The Contraction of Preposition and Definite Article in German

Semantic and Pragmatic Constraints

by

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1 Introduction

German definite descriptions (DDs) are typcially headed by the definite determiner '*der / die / das*' ('*the*'). In certain contexts, however, the descriptive content of a DD is preceded by forms that appear to be contractions of a preposition and the definite determiner. Consider the following example for illustration.

(1)

a. Anna ging zu dem Supermarkt.
b. Anna ging zum Supermarkt.
c. Anna went to the supermarket.

In the following, PPs that contain the *non-contracted form*, as in (1)a, will be called *rPPs*, short for *regular PPs*. PPs like the one in (1)b, i.e. those that contain a *contracted form*, will be called *cPPs*, short for *contracted PPs*. Note that generally both rPPs and cPPs translate into English uniformly as in (1)c. The aim of this dissertation is to provide a semantic and pragmatic account that explains the difference between rPPs and cPPs, but that can also be applied to DDs more generally.

In a nutshell, I will propose that the definite determiner is ambiguous between a referential and a quantificational reading. Crucially, referential DDs exploit information provided in the surrounding linguistic context, while the interpretation of quantificational DDs heavily relies on extra-linguistic world knowledge that can be represented by an implicit free individual variable and an implicit free relation variable. rPPs are always interpreted referentially, whereas cPPs receive quantificational interpretations. As we will see in the following chapters, this proposal has a wide range of applications: It deals with anaphoric and demonstrative DDs, as well as with typical 'uniqueness uses' (such as '*the moon*' or '*the sun*'), covarying DDs involving explicit and implicit antecedents, bridging definites, and, last but not least, so-called Weak Definites.

The structure of the upcoming chapters is as follows. Chapter 2 introduces the German data that we will mainly be concerned with throughout this dissertation, namely rPPs and cPPs. It will first be shown that the two forms cannot be used interchangeably and that they are indeed part of Standard German, and not confined to spoken, colloquial, or dialectal variants of German. We will then proceed to an overview of the different uses that rPPs and cPPs can be put to. Prototypical instances of the non-contracted form are anaphoric and demonstrative uses. The contracted form, in contrast, is used for 'uniques', covariation (without explicit antecedents) and bridging uses, as well as Weak Definites in the sense of Carlson et al. (2006). The main generalization of this chapter is that rPPs need to be identified with another referent in the utterance context and therefore depend on linguistically provided information for their interpretation. cPPs, on the other hand, make use of an implicit relation between the intended referent and some other referent (that is explicitly mentioned or not). Determining the underlying relation is heavily context-dependent, showing that cPPs require extra-linguistic world-knowledge inferences for their interpretation.

Chapter 3 proposes a semantic representation of rPPs and cPPs, and of DDs in general, that can adequately account for the data discussed in Chapter 2. We begin with a discussion of the distinction between given and non-given definites as suggested by Umbach (2001), who argues that given definites achieve uniqueness via identification with another discourse referent, while non-given definites achieve uniqueness via description *and* a presupposed individual and presupposed relation variable. We will also take a brief look at the Discourse Representation Theory (DRT) formalism of Umbach, and sketch how it could be extended to include indexical elements, such as the speaker of an utterance, with the help of Layered DRT (Geurts & Maier 2013). The semantic representation of cPPs and rPPs will be elaborated in Section 3.2: rPPs will essentially be analysed as given definites, whereas cPPs roughly correspond to non-given definites. I will further suggest that the definite determiner is indeed ambiguous between a referential reading (illustrated by rPPs) and a quantificational reading (illustrated by cPPs), and that the contracted form is derived from the underlying quantificational version of the definite determiner with the help of a general rule. In order to distinguish the proposed referential / quantificational ambiguity from the well-known ambiguity between referential and attributive (uses of) DDs (Donnellan 1966), I will give an overview of the latter distinction and argue that it is *not* in fact the relevant distinction when concerned with rPPs and cPPs.

The focus of Chapter 4 is on quantificational DDs and their implicit variables over individuals and relations. The overarching goal of this chapter is to provide a pragmatic explanation of *how* speakers actually go about determining the values of these free variables, i.e. how the implicit content of incomplete descriptions is determined. Loosely following an explicit approach to incomplete descriptions (à la Neale 2004), I argue that the speaker must in principle be able to provide the intended values of the implicit variables. The individual variable is assumed to function essentially like a pronoun in either being bound by some quantifier or receiving its value from the utterance context. Possible individual values are further restricted by an interplay with the value assigned to the relation variable. Inspired by suggestions by Endriss (2009) regarding characteristics of natural functions involved in the interpretation of functional wide scope indefinites, I propose that possible values for the relation variable implicit in quantificational DDs must be *plausible*, *nameable*, and *informative*. It will also be shown that the proposal argued for in Chapters 3 and 4 is *not* vulnerable to criticism that has been put forth by Heim (1990) and by Elbourne (2013) against accounts of incomplete descriptions that assume the contextual determination of the implicit content, rather than a 'copy-and-paste' mechanism.

In Chapter 5, we turn our attention to Weak Definites (WDs), which are not discussed in Chapters 3 and 4. They exhibit certain characteristics that make a 'classic' uniqueness-based analysis seem improbable. I argue, however, that WDs can be adequately analysed as quantificational DDs, and that, contrary to claims by Aguilar-Guevara (2014) and Schwarz (2014), such an analysis can indeed account for the core characteristics ascribed to WDs. In particular, I suggest that the implicit relation involved in WDs is of the general form '*x is a potential work place / means of transportation / source of information etc. for y*', but is not fundamentally different from the relations involved in other cases of quantificational DDs, and that the relations are plausible, nameable, and informative as well. It will futher be suggested that the weak interpretation of DDs typically requires the existence of established concepts, roughly, concepts corresponding to some conventionalized activity type. Conventionalized activities are typically invoked in discussions of (semantic) incorporation, and, in line with suggestions by Carlson (2006)

and Klein et al. (2013), I argue that the two phenomena, i.e. WDs and incorporation structures, essentially involve the same underlying conceptual constraints.

The final chapter sums up the main conclusions and also provides a short discussion of possible directions for future work.

2 The Data

This chapter intoduces the German data that we will mainly be concerned with in this dissertation. Section 2.1 introduces the general distinction between contracted and non-contracted forms of prepositions and the definite determiner, while the following sections describe in detail the uses of the two forms. In Section 2.2, we will see that the non-contracted form is used anaphorically or demonstratively. The contracted form, in contrast, can*not* be used anaphorically or demonstratively: It is used to refer to 'uniques' (roughly, singletons; Section 2.3), it is also used in covarying and bridging interpretations of the involved definite description (Section 2.4), and, finally, so-called weak readings of definites (in the sense of Carlson et al. 2006) also require the contracted form (in suitable linguistic environments; Section 2.5).

2.1 Contractions of Preposition and Definite Determiner in German

Prepositional phrases (PPs) in German typically have the same structure as English PPs (cf. the (a) cases in (1) – (3)), which I call "regular PPs" (rPPs). But German also has another type of PP that is headed by forms that look like contractions of prepositions and definite determiners: *am, beim, im, zum, vom, zur*, as in the (b) cases in (1) – (3). I will refer to these as "contracted PPs" (cPPs) in the following. Note that both forms translate into English uniformly as the (c) cases in (1) – (3).

(1)
a. Anna ging <u>zu dem Supermarkt</u>.
b. Anna ging <u>zum Supermarkt</u>.
c. Anna went to the supermarket.

(2)
a. Anna stand <u>an dem Fenster</u>.
b. Anna stand <u>am Fenster</u>.
c. Anna was standing by the window.

(3)
a. Anna arbeitet <u>in dem Rathaus</u>.
b. Anna arbeitet <u>im Rathaus</u>.
c. Anna works in the town hall.

The use of cPPs is not restricted to (rapid) speech, and both rPPs and cPPs are used in written Standard German. As Hartmann (1980:160) points out, "Verschmelzungen sind nicht ... nur in der [gesprochenen Sprache], sondern auch in der [geschriebenen Sprache] ... gebräuchlich; beide Ausprägungen des Deutschen unterscheiden sich jedoch

hinsichtlich des Inventars an Verschmelzungsformen."[1] For illustration, consider the following examples adapted from (Schwarz 2009:11, citing Eisenberg et al. 1998: 325; the non-contracted forms are given in parentheses):[2]

(4)

a. am (an dem), beim (bei dem), im (in dem), vom (von dem), zur (zu der), zum (zu dem)
b. ins (in das), aufs (auf das), durchs (durch das), fürs (für das), hinterm (hinter dem), hinters (hinter das), überm (über dem), übern (über den), übers (über das), ums (um das), unterm (unter dem), untern (unter den) unters (unter das), vorm (vor dem), vors (vor das)
c. an'n (an den), an'r (an der), auf'm (auf dem), auf'n (auf den), aus'm (aus dem), durch'n (durch den), für'n (für den), gegen's (gegen das), in'n (in den), mit'm (mit dem), nach'm (nach dem), zu'n (zu den)

The contractions in (4)a are acceptable across registers, the ones in (4)b are considered to be more colloquial, while the contractions in (4)c only occur in spoken language. According to Schwarz, also *'ins' ('in das')* should be grouped under (4)a, while many other authors agree only on the six forms given in (4)a above as being acceptable in written Standard German (e.g., Nübling 1998: 276, 2005: 108; Heidolph et al. 1981: 371; Kunkel-Razum & Münzberg 2005: 622).[3] In the rest of this dissertation, we will therefore restrict our attention primarily to the six forms listed in (4)a. As we can see in Table 1, the six contractions in (4)a make up the vast majority of all cPPs, both in a newspaper corpus (FAZ) and a web corpus (a random subset of the DeWaC corpus).[4]

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[1] „Contractions [of preposition and determiner] are not only found in spoken, but also in written language; the two registers differ, however, with respect to the inventory of acceptable contractions." (my translation)

[2] Note that there are also *phonologically possible* contracted forms, which do not, however, occur in either spoken or written German, e.g., **nebem* < *neben + dem*. While it is an interesting question why some forms are used and others are not, I will not pursue this issue any further in the following (but see, e.g., Nübling (1998, 2005) for related discussions), but will instead focus on the semantic and pragmatic constraints governing the use of rPPs and cPPs.

[3] Interestingly, Nübling (1998: 282) suggests that the six contractions in (4)a (and, to a lesser degree *,ins' (,in das')* and *,ans' (,an das')*) historically are also the oldest forms, occurring already in Old High German (750 – 1050 AD). See also Nübling (2005: 105f, 119ff), Schiering (2005), and Coniglio & Schlachter (2014) for more on the diachronic development of contractions of preposition and definite determiner.

[4] The FAZ corpus is compiled from the *Frankfurter Allgemeine Zeitung*, a prestigious German newspaper. The DeWaC is constructed from the Web, limited to the .de domain (http://wacky.sslmit.unibo.it/doku.php?id=corpora).

	FAZ (70.242.071 tokens)		DeWaC subset (89.608.014 tokens)	
	absolute number	% of all cPPs	absolute number	% of all cPPs
im	488.728	42,36	509.332	36,96
in dem	11.030		15.683	
am	192.664	16,70	126.904	9,21
an dem	4.386		4.828	
zum	164.906	14,29	179.365	13,02
zu dem	4.247		6.111	
zur	131.513	11,40	190.009	13,80
zu der	3.408		5.097	
vom	88.258	7,65	82.816	6,01
von dem	6.667		8.279	
beim	44.669	3,87	49.130	3,57
bei dem	3.905		5.286	
		96,27		82,56

Table 1 Frequencies of contracted and non-contracted forms in a newspaper and a Web-based corpus

The relevant contracted forms occur significantly more frequently in both corpora than their corresponding non-contracted forms (cf. (5)).

(5)

a. Percentages of contracted and non-contracted forms in the FAZ corpus
   i. im vs. in dem: 97.8% vs. 2.2%
   ii. am vs. an dem: 97.8% vs. 2.2%
   iii. zum vs. zu dem: 97.5% vs. 2.5%
   iv. zur vs. zu der: 97.5% vs. 2.5%
   v. vom vs. von dem: 93% vs. 7%
   vi. beim vs. in dem: 92% vs. 8%
b. Percentages of contracted and non-contracted forms in the DeWaC corpus
   i. im vs. in dem: 97% vs. 3%
   ii. am vs. an dem: 96.3% vs. 3.7%
   iii. zum vs. zu dem: 96.7% vs. 3.3%
   iv. zur vs. zu der: 97.4% vs. 2.6%
   v. vom vs. von dem: 90.9% vs. 9.1%
   vi. beim vs. in dem: 90.3% vs. 9.7%

The results displayed in (5)a and in (5)b are highly consistent with those of Kunkel-Razum & Münzberg (2005: 622) and Nübling (2005: 114). Also Haberland (1985: 97), who looked at three literary works in order to investigate the difference between contracted and non-contracted forms, makes a similar observation, namely that non-contracted forms occur less frequently than their corresponding contracted forms.

A question that is clearly raised by these overall results is *why* contracted forms are used so much more frequently that their corresponding non-contracted forms. One possible answer would be to follow Heim (1991: 488) who suggest that "Grob gesagt ist der [bestimmte] Artikel völlig unbetont und verschmilzt im Kontext gewisser

Präpositionen obligatorisch zum Portemanteau, z.B. *von + dem = vom.*"[5] If this were the case, we could explain the corpus data along the following lines: The non-contracted forms are either used by mistake or are really combinations of a preposition and the *demonstrative* article, which, according to Heim, never fuses with a preposition (ibid.). It *is* the case that demonstratives (and, for that matter, relative pronouns) do not form contractions with prepositions, but, as can be seen below, the use of rPPs and cPPs is governed by semantic and pragmatic constraints and not by purely phonological or morphological rules.[6]

A different explanation of the different frequencies of contracted and non-contracted forms becomes available once we take a closer look at the actual usage of these forms. We will discuss these issues in more detail below, but for now let me just mention that it is a generally accepted property of rPPs that they are used anaphorically, while cPPs are *not* used anaphorically. If we now consider observations made by Fraurud (1990) and Poesio & Viera (1998), we can easily explain the frequency differences between rPPs and cPPs. Both Fraurud and Poesio & Viera used corpus data to investigate the use of definite descriptions, and their results clearly show that DDs are predominantly used *non*-anaphorically. This would then account for the fact that cPPs are used more frequently than rPPs.

We will now turn to a brief illustration of the kind of data that we will be looking at more closely in this book, and the kind of data that will be excluded from our discussion.

2.1.1 Differences in the Distribution and the Meaning of rPPs and cPPs

It has been know for a long time that rPPs and cPPs have a different distribution (cf., among others, Hartmann 1978, 1980; Heidolph et al. 1981: 371ff.; Hinrichs 1984; Löbner 1985; Raffelsiefen 1987; Haberland 1995; Nübling 1998, 2005; Cieschinger 2006; Puig Waldmüller 2008; Schwarz 2009; Bosch 2013; Cabredo Hofherr 2012, 2014). For instance, the use of a cPP is not felicitous[7] in (6) and (7) and an rPP is required, while the opposite holds in (8) and (9).

(6) Anna sitzt <u>in dem / # im Auto</u>, von dem ich dir gestern erzählt habe.
‚Anna is sitting in the car that I told you about yesterday.'

(7) Helmut will sich ein Klavier kaufen. <u>Von dem / #Vom Klavier</u> macht er sich recht klare Vorstellungen.
‚Helmut wants to buy a piano. He has quite specific ideas about this piano.'

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[5] „Roughly put, the definite article is completely unstressed and in the presence of certain prepositions obligatorily contracts to a portemanteau, e.g., *von + dem = vom*" (my translation)

[6] This, of course, also means that the use of cPPs cannot simply be reduced to an optional *choice* on part of the speaker either, as suggested by Lyons (1999: 328f).

[7] I will use ‚#' to mark the infelicitous use of a given expression or sentence, as opposed to ‚*', which marks ungrammaticality.

(adapted from Haberland 1985: 84)

(8) Anna fährt #in dem / im Sommer nach Italien.
‚Anna will travel to Italy this summer.'

(9) Gestern haben wir Peter besucht. Als wir #zu der / zur Haustür kamen, war sie verschlossen.
‚We visited Peter yesterday. When we got to the front door, it was locked.'

(adapted from Haberland 1985: 84)

The contrast in acceptability of the two forms clearly shows that we cannot simply substitute one form for the other. In other words, the use of rPPs and cPPs is neither obligatorily dependent on certain phonological contexts[8] nor is contraction optional in such contexts. In sentences where both the contracted and the non-contracted form is in principle acceptable, the resulting interpretations differ considerably (cf. (10) and (11)).

