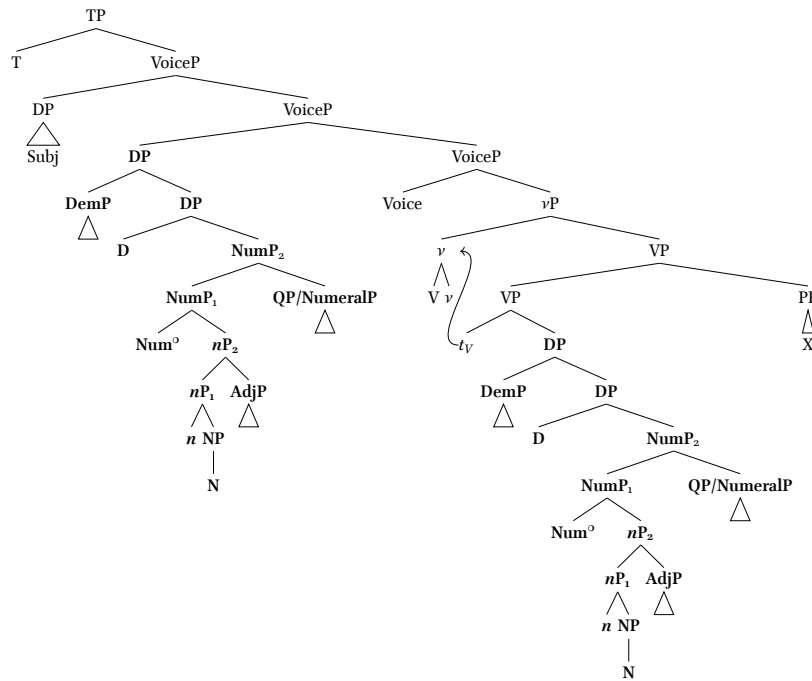
7.4.2.2 Application to discontinuous DPs

In Chapter 6 sections §6.3-6.6, I presented a working analysis of Tunen clausal syntax in which the object DP A-moved to SpecVoiceP, in order to capture the OV linearisation. In this section, I pursue an analysis in which discontinuous DPs are related to this object movement. The basic idea to be developed is that formally-driven A-movement of the theme object to the SpecVoiceP position can target a subpart of the DP that excludes one or more modifiers, which are thus stranded in the postverbal domain. However, the challenge is how to derive such subextraction. This requires a model of Tunen nominal syntax which shows that the preverbal DP containing N+Mod is a constituent excluding the stranded postverbal modifier.

I assume here for parsimony that the modifier stays in-situ while the object NP moves out — in other words, I will attempt to provide an analysis that does not require an additional movement operation applying to the modifier. An alternative account would be to also extrapose the modifier. Extraposition is crosslinguistically assumed for postposed relative clauses (of the kind also found in Tunen) (e.g. Culicover and Rochemont 1990), which means that such movement is likely available in Tunen at least for relative clauses. One piece of evidence in favour for extending the mechanism of extraposition to discontinuously-positioned modifiers in Tunen is the prosodic diagnostic suggested by Mous, namely that there is a lack of H tone spread from a verb to a following modifier (Mous 2003). However, I noted in section §7.2.5 above that there is no convincing evidence that this is a reliable diagnostic in Tunen, and in any case, it is mostly irrelevant for testing discontinuous DPs due to the fact that numerals and quantifiers take a H-toned agreement prefix for independent reasons. In the absence of prosodic evidence for extraposition, I therefore assume that the modifier may stay in-situ, which I take to be the null hypothesis on metatheoretical grounds for analytical parsimony.

I argued above against a base-generation analysis of Tunen discontinuous DPs and in favour of a movement account, illustrating the copy+deletion and subextraction subtypes. Updating these analyses now with the proposed analysis of the Tunen noun phrase sketched in (479) above, the copy theory looks like (480).[21]

---

[21]For current purposes, I represent the subject DP only in its base position (see Chapter 6 section §6.5.3 and Chapter 8 section §8.4.2 for discussion of the surface position).