(10) *Context: Anna and Bob are watching a news report about the St.-Marien-Hospital in Osnabrück. Anna says to Bob:*
Ein Freund von mir arbeitet auch in dem / im Krankenhaus.
‚A friend of mine also works in that / a hospital.'

(Cieschinger 2006: 4)

(11)

a. Ein neuer Bäcker hat gestern aufgemacht. Den könnte Anna mal ausprobieren.
‚Yesterday, a new bakery opened. Anna could really try it out.'

b. Anna war heute schon bei dem / beim Bäcker.
'Anna already went to that / a bakery today.'

(Puig Waldmüller 2008: 18)

In (10), the use of the rPP *'in dem Krankenhaus'* indicates that Anna's friend works at the St.-Marien-Hospital. By using the corresponding cPP, however, Anna tells Bob that her friend works in some hospital or other, but (via Gricean reasoning) most likely *not* at St.-Marien-Hospital. Similarly in (11), if the rPP is used in the response in (11)b, Anna must have been to the bakery mentioned in the suggestion in (11)a, while use of a cPP is felicitous if Anna has been to some bakery or other, and, again, most likely *not* at the bakery mentioned in (11)a. These differences in the interpretation of rPPs and cPPs already suggest that rPPs are preferably interpreted as anaphoric expressions (as indicated above in the brief remark on Fraurud (1990) and Poesio & Viera (1998)). This ambiguity also carries over to 'normal' uses of definite descriptions, as indicated in (12), (13), and (14), where a contracted form of *'in'* and *'der'* is not available in written Standard German.

(12) Einige amerikanische Linguisten haben in den Anden eine neue Sprache der Chipaya-Uru-Familie entdeckt. Es handelt sich um eine interessante Sprache, denn in der Sprache gibt es nur gerundete Vokale.

[8] As is the case, for instance, in French, where contractions are obligatory whenever they are phonologically possible (e.g. **de le* > *du*, **à le* > *au*, respectively). For further discussion, see, e.g., Carbredo Hofherr (2012).

'In the Andes, American linguists discovered a new language that belongs to the Chipaya-Uru family. It's a very interesting language, because there are only rounded vowels in that language.'

(Haberland 1985: 85)

(13) Hast du schon Pasierbskys "Krieg und Frieden in der Sprache" gelesen?
'Have you read Pasierbsky's 'War and Peace in Language'?'

(ibid.)

(14) *Context: Anna and Bob are talking about their former elementary school. Anna says to Bob:*
Mein Sohn geht auch in die Schule.
'My son also goes to that school / goes to school.'

Again, in the sentence in (12) the DD is used anaphorically, while this does not seem to be the case in (13). In (14), the relevant DD can be interpreted either anaphorically, i.e. referring to Anna and Bob's former elementary school, or non-anaphorically, i.e. Bob is told that Anna's son goes to school *Punkt*.

What the above examples clearly show is that rPPs and cPPs cannot be used interchangeably without either resulting in infelicity or in different interpretations.

2.1.2 Discussions Excluded from the Rest of this Dissertation

There are a number of uses of cPPs that we will not be concerned with in the rest of this book. I essentially follow Hartmann (1980: 173) in excluding the following kind of data from my analysis: proper names; time and date specifications; superlatives; progressive constructions and nominalizations; idiomatic expressions. Following Schwarz (2009), I further add clausal noun phrase complements, nominal modifiers, and generic noun phrases to this list. I will briefly illustrate each of these uses of cPPs.

Proper names

In German, some proper names require the definite article and are always used with cPPs in the presence of an appropriate preposition (cf. (15)). Personal names are frequently used with the definite article in some German dialects, and hence these uses also require cPPs (cf. (16)). The theory proposed in this book can rather straightforwardly be extended to proper names by adopting a quantificational analysis of proper names, but a detailed analysis of proper names lies outside the scope of this dissertation and I will therefore not discuss these particular uses of cPPs in the following.

(15) im / #in dem Irak; am / #an dem Rhein; zum / #zu dem Brandenburger Tor
'in Iraq; at the Rhine; to the Brandenburg Gate'

(16) Ich müsste mal wieder beim / #bei dem Hans vorbeischauen.
'I should stop by Hans's place again some time.'

(Schwarz 2009: 47)

Time and date specifications

Specifications of dates or points in time also require contracted forms (cf. (17)). The exact role of the definite article in such uses is not entirely clear, as illustrated by the fact that such expressions do not occur with a definite article in other constructions (cf. (18)). I will therefore exclude such data from my investigation.

(17) am / #an dem 5. Juni 2015; am / #an dem Tag der Wiedervereinigung
'on June 5, 2015; on the day of the German reunification'

(18) von Juni bis August; ab Montag; von Februar an; bei Abreise; bei Ankunft
'from June till August; starting on Monday; starting in February; at departure; at arrival'

Superlatives

In German, superlative constructions of adjectives and adverbs are always of the form *am + superlative* (cf. (19) and (20)), and will not be discussed further in this book.

(19) Gottlieb schwimmt am / #an dem schnellsten.
'Gottlieb is the fastest swimmer.'

(Raffelsiefen 1987: 129)

(20) Friedrich ist am / #an dem schönsten.
'Friedrich is the most handsome (man).'

Progressive and nominalizations

The German progressive is constructed with the verb '*sein*' ('*to be*'), the contracted form '*am*', and the infinitival form of the main verb (cf. (21)). Similarly, nominalized infinitives and adjectives always require cPPs (cf. (22) and (23), respectively).

(21)

a. Ich bin am / #an dem trinken.
'I am drinking.'

b. Ich bin am / #an dem Wasser trinken.
'I am drinking water.'

(Barrie & Spreng 2009: 375)

(22)

a. Beim / #Bei dem Essen spricht man nicht.
'You shouldn't speak during meals / while eating.'

b. Ich finde das zum / #zu dem Lachen.
'This makes me laugh.'

(Raffelsiefen 1987: 125)

(23)

a. Im / #In dem Dunkeln fürchtet er sich.
'He gets scared in the dark.'
b. Im / #In dem Geheimen wundere ich mich über ihn.
'In private, I am surprised about him.'

(Raffelsiefen 1987: 126)

Idiomatic expressions

Many idiomatic expressions also require cPPs (cf. (24)). Idioms are generally assumed to be non-compositional in nature (for an overview and critical discussion see, e.g., Fellbaum 2011), and are therefore excluded from further discussion.

(24)

a. Man sollte diese Gelegenheit beim / #bei dem Schopfe packen.
'You should jump at the opportunity.'
b. Er ist am / #an dem Ende.
'He's finished.'
c. Er ist das fünfte Rad am / #an dem Wagen.
'He's the fifth wheel.'
d. Man hat ihn zum / #zu dem Narren gehalten.
'He was made a fool of.'

(Raffelsiefen 1987: 125)

Clausal noun phrase complements and nominal modifiers

Noun phrases taking clausal complements, such as '*rumour*' and '*allegation*', do not seem to elicit a strong preference of either rPPs or cPPs. Both forms appear to be acceptable (cf. (25)). The same is true of nominal modifiers, such as '*the colour red*' (cf. (26)). It seems to me that rPPs are more appropriate in case the relevant rumour, allegation, colour, or name has been under discussion, but the judgements here are very unclear and that is why we will not be concerned with this type of data in the following.

(25)

a. Am / An dem Gerücht, dass der Bundeskanzler zurücktreten will, ist wohl nichts dran.
'The rumour that the chancellor want to resign apparently is baseless.'
b. Zum / Zu dem Vorwurf, dass der Bundeskanzler Steuern hinterzogen hat, will ich mich nicht äußern.
'I do not want to comment on the allegation that the chancellor has evaded taxes.'

(Schwarz 2009: 50)

(26)

a. Zur / Zu der Farbe Rot fällt mir nichts ein.
'For the colour red, nothing comes to mind.'

b. Beim / Bei dem Namen Ernst muss ich immer an einen dummen Witz denken.
'When I hear the name Ernst, I always have to think of a stupid joke.'

(Schwarz 2009: 51)

Generic noun phrases

Definite descriptions can be used to refer to kinds (Carlson 1977), and in the presence of an appropriate preposition, such uses always require cPPs (cf. (27) and (28)). Assuming that kinds are individuals and that kind reference is closely related to proper names, we exclude generic uses of cPPs for the same reasons I gave above for excluding proper names from the present analysis, namely that the semantics of generics lies outside the scope of this dissertation. Note also that characterizing or habitual sentences generally require cPPs as well (cf. (29)). If we assume that such cases involve implicit adverbs of quantification like *always* or *usually* (see, e.g., Krifka et al. 1995), then such uses can plausibly be accounted for in the theory proposed in this dissertation. Since the discussion about generic readings of DDs is far from settled (see, e.g., Carlson 2011 for an overview), I will exclude characterizing sentences as well.

(27) Am / #An dem Zebra kann man sehen, dass die Natur symmetrisch ist.
‚The zebra shows us that nature is symmetrical.'

(Schwarz 2009: 47)

(28) Anders als beim / #bei dem Menschen, bei dem die Nase aus dem Gesicht ragt, geht beim / #bei dem Leguan der Kopf einfach in die Schnauze über.
‚In contrast to humans, whose nose protrudes from their face, the iguana's head simply merges with the snout.'

(Cieschinger 2006: 41)

(29) Am / #An dem frühen Nachmittag pflegte ich mich dann in einen Zustand der Verzweiflung über mein mangelndes künstlerisches Ausdrucksvermögen hineinzusteigern, welcher etwa gegen vier Uhr seinen Höhepunkt erreichte.
‚In the early afternoon I used to get all worked up about my inability to express myself artistically, my desperation culminating at around 4pm.'

(Haberland 1985: 82)

Germanic dialects

The semantic and pragmatic constraints underlying rPP and cPP use seem to be at work in various Germanic dialects as well, i.e. the distinction that will be discussed in detail below between anaphoric / demonstrative uses on the one hand and non-anaphoric / non-demonstrative uses on the other appears to also be manifested in different realizations of the definite article. For illustration, let us briefly consider the example in (30) from the dialect of Mönchengladbach, a city in the Rhein-Ruhr metropolitan region, which makes use of two different paradigms of the definite article as shown in Table 2 (taken from Hartmann 1982: 193).

names of paradigms	number	singular			plural
	gender	masculine	feminine	neuter	
dər –article		[dəɹ]	[də]	[ət] [t]	[də]
dɛ -article (unstressed)		[dɛ]	[dɪ]	[dat]	[dɪː]
indefinite article		[ənə]	[ən]	[ə]	
demonstrative pronoun (stressed)		[dɛ]	[dɪ]	[dat]	[dɪː]

Table 2 Two paradigms of the definite article in the dialect of Mönchengladbach

(30)

a. [et kɛŋk ɛs am jɹiːənə]
'The child (also: my, our ... child) is crying.'

b. [dat kɛŋk ɛs am jɹiːənə]
'The (that) child is crying now.'

(Hartmann 1982: 196)

We can see that the two article forms give rise to two different interpretations: As noted by Hartmann (1982), the '*dɛ*'-article in (30)b indicates that the speaker is referring anaphorically or demonstratively to some child, while the '*dər*'-article in (30)a is not used anaphorically or demonstratively (the speaker here refers to a child known to both her and her audience – we will return to such readings below). Schwager (2007) observes a similar difference in Bavarian (cf. (31)), where two different paradigms for the definite article exist as well.

(31) *Context: A couple passes by the ski kindergarten where they spot a child crying violenty; one of them utters:*
Ogott, mia ham vogessn, dass ma 's / des Kind abhoin!
'Oh God, we've forgotten to pick up the child.'

(Schwager 2007)

According to Schwager (2007), the article form '*des*' indicates that the speaker is referring to the crying child, i.e., the definite '*des Kind*' is used demonstratively in our scenario. The article form ' *'s,*' in contrast, is used to refer to some other child, most likely the couple's own child. Note that the differences in interpretation observed in (30) and in (31) are highly similar to the meaning differences described above in connection with examples (10) – (14), and throughout the rest of this dissertation. A thorough discussion of the data from dialects or languages with two distinct article forms, however, lies beyond the scope of this book.[9]

[9] I refer the interested reader to the following literature (which is by no means meant to be exhaustive): Ebert (1971b) provides a very detailed discussion of Fering, a Frisian dialect; various dialects of the Rhein-Ruhr area are discussed, e.g., by Hartmann (1982), Heinrichs (1954), Schiering (2005); Hartmann (1967: 114-129) gives an overview over spoken varieties of German that make use of two different paradigms of the definite article; Berlinisch is discussed by

In the upcoming chapters we will restrict our attention to uses of contracted and non-contracted forms in contexts *other than* those described in this section. And, as noted in the discussion of the list of contracted forms in (4), we will primarily be looking at the six forms *beim, am, zum, im, am, vom, zur* as they are used in written Standard German.

It should be noted, however, that in later chapters we will also be dealing with uses of DDs that occur *out*side of PPs (and hence obviously do not require contracted forms), as well as with DDs *in*side PPs that cannot be expressed as cPPs due to register mismatch or phonotactic reasons (cf. (4) and also footnote 2). The analysis of rPPs and cPPs that will be elaborated in later chapters is intended to cover all uses of DDs, whether embedded in rPPs and cPPs or not. The (non-)contracted forms are an interesting and useful set of data as the different surface forms serve as an indicator for the different underlying semantic and pragmatic constraints governing uses of DDs in general.

The rest of this chapter is dedicated to elucidating the different kinds of contexts that require either the non-contracted or the contracted form.

2.2 Uses of the Non-contracted Form

In Section 2.1, we saw that rPPs and cPPs cannot be used interchangeably without affecting the overall interpretation of the sentence they occur in. As a reminder, consider (32), repeated from (7) above, and (33), repeated from (11) above.

(32) Helmut will sich ein Klavier kaufen. Von dem / #Vom Klavier macht er sich recht klare Vorstellungen.
‚Helmut wants to buy a piano. He has quite specific ideas about this piano.'
(Haberland 1985: 84)

(33)
a. Ein neuer Bäcker hat gestern aufgemacht. Den könnte Anna mal ausprobieren.
‚Yesterday, a new bakery opened. Anna could really try it out.'
b. Anna war heute schon bei dem / beim Bäcker.
'Anna already went to that / a bakery today.'
(Puig Waldmüller 2008: 18)

In both (32) and (33), the rPPs must be interpreted anaphorically to '*ein Klavier*' ('*a piano*') and '*ein neuer Bäcker*' ('*a new bakery*'), respectively. The conclusion that is usually

Hartmann (1980); Studler (2004, 2014) discusses Swiss German data; Schwarz (2013) has collected cross-linguistic data suggesting that the anaphoric vs. non-anaphoric distinction can be found in languages like Lakhota and Hausa; Li (2011: 239ff) suggests that certain classifiers in (three dialects of) Chinese can only be used non-anaphorically; also in Maori, the definite article can take two different forms, one of which can only by used anaphorically (Bauer 1997: 152f; Sandra Chung, p.c.).

drawn from such examples is that rPPs can only be used anaphorically, while cPPs cannot. The following examples further illustrate this observation.

(34) Einer der Affen war besonders lebhaft. Klaus war nicht von der Stelle zu bringen. Er wollte unbedingt eine Aufnahme von dem Affen /# vom Affen machen.
‚One of the monkeys was particularly lively. It was impossible to get Klaus to move on. He wanted to take a picture of the monkey.'

(Heidolph et al. 1981: 371)

(35) Schon von der Bahn aus konnte man einen hohen Baum sehen, der auf dem Hügel stand. An dem / #Am Baum sollten wir warten.
‚Already from the train we could see a tall tree standing on a hill. We were supposed to wait at that tree.'

(ibid.)

(36) Zwischen dem Flügel und der Tür stand ein Schrank mit vielen Schubfächern. In dem / #Im Schrank bewahrte er Noten auf.
‚Standing between the grand piano and the door there was a cabinet with many drawers. He kept sheet music in the cabinet.'

(ibid.)

(37) Bei A&B haben sie jetzt Schulze für den Einkauf eingestellt. Und sie erwarten eine ganze Menge von dem Typ / von dem Mann / von dem 53-Jährigen / #vom Typ / #vom Mann / #vom 53-Jährigen.
‚They employed Schulze in the sales division of A&B. They expect a lot of the guy / the man / the 53-year-old.'

(Bosch 2013)

In the examples in (34), (35), and (36), the rPPs have an anaphoric reading, while the corresponding cPPs are infelicitous (without additional contextual information). As is shown by the example in (37), the relevant rPP need not make use of the very same descriptive content as its antecedent: the description can also be an epithet, a superordinate category, or an appositive. The following quote from Hartmann (1980: 180) is representative of the general consensus in the literature regarding the use of (non-) contracted forms:

[Den Unterschieden zwischen beiden Formen entsprechen] außerhalb von festen Wendungen Unterschiede in der Art und Weise, wie definite Beschreibungen in den Textzusammenhang eingeführt worden sind: Vollformen des *der*-Artikels werden als anaphorische und deiktische Elemente ... verwendet, Verschmelzungen in definiten Ausdrücken vor allem in nicht-anaphorischen Gebrauchsweisen.[10]

'Outside of fixed collocations, the difference between the two forms reflects the way in which definite descriptions can be introduced into the current discourse: Non-contracted forms are used as anaphoric or deictic elements ..., contracted forms are used primarily non-anaphorically.' (my translation)

[10] I disagree with Hartmann's generalization that cPPs are „primarily" used non-anaphorically – as will be argued below, cPPs can*not* be used as purely anaphorically determined expressions.

Hartmann's generalization that rPPs are always used anaphorically clearly seems to be borne out by the data discussed so far. As pointed out by Haberland (1985), it is less clear, however, whether deictic uses (in Hartmann's sense) should really be grouped together with anaphoric uses. Consider the following examples for illustration.

(38) Pass auf die Straße auf!
,Watch the street!'

(Hartmann 1980: 176)

(39) Der Laden ist im August geschlossen.
,The store is closed in August.'

(ibid.)

(40) Fall nicht vom / #von dem Fahrrad!
,Don't fall off your bike!'

(Haberland 1985: 89)

(41) Das Auto steht im / #in dem Hof.
,The car is parked in the yard.'

(ibid.)

(42) #Im / In dem Laden (da drüben) kann man Wein kaufen.
,You can buy wine in that store (over there).'

(adapted from Cieschinger 2006: 29)

According to Hartmann (1980), the underlined definite descriptions in (38) and (39) are used deictically in the sense that the definite descriptions are merely used as indicating that their referents are part of the perceptual space of both the speaker and the hearer.[11] As correctly pointed out by Haberland (1985), however, it is not entirely clear how to distinguish (38) from (40), since in both cases the relevant street or bike is presumably visible to the speaker and the hearer in the respective utterance situations. (Note that the further specification of deictic uses in Hartmann (1982: 190f.) as those that have referents that are identified by means of *visual* perception of the interlocutors is of no help here, either.) And if the two utterances really *are* similar, then it is not clear why the cPP is acceptable in (40), given Hartmann's generalization. Haberland further suggests that 'presence in the perceptual space of the interlocutors' does not seem to be crucial, as indicated by the felicitous use of '*im Hof*' in (41).[12] Furthermore, the use of the definite description in the utterance in (42) seems to be identical to the one in (39), and here the rPP is indeed felicitous, while the cPP is not. As the addition of '*da drüben*' ('*over there*') emphasizes, however, we rather seem to be dealing with a *demonstrative use* of the definite article.

As mentioned in Section 2.1, the demonstrative determiner cannot contract with prepositions and demonstrative uses hence always require rPPs.[13] As the following ex-

[11] In the original: Es handelt sich um "einen bloßen Hinweis auf ein Objekt, das sich in einem für Sprecher und Hörer gemeinsamen Wahrnehmungsraum befindet." (Hartmann 1980: 176)
[12] Note that the same also holds of ,*das Auto*' (,*the car*').
[13] While demonstrative uses are generally assumed to involve a pitch accent on the determiner (cf., e,g,, Schwarz 2009: 25), this does not seem to be a very strict requirement (cf. (i), which is perfectly fine with*out* stress on the article).

amples show, it is often possible to use the demonstrative '*dieser/diese/dieses*' interchangeably with the definite article of a non-contracted form.

(43) Babos Bruder hat ein Kino. In das / In dieses / #Ins Kino würde er nie gehen.
‚Babo's brother owns a cinema. He would never go into that cinema.'
(Puig Waldmüller 2008: 17f)

(44) A: Kannst du dich an den Stromausfall erinnern?
‚Do you remember the power outage?'
B: Ja, an das / an dieses / #ans Ereignis erinnere ich mich noch sehr gut.
‚Yes, I remember that event very well.'
(ibid.)

(45) *Context: Anna and Bob are watching a news report about the St.-Marien-Hospital in Osnabrück. Anna says to Bob:*
Ein Freund von mir arbeitet auch in dem / in diesem / #im Krankenhaus.
‚A friend of mine also works in that hospital.'
(adapted from Cieschinger 2006: 4)

The cPPs are marked as infelicitous in all three examples, because they cannot be interpreted as coreferential with the explicitly mentioned cinema, the power outage, or the St.-Marien-Hospital in (43), (44), and (45), respectively. Kunkel-Razum & Münzberg (2005: 624) make a similar observation and conclude that "wenn der Gegenstand bereits im vorangegangenen Satz spezifiziert wurde ..., muss die Verschmelzung aufgelöst werden. ... Der unbetonte definite Artikel ist hier durch das betonte Demonstrativum '*dem* bzw. *diesem* austauschbar, womit allerdings eine stärkere Deixis verbunden ist."[14] It remains obscure what "*stärkere Deixis*" ('*stronger deixis*') is supposed to mean in Kunkel-Razum & Münzberg's (2005) generalization, and, as we will see below, the restriction to coreference with an object introduced in the *previous* sentence also is unnecessarily strict. Nonetheless, the observation about the interchangeability of the definite and the demonstrative determiner seems to be accurate.[15] So, what are we to conclude from this short discussion of deictic and demonstrative uses? Importantly, presence in the perceptual space of the interlocutors cannot be the correct characterization of 'deictic' if we want to use this characterization in our explanation of the felicitous use of non-contracted forms. If we are certain that we are dealing not with a definite determiner but with a demonstrative use (as, for instance, indicated by intonation), then

---

(i) *Context: Ben sits across from Anna at her desk and notices a letter from headquarters. While looking at the letter he asks:*
Hast du schon gelesen, was in dem / #im Brief steht?
'Have you read that letter yet?'

[14] „if the referent has been specified in the previous sentence, then the non-contracted form must be used. ... Here, the unstressed definite article can be used interchangeably with the stressed demonstrative *dem* or *diesem*, which, however, leads to stronger deixis." (my translation)

[15] Looking at the diachronic development of determiners, Nübling (2005: 107f) follows Himmelmann (1997) in assuming that the demonstrative article turns anaphoric in nature before eventually becoming a definite article. I will not discuss this issue any further, but note that the close relation between anaphoric and demonstrative uses just discussed is supported by the historic development of the two determiners.

the non-contracted form must be used. The same holds if it is possible to substitute the definite determiner ('*der, die, das*') with the demonstrative determiner ('*dieser, diese, dieses*') without a change in interpretation.

The idea that rPPs are always used anaphorically is well supported by the data discussed so far. If we consider examples like the following, however, it becomes obvious that the notion of anaphoricity needs refinement (or broadening, depending on one's view point) if we want to use it as a criterion for the felicity of non-contracted forms.

(46) A: Ich habe heute morgen einen Brief vom Bürgermeister bekommen, bin aber noch nicht dazu gekommen, ihn zu lesen. Ich frage mich, was da wohl drin steht?
,I received a letter from the mayor today. I wonder what it says.'
B: Ach, bestimmt nichts Wichtiges. Ich kriege ständig irgendwelche Briefe vom / #von dem Bürgermeister und meistens geht es nur um Kleinigkeiten.
,Oh, don't worry. I get letters from the mayor all the time and they are usually only about trivial matters.'

(47) A: Ich habe heute Morgen einen Brief von Hamburgs Bürgermeister bekommen, bin aber noch nicht dazu gekommen, ihn zu lesen. Ich frage mich, was da wohl drin steht?
,I received a letter from the mayor of Hamburg today. I wonder what it says.'
B: Ach, bestimmt nichts Wichtiges. Ich kriege ständig irgendwelche Briefe #vom / von dem Bürgermeister und meistens geht es nur um Kleinigkeiten.
,Oh, don't worry. I get letters from that mayor all the time and they are usually only about trivial matters.'

Suppose that Anna (A) and Ben (B) live in Osnabrück. Anna's utterance in (46) informs Ben about a letter she received from Osnabrück's mayor[16] and in (one reading of) his reply, Ben refers to the very same mayor by using the cPP '*vom Bürgermeister*' ('*from the mayor*'). In (47), in contrast, Ben must use the rPP '*von dem Bürgermeister*' ('*from the mayor*') in order to refer to the same mayor that Anna is talking about. In both cases, Ben seems to refer anaphorically to some mayor mentioned in previous discourse, but in one case the cPP is required, while in the other case the rPP must be used. How can we account for this observation? I suggest that the crucial difference between Ben's replies in (46) and (47) lies in *how* the intended referent (here, Osnabrück's or Hamburg's mayor, respectively) has been introduced into the current discourse, and whether or not this referent is identifiable[17] independently of the current conversation. What this means is that rPPs require their referents to be determined *by means of linguistically conveyed information* alone. Such information can be the introduction of a suitable referent in preceding discourse, or restrictive modification (adjectival or with the help of relative clauses) can accomplish this. If, on the other hand, the intended referent is part of general *extra-linguistic* world knowledge, the contracted form is required. (We will return

[16] We will discuss such uses of cPPs in more detail below.

[17] I am using „identifiable" here as an intuitive, pre-theoretical term. For theories of definiteness based on a more formal notion of identifiability, see, among others, Gundel et al. (1993) or Abbott (2001). Note that also "referent" is used pre-theoretically here.

to this issue below.) Haberland (1985: 104), following Heidolph et al. (1981), formulates this constraint as follows:[18]

> [Die nicht-verschmolzene Folge] wird ausschließlich verwendet, wenn der Sprecher ... eigens darauf aufmerksam machen will, dass die Eindeutigkeit der Referenz einer [Nominalphrase] im weiteren sprachlichen Kontext zu suchen ist.
>
> 'The non-contracted form is used only if the speaker explicitly wants to draw attention to the fact that the unambiguous reference of a noun phrase is determined in the surrounding linguistic context.' (my translation)

Crucially for our purposes, anaphoricity of the definite description is question (in the sense of coreference with another expression in the current discourse) is neither a sufficient nor a necessary condition for the felicitous use of non-contracted forms. As we saw in (46), coreference with a previously mentioned entity does not always require an rPP. Conversely, the non-contracted form can be felicitous in non-anaphoric cases as well: the referent can be identifiable via linguistic means, for instance, through restrictive modification.[19]

As noted by Cabredo Hofherr (2014: 176), "[t]he claim that [cPPs] cannot combine with restrictive relative clauses has been made for Standard German [and related dialects] (... see Hartmann (1982), Raffelsiefen (1987), Nübling (2005: 112), Kunkel-Razum & Münzberg (2005: 624), Puig Waldmüller (2008: 148), Schwarz (2009, Ch. 2.1, Ch. 6.4.2)." Consider the following examples for illustration.

(48) #<u>Von dem / Vom Bürgermeister, der übrigens lange in Berlin gewohnt hat</u>, habe ich einen Blumenstraß zum Geburtstag bekommen.
,From the mayor, who, by the way, lived in Berlin for a long time, I got a flower bouquet for my birthday.'

(Schwarz 2009: 49)

(49) <u>Von dem / #Vom Lehrer, der übrigens lange in Berlin gewohnt hat</u>, habe ich einen Blumenstraß zum Geburtstag bekommen.
,From the teacher, who, by the way, lived in Berlin for a long time, I got a flower bouquet for my birthday.'

(ibid.)

(50) Anna sitzt <u>in dem / #im Auto, von dem ich dir gestern erzählt habe</u>.
,Anna is sitting in the car that I told you about yesterday.'

(Cieschinger & Bosch 2014)

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[18] Similar considerations are also expressed by Ebert (1971a: 161; 1971b: 107) and Hartmann (1982: 199).

[19] As mentioned in Section 1.2, we are not primarily concerned with superlatives in this book. Note that superlative constructions like ,*am höchsten Berg*' (,*at the highest mountain*') or ,*vom größten Studenten*' (,*from the tallest student*') require the contracted form, even though, strictly speaking, the *linguistic* information conveyed by the adjectives enables the identification of a suitable referent. I suggest, however, that in such cases the knowledge that there *is* a unique object that is denoted by a given superlative construction (i.e. that there is a unique thing of which ,*highest mountain*' or ,*tallest student*' holds) is not linguistic in nature, but part of world knowledge, therefore making cPPs felicitous in such contexts.

(51) Fritz ist jetzt in dem / #im Haus, das er sich letztes Jahr gekauft hat.
‚Fritz is in the house that he bought last year.'

(Hartmann 1978: 77)

(52) Sie trafen sich an dem / #am Tag, den sie schon lange vorher vereinbart hatten.
‚They met on the day that they had agreed upon a long time ago.'

(Puig Waldmüller 2008: 22)

Cabredo Hofherr (2014: 180) defines appositive, or non-restrictive, relative clauses as "relative clauses that combine with a [determiner phrase, DP] whose referent is already identified by the DP without the relative clause." The relative clauses in (48) and (49) are both non-restrictive (indicated by the acceptability of '*übrigens*' ('*by the way*')) and both a cPP (here, referring to some well-known mayor, most likely the mayor of the speaker's town) and an rPP (here, referring to some previously mentioned teacher) can be used felicitously. According to Cabredo Hofherr (2014: 183), restrictive modification, on the other hand, "is defined as modification that is necessary for the identification of the modified DP … Consequently, ... [restrictive relative clauses] add restrictive modification, i.e. [they] are necessary for the identification of the discourse referents of the DPs containing them." This type of relative clause is exemplified in the examples in (50), (51), and (52), where only the non-contracted form is acceptable. Note that this observation can straightforwardly be accounted for under the assumption that rPPs must be used whenever the intended referent is uniquely identifiable with the help of linguistically provided information.

Sentences like those in (48) – (52) are uncontroversial and many more such examples can be found in the literature on German preposition-article contractions. It has been argued by Cabredo Hofherr (2014), however, that not all restrictive relative clauses require the non-contracted form in German. She suggests that restrictive relative clauses can be used contrastively and non-contrastively, and that only contrastive relative clauses are incompatible with cPPs. A detailed inspection of the different types of relative clauses that Cabredo Hofherr (2014) discusses would take us too far afield, but consider the following set of examples for illustration.

(53) Im Institut, in dem ich vorher gearbeitet habe, war das kein Problem.
‚In the institute that I worked in before that wasn't a problem.'

(Cabredo Hofherr 2014: 177)

(54) Im Betrieb, in dem ich Werkzeugmacher gelernt habe, gab es 1000 Mitarbeiter.
‚In the factory where I did my apprenticeship to become a toolmaker, there were 1000 employees.'

(ibid.)

(55) Im Hotel, in dem sie wohnen, gibt es ab 7 Uhr Frühstück.
‚In the hotel that they are staying in, breakfast is served from 7 o'clock.'

(Cabredo Hofherr 2014: 199)

(56) Wir sind begeistert vom Kaffee, den diese Maschine produziert.
‚We are thrilled by the coffee that this machine makes.'

(Cabredo Hofherr 2014: 200)

(57) Das ändert wenig am Eindruck, den das Epos als Ganzes vermittelt.
‚That hardly changes the impression that the epos makes as a whole.'

(ibid.)

According to Cabredo Hofherr, all these uses of cPPs are felicitous, but I am not convinced. According to my own intuitions and those of my informants, the examples are all marginal at best. It seems that judgements about such data are not very clear. Consider also the following examples that illustrate a related point.

(58) Fritz ist jetzt #im / in dem Haus, das er gebaut hat.
‚Fritz is now in the house that he built.'

(Schwarz 2009: 198)

(59) Fritz ist jetzt im / in dem von ihm gebauten Haus.
‚Fritz is now in the house built by him.'

(ibid.)

(60) Anna ging #zum / zu dem {großen, neu eröffneten, ...} Supermarkt.
‚Anna went to the {big, newly opened, ...} supermarket.'