(480)

```
                              TP
                           /      \
                          T        VoiceP
                                  /      \
                               DP          VoiceP
                              /  \        /      \
                           Subj   DP          VoiceP
                                 /  \        /      \
                              DemP   DP    Voice     vP
                                    /  \            /   \
                                   D   NumP₂       v     VP
                                      /    \      / \   /  \
                                  NumP₁  QP/NumeralP V v  VP    PP
                                  /  \              t_V  /  \    X
                              Num°   nP₂              DP
                                    /  \            /    \
                                  nP₁  AdjP      DemP    DP
                                  / \             /  \
                                 n  NP           D  NumP₂
                                    |              /    \
                                    N          NumP₁   QP/NumeralP
                                              /   \
                                          Num°    nP₂
                                                 /   \
                                               nP₁   AdjP
                                               / \
                                              n  NP
                                                 |
                                                 N
```

Here, the full DP structure is represented both in the base-generation position of the theme object (complement of V) and in the final landing site (SpecVoiceP). As the structure currently stands, it would predict a linearisation of noun and modifier in both positions, e.g. **N-Adj**-V-**N-Adj**. An extra ingredient is therefore needed, namely an account of ellipsis. The Tunen S-Aux-O-V-Mod construction should be derivable following one's assumed constraints on ellipsis, such as the requirement that only constituents can elide (as has for example been formalised in terms of there needing to be a licensing head containing an ellipsis feature ([E]-features) which triggers ellipsis of its complement; Merchant 2001, 2004). This requirement for ellipsis to target syntactic material is not always assumed for all types of ellipsis, as some authors propose that some types of ellipsis can apply at PF to non-constituents (see Lipták and Güneş 2022 for an overview). However, a restriction to constituents is commonly assumed for noun phrase ellipsis in particular (Yoshida et al. 2012), and is therefore expected to apply in an ellipsis-based account of discontinuous DPs in Tunen.

If this ban on non-constituent ellipsis is indeed valid for Tunen, then the structure in (480) generates some issues. For the lower DP (in which the modifier is taken to be spelled out), it would be possible to elide the *n*P constituent, correctly leaving the modifier in-situ. However, in the upper DP, what needs to be elided in order

to leave only the noun spelled out is not a constituent. The copy+deletion analysis therefore requires either a different theory of constraints on ellipsis or a different model of the DP structure.[22]

With these restrictions in mind, we can consider whether the subextraction approach to movement provides a workable alternative. Under this account, only a sub-XP of the DP A-moves to SpecVoiceP. Again assuming that the noun in a discontinuous DP is the spell-out of the *n*P constituent, the construction can be modelled as in (481).

(481)
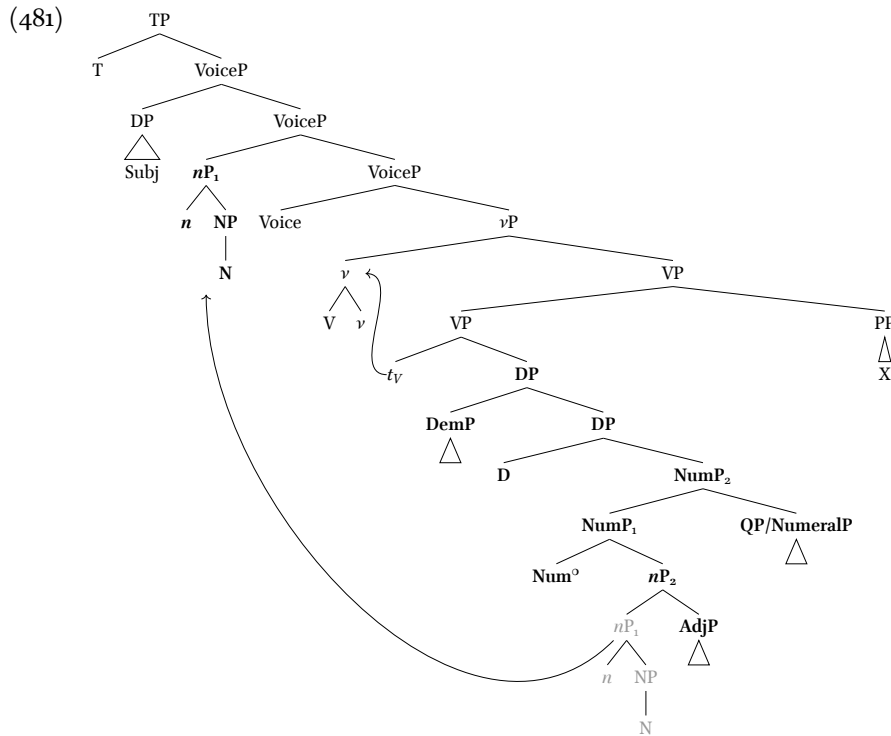
Because this account does not involve movement of the whole DP to SpecVoiceP, no account of ellipsis is required beyond the standard assumption that the moved constituent is not pronounced in its base position. The subextraction analysis is therefore better able to account for the current data on Tunen discontinuous DPs.