(Cieschinger & Bosch 2014)

Schwarz (2009) uses the examples in (58) and (59) in order to illustrate that the infelicity of the non-contracted form with a restrictive relative clause is independent from the "meaning of the noun phrase, as logically equivalent paraphrases with a prenominal participial phrase are perfectly fine with [the contracted form as in (59)]" (Schwarz 2009: 198). If, however, we follow the idea that restrictive modification of *any* kind prohibits the use of contracted forms (i.e., whether in the form of relative clauses or prenominal participial phrases), we predict that the cPP in (59) should in fact not be acceptable. I believe that this prediction is indeed borne out, as I think that the rPP is the only felicitous form here. Similarly in (60), only the non- contracted form is felicitous if the head noun of the definite description in question is modified restrictively, i.e. if the modifying expressions are actually necessary to identify the intended referent.[20]

In conclusion, the data regarding the (in-)acceptability of cPPs with restrictive modification is unclear and more research is needed. For our current purposes this means that in the following we will not explicitly focus on definite descriptions containing restrictive modifiers, but, as outlined in particular in Section 3.2.2, the considerations spelled out in upcoming chapters may very well apply to such definites as well. The key generalization made in this section is that rPPs are required if the identification of the intended referent requires information given in the linguistic context.[21]

[20] Note that the use of cPPs like *‚zum großen / neu eröffneten Supermarkt'* (*'to the big / newly opened supermarket'*) *is* acceptable in case there is some big or newly opened supermarket that the interlocutors know about and always refer to as *‚der große / neu eröffnete Supermarkt'*. Importantly, the adjectives here then are not interpreted as restrictive modifiers, but rather as part of the complex expression *‚großer / neu eröffneter Supermarkt.'* We will discuss this use below.

[21] Note that this characterization also holds if it turns out that restrictive modification of any kind requires the non-contracted form.

2.3 'Unika' ('uniques')

In contrast to non-contracted forms, the use of the contracted form is felicitous if there is a unique object fitting the descriptive content of the definite in question. Standard examples illustrating this use of cPPs are the following.

(61) Die Amerikaner flogen als erste zum / #zu dem Mond.
'The Americans were the first to fly to the moon.'
(Raffelsiefen 1987: 127)

(62) Anna ging zu einer Würstchenbude am / #an dem {Bahnhof, Strand, Rathaus}.
'Anna went to a sausage stand near the {train station, beach, town hall}.'
(adapted from Cieschinger & Bosch 2014)

In (61) and (62), the speaker is referring to 'the unique moon,' or to 'the unique train station / beach / city hall,' respectively. Importantly, the relevant cPPs in (61) and (62) are felicitous in out-of-the-blue utterances, i.e. without prior (or subsequent) explicit introduction of a suitable referent. Rather, the intended referents are known to the interlocutors independently of the current conversation,[22] and the non-contracted forms are not acceptable in such contexts.[23] Hartmann (1980) seems to have similar considerations in mind when he writes that "Einwohner eines Dorfes können auf Grund ihres allgemeinen Wissens über den Gemeinderat, die Kirche, den Pastor, die Mittelpunktschule usw. reden, Mitglieder einer Familie über den Vater, die Mutter, die Großmutter, die Oma usw."[24],[25] (Hartmann 1980: 177). The felicitous use of the cPP in both Anna's utterance and Ben's reply in (63) (repeated from (46) above) correspond to Hartmann's observation.

(63) A: Ich habe heute morgen einen Brief vom Bürgermeister bekommen, bin aber noch nicht dazu gekommen, ihn zu lesen. Ich frage mich, was da wohl drin steht?
‚I received a letter from the mayor today. I wonder what it says.'
B: Ach, bestimmt nichts Wichtiges. Ich kriege ständig irgendwelche Briefe vom / #von dem Bürgermeister und meistens geht es nur um Kleinigkeiten.
‚Oh, don't worry. I get letters from the mayor all the time and they are usually only about trivial matters.'

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[22] See also footnote 20.

[23] Note also that the use of the demonstrative determiners ‚*dieser, diese, dieses*' is totally unacceptable:

i. #Die Amerikaner flogen als erste zu diesem Mond.
'The Americans were the first to fly to this moon.'

ii. #Anna ging zu einer Würstchenbude an diesem {Bahnhof, Strand, Rathaus}.
'Anna went to a sausage stand near this {train station, beach, town hall}.'

[24] „Because of their general knowledge (*Allgemeinwissen*), inhabitants of a village can talk about the municipal council, the church, the priest, the school, etc., and members of a family can talk about the father, the mother, the grandmother, the grandma, etc." (my translation)

[25] I am not sure that the inclusion of '*die Großmutter', 'die Oma'* is really desirable: Often there are *two* grandmothers in a family. In fact, many families seem to use two different ‚names' in order to distinguish between the two grandmothers.

As discussed in the previous section, rPPs are used only if the identification of the intended referent depends on linguistic information. If we assume that some mayor (here, presumably the one of the city Anna and Ben live in) is known to Anna and Ben independently of the current conversation, then we can easily explain why the cPP is felicitous in Anna's as well as in Ben's utterance. In line with Haberland (1985: 94) and Heidolph et al (1981: 371), I want to emphasize that characterizing the use of rPPs as anaphoric and the use of cPPs as non-anaphoric (where anaphoricity is understood as co-reference with some other linguistic expression) would not make the correct predictions for discourses like the one in (63): The mayor that Ben refers to is co-referential with another expression (here, the mayor that Anna refers to), and would thus require the non-contracted form, but this is not what we observe. Distinguishing rPPs and cPPs by whether or not they require information in the linguistic context to enable the identification of a referent also helps us explain the following observation by Schwarz (2009; modelled after an example by Ebert (1971b: 111f.)), which remains puzzling on an account that takes anaphoricity vs uniqueness as the demarcation line between contracted and non-contracted forms.

(64) In Olersem lebte einmal <u>ein Fischer</u> mit seiner Frau und sieben Kindern. Jeden Nachmittag gingen die Dorfbewohner <u>zu dem Fischer</u>, um Fisch zu kaufen und den neusten Tratsch auszutauschen. Auch die Dorfkneipe wurde <u>vom Fischer</u> täglich mit frischem Fisch versorgt.[26]
'In Olersem there once lived a fisherman with his wife and seven children. Every afternoon, the village people went to the fisherman to buy fish and to exchange the newest gossip. The village pub also was supplied daily with fresh fish by the fisherman.'

(Schwarz 2009: 197)

The first sentence of this narrative establishes the existence of a particular fisherman and the rPP '*zu dem Fischer*' ('*to the fisherman*') is used in the second sentence in order to indicate that we are indeed talking about the very same fisherman mentioned in the first sentence. In the third sentence, however, the author seems to take for granted that the readers will have accepted the fisherman as an object that (within the 'universe' the story is about) is part of (extra-linguistic) background knowledge, and who therefore can be identified independently of linguistically conveyed information. Of course, storytelling narratives may differ from 'everyday' use of language, in particular with respect to which objects the reader is supposed to take for granted, but the general pattern that the story in (64) illustrates applies to other cases as well. Consider (65) below, which is part of the story of Rapunzel.

(65) Wenn sie nun die Stimme der Zauberin vernahm, so band sie ihre Zöpfe los, wickelte sie oben um <u>einen Fensterhaken</u>, und dann fielen die Haare zwanzig

[26] Actually, the (translation of the) original version in Fering is more convincing, but there is no straightforward translation that makes use of contracted forms. Here is Ebert's (1971b: 111f.) original example:

i. In Oldsum wohnte früher <u>ein Fischer</u> mit seiner Frau und sieben Kindern. Jeden Morgen ging <u>der [D-Artikel] Fischer</u> zum Dunsumer Deich, um Hornfische zu fangen. Eines abends war <u>der [A-Artikel] Fischer</u> zur Abendbrotzeit noch nicht wieder zu Hause ...

> Ellen tief herunter, und die Zauberin stieg daran hinauf. ... Denselben Tag aber, wo sie Rapunzel verstoßen hatte, machte abends die Zauberin die abgeschnittenen Flechten oben am Fensterhaken fest.
> 'When she heard the voice of the Enchantress, she unfastened her tails, wound them around a window hook, and then her hair fell down twenty ells, and the Enchantress climbed up on it. ... On the same day she had expelled Rapunzel, the Enchantress put the cut tails around the window hook.' (Puig Waldmüller's translation)
>
> (Puig Waldmüller 2008: 43)

As noted by Puig Waldmüller (2008: 44), the cPP '*am Fensterhaken*' ('*around the window hook*') cannot be replaced with the non-contracted form '*an dem Fensterhaken.*' Puig Waldmüller suggests further that "the reader is not supposed to believe that there is just one window hook in the tower ... Rather, the story makes it clear that there is only one relevant window hook: the one that belongs to the window of the tower of Rapunzel" (ibid.).

The aim of this section was to show that the contracted form is used felicitously in case the intended referent can be identified independently of the linguistic context, and if the relevant definite description refers to a singleton. It is important to keep in mind, however, that "Unika gibt es prinzipiell nicht im Sprachsystem, sondern nur in konkreten Sprechakten. Was in den Grammatiken als Unika aufgeführt wird, wie: die Sonne, der Mond etc. ist nur ein Grenzfall, da sich "unsere" Sonne und "unser" Mond auf die gesamte Erdbevölkerung bezieht; wer von einer anderen Sonne oder einem anderen Mond spricht, der muss das ausdrücklich dazusagen."[27] (Ebert 1971a: 170) What this shows is that interpretations of definite descriptions in general can be dependent on the values of other implicit or explicitly given information (here, the fact that it is 'our' sun or moon we are talking about), which leads us directly to the next section, where we take a look at covarying and bridging uses of definite descriptions and discuss whether such uses require rPPs or cPPs.

2.4 Covariation and Bridging Uses

It is well known that definite descriptions can have covarying readings, i.e. readings under which their value depends on the value of another quantificational expression. Consider the following English example for illustration.

(66) Every time Mary meets a student, she asks the student what his or her major is.

[27] „In principle, ‚uniques' do not exist within a language system, but only in concrete speech acts. Instances cited in grammars as ‚uniques', such as the sun or the moon, are only borderline cases, because „our" sun and „our" moon are identifiable for all of Earth's population; if the speaker wants to refer to some other sun or some other moon, s/he has to make this explicit." (my translation)

Speaking in purely pre-theoretical terms, for every situation in which Mary meets a student the definite description '*the student*' picks out the student that Mary met in that situation. Presumably, over time Mary meets different students and the definite description thus picks up different students depending on which particular situation we are looking at. To my knowledge, Schwarz (2009) is the only one who provides a detailed discussion of the acceptability of covariation readings of rPPs or cPPs, and he gives the following examples.

(67) In jeder Bibliothek, die ein Buch über Topinambur hat, sehe ich #im / in dem Buch nach, ob man Topinambur grillen kann.
‚In every library that has a book about topinambur I check in the book whether one can grill topinambur.'

(Schwarz 2009: 24)

(68) Jedes Mal, wenn mir bei einer Gutshausbesichtigung eines der Zimmer besonders gefällt, finde ich später heraus, dass eine berühmte Person eine Nacht #im / in dem Zimmer verbracht hat.
‚Every time when I particularly like of the rooms during a mansion tour, I later find out that a famous person spent a night in the room.'

(ibid.)

(69) Jedes Mal, wenn eine Runde vorbei ist, werden die Karten vom / #von dem Gewinner neu gemischt und verteilt.
‚Every time when a round is over, the cards are shuffled and dealt anew by the winner,'

(Schwarz 2009: 31)

In the examples in (67) and (68), the relevant definite descriptions are clearly used anaphorically (i.e. their referent can be determined with the help of information given in the linguistic context alone), and the non-contracted form is required. Interestingly, the non-contracted form is felicitously used in (69). As Schwarz (2009: 31) puts it, "the definite description [contained in the cPP '*vom Gewinner*' ('*by the winner*')] does not refer to only one individual, but rather is intended to pick out, for each round, the winner of that round." Note that here, in addition to having quantification over times or situations, we are concerned with what, following Clark (1975), is typically called *bridging anaphora.*[28] Here is one of Clark's original examples illustrating this use of definite descriptions.

(70) I looked into the room. The ceiling was very high.

(Clark 1975: 171)

[28] As pointed out by Clark (1975: 170), „[b]ridging from previous knowledge to the intended Antecedent can take many forms" and a definite description „often has as its Antecedent some piece of information not directly mentioned, but closely associated with the object, event, or situation mentioned … These „associated" pieces of information vary in their predictability from the object, event, or situation mentioned – from absolutely necessary to quite unnecessary." (Clark 1975: 171) This issue will be discussed in more detail when we look at constraints on possible values for the relation variable *R* (plausibility, nameability, informativity) in Section 4.3.

In (70), "since all rooms have ceilings, and only one ceiling each, the ceiling can be definite with the following implicature: ... The room mentioned has a ceiling; that ceiling is the Antecedent of '*the ceiling*' " (Clark 1975: 171). Whether or not we accept Clark's (1975) use of the terms '*implicature*' or '*Antecedent*' (which we will not discuss any further), the intuitive idea of bridging anaphora is captured quite succinctly in Clark's quote. Crucially for our purposes is the fact that extra-linguistic knowledge (here, the fact that rooms have ceilings) is necessary in order to arrive at an appropriate interpretation of the definite description in question (here, something like '*the ceiling of the room I looked into*'). In line with the discussion in the preceding sections, such dependence on non-linguistic information for the interpretation of a definite description requires the contracted form, and this is exactly what we find in (70) above, and in (71) below.

(71) *Context: There is a game being played with competing teams solving math problems, who have to write down their solutions into a solution book, and a different book is assigned to each group. Anna and Ben belong to different teams.*
Anna schrieb die Lösung #<u>in das / ins Buch</u> (und Ben auch).
'Anna wrote the solution into the book (and Ben did, too).'

The use of an rPP is not felicitous in this example, because the intended interpretation of '*ins Buch*' as '*into the book that was assigned to Anna's group*' is heavily dependent on the information provided by (non-linguistic) background knowledge. (Note that the same also holds of the DD '*die Lösung*' ('*the solution*').) If we further take a look at the interpretation of the complete sentence with VP ellipsis, we see that the cPP can have a covarying reading, too, yielding different books for Anna and for Ben.[29] The following two examples illustrate the acceptability of cPPs in cases of bridging anaphora *without* covariation.

(72) Der Zug fährt ab. Es wird dunkel. Bald sehe ich <u>im / #in dem Fenster</u> nicht mehr als die trübe Reflektion des Abteils.
,The train leaves the station. It's getting dark. Soon I can't see anything but the dull reflection of the train compartment in the window.'
(Haberland 1985: 82)

(73) Hans war zelten und ist mit dem Rad <u>zum / #zu dem Zeltplatz</u> gefahren.
,Hans went camping and he rode his bike to the camping ground.'
(Puig Waldmüller 2008: 25)

(74) Ben wurde gestern ermordet. <u>Am / #An dem Tatort</u> wurden Fingerabdrücke von drei verschiedenen Personen gefunden.[30]

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[29] See, for instance, Heim & Kratzer (1998, Ch. 9) for a discussion of pronouns that are bound by proper names. We will return to this issue in Section 4.2.

[30] It seems that both the rPP and the cPP are acceptable in the following discourse.

i. Ben wurde gestern ermordet. Am Tatort wurden Fingerabdrücke <u>vom / von dem Mörder</u> gefunden.
'Ben was murdered last night. At the crime scence they found the fingerprints of the murderer.'
(adapted from Cieschinger 2006: 51)

'Ben was murdered last night. At the crime scence they found the fingerprints of three different people.'

According to Haberland (1985: 95), the cPP '*im Fenster*' in (72) "bezieht sich auf einen Gegenstand, der nicht bekannt vorausgesetzt werden kann, weil er vorher erwähnt worden ist, sondern weil wir wissen, dass ein Zug Abteile hat und jedes Zugabteil ein Fenster: er ist "mitgegeben" [im Sinne von Ebert (1971b)]."[31],[32] In (73), the non-contracted form cannot be used, since no suitable antecedent for the definite description can be found in the linguistic context, whereas knowledge about camping and camp sites is necessary in order to arrive at the intended interpretation. Similarly in (74), it is extra-linguistic knowledge about murders and crime scenes that allows for the felicitous use of a cPP. Note that in the examples in (69), (71) – (74) the non-contracted form cannot be used felicitously.[33]

The data is this section shows that cPPs are used in cases of bridging anaphora and in covariation constructions that do *not* explicitly provide a suitable antecedent for the definite description in question. I want to point out, however, that there is some disa-

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It seems that the rPP makes a contrastive interpretation slightly more preferable and something similar also seems to be going on in examples like these:

ii. Das Auto ist in der Werkstatt. Am / An dem Motor war etwas nicht in Ordnung.
'The car was at the repair shop. Something was wrong with the engine.'
(Puig Waldmüller 2008: 25)

iii. Fritz hat gestern eine Rezension über ein interessantes Buch gelesen, das er sich heute kaufen wollte. Vom / Von dem Titel hatte er sich allerdings nur den ersten Buchstaben gemerkt.
'Fritz read a review of an interesting book that he wanted to buy today. Unfortunately, he could only remember the first letter of the title.'
(Cieschinger 2006: 48)

Further research is needed in order to better understand these examples.

[31] The cPP ‚*im Fenster*' „does not refer to an object that is given because it has been mentioned previously, but rather because we know that trains have compartments, and that every train compartment has a window: the object is „mitgegeben" (roughly: given to someone to take away with them)." (my translation)

[32] The notion of '*Mitgegebenes*' is not further discussed by Haberland (1985), and Ebert's (1971b, Ch. 7) own notion appears to correspond closely to that of Clark's (1975) bridging cases mentioned above.

[33] Interestingly, Nübling (2005: 108) suggests that, diachronically, „[d]er Schritt vom Demonstrativum zum Artikel ist dann vollzogen, wenn in bestimmten Kontexten keine Austauschbarkeit [zwischen Artikel und Demonstrativum] besteht, z.B. bei Bezug auf vorerwähnte Gegenstände oder Sachverhalte, ohne dass diese den konkreten Referenten benennen [d.h. *bridging anaphora*]; ist etwa von einem Haus die Rede, so kann man mit dem Artikel auf *die Tür* oder *das Fenster* referieren, demonstratives *díe* oder *dás* (ebenso *diese* bzw. *dieses*) wäre hier ausgeschlossen." („The step from demonstrative to article can be considered as accomplished if the two forms can no longer be used interchangeably in certain contexts, e.g., for reference to previously mentioned objects or states of affairs that are not explicitly mentioned [i.e. bridging anaphora]; talking about a house, one can, for instance, use the article to refer to *the door* or *the window*, the demonstratives *díe* or *dás* (as well as *diese* or *diese*) are not acceptable." my translation) Ignoring the contradiction between ‚*vorerwähnt*' (‚*previously mentioned*') and ‚*ohne konkrete Benennung des Referenten*' (‚*without concrete naming of the referent*'), this fits well with the observed similarity of demonstrative and anaphoric uses discussed in Section 2.

greement in the literature about bridging uses of definite descriptions in particular and about whether or not these uses require rPPs or cPPs. Consider the following examples for illustration (cf. also footnote 30).

(75) *Context: The host of a teetotallers' party is told that one of the guests is drinking a martini.*
Vom / Von dem Mann mit dem Martini werde ich eine öffentliche Entschuldigung fordern.
‚I will ask for a public apology from the man with the martini.'
(Cieschinger 2006: 51)

(76) Wir haben 10 Eier versteckt, aber die Kinder haben erst 9 gefunden. Im / In dem fehlenden Ei ist eine Überraschung.
‚We hid ten eggs, but the kids have only found 9 of them. There's a surprise in the missing egg.'
(Schwarz 2009: 191f.)

(77) 9 der 10 Tatverdächtigen sind Rechtshänder. Aufgrund der Schriftanalyse gehen wir davon aus, dass der Drohbrief vom / von dem Linkshänder geschrieben wurde.
‚9 of the 10 suspects are right-handed. Based on the hand-writing analysis we assume that the threatening letter was written by the left-handed person.'
(ibid.)

(78) Hans ist gestern in die Staaten geflogen. Beim / Bei dem Flug ging allerdings einiges schief, so dass er mit ziemlicher Verspätung am Zielort ankam.
‚Hans flew to the States yesterday. However, several things went wrong with the flight, so that he arrived with quite a bit of a delay at the destination.'
(Schwarz 2009: 193)

In (75), it seems that the sentence containing a cPP can be paraphrased as '*taking for granted that there is a man drinking a martini at our party, I'll demand a public apology of the martini-drinking man, whoever he is*'. The rPP, on the other hand, makes an interpretation along the lines of '*you told me that there is a man drinking a martini at our party, and I'll demand a public apology from that man*' more likely. (This difference in interpretation can possibly be attributed to interpreting the descriptive content as containing restrictive as opposed to appositive modification. See also Section 3.3 for a discussion of Donnellan's (1966) distinction between referential and attributive (uses of) DDs.) I acknowledge, however, that different speakers might judge these sentences differently. Regarding the examples in (76), (77) [34], and (78), Schwarz (2009) concedes that his own intuitions regarding the acceptability of rPPs or cPPs and those of his informants vary considerably. What are we to make of this apparent overlap in the distribution of rPPs and cPPs?

As noted by Ebert (1971a) in her discussion of the two different definite articles in Fering, the question of where the information necessary for the identification of the intended referent comes from cannot always be answered definitively: "Oft gehören die Identifikationshilfen, die dem Hörer zur Verfügung stehen, nicht ausschließlich einem

[34] Both (76) and (77) are modelled after so-called ‚marble-sentences,' which go back to Heim (1982) (who attributes them to Barbara Partee).

Typ an, sondern sind eine Kombination aus Deskription und Deixis."[35] (Ebert 1971a: 168) Haberland (1985: 101f.) comes to a similar conclusion in his analysis of three different pieces of writing:

> Oft habe ich erst aus dem Auftreten der Verschmelzung oder ihrem Ausbleiben erschließen können, wann der Autor den Referenten einer NP dieser Kategorie [hier: aufgrund vorheriger Erwähnung eindeutig identifizierbar] zuordnet und wann nicht. Das macht die Analyse vertrackt und scheinbar zirkulär ... Für den Sprecher besteht ein gewisser Entscheidungsspielraum, wenn es darum geht, "Textwissen" und "mitgegebenes" Wissen auseinanderzuhalten. Das heißt, der Sprecher kann oft wählen, was er als im sprachlichen Kontext gegebenes Wissen auffassen will, und was er als nicht sprachliches Wissen auffassen will. Diese Entscheidung wird oft idiosynkratisch sein.
>
> 'Often it was possible to decide whether or not the author categorized an NP as uniquely identifiable due to previous mention only because of the occurrence or the non-occurrence of the contracted form. This makes the analysis quite complicated and seemingly circular ... There is a certain leeway in distinguishing between 'textual knowledge' and 'mitgebenes Wissen' [roughly, bridging inferences]. This means that the speaker can often choose whether s/he wants to regard something as information provided by the linguistic context or as non-linguistic information. This decision will frequently be idiosyncratic in nature.' (my translation)

This ambiguity in the data is not very satisfying, but it emphasizes that the use of rPPs and cPPs is governed by semantic *and* pragmatic constraints, and furthermore to a large extent involves extra-linguistic knowledge. This does not mean that the generalizations arrived at so far are not tenable (i.e. that rPPs can only be used if the identification of the intended referent relies on information given in the linguistic context, whereas cPPs are used if the intended referent is known, or can be identified, independently of the current conversation). Rather, this short discussion shows that it may sometimes be a matter of degree how certain a speaker (or hearer) is regarding the availability of extra-linguistic knowledge.[36] For presentation purposes, we will therefore stay clear of such hybrid forms in the following.

2.5 Weak Definites

An important set of data that has largely gone unnoticed in the literature on (non-) contracted forms are so-called *Weak Definites* (WDs) as described by Carlson et al. (2006), which always require contracted forms.[37] In recent years, WDs have received consider-

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[35] "Often, the sources of information that are available to the hearer do not belong to a single type, but are a combination of description and deixis." (my translation)

[36] As we will see in Chapters 4 and 5, this corresponds to the idea that it may be a matter of degree how established or well-known a given value for the relation variable *R* is.

[37] Carlson et al. (2006: e7) suggest that „in German, there do appear to be instances that correspond to the weak definite readings of English, but are *mostly limited* to those instances where the definite article and a preposition form a portmanteau, e.g. *zum, ans, ins*, etc." [emphasis added] I want to emphasize that weak definite readings *always* require cPPs, but, of course, we find cases with non-contracted forms as well, namely in those instances where the contracted form is

able attention (cf., e.g., Aguilar-Guevara & Zwarts 2010; Aguilar-Guevara 2014; Bosch 2013; Klein et al. 2013; Klein 2011; the papers in the collections by Aguilar et al. (2014a) and by Beyssade & Pires de Oliveira (2013)), while others remain sceptical as to whether WDs can at all be accounted for in a compositional framework (cf., e.g., Schwarz (2009: 51ff); Barker (2011: 1120)). For instance, Heim (2011: 1009) suggests that "[Carlson et al. (2006)] show that, while the phenomenon is too widespread and systematic to classify these constructions simply as idioms, they do have a number of idiom-like properties that make it impossible to generate them in a compositional fashion with an all-purpose meaning for *the*." Let me point out that Carlson et al. do *not* show that WDs are in principle impossible to account for, they merely argue that *current* theories of definiteness cannot deal with them. As will be argued extensively in Chapter 5, WDs can be captured adequately by the theory proposed in this dissertation. A further issue that should be addressed before we proceed to an investigation of the use of (non-) contracted forms with WDs is of a terminological nature: A variety of authors has been concerned with a variety of 'funny' uses of definite descriptions, i.e. uses that cannot easily be accounted for under standard theories of definiteness (see, among many others, Birner & Ward 1994; Epstein 1999; Abbott 2001; Barker 2004; Roberts 2003; Poesio 1995), and the term '*weak definites*' or '*weak definiteness*' may be used to cover all of these very interesting phenomena. Note that in the following, however, we will only be concerned with the class of uses of definite descriptions as discussed by Carlson et al. (2006) and in subsequent work. I will also, for lack of a better term, stick to '*weak definites*' as a label for this class, even though this name is slightly unfortunate, as it is not entirely clear what is 'weak' about WDs, nor is it obvious how 'definiteness' can be considered a gradual concept (how can something be *weakly* definite or *strongly* definite?).[38] We should also keep in mind in our discussion of WDs that distinctions like those between weak and strong quantifiers (Milsark 1977), weak and strong readings of donkey sentences (Schubert & Pelletier 1989), or weak and strong articles (Schwarz 2009) are *not* related to weak and strong definites as introduced by Carlson et al. (2006).

We will return to a detailed critical discussion of WDs and their characteristics in Chapter 5, whereas our aim in the present section is a moderate one, namely to merely confirm that cPPs are indeed required when they contain a WD.

According to Carlson et al. (2006), WDs exhibit a number of characteristics that, taken together, distinguish them from 'regular / strong' definite descriptions:

i. WDs allow sloppy-identity readings in VP-ellipsis constructions.

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not available (because it is not accepted in the relevant register or because the contracted form simply does not exist). It seems that it is considerations like these that prompted Carlson et al. to the claim that weak readings are '*mostly limited*' to cPPs.

[38] Note that the same reservations are in order with respect to the term '*weak referentiality*': An expression either is or is not referential (or used referentially), and it is unclear to me how an expression can be *weakly* or *strongly* referential. I think it misleading to use the term ‚weak referentiality' as „a kind of cluster concept, covering the different ways in which an indefinite or definite noun phrase can depart from those noun phrases that straightforwardly introduce or pick up an individual referent in the common ground of a discourse." (Aguilar-Guevara et al. 2014b: 4)

ii. There appear to be lexical restrictions on the nouns that can be used in WDs and on the prepositions or verbs the WD co-occurs with.
iii. Modification destroys the weak reading.
iv. WDs are truth-conditionally equivalent to indefinites.
v. Also like indefinites, they scopally interact with other quantificational expressions.
vi. WDs involve so-called semantic enrichment.

We will briefly look at each of these characteristics in turn and will in all cases consider corresponding German examples as well.

Typically, definite descriptions "have a reference that carries over in anaphora ... [while] there is no such requirement of referential identity" (Carlson et al. 2006) for WDs. Consider the contrast between (79) and (80) for illustration.

(79) Mary heard about the riot, and Bob did, too.
(Carlson et al. 2006)

(80) Mary heard about the riot on the radio, and Bob did, too.
(ibid.)

For the truth of the utterance in (79), Mary and Bob must have heard about the same riot, while they may have been listening to different radios in (80). Similarly in German, the definite description contained in the use of an rPP in (81) requires Mary and Bob to have listened to the news on the same radio (presumably, a particular radio that was explicitly mentioned earlier in the discourse)[39], while the sentence with a cPP can be true if Mary and Bob have been listening to two different radios.

(81) Mary hat die Nachrichten im / in dem Radio gehört und Bob auch.
'Mary heard the news on the radio, and Bob did, too.'

Carlson et al. further argue that weak readings are lexically restricted to certain nouns (i.e. substitution of near-synonyms destroys the weak reading) and can only arise in the presence of particular other lexical items the WD co-occurs with, usually a certain preposition or verb.

(82)
a. He went to the hospital.[40]
b. He went to the building.

[39] The rPP is in principle always possible, but it can never have a weak reading in cases where the corresponding contracted form is available. I will therefore ignore rPPs in the following examples.
[40] Note that there are certain differences between standard American and British English regarding the use of the definite article. For instance, in British English one goes '*to hospital*' or is '*in hospital*'. Unless specified otherwise, I will assume American English usage in the following discussion of WDs.

(Carlson et al. 2006)

(83)
a. Kenneth is at the store.
b. Kenneth is behind the store.

(ibid.)

(84)
a. Sally checked the calendar.
b. Sally tore the calendar.

(ibid.)

(85)
a. Anna ist im Krankenhaus.
‚Anna is in the hospital.'
b. Anna ist im Gebäude.
‚Anna is in the building.'

(86)
a. Ben ist im Kino.
‚Ben went to the cinema.'
b. Ben ist hinterm Kino.
‚Ben went behind the cinema.'

(87)
a. Anna geht zur Schule.
‚Anna goes to school.'
b. Anna rennt zur Schule.
‚Anna runs to (her) school.'

In all of the (a) cases in (82) – (87), the relevant definite description can have a weak interpretation, while this is not the case in the (b) cases.

Modification appears to be incompatible with English WDs[41],[42] (as shown in (88) and (89)), and the same seems to be true of German WDs as well (cf. (90) and (91)).

(88) Fred went to the big store.

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[41] As noted by Carlson et al. (2006), modification by *affective* expression like '*ol' '* or '*doggone'* preserves the weak interpretation. I am not sure about corresponding German examples.

i. I hear Bob is back in the ol' / doggone hospital again.
ii. Bob liegt schon wieder #im verfluchten / dämlichen Krankenhaus.

[42] Aguilar-Guevara & Schulpen (2014) suggest that, contrary to Carlson et al.'s observations, WDs can indeed be modified, namely by adjectives denoting properties of kinds, as illustrated by the following examples.

i.
a. Lola went to the psychiatric hospital, and Alice did too.
b. Lola went to the alternative doctor, and Alice did too.
c. Lola went to the organic store, and Alice did too.

(Aguilar-Guevara & Schulpen 2014: 237)

Their experimental results only show that „[kind level]-adjectives are more acceptable in weak definite constructions than [individual level]-adjectives" (Aguilar-Guevara & Schulpen 2014: 262), but this conclusion is rather weak. Furthermore, the results show that kind-level modification of DDs makes weak readings *less* available than unmodified DDs.

(Carlson et al. 2006)

(89) They both checked the calendar that was hanging upside down.

(ibid.)

(90) Fred ging #zum großen Supermarkt.
'Fred went to the big store.'

(91) Sie schauten beide #im Kalender, der falsch herum hing, nach, ob sie Zeit hatten.
'They checked the calendar that was hanging upside down to see whether they had free time.'

A further characteristic property of WDs is their truth-conditional similarity to indefinites. This means that a speaker can felicitously use a WD without referring to a particular individual. This is particularly obvious in the similarity of VP-ellipsis constructions containing WDs and indefinite descriptions (as in (92), repeated from (2) above, and (93), respectively).

(92) Mary heard about the riot on the radio, and Bob did, too.

(Carlson et al. 2006)

(93) Mary was wearing a hat, and Bob was, too.

In both (92) and (93), it is not necessary that Mary and Bob were listening to the same radio or wearing the same hat, respectively. Note also that the speaker is under no obligation to provide further identifying information for utterances containing either a WD or an indefinite (cf. (94) and (95)).