---

[22]The consequences of such a restriction to constituent ellipsis are more serious when looking at the possibilities for discontinuous DPs in DPs with multiple modifiers, which I return to in section §7.5.1 as an important test case for further work.

A key advantage of the model in (481) is that it is able to derive the basic N-V-Mod construction through the independently-motivated mechanism of object movement. The presence of discontinuous DPs can therefore be related to Tunen's recent innovation of OV order (Mous 2005; Kerr 2024; Chapter 6 section §6.8).

The subextraction account is also able to account for variation in the grammar, as speakers may be able to move constituents larger than *n*P. This means that speakers who allow for N-Adj-V constructions can be understood simply as subextraction of NumP or DP rather than *n*P.
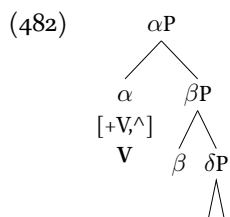
One question for the formalism is the nature of the formal movement trigger that derives the object movement introduced in Chapter 6 and considered here to be able to target different constituents within the DP. In other words, a formal model of syntactic features in Tunen needs to show how a Probe can find and attract a lower XP within the DP as Goal (if the movement is triggered by a feature on another head) or how the movement feature can project/fail to project to the entire DP (if the movement feature is part of the object).

A final question considers licensing. In Chapter 6, I proposed that Tunen objects move for licensing reasons. However, some V-O-Mod constructions were seen in this chapter to be judged grammatical, possibly due to a preference for iconic syntactic contiguity overruling the general requirement for Tunen nominal objects to appear preverbally. On the assumption that all nominals must be licensed, this raises a puzzle. In the analysis presented here, I take the V-O-Mod constructions to be the spell-out of the in-situ object DP, which should not be licensed (otherwise, other objects would not need to move at all). An alternative analysis would be to license the objects by movement to another position. I leave the in-situ spell-out analysis as the null hypothesis; a formal account of licensing would need to consider the degree of variation in speakers' judgements regarding V-O-Mod versus O-Mod-V constructions and test further whether the DP in V-O-Mod constructions is in-situ or extraposed.
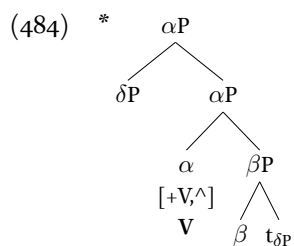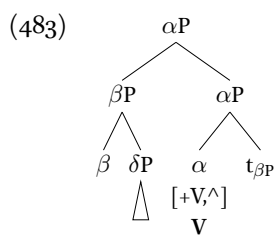
7.4.3   Proposal for Tunen

The consequence of the proposal in (481) is that the object movement mechanism must be able to select only the XP containing the object, at the exclusion of the larger XP projection containing the nominal modifier. This is significant particularly for the ^-movement analysis from Germanic FOFC accounts, in which any head with the ^-feature must trigger movement of the entire complement. Such an account does not allow the flexibility of a ^-carrying head to move a sub-XP of its complement. This inability for roll-up movement to strand a modifier was shown in Chapter 6 section §6.5.5 in abstract terms, as repeated in (482)-(484), where (484)
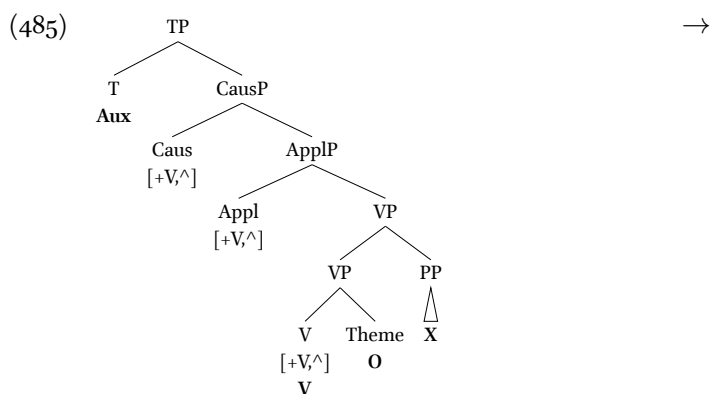
shows it is impossible for the roll-up movement operation to leave any material within the complement of a head carrying the movement trigger [+V, ^].