(94)

a. Charlie: "Anna ging zum Supermarkt."[43]
'Anna went to the supermarket.'
b. Diana: "Which supermarket?"
c. Charlie: "No idea."

(95)

a. Charlie: "Anna ging zu einem Supermarkt."
'Anna went to a supermarket.'
b. Diana: "Which supermarket?"
c. Charlie: "No idea."

(96)

a. Charlie: "Anna ging zu dem Supermarkt."
'Anna went to the supermarket.'
b. Diana: "Which supermarket?"
c. Charlie: #"No idea."

[43] In addition to the weak reading we are concentrating on in this section, the cPP here can also have a reading as discussed in Sections 3 and 4, namely one where the intended referent is some supermarket known (independently of the current conversation) to the interlocutors, possibly the one usually frequented by them, the one closest to their current location, the only one in their town, etc. (See also the quote of Carlson et al (2006) in the main text.)

Both in (94) and (95), Charlie's answer is perfectly fine. In (96), in contrast, where the use of the non-contracted form makes it clear that Charlie is referring to a particular (previously mentioned) supermarket, his answer is not felicitous. A further similarity between WDs and indefinites is highlighted by the following passage from Carlson et al. (2006):

> If, for instance, Sam takes his family on a vacation in an entirely unfamiliar place, he can still go out to "the store" to get his family some goodies for the motel room, even when no one party to the conversation has any idea whatsoever what stores, if any, might be around. If he's at home, then there are typical, expected places he will frequent, but even there it is not required that he shop at any one of those places. Any store, even unfamiliar ones in distant and unlikely places, will do.

Importantly, in an utterance like (94)a, the speaker is conveying that Anna went to *some supermarket or other*, which is truth-conditionally identical to an utterance like (95)a.

Indefinite descriptions typically interact with other scope-taking operators, i.e. they can be scoped over (each woman clearly could have bought different hats in (97)) or distributed over (the girls may all want different horses in (98)). WDs exhibit the same pattern, both in English (cf. (99) and (100), respectively) and in German (cf. (101) and (102)), i.e. the mobsters may have been sent to different prisons, and the children could all go to different doctors.

(97) Each woman bought <u>a hat</u> for the party.
(98) The girls want <u>a horse</u>.
(99) Each mobster was sent to <u>the pen</u> for nine to twelve.

(Carlson et al. 2006)

(100) My children need to see <u>the doctor</u>.

(ibid.)

(101) Jeder Verbrecher musste für 9 bis 12 Jahre <u>ins Gefängnis</u>.
,Every criminal was sent to prison for 9 to 12 years.'
(102) Meine Kinder müssen <u>zum Arzt</u>.
,My children need to see the doctor.'

Finally, WDs usually come with *semantic enrichment*. This notion will be discussed in detail below, for now let us simply characterize semantic enrichment as "lending the sentences an 'activity' reading" (Carlson et al. 2006) as exemplified in (103).

(103)

a. Going to the store is going to *a* store and more ... (shopping)
b. Being in the hospital is being in *a* hospital and more ... (healing)
c. Looking at the calendar is looking at *a* calendar and more ... (gathering information of the type calendars are designed for)

(Carlson et al. 2006)

At the beginning of this section, I said that WDs have largely been ignored in the literature on cPPs and rPPs. There are a few instances, however, where various authors have observed uses of cPPs that would classify as WDs, but that have not been described by

these authors as such. To pick out just one example of this kind for illustration, consider (104).

(104)

a. Shente: "Du musst sofort zum Arzt gehen, sonst wird deine Hand steif und du kannst nie mehr richtig arbeiten."
'Shente: You need to see the doctor right away, otherwise your hand will become stiff and you will never again be able to work.'

b. Der Arbeitslose: "Er muss nicht zum Arzt, sondern zum Richter!"
'The Unemployed: He doesn't need to see the doctor, he needs to see a judge!'

(Haberland 1985: 82)

According to Haberland (1985: 95), both '*Arzt*' ('*doctor*') and '*Richter*' ('*judge*') "sind für die Teilnehmer in der Sprechsituation als 'der zuständige Arzt,' 'der zuständige Richter' vorausgesetzt, also wieder bekannt, aber neu, d.h. nicht vorher erwähnt. Alternativ könnte man auch an nicht-spezifische Referenz der NP denken: Geh doch mal endlich zum Arzt mit deinen ständigen Erkältungen!"[44] This observation is very similar to the one made in the passage cited from Carlson et al. (2006) above, and the second, 'non-specific,' reading of the cPP in (104) corresponds to the weak reading discussed in the present section.

2.6 Summary

The main goal of this chapter was to give an overview of the different uses of rPPs and cPPs. While rPPs are used as anaphoric or demonstrative expressions (as shown in Section 2.2), cPPs cannot be so used. I have introduced three main groups of uses of cPPs: 'uniques', covariation and bridging uses, and weak definites in the sense of Carlson et al. (2006) (discussed in Sections 2.3, 2.4, and 2.5, respectively). The main generalization to draw from this discussion is that contracted and non-contracted forms are used in two fundamentally different kinds of contexts. While the surrounding linguistic context (including objects pointed at) is necessary for the successful interpretation of rPPs, the intended referent of cPPs can be identified independently of the current conversation, i.e. the referent can be indentified with the help of extra-linguistic knowledge. This latter point is particularly clear in 'uniques', covarying and bridging interpretations, and we will therefore concentrate on such uses in the next two chapters. Chapter 3 presents a semantic representation of cPPs and rPPs that straightforwardly captures the different interpretations of these two forms as illustrated in the present chapter. The pragmatics

[44] Both '*doctor*' and '*judge*' "are assumed by the discourse participants to be 'the responsible doctor / the doctor responsible for the case' and 'the responsible judge / the judge responsible for the case', and are thus not known, but are new, i.e. not mentioned previously. Alternatively, one might also think of non-specific reference of the NP: Go see the doctor with your constant chills." (my translation)

of rPPs and cPPs will be the topic of Chapter 4. Chapter 5 then shows how the proposal outlined in Chapters 3 and 4 can account for weak readings of definites as well.

3 The Semantics of rPPs and cPPs

In the previous chapter we have seen that German contracted and non-contracted forms have a different distribution. rPPs are used anaphorically (and demonstratively) and generally indicate that the identification of the intended referent is achieved with the help of information given explicitly in the linguistic context (or, in the case of demonstrative uses, by some pointing gesture towards the intended referent). cPPs, on the other hand, show the opposite pattern, i.e. they are used felicitously only in case the intended referent is identifiable via its description and (inferences involving) *extra*-linguistic world knowledge.

An adequate account of the semantics and pragmatics of rPPs and cPPs should thus capture this binary distinction of reference resolution depending on information given in the linguistic or the non-linguistic context of utterance. Or, put in a slightly different way, we want our theory to distinguish between uses of definite descriptions that achieve their (unique) reference via identifying the referent with some other referent that is part of the domain of discourse (as in the case of rPPs), and those that achieve their (unique) reference via inferences depending on world knowledge *plus* the descriptive content of the definite description in question (as in the case of cPPs).

An important theoretical question, and one which has a prominent role in current and past discussions of definiteness in the philosophical and linguistic literature, is whether the fact that definite descriptions are used in two fundamentally different types of context (as evidenced by the different distribution of rPPs and cPPs) indicates that definite descriptions are 'truly' ambiguous. Do we want to posit two different lexical entries for the definite determiner, or should we rather maintain a unitary semantics for the definite determiner and explain the different *uses* this determiner can be put to with the help of pragmatic principles? And how would our answer to these questions relate to Donnellan's (1966) well-known distinction between referential and attributive (uses of?) definite descriptions? I will argue that the definite determiner is indeed semantically ambiguous, and that the referential / attributive distinction is *not* in fact the relevant distinction with respect to rPPs and cPPs.

This chapter is organized as follows. Section 3.1 provides the theoretical background for the proposal to be suggested in Section 3.2, and presents the distinction between given and non-given definites as proposed by Umbach (2001), as well as a DRT-representation of her proposal: Given definites require identification with another discourse referent present in the current conversation, and non-given definites introduce new referents that are uniquely determined by the descriptive content of the definite. The proposal argued for in Section 3.2 is inspired by Umbach's account and analyses rPPs analogously to given definites, while cPPs are analysed analogously to non-given definites. This account postulates a semantically significant ambiguity between two different definite articles. As I will argue in Section 3.3, this ambiguity does *not* correspond to the frequently made distinction between referential and attributive uses of DDs, but rather encodes the fact that DDs can either achieve uniqueness via identification or via their descriptive content and general world knowledge inferences.

3.1 Theoretical Background: Given and Non-given Definites

3.1.1 Umbach (2001): Given and Non-given Definites

In her investigation of accented and deaccented definite descriptions, Umbach (2001) proposes a distinction between two uses[1] of definite descriptions (DDs), according to which an accented DD introduces a novel discourse referent, whereas a deaccented DD refers to a given discourse referent. Umbach proposes a semantic representation of the different uses of DDs in a Discourse Representation Theory (DRT; cf. Kamp 1981; Kamp & Reyle 1993) framework. Let us begin by taking a closer look at Umbach's proposal, before then turning to her DRT representation in Section 2.2.

Consider the following example in (1), where small caps indicate that the respective word is accented.

(1) John hat ein altes Haus auf dem Land.
'John has an old cottage.'
  a. Letzten Sommer hat er den SCHUPPEN renoviert.
     'Last summer he reconstructed the SHED.'
  b. Letzten Sommer hat er den Schuppen RENOVIERT.
     'Last summer he RECONSTRUCTED the old shack / thing.'

(adapted from Umbach 2001: 252)[2]

Umbach observes that the DDs in (1)a and (1)b are interpreted differently depending on whether the descriptive content of the DD in question is accented or deaccented.[3] If the DD '*der Schuppen*' ('*the shed*') is accented as in (1)a, then it is typically interpreted as referring to some unique shed, preferably the shed that belongs to John's cottage. In (1)b in contrast, the DD is deaccented and is most likely interpreted as being coreferential with John's cottage, i.e. as referring to John's cottage in a derogatory way. Crucially, the deaccented DD is interpreted anaphorically and is identified with a previously established discourse referent, while the accented DD introduces a new discourse referent. With respect to German rPPs and cPPs, the distinction between (roughly) anaphoric and non-anaphoric interpretations is illustrated in the following example, adapted from Chapter 2.

---

[1] As we will see below, Umbach argues that the definite article is *not* semantically ambiguous and hence speaks of „different uses of definite descriptions." I will argue in Section 3.2 that DDs *are* in fact ambiguous, *pace* Umbach, but will follow her terminology throughout this section. I will also defer discussions of whether or not DDs are ambiguous to Section 3.3 below.

[2] Umbach's original example is „*John has an old cottage. Last summer he reconstructed the shed*" with (de)accenting on the DD ‚*the shed.*' I will use the German variant in (1) instead, since the deaccented English version can*not* easily receive the anaphoric interpretation that is crucial for Umbach's argumentation.

[3] According to Umbach (2001: 277), accenting on the definite determiner (as opposed to the descriptive content) as in (i) indicates that there are alternatives, here uniqueness vs. non-uniqueness. See also Abbott (2008) for a discussion of stressed *the*.

i. We have found THE man for the job.

We will not be concerned with accents on the definite determiner in the following.

(2) *Context: Anna and Bob are talking, among other things, about the St.-Marien-Hospital in Osnabrück. Anna says to Bob:*
Ein Freund von mir arbeitet auch in dem / im Krankenhaus.
'A friend of mine works in that / in a hospital, too.

The rPP indicates an anaphoric interpretation and is felicitous in case Anna's friend works in St.-Marien-Hospital, while the cPP is interpreted non-anaphorically and is understood as conveying (via Gricean reasoning) that Anna's friend works in some hospital that is *not* St.-Marien-Hospital (we will return to this reading of cPPs in Chapter 5).

Umbach uses the terms 'given DD' and 'non-given DD' to distinguish between DDs that refer to previously established, i.e. 'given discourse referents' and those that refer to new, i.e. 'non-given discourse referents', respectively. Both given and non-given DDs require the uniqueness of their referent for their felicitous use, but uniqueness is satisfied differently for the two uses of DDs: "If deaccented, the definite represents an identity anaphor, similar to a pronoun. ... But if there is an accent on (part of) the descriptive content, the descriptive content has to be exploited and a novel discourse referent is introduced." (Umbach 2001: 258) In other words, given DDs achieve uniqueness via *identification* (with another discourse referent), while non-given DDs achieve uniqueness via *description*.[4]

Given DDs (Uniqueness via Identification)

Given DDs, when used anaphorically, essentially function like personal pronouns in the sense that they require a suitable antecedent in the current discourse as their referent, i.e. a previously established discourse referent. When used demonstratively, given DDs function like demonstrative pronouns and require a suitable individual in the utterance context as their referent.[5] I have used the term 'suitable' here to indicate that, not surprisingly, not any old (discourse) referent will do for the felicitous use of either pronouns or given DDs. As Umbach points out, the mechanisms by which the referent of a particular given DD is eventually determined are the same that are necessary for pronoun resolution. There are various proposals out there regarding anaphora resolution (see, for instance, the classic approaches of Grosz et al. (1995) or Lappin & Leass (1994))[6], but a detailed discussion of the (dis-) advantages and empirical coverage of a representative subset of these theories lies outside the scope of this dissertation. For our present purposes it suffices to say that, assuming the existence of general mechanisms of reference resolution (including, for instance, salience, agreement, syntactic embedding, or pointing), the successful interpretation of given DDs does not rely on their de-

[4] Note that here Umbach follows Farkas (2000, 2002), who assumes that definites in general achieve uniqueness either via identification or via description. According to Farkas (2002), pronouns and proper names require identification or binding, and DDs require unique descriptions. In contrast to Farkas (2002), however, Umbach argues (convincingly) that DDs achieve uniqueness via *either* of the two mechanisms.

[5] Umbach is not primarily concerned with demonstrative uses of DDs, but she does acknowledge that DDs can be used demonstratively (Umbach 2001: 274).

[6] In the case of demonstratives, the pointing gesture will usually determine the intended referent.

scriptive content. The descriptive content of given DDs rather provides a constraint on suitable referents and "has to be compatible with the properties of the antecedent" (Umbach 2001: 264), but it does not determine the DD's referent. The information conveyed by the descriptive content can, for instance, be a subsuming property (cf. (3)), or it can, according to Umbach, also be used to convey new information about the referent in question (cf. (4) and also (5), repeated from (1)b above).

(3) Yesterday, John had a very interesting conversation with a dentist. The man had worked in over 12 countries over the past 5 years.

(4) *Context: In a newspaper article reporting on a trial: "... This morning the court heard the defendant."*
   a. The 34-year-old father of two teenage daughters claimed to be innocent.
   b. The defendant, 34-year-old father of two teenage daughters, claimed to be innocent.

(adapted from Umbach 2001: 265)

(5) John hat ein altes Haus auf dem Land. Letzten Sommer hat er den Schuppen RENOVIERT.
'John has an old cottage. Last summer he RECONSTRUCTED the old shack / thing.'

In all three examples, the relevant DD is used anaphorically. The descriptive content of the DD '*the man*' in (3) denotes a property that is more general than the property denoted by '*dentist*'. In (4)a, the description adds new information about the referent of the DD '*the defendant*', and could be paraphrased by a non-restrictive relative clause as in (4)b.[7] The DD '*der Schuppen*' ('*the shed')* in (5) is used to refer to John's old cottage, but additionally tells us something about the attitude of the speaker towards that cottage. Based on these observations, Umbach concludes that the descriptive content of given DDs is not in fact asserted, but is presupposed instead.[8] (We will come to the issue of assertion vs. presupposition shortly.) In cases where the DD in question makes use of the very same description as in the antecedent, this presupposition can straightforwardly be resolved. In cases where the description conveys additional information about the intended referent, and the presupposition is thus not yet part of the common ground of the discourse participants, the description will have to be accommodated. Let us take a brief detour exploring the idea that the use of a given DD does not assert, but rather presupposes its descriptive content a bit further.

[7] Note that, following the seminal work of Potts (2005), the relative clause in (4)b and also the epithet '*der Schuppen*' ('*the shed')* in (5) are standardly regarded as *conventional implicatures* (CIs) in current terminology. I will not discuss CIs further in this dissertation, but note that it is an intriguing question why, in typical parlance, (4)b would be considered to contain a CI, while (4)a would most likely be analysed as a ‚normal' definite description.