(482)

```
        αP
       /  \
      α    βP
   [+V,^]  / \
      V   β  δP
             /\
            /__\
```

↓

(483)

```
          αP
         /  \
       βP    αP
       / \   / \
      β  δP α  t_βP
        /\ [+V,^]
       /__\  V
```

(484) *

```
          αP
         /  \
       δP    αP
             / \
            α   βP
          [+V,^] / \
            V   β  t_δP
```
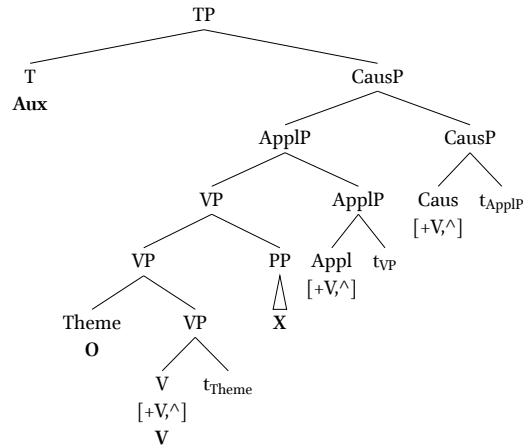
When applied to the Tunen discontinuous DP cases, the restriction is therefore that any modifier present on the theme object DP must move together with the rest of the DP due to the ^-feature on V, as in (485)-(486).

(485)   →

```
        TP
       /  \
      T    CausP
     Aux   /  \
         Caus  ApplP
        [+V,^]  /  \
             Appl   VP
            [+V,^]  / \
                  VP   PP
                 / \   /\
                V  Theme X
             [+V,^]  O
                V
```

(486)

TP
├─ T
│   **Aux**
└─ CausP
    ├─ ApplP
    │   ├─ VP
    │   │   ├─ VP
    │   │   │   ├─ Theme
    │   │   │   │   **O**
    │   │   │   └─ VP
    │   │   │   ├─ V
    │   │   │   │   [+V,^]
    │   │   │   │   **V**
    │   │   │   └─ t_Theme
    │   │   └─ PP
    │   │   △
    │   │   **X**
    │   └─ ApplP
    │   ├─ Appl
    │   │   [+V,^]
    │   └─ t_VP
    └─ CausP
        ├─ Caus
        │   [+V,^]
        └─ t_ApplP

The inflexibility of the roll-up movement approach regarding whether all material in the complement moves is a key issue with it. Given we have seen other issues with the analysis in Chapter 6 section §6.5.1-6.5.4, I conclude that the verbal head movement+object movement analysis is preferable, as repeated in (487).

(487)
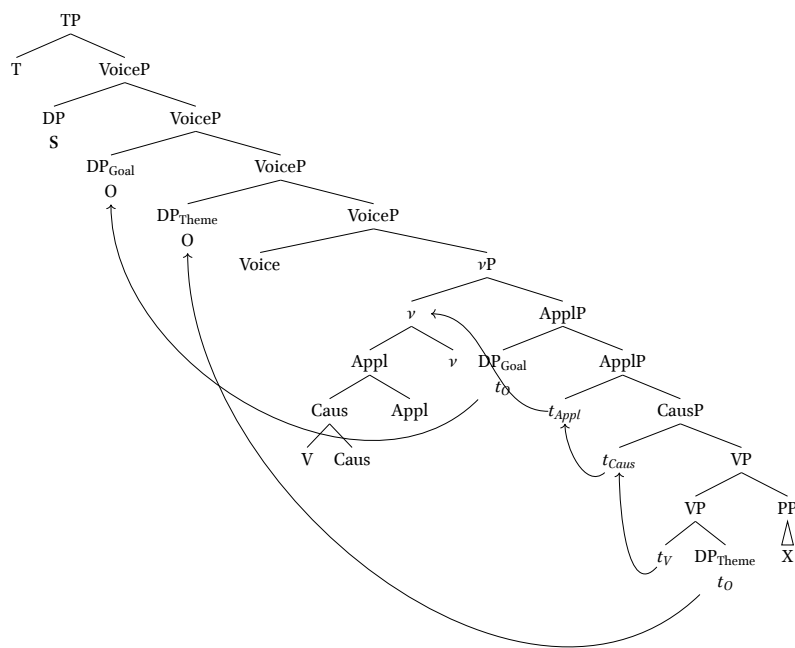
Here, we can understand the internal structure of the DP theme object as in (481) above, where discontinuous DP constructions arise when speakers A-move a smaller phrase within the DP to SpecVoiceP, e.g. *n*P (for N-V-Mod constructions) or NumP (for speakers who allow N-Adj-V-Mod).