[8] In the case of epithets it is not at all clear that the descriptive content is actually *presupposed* given that the descriptive content of epithets characteristically does *not* fit the intended referent. We will return to this issue in Section 3.3.1 below.

In the theory that I am arguing for in this dissertation, I follow current terminology and distinguish between the *assertion* and the *presupposition* of a given utterance.[9] Intuitively speaking (and grossly over-simplifying[10]), the assertive content of an utterance directly determines the truth conditions, while the presupposed content can be viewed as a precondition on the utterance even *having* a truth value, i.e. the presuppositions associated with an utterance have to be mutually known and accepted into the common ground by the speech act participants in order for the utterance to be evaluated as either true or false. One can distinguish between 'semantic' and 'pragmatic' presuppositions. The former are assumed to be conventionally triggered by certain linguistic expressions (à la Strawson), while the latter are considered to be assumptions that the speaker of a given utterance makes (à la Stalnaker). For illustration, consider the following definitions of pragmatic presuppositions and of the common ground, respectively.

> A proposition *P* is a pragmatic presupposition of a speaker in a given context just in case the speaker assumes or believes that *P*, assumes or believes that his addressee assumes or believes that *P*, and assumes or believes that his addressee recognizes that he is making these assumption, or has these beliefs. (Stalnaker 1974: 573)
>
> In the simple picture, the common ground is just common or mutual belief, and what a speaker presupposes is what she believes to be common or mutual belief ... a proposition Φ is common belief of a group of believers if and only if all in the group believe that Φ, all believe that all believe it, all believe that all believe that all believe it, etc. (Stalnaker 2002: 704)

A detailed discussion of presupposition phenomena lies outside the scope of this dissertation, and it is also not our main concern at this particular point. What is important for our current discussion is the fact that presuppositions need to be mutually assumed or believed, and that it is therefore possible to challenge a presupposition (that the speaker seems to be making) if that presupposition is not mutually believed to be true.

Challenging a presupposition can take various forms. For illustration, consider the following two examples.

(6) A: And then <u>the flat car</u> said to the little red caboose ...
B: WHICH flat car?
A: This one.
B: Why not THIS one? (points to second flat car in picture)

(Matthewson 2006: e4)

(7) A: <u>The mathematician who proved Goldbach's Conjecture</u> is a woman.
B: Hey, wait a minute. I had no idea that someone proved Goldbach's Conjecture.
B': #Hey, wait a minute. I had no idea that that was a woman.

(von Fintel 2004: 317)

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[9] As we will see in Section 2.2, I also assume that utterances can make use of certain indexical elements, including, at the very least, the speaker, the hearer, the time and place of the utterance.

[10] For a recent overview, see, for instance, Beaver & Geurts (2011); for more detailed discussions, see, among many others, Stalnaker (1974, 1998, 2002), Heim (1990b), Strawson (1950), van der Sandt (1992), Geurts (1999).

In (6), the speaker B (a five-year-old child) challenges the presupposition that accompanies speaker A's use of '*the flat car*', namely that there exists a unique car (within the relevant domain, here a picture that actually contains more than one car). In (7), "[h]earer *B* legitimately complains that *A* presupposed that someone proved the conjecture, when it was not in fact established prior to *A*'s utterance. Hearer *B'* illegitimately makes a parallel complaint about an asserted, non-presuppositional component of *A*'s statement." (von Fintel 2004: 317)[11] The 'hey, wait a minute' test can thus be used to distinguish between the asserted and the presupposed content of a given utterance.

Conversely, we can test whether something is asserted or not asserted (which does not necessarily mean presupposed, but includes, for instance, implicatures) by checking whether the content in question can be directly assented or dissented with.

(8) A: Juan lives in Maria's house.
B: No, that's not true.
B: Yes, that's true.

(Tonhauser 2012: e4)

A's utterance in (8) is assumed to not be associated with any non-assertive content, and, as both of *B*'s responses show, the hearer can directly dissent or assent with the assertion that Juan lives in Maria's house. We can then use the 'that's not true' test to tease apart the asserted and non-asserted content of a particular utterance.

With these two tests in place, let us now return to the claim that given DDs presuppose their descriptive content.

(9) A: John hat ein altes Haus auf dem Land. Letzten Sommer hat er <u>den Schuppen</u> RENOVIERT.
'John has an old cottage. Last summer he RECONSTRUCTED the old shack / thing.'
B: #Hey, wait a minute. I had no idea that he reconstructed the old shack / the cottage.
B': Hey, wait a minute. His cottage is not an old shack, it's gorgeous.

(10) A: John hat ein altes Haus auf dem Land. Letzten Sommer hat er <u>den Schuppen</u> RENOVIERT.
'John has an old cottage. Last summer he RECONSTRUCTED the old shack / thing.'
B: That's not true. He only repainted the old shack / the cottage, but he didn't reconstruct it.
B': #That's not true. His cottage is not an old shack.

As we can see in (9), the assertion that there exists a unique referent denoted by the DD '*der Schuppen*' ('*the shed')* that is identical to the previously introduced cottage-referent, and that John reconstructed that referent, cannot be challenged. The presupposition, in contrast, that the intended referent of '*der Schuppen*' is, in fact, a shed (in English, an old shack) *can* legitimately be challenged. Looking at the same utterance of *A* from another direction, (10) shows that the asserted content can indeed be dissented with, while this

[11] Note that if the hearer does not challenge the presupposition in question, then it is added to the common ground, i.e. it is accommodated.

is not possible for the non-at-issue, here presuppositional, content. The two tests in (9) and (10) thus corroborate the proposal that given DDs presuppose their description.

Non-given DDs (Uniqueness via Description)

In contrast to given DDs, non-given DDs need to make use of their descriptive content to achieve uniqueness, i.e. to single out a unique referent. As typical examples for non-given DDs Umbach gives "nouns that denote a singleton due to their semantics (*the pope*) or superlative constructions (*the smallest prime number*). Such descriptions may also involve adjectival modification, attributive genitives or restrictive relative clauses making use of an indexical element [here, the proper name *Italy*] (*the Italian president, the president of Italy, the man who is elected for president in Italy.*" (Umbach 2001: 259) Such DDs can felicitously be used as first-mention definites, i.e. out of the blue and without explicit introduction of a suitable antecedent or a pointing gesture, and constitute classical prototypes of DDs that are best captured with uniqueness-based theories of definites (as Umbach's), as opposed to definiteness theories based on familiarity.[12] Consider the following example for illustration.

(11) *Context: What's new?*
  a. Last week I met <u>the POPE</u>.
  b. #Last week I MET <u>the pope</u>.

(Umbach 2001: 260)

Without an accent on the descriptive content of '*the pope*', the utterance in (11)b is not felicitous, because the DD has to be identified with some previously established discourse referent, i.e. it has to be interpreted anaphorically, but there is no suitable referent available in the current discourse. With an accent, however, as in (11)a, the DD is obviously used as a non-given definite denoting a singleton that introduces a new discourse referent. Such an utterance is thus felicitous at the beginning of a discourse. Note that in Umbach's framework this works because the DD denotes a singleton, i.e. the description is sufficient to determine a unique referent.[13] As the following examples illustrate, however, non-given DDs can also be used felicitously in cases where it is not immediately evident that their descriptive content alone achieves uniqueness.

(12) The faculty has a meeting. It is chaired by <u>the DEAN</u>.

(Umbach 2011: 260)

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[12] The literature on these two very prominent theories of definiteness is vast and very rich and I will not attempt to recapitulate the relevant discussions in this dissertation, but will rather, without additional argument, follow the uniqueness-group. For an overview of the two (groups of) theories, see, e.g., Abbott 2004.

[13] As noted at the end of Section 3 in Chapter 1, I follow Ebert (1971a: 179) in assuming that "in principle, ‚uniques' do not exist within a language system, but only in concrete speech acts. Instances cited in grammars as ‚uniques', such as the sun or the moon, are only borderline cases, because „our" sun and „our" moon are identifiable for all of Earth's population; if the speaker wants to refer to some other sun or some other moon, s/he has to make this explicit." (my translation) As we will see in Section 2.1.2, I analyse such cases as 'bridging' definites instead.

(13) John has an old cottage. Last summer he repaired the ROOF.

(ibid.)

(14) John has an old cottage. Last summer he reconstructed the SHED.

Umbach suggests that "[i]f the description of a [non-given] definite is not suited to single out a unique referent by itself, it needs the support of a 'bridging' antecedent" (Umbach 2001: 260), and this is what happens in (12), (13), and (14) (which is the English translation of (1)a above).[14] The DD '*the dean*' in (12) has, on Umbach's view, the referent established by the DD '*the faculty*' as its bridging antecedent, and is hence interpreted as '*the (unique) dean of the faculty*'. Similarly in (13) and (14), the DDs '*the roof*' and '*the shed*', when carrying an accent, are interpreted in relation to the bridging antecedent introduced by '*an old cottage*' as '*the (unique) roof / shed that belongs to John's old cottage*'. As already noted by Clark (1975), bridging relations "can take many forms" (Clark 1970: 170), and Umbach points out that part-hood or membership are possible bridging relations, but that the relation can also be made more specific by world knowledge inferences (Umbach 2001: 271, fn. 21).[15] (We will return to a discussion of possible values of the bridging relation in Chapter 3.)

Crucially, the relation need not be a function, i.e. it need not assign a unique value to every element in its domain. For instance, the roof in (13) most certainly is not the only object that belongs to, or is part of, John's cottage, nonetheless the DD is used felicitously. How can this be? Umbach's (2001: 261) answer is that "[i]t is only the combination of the bridging relation and the description of the definite which yields uniqueness."[16] In the case of (13), uniqueness holds because there is just one thing that is both a roof and belongs to John's cottage, namely the roof of John's cottage. This also explains why a felicitous utterance of (14) implies that there is just one shed that belongs to John's cot-

[14] In relation to the example in (13), Umbach correctly points out that, in contrast to familiarity-based theories of definiteness, we should *not* assume referents such as sheds, roofs, doors, etc. to be (implicitly) given as soon as a DD like *a cottage* is mentioned (see also, for instance, Roberts' (2003) discussion of strong vs. weak familiarity). Instead, she suggests that „we have to admit that *the roof* in [(13)], although involving an anaphoric relation, does introduce a novel referent." (Umbach 2001: 260) Although I agree with her regarding the introduction of novel referents in the examples discussed in this section, I am not entirely sure what is *anaphoric* about the relation involved. The relation relates two discourse referents, one of which, on Umbach's account, must be part of the universe of discourse, and this is presumably why Umbach speaks of an 'anaphoric relation'. Note also that the term '*bridging anaphora*' is typically used to describe cases like (12), (13), and (14). But also here, I do not fully understand why the DDs in question should be regarded as *anaphoric*, or, for that matter, as having an *antecedent*. As we will see in Section 2.1.2 below, it does not seem to be necessary that one of the referents that the relation takes as its argument is explicitly mentioned in the previous discourse. I will hence not adopt Umbach's notions of 'bridging antecedent' and 'anaphoric relation' in my own discussion.

[15] Umbach (2001: 271, fn. 21) also explicitly excludes identity as a possible value of the bridging relation, „because otherwise the shed referent [in (14)] could be identified with the cottage referent." As we will see below, this restriction is indeed necessary, but it is contradictory to a further claim of Umbach's, namely that „[t]he case of semantically unique predicates (*the pope*) could easily be adapted by allowing the bridging relation to be identity (x = x)." (Umbach 2001: 272, fn. 23)

[16] It would therefore be more precise to say that non-given definites achieve uniqueness via description *and* a (bridging) relation, but we will, for simplicity, mostly stick with Umbach's version of 'uniqueness via description' in the following.

tage; continuing (14) with something like '*And then he repainted the other shed*' or '*In fact, there are two sheds that belong to John's cottage*' is not acceptable.

According to Umbach, the use of a non-given definite as in (14) "triggers the presupposition that there is a bridging antecedent *w* together with a bridging relation *R*, such that the shed-referent is unique with respect to being *R*-related to *w* and being a shed" (Umbach 2001: 271). Let us check whether this claim is confirmed by the 'hey, wait a minute' test and the 'that's not true' test in (15) and (16), respectively.

(15) A: John has an old cottage. Last summer he reconstructed the SHED.
B: #Hey, wait a minute. I had no idea that he reconstructed the shed.
B': Hey, wait a minute. I had no idea that his cottage also has a shed.

(16) A: John has an old cottage. Last summer he reconstructed the SHED.
B: That's not true. He only repainted the shed, but he didn't reconstruct it.
B': #That's not true. His cottage does not have a shed.

Clearly, the two tests confirm Umbach's claim regarding the presuppositions associated with non-given definites. The presupposition that the referent of the DD in question is related to some other discourse referent can be challenged, but not dissented with.

Summing up so far, Umbach distinguishes between given and non-given definite descriptions that are felicitous in two fundamentally different kinds of context. Given DDs are analysed as identity anaphors that presuppose their descriptive content[17], and uniqueness is achieved via identification with some previously established discourse referent or via demonstration. Non-given DDs, on the other hand, introduce new discourse referents, and the presupposition that there is a bridging relation, a bridging antecedent, and that the newly introduced referent is unique with respect to being related to its bridging antecedent and matching the descriptive content of the DD. Let us now turn to a formal representation of the ideas described in this section.

3.1.2 Representing Given and Non-given Definites in DRT

Umbach (2001) proposes a formal representation of her theory in the framework of Discourse Representation Theory (DRT) in the version advocated by van der Sandt (1992). Before turning to the details of a DRT representation of given and non-given definites, I will briefly summarize the basic ingredients of DRT that are essential to our current discussion, as outlined in Beaver & Geurts (2011), and will also stick to their notational variant in the presentation of Umbach's proposal.[18]

[17] Again, note that this does not seem to be true of epithets whose referent typically does not fit the descriptive content. (See Section 3.3.1 for further discussion.)

[18] For more detailed recent overviews I refer the interested reader to Beaver & Geurts (2011) and the references cited therein, or to Kamp & Reyle (2011) and the references cited therein.

DRT is a representational theory of the interpretation of linguistic utterances, which do not necessarily occur in isolation, but in larger discourse. The intuitive idea is that a speaker successively builds up a mental representation of the on-going discourse, including the individuals talked about, their properties, relations between them, etc. A discourse representation structure (DRS) thus consists of two parts: a universe (containing individuals, so-called discourse referents) and a set of DRS-conditions (representing the properties of, and relations between, the discourse referents). For an illustration of how DRT works, let us consider the following short discourse.

(17) Pedro chased a donkey. He caught it.

We proceed sentence by sentence, and incoming information is added to the current DRS. The first sentence in (17) conveys that there is an individual named Pedro, another individual that is a donkey, and that Pedro chased the donkey-individual. This can be represented by the following DRS, where the variables before the colon describe the universe of discourse referents and the list of predicates to the right of the colon are the conditions that hold of the discourse referents. A discourse typically starts with an empty DRS, as in (18).

(18) [:]
(19) [x, y: Pedro(x), donkey(y), chased(x,y)][19]

As we can see in (19), proper names and indefinite description introduce new discourse referents into the universe and the properties that those referents have are added to the set of conditions. In a next step the two DRSs in (18) and (19) are unified, or merged in DRT-terminology, which in the case at hand yields the same result as in (19). Anaphoric pronouns add new discourse referents as well and introduce a condition, but they also come with the requirement that the newly added referent be identified with some other referent that is already part of the universe of discourse. This is indicated by underlining of the discourse referents in the universe of (20).

(20) [<u>v</u>, <u>w</u>: caught(v,w)]
(21) [x, y, v, w: Pedro(x), donkey(y), chased(x,y), v = x, w = y, caught(v, w)]
(22) [x, y: Pedro(x), donkey(y), chased(x,y), caught(x, y)]

The result of merging the two DRSs in (19) and (20) is given in (21), which is equivalent to the DRS in (22).[20] Note that the new discourse referents *v* and *w* in (21) are identified

[19] The predicate *Pedro(x)* tells us that the individual *x* ,is a Pedro.' Another common notational variant is *x = Pedro*.