7.5 Points for further study

Having drawn up a basic analysis based on the available field data testing for the extent to which discontinuous DPs in Tunen reflect IS, I will highlight in this section points of interest for further refinement of the model.

7.5.1 Extension to different modifiers

An important question to consider is why discontinuity is restricted to certain nominal modifiers, as seen in section §7.3. A desideratum of the model is for these syntactic restrictions to be explained by the structure of the DP. I propose that the Tunen discontinuous DP distribution reflects the fact that modifiers such as numerals and quantifiers are further from the head noun than adjectives are (488) (cf. (479)), and therefore harder to split.

(488)   [Num/Q [Adj [N]]]

This matches the finding that numerals and quantifiers split more than adjectives, although the difference cannot be categorical (at least when comparing different speakers), as discontinuously-positioned adjectives are also attested. The variation can be captured in the subextraction account as subextraction of the *n*P, NumP, or DP constituents.

We also saw in section §7.3.2 that associatives cannot be split from the head noun (*N ... Assoc N). I suggest that the unavailability of discontinuous DPs with associatives similarly relates to the structure of the Tunen DP, with associatives closer to the NP than numerals. This proposal is based on the relative order of modifiers and associatives, as exemplified in (489) below (syntactic category line added).

(489)   bilíkə́   bɛ́   mɛ́kɔ   bɛ́fándɛ
         8.widows ASSOC.8 9.leopard 8.two
         N   Assoc   N   Num
         'The leopard's two widows'   (Dugast 1975, via Isaac 2007:44, adapted)

This argument requires adjectives to canonically follow associatives, given that adjectives can be discontinuous. I leave the formal model of associatives in Tunen to further work on the validity of this empirical claim.

7.5.2 Extension to multiple modifiers

A second extension of the model that requires further empirical investigation relates to the behaviour of Tunen DPs that contain multiple modifiers. One possibility is that the movement in (481) is not possible when multiple modifiers are found, following the restrictions on left branch extraction with multiple adjectives reported in Bošković (2005). However, assuming that no such restrictions apply in Tunen, there are still two logical possibilities for discontinuous DPs, as shown in (490).

(490)   a.   O-V-Mod-Mod

         b.   O-Mod-V-Mod

The first order, O-V-Mod-Mod, was found in the field data, as shown in (491).

(491)   Context: There are four children, all different – one is very studious, one is very naughty, and so on. You therefore don't expect them all to do their homework, but this time, they all did.

   a.   baná **bá ná** masɔ́ma kɛaka **bəkimə bɔ́nis**!
        /ba-ná **bá** **ná** ma-sɔ́ma   kɛ́á-aka ba-kimə bá-nisə/
        2-child SM.2 PST2 6-homework do-DUR 2-all   2-four
        'Tous les quatre enfants ont fait leurs devoirs !'
        'All four children did their homework!'   [EE+EB 2223]

   b.   baná **bá ná** masɔ́ma kɛaka **bɔ́nisə bəkim**!
        /ba-ná **bá** **ná** ma-sɔ́ma   kɛ́á-aka bá-nisə bá-kimə/
        2-child SM.2 PST2 6-homework do-DUR 2-four   2-all
        'Tous les quatre enfants ont fait leurs devoirs !'
        'All four children did their homework!'   [EE+EB 2224]

Given that Tunen has pull splits (section §7.3.2), the second order (O-Mod-V-Mod) would be a form such as N-Adj-V-Num or N-Adj-V-Q. Unfortunately, none of the elicitation data or fieldwork natural speech data show a noun modified by both an adjective and a numeral. I leave a study of whether such constructions appear in Tunen to other work, for example in study of the Dugast (1975) text corpus. As such constructions are likely very low frequency in discourse and as negative evidence is

important for testing the predictions of the analyses to be discussed in this chapter, additional elicitation would be very useful.

A related possibility regards prenominal modifiers, such as the indefinite determiner or the possessive pronoun. Again, given that Tunen only allows pull splits, we may ask whether D-N-V-Mod structures or D-V-N(-Mod) structures are possible. In searching my data, I found that Poss-N-V-Q was possible (492a). A contiguous Poss-N-Q-V order was provided as the first answer (492b), and both the discontinuous patterns N-V-Poss-Q and N-V-Q-Poss and the contiguous postverbal V-Poss-N-Q orders were all considered ungrammatical (492c)-(492e).

(492)   Context: A farmer loses all their horses, but, by a stroke of luck, manages to find them all.

a.   mɛ ná Húélé hóli ɛ́↓séá mɛ́ ná **biá↓míá bɛhɔ́sɛ** bɔŋɔ **bikim** !

/mɛ   ná   Húélé   hólíə́   ɛ-séá   mɛ́   ná
SM.1SG   PST2   God   thank   SM.7-say   SM.1SG.SBJV   PST2

biá↕míá   bɛ-hɔ́sɛ   bɔ́ŋɔ́   bɛ́-kimə/
PRN.POSS.1SG.8   8-horse   find   8-all

'Je remercie Dieu comme j'ai retrouvé tous mes chevaux !'
'I thank the Lord that I've found all my horses!'   [EE+EB 1827, 2226]

b.   [...] ɛ́↓séá mɛ́ ná **biá↓míá bɛhɔ́sɛ bikimə** bɔŋɔ.   [EE+EB 1826]

c.   *[...] ɛ́↓séá mɛ́ ná **bɛhɔ́sɛ** bɔŋɔ **biá↓míá bikimə**.   [EE+EB 1829]

d.   *[...] ɛ́↓séá mɛ́ ná bɔŋɔ **biá↓míá bɛhɔ́sɛ bikimə**.   [EE+EB 1828]

e.   *[...] ɛ́↓séá mɛ́ ná **bɛhɔ́sɛ** bɔ́ŋɔ́ **bíkimə bíá↓míá**.   [EE+EB 2225]

Unfortunately, I lack the relevant data to investigate this properly, and so must leave this to be tested in further work. The availability of this type of multiple modifier construction within a discontinuous DP construction is important for testing the predictions of the subextraction analysis I propose here as the null hypothesis. If the judgements in (492a) turn out to be robust, then the subextraction analysis given in (481) needs to be adjusted in order to allow for the prenominal modifier to move along with the head noun, or else an alternative analysis should be proposed, such as extraposition of the postnominal modifier and/or evacuation movement of the postnominal modifier followed by remnant movement of the whole DP. I leave this to further work.

7.5.3   Discontinuous modifiers within the postverbal domain

While (426) above showed that discontinuously-positioned modifiers can precede other postverbal material (Isaac 2007:61-2), they can also follow other postverbal material, as in (493).

(493)   bánɛ ɔ́ ndɔ **ɛndɔ́mbá** sinə hɔ́yɛ́ **ɛ́lálɔ́?**
         /bánɛ   ɔ   ᴴndɔ **ɛ-ndɔ́mbá** sinə hɔ́yɛ́   **ɛ́-lálɔ́/**
         is_it   SM.2SG PRS   4-sheep   see   DEM.DISC.LOC 4-three
         'Est-ce que tu vois trois moutons-là ?'
         'Do you see three sheep over there?'   [PM 917]

    I expect that the nominal modifier would more often appear immediately after the verb, as a more iconic order (due to the higher degree of contiguity with the head noun). Whether such a tendency is found is something to test on a larger natural speech corpus. In terms of the analysis, there is a question as to whether the numeral is extraposed in (493) but left in-situ in other cases. This relates to a more general open question as to ordering preferences with the Tunen postverbal domain (cf. Chapter 6 section §6.2.7 on the X slot).

7.5.4   Discontinuous subject DPs

While my data mainly have discontinuous modifiers that modify the object (S-**O**-V-**Mod**), it is also possible for discontinuous modifiers to modify the subject (**S**-O-V-**Mod**), as seen above in section §7.3.1 and repeated in (494)-(496).

(494)   Context: QUIS dialogue task, concluding the explanation of why three people are gathered around a tree.
         mhm. ɔ́↓há **bɛndɔ** bá ndɔ wɛɛ́ya sinə **balal.**
         /mhm ɔhá   bɛndɔ   ba   ᴴndɔ wɛ́ɛya sinə **bá-lálɔ́/**
         PTCL   for_that 2.person SM.2 PRS   PRN.1 see   2-three
         'Mhm. C'est pour ça que trois gens le regardent.'
         'Mhm. That's why three people are looking at him.'   [PM 597]

(495)   Context: Someone mistakenly says that not all the children did their home-
        work (knowing that some are more studious than others).

        bɔ́ɔ, **bá** ná masɔ́ma kiak **bə́kim**.