[20] Here are some relevant definitions taken from Geurts & Beaver (2011):

- DRSs and DRS-conditions
  - A DRS *K* is a pair <U_K, Con_K>, where U_K is a set of discourse referents, and Con_K is a set of DRS-conditions.
  - If *P* is an n-place predicate, and $x_1, \ldots, x_n$ are discourse referents, then $P(x_1, \ldots, x_n)$ is a DRS-condition.
  - If *x* and *y* are discourse referents, then *x = y* is a DRS-condition.

with *x* and *y*, respectively, and are then no longer in need of identification.[21] Roughly, the DRS in (22) is true in some model *M* if there are two elements *x* and *y* in its domain, and *x* is Pedro, *y* is a donkey, x chased y, and *x* caught *y*. Note that these truth conditions capture the fact that discourse referents are existentially closed at the point of evaluation. We have seen how proper names, anaphoric personal pronouns, and transitive verbs work in DRT, let us now turn to minimally more complex expressions. Conditionals can be represented as follows.

(23) If John chased a donkey, then Mary chased a cat.
(24) [x, y: [u: John(x), donkey(u), chased(x, u)] ⇒ [v: Mary(y), cat(v), chased(y, v)]]

The DRS in (24) is a complex DRS containing two sub-DRSs representing the antecedent and the consequent of the conditional uttered in (23).[22] Finally, universal and existential quantifiers can straightforwardly be captured in this very small DRT fragment discussed so far. Consider (25), (26), and (27) for illustration.

(25) Every student read a book.
(26) For every student *x* there is a book *y* such that *x* read *y.*
[[x: student(x)] ⇒ [y: book(y), read(x, y)]]
(27) There is a book *y* such that every student *x* read it.
[y: book(y), [x: student(x)] ⇒ [read(x, y)]]

The sentence in (25) is ambiguous and has two different readings depending on the ordering of the quantifiers involved. If the universal quantifier '*every*' has wide scope over the existential quantifier '*a*', then we get the reading represented in (26). The represen-

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- If K and K' are DRSs, then $K \Rightarrow K'$ is a DRS-condition.
- DRS-merge
  - $K \oplus K' = < U_K \cup U_{K'}, Con_K \cup Con_{K'} >$
- Verifying embeddings
  - f verifies a DRS K iff f verifies all condition in Con_K.
  - f verifies $P(x_1, ..., x_n)$ iff $< f(x_1), ..., f(x_n) > \in I(P)$, where I is an interpretation function.
  - f verifies $x = y$ iff $f(x) = f(y)$.
  - f verifies $K \Rightarrow K'$ iff, for all $f[K]g$ such that g verifies K, there is an h such that $g[K']h$ and h verifies K', where the embedding function g extends the embedding function f with respect to a DRS K, $f[K]g$ for short, iff $Dom(g) = Dom(f) \cup U_K$, and for all x in $Dom(f)$: $f(x) = g(x)$.
- Truth
  - A DRS K is true in a model M iff there is an embedding function f such that $Dom(f) = U_K$ and f verifies K in M.

[21] Note that DRT is *not* a theory of reference resolution itself, i.e. it is not concerned with the mechanisms that eventually determine which referents are identified with which other referents.

[22] Proper names always introduce discourse referents in the main DRS representing the current sentence, and not in sub-DRSs. We will also be ignoring accessibility constraints between different DRSs within a main DRS, but see Geurts & Beaver (2011) for an overview.

tation in (27), in contrast, corresponds to a narrow scope reading of the universal with respect to the existential.[23]

With the basic mechanisms in place, let us turn to the representation of presuppositions. An influential contribution to DRT were the proposals by van der Sandt (1992) and Geurts (1999), which argue that presuppositions are effectively anaphors and should be treated accordingly within the DRT framework.[24],[25] What this means is that presuppositions need to be bound by a discourse referent in essentially the same way that, for instance, the referents introduced by anaphoric pronouns need to be bound by, i.e. identified with, already established discourse referents (cf. (20) and (21) above). What distinguishes pronouns from presuppositions in this respect, however, is that, in contrast to pronouns, presuppositions can typically be accommodated in case there is no suitable referent that can bind the presupposition. What this means in DRT-terms is that a new discourse referent will be accommodated, i.e. introduced into the universe of discourse, and the presupposition will then be bound by this referent. Consider the following example for illustration (taken from Geurts 1999: 51ff).[26]

(28) If Fred's rabbit is pink, he must be happy.

(29) [u: [<u>v</u>: Fred(u), <u>rabbit(v)</u>, <u>owns(u,v)</u>, pink(v)] ⇒ [<u>w</u>: <u>male(w)</u>, happy(w)]]

(30) [u, v: Fred(u), rabbit(v), owns(u,v) [: pink(v)] ⇒ [<u>w</u>: <u>male(w)</u>, happy(w)]]

The sentence in (28) contains two presuppositions, one triggered by the expression '*Fred's rabbit*', namely that Fred has a rabbit, and the other one is the pronoun '*he*' in the consequent, which is treated on a par with ordinary presupposition-inducing expressions. The DRS in (29) contains two sub-DRSs representing the antecedent and the consequent of the conditional, respectively. Starting with the antecedent, the presupposition cannot be bound to an existing discourse referent and therefore needs to be accommodated. As shown in (30), it is accommodated into the main DRS. Also the remain-

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[23] I will remain agnostic at this point regarding the compositional derivation of the DRSs in (26) and (27). One might, however, assume a mechanism like May's (1977) *Quantifier Raising* (QR) to derive the two different readings on the level of Logical Form.

[24] Note that here it is linguistic expressions, rather than speakers, that presuppose certain propositions, i.e. the ‚binding theory of presuppositions' advocated by van der Sandt (1992) and Geurts (1999) is concerned with ‚semantic' presuppositions, as opposed to the Stalnakerian view briefly mentioned in Section 3.1.1 above. For representational purposes I will adopt the ‚semantic,' rather than the ‚pragmatic,' view in the following, but nothing in my general proposal crucially hinges on this particular decision.

[25] As has been pointed out by Bosch (2001), however, identifying presuppositions with anaphora and vice versa „obliterates a distinction between two phenomena that are different in an interesting way: The business of anaphora proper is the maintenance of reference in discourse ... Presupposition on the other hand – and here I agree with van der Sandt (1992) – is not essentially bound up with reference, but is an inferential mechanism that contributes to discourse coherence in its own way by constraining the notion of contextual acceptability" (Bosch 2001). I agree with Bosch that anaphora and presupposition need to be kept distinct conceptually, but I have nonetheless adopted the binding theory of presuppositions for ease of presentation, as this view is also assumed by Umbach.

[26] In the original example, also the proper name ‚*Fred*' is analysed as coming with the presupposition that there is an individual Fred. I will, for ease of presentation, stick to the simpler version where a proper name straightforwardly introduces a new referent.

ing presupposition in the consequent will be accommodated into the main DRS, giving us the DRS in (31), which is equivalent to the one in (32).

(31) [u, v, w: Fred(u), rabbit(v), owns(u,v), male(w), w = u [: pink(v)] ⇒ [: happy(w)]]
(32) [u, v: Fred(u), rabbit(v), owns(u,v), male(u), [: pink(v)] ⇒ [: happy(u)]]

We can paraphrase the truth conditions represented in (32) as follows: There is an individual *u*, which is Fred and male, and an individual *v*, which is a rabbit owned by Fred, and if the rabbit is pink, then Fred is happy.

There is a final ingredient to our little DRT fragment that I want to add. As we will see below in the discussion of the German data, it is sometimes necessary to represent the speaker (and possibly also other indexical expressions, like the hearer, the time and place) of a given utterance in a DRS. Geurts & Maier (2013) present a general framework, Layered Discourse Representation Theory (LDRT), that aims at representing different kinds of linguistic contents that a given utterance expresses, including assertions, presuppositions, implicatures, and, crucially, contextual content, i.e. indexicals. LDRT is an extension of classic DRT (Kamp 1981, Kamp & Reyle 1993), where different types of contents are put on different layers, which can be interpreted model-theoretically. All discourse referents and all conditions are assigned sets of labels that represent the different layers (for instance, the label *a* corresponds to the assertive content, the label *p* to the presupposed content, etc.). Discourse referents typically reside on more than one layer at once and can be seen as "inter-layer communication switches" (Geurts & Maier 2013), i.e. they connect the different layers. To illustrate the basic idea of LDRT in action, consider the following example.

(33) The porridge is warm.
  a. As a matter of fact, it's hot.
  b. #As a matter of fact, it's cold.

(Geurts & Maier 2013)

The utterance in (33) conveys three different kinds of content: It is presupposed that there is porridge, it is asserted that this porridge is warm, and it is implicated that the porridge is not cold. As we can see in (33)a, the implicature that the porridge is not hot can be cancelled, while the assertion that the porridge is warm cannot (cf. the infelicity of (33)b). The sentence in (33) is represented in LDRT as in (34), where the labels *p, a,* and *i* correspond to the utterance's presupposition, assertion, and implicature, respectively.

(34) $[x_p\text{: porridge}_p(x), \text{warm}_a(x), \neg_i[\text{: hot}_i(x)]]$[27]

The LDRS in (34) nicely illustrates that the different layers are not independent of each other and shows how the discourse referent connects the layers: The referent *x* is presupposed and neither the assertion nor the implicature could be interpreted without

[27] Note that the lable *i* is attached to both the negation and the predicate ‚*hot*', indicating that the implicature of (33) is that the porrige is *not hot*.

resolving the relevant presupposition. Turning now to the contextual layer (which is associated with the label *k*), consider the example in (35).

(35)

a. I am the speaker.
b. [x_k: $speaker_k(x)$, $speaker_a(x)$]

(Geurts & Maier 2013)

Here, the indexical '*I*' introduces a discourse referent on the contextual layer and it is asserted of that referent that s/he is a speaker (ignoring for now the presupposition triggered by the definite determiner). We will not go into any technical detail here, but note that Geurts & Maier (2013) adopt a Kaplanian (1989) semantics of indexicality where the character of an expression is a function from the utterance context to the content, which in turn is a function from the circumstances, i.e. the context of evaluation, to truth values. For the contextual layer in LDRT, this means that the content of an LDRS depends on the context *c* in which it occurs. The context *c* then uniquely determines the speaker, the hearer, the time and place, etc. of the utterance represented by the given LDRS. For an atomic condition on the *k*-layer like '$speaker_k(x)$' in (35)b this then means that its value is defined only if the current context *c* assigns a unique value to its predicate, i.e. if *c(speaker)* returns the unique speaker in *c* (which is represented in the universe of discourse by the referent *x* in our example).

In the following, I will mainly stick to the DRT version as discussed by Geurts & Beaver (2011), including underlining of presuppositions and pronouns that still need to be resolved. Only when necessary, I will use the subscript *k* on discourse referents or conditions in order to indicate that indexical information is required for the interpretation of the DRS in question.

We are now in a position to return to Umbach's proposed representation of given and non-given definites. We begin with given definites (cf. Umbach 2001: 271).

(36)

a. John hat ein altes Haus auf dem Land.
   'John has an old cottage.'
b. [x, y: John(x), oldCottage(y), owns(x,y)]
c. Letzten Sommer hat er <u>den Schuppen</u> RENOVIERT.
   'Last summer he RECONSTRUCTED the old shack / thing.'
d. [<u>u</u>, <u>v</u>: reconstructed(u,v), <u>shed(v)</u>][28]
e. [x, y, u, v: John(x), oldCottage(y), owns(x,y), u = x, v = y, shed(v), reconstructed(u,v)]
f. [x, y: John(x), oldCottage(y), owns(x,y), shed(y), reconstructed(x,y)]

The sentence in (36)a is represented by the DRS in (36)b, and the sentence in (36)c by the DRS in (36)d. As discussed in Section 2.1.1, given definites are analysed as identity anaphors in the sense that they need to be identified with an already established dis-

[28] For ease of presentation we will ignore the temporal modifier ‚*last summer*', or, for that matter any other tense marking.

course referent, and they presuppose their descriptive content. The DRS in (36)e (which is equivalent to the one in (36)f) is the result of merging the two DRSs in (36)b and (36)d, and, furthermore, the reference of the pronoun '*he*' is resolved and the presupposition triggered by '*der Schuppen*' ('*the shed / old shack*') is accommodated. Note that the shed-referent is bound by the cottage-referent, giving us the anaphoric interpretation of the DD.

Turning to non-given referents, we concluded in Section 2.1.1 that they introduce a new discourse referent and that they presuppose the existence of a bridging antecedent and a bridging relation. This is represented in the DRS in (37)d (cf. Umbach 2001: 271).

(37)

a. John hat ein altes Haus auf dem Land.
   'John has an old cottage.'
b. [x, y: John(x), oldCottage(y), owns(x,y)]
c. Letzten Sommer hat er <u>den SCHUPPEN</u> renoviert.
   'Last summer he reconstructed the SHED.'
d. [<u>u</u>, v, <u>w</u>: shed(v), reconstructed(u,v), <u>R(w,v)</u>, [[<u>z: R(w,z), shed(z) ⇒ [: z = v]</u>]]
e. [x, y, u, v, w: John(x), oldCottage(y), owns(x,y), shed(v), u = x, reconstructed(u,v), w = y, R(w,v), [[z: R(w,z), shed(z) ⇒ [: z = v]]]
f. [x, y, v: John(x), oldCottage(y), owns(x,y), shed(v), reconstructed(x,v), , R(y,v), [[z: R(y,z), shed(z) ⇒ [: z = v]]]

In contrast to the given DD in (36)c, the one in (37)c directly introduces a new discourse referent, *v*, and the condition that *v* is a shed. Furthermore, it is presupposed that there is a discourse referent *w*, representing the bridging antecedent, that there is a relation *R* that relates this antecedent to the newly introduced shed-referent, and, crucially, that this shed-referent is unique with respect to being related to its bridging antecedent and being a shed. In other words, the DD '*der Schuppen*' ('*the shed*') triggers the presupposition that it is the unique shed of John's cottage. The DRS in (37)e, which is equivalent to the one in (37)f, is the result of merging the previous DRSs and of resolving all unresolved referents and presuppositions.

We see that Umbach's proposal regarding given and non-given definites can be implemented straightforwardly in a DRT framework.[29] Let us now turn to an application of these ideas to the German data discussed in Chapter 2.

[29] Note that Umbach's distinct ways of representing given and non-given definites circumvents one of the problems that Bosch (2001) raises in his critique of the ‚presupposition as anaphora' view advocated by van der Sandt (1992) and Geurts (1999). Just like Umbach, Bosch observes that the DD ‚*the grocer*' in (i) is identified with Jones when unstressed, and that a new discourse referent needs to be accommodated for the grocer when the DD is stressed.

i. When I arrived at Jones's office, <u>the old grocer</u> greeted me with the bill.

According to Bosch (2001), „there is actually a choice between either anaphora or presupposition in the interpretation of the definite NP; but each clearly excludes the other." This difference in interpretation seems to be captured quite nicely in Umbach's theory.

3.2 The Semantic Representation of rPPs and cPPs

3.2.1 The Proposal

As we saw in Chapter 2, the non-contracted form is used whenever the identification of the intended referent depends on information given in the linguistic context (or on a pointing gesture, in the case of demonstrative uses of the definite determiner). Prime examples illustrating the use of rPPs are thus anaphoric uses. For illustration, consider the following example, modified after an example from Chapter 2.

(38)

a. Ein neuer Bäcker hat gestern aufgemacht.
   ‚Yesterday, a new bakery opened.'
b. Anna war heute schon <u>bei dem Bäcker</u>.
   ‚Anna already went to that bakery today.'

Clearly, the rPP '*bei dem Bäcker*' (‚*to the bakery*') in (38)b is interpreted anaphorically and thus requires identification with the bakery-referent introduced in (38)a. The analogy with Umbach's notion of given definites is obvious, and this is borne out if we take a look at the following (very simplified) DRT-representations.

(39) Anna war heute schon <u>bei dem Bäcker</u>.
'Anna already went to that bakery today.'

a. [x: newBakery(x), opened(x)]
b. [y, <u>z</u>: Anna(y), went_to(y,z), <u>bakery(z)</u>]
c. [x, y, z: newBakery(x), opened(x), Anna(y), z = x, went_to(y,z), bakery(z)]
d. [x, y: newBakery(x), opened(x), Anna(y), went_to(y,x), bakery(x)]

The non-contracted form is interpreted as an identity anaphor (i.e. its referent needs to be bound) and it presupposes its description. This is shown in (39)b. The result of merging the DRSs in (39)a and (39)b and of binding the presupposition is shown in (39)c, which is equivalent to the DRS in (39)d. Note that applying the tests for presuppositional and for at-issue content introduced in Section 2.1 is difficult in cases where the anaphorically used DD makes use of the very same description as its antecedent.

(40) Ein neuer Bäcker hat gestern aufgemacht. Anna war heute schon <u>bei dem Bäcker</u>.
'Yesterday, a