        /bɔ́ɔ **bá**   ná   ma-sɔ́ma   kɛa-aka   **bá-kimə**/
        no   SM.2 PST2 6-homework do-DUR   2-all

        'Non, c'est tous qui ont fait les devoirs.'
        'No, *all* of them did the homework.'   [EE+EB 1824]

(496)   (Ɔ) ɛnɔ́mɛ ɔyéá yé ndɔ ákána ɛndɛndélɛ **miɔkɔ́** yé lɛ **élál**.

        /ɔ   ɛ-nɔ́mɛ ɔyéá yé   ᴴndɔ ákána ɛndɛndélɛ **mi-ɔkɔ́**   yé
        PREP 7-road REL.7 SM.7 PRS leave straight_on 10-chicken SM.10

          léá **ɛ́-lálɔ́**/
          be   10-three

        "Sur la route qui va tout droit il y a trois poules."
        "The road that goes straight on has three chickens."   [PM 686]

As discussed above in relation to Isaac's (2007) study, discontinuous modifica-
tion of subject DPs is also attested in the Dugast (1975) texts, e.g. in the dependent
clause in (497).

(497)   ǎ   **mʷɔ́sɛ** nā-tomba **màlānù?** inyə́   na-fɛk   á   sɛ̀? [...]
        SUB days   PST-pass five   mother PST-think 3S:SM that

        'When five days passed, the mother thought, "..." '

                                           (Dugast 1975, as cited in Isaac 2007:150)

All examples of discontinuous subject DPs I have seen are with a postverbal
numeral or quantifier. However, I do not have any negative data to rule out the pos-
sibility of a discontinuous subject DP with a postverbal adjective; the possibility for
discontinous placement of adjectives modifying subjects needs to be tested.

Note finally that while discontinuous DPs are available for subjects, they are
not the only option, as contiguous quantified DPs are also found (498).

(498)   baná bə́kim (bə́nis) bá ná masɔ́ma kiak!

        /ba-ná **bá-kimə** **bá-nisə** bá   ná   ma-sɔ́ma   kɛa-aka/
        2-child 2-all   2-four   SM.2 PST2 6-homework do-DUR

        'Tous les (quatre) enfants ont fait leurs devoirs!'
        'All the (/All four) children did their homework!'   [EE+EB 1816-7]

The availability of discontinuous DPs with subjects in Tunen is interesting given that similar constructions were reported in Australian languages in recent work by Schultze-Berndt (2022). Schultze-Berndt argues that such constructions provide evidence against an approach where discontinuous DPs are driven by contrastive focus on a modifier, with thetics shown to be a possible discourse context. However, Schultze-Berndt argues that such thetic cases do still preserve iconicity in that they partition a thetic sentence as a monolithic entity, with the subject and modifier at each end, thus preventing a topic-comment split.

While such an argument could be extended for some of the Tunen cases, there are differences in the data. For example, the availability of discontinuous subject DPs in Tunen extends beyond the predicate types mentioned in Schultze-Berndt (2022), which were restricted to verbs of appearance. Moreover, Schultze-Berndt's (2022) study only shows discontinuous DPs with intransitive verbs, while the Tunen data show that the construction is also possible with transitives (see e.g. (498)). The Tunen data therefore provide a bigger challenge to the Contiguity Principle than the data in Schultze-Berndt (2022) do. They also pose a challenge to the analysis sketched in (481), because subjects are taken to be base-generated in SpecVoiceP, meaning that any modifier should be linearised before the verb. The analysis here therefore only applies to objects, with further work needed on the syntax of subjects in Tunen (which I will return to in Chapter 8 section §8.4.2). The study of subjects may give evidence against the null hypothesis of stranded modifies that I presented here and in favour of an extraposition account of nominal modification in Tunen. This evidence is relevant for evaluating a recent proposal of nominal morphosyntax in Bantu languages, which I turn to in the next section.

7.5.5   The comparative Bantu context

In terms of the comparative picture, the recent *Adnominal Modifier Apposition and Reintegration* (AMAR) hypothesis proposed by Van de Velde (2022) states that Bantu languages vacillate between structures with nominal apposition and reintegration into the noun phrase, a diachronic scenario that explains the various typologically-rare orders of nominal modifiers attested in the Bantu language family (Rijkhoff 1990; Van de Velde 2005, 2019). As a simplified illustration, at first there can be a [N Mod] structure, with apposition resulting in an [N] [Mod] structure, with the modifier then being able to be reintegrated into the noun phrase, which may leave traces such as a prosodic boundary (see Van de Velde 2022:903 for the complete illustration, as applied to an adjectival modifier).

From this perspective, Tunen discontinuous DPs could be taken as a more extreme case of the apposition stage, where instead of a modifier being appositional

but string-adjacent to the noun ([N] [Mod]), it has been split from the noun, resulting in a discontinuous DP construction ([N] ... [Mod]). Although I did not follow an extraposition analysis of Tunen modifiers under considerations of analytical parsimony, further investigation into apposition in Bantu languages could provide more evidence to substantiate an extraposition analysis of Tunen modifiers. If such an account proves to hold, then Tunen modifiers would be moved from their base-generation site rather than the spell-out of the in-situ position, as I proposed here as the null hypothesis. Here, it would be useful to apply diagnostics used to test for appositional structures in other Bantu languages to the nominal domain in Tunen, in order to see if the same AMAR mechanism can be identified.

7.6　Conclusion

In summary, this chapter has considered the surprisingly frequent S-O-V-Mod discontinuous DP construction in Tunen, which appear to violate the Contiguity Principle (406) in having a split between syntactic structure and semantic/pragmatic interpretation. I showed that such constructions are higher frequency in Tunen than expected from other languages and are not restricted to the discourse context of contrastive focus on the nominal modifier. Instead, they are pragmatically-neutral in Tunen. I then showed which material may be discontinuous. Next, I considered the two possible types of formal syntactic analysis: apparent discontinuity vs discontinuity via subextraction/copy+deletion. After showing that an adverbial approach does not capture the Tunen data, I presented an account of true discontinuity, where the postverbal modifiers are left in-situ while the noun raises to a vP-internal position via formally-conditioned object movement. I showed that the discontinuous DP data is a serious challenge to the roll-up movement account of OV order discussed in Chapter 6 and argued instead for the head movement+object movement approach.

Because I argue that the discontinuous DP construction is derived through the independent mechanism of object movement, its rarity in Bantu can be explained straightforwardly by the lack of OV languages in the family. Additionally, a parallel can be made with the appositional structures seen in other Bantu languages. If the head movement+object movement analysis with stranding of the in-situ modifier is correct, we may then expect to see other languages with pragmatically-neutral discontinuous DPs of the Tunen kind in families where OV has been innovated from a VO base structure.

Looking beyond Bantu, such S-O-V-Mod discontinuous DPs are not widely reported in the general linguistics literature. Comparable constructions are however

found in Eastern Chibchan languages such as Cabecár (Stavros Skopeteas, p.c.), as illustrated in (499) below.

(499) Tulú te **dú** su̱- á̱ **bo-tkö.**
      Tulu ERG bird see-PFV two-CL.FLAT
      'Tulu saw two birds.'   (Cabecár, Skopeteas fieldnotes ms.)

Here, just like Tunen, the theme object is preverbal while the numeral modifier is postverbal, showing an S-O-V-Mod construction. Interestingly in comparison to Tunen, some Chibchan languages show OV/VO variation, with OV the basic word order that has been reconstructed to the proto-language (Constenla-Umaña 1991:38; Constenla-Umaña 2012:407; Quesada 2007:29-31). Further investigation into discontinuous DPs in languages such as Cabecár may therefore provide further detail on the validity of the analysis of Tunen discontinuous DPs as deriving from object movement from an underlyingly VO structure. A relevant empirical question here is whether OV languages such as Cabecár allow for discontinuous DPs with adjectival modifiers as well as numerals/quantifiers.

Another point of crosslinguistic interest is the extent to which the Contiguity Principle holds. While many languages use discontinuous DPs in the information-structural context of a difference in discourse role between the noun and its modifier, this definition has been found to be too restrictive. In Schultze-Berndt's (2022) study of discontinuity of modifiers modifying subjects in thetics, she shows that the discourse condition of theticity can also license discontinuity (which she then takes to be a form of iconicity). My Tunen data show that other discourse possibilities beyond contrastive focus on the noun or modifier and theticity are possible. The Tunen discontinuous DPs therefore provide an interesting challenge to the Contiguity Principle in not being explainable by an difference in IS interpretation between the noun and modifier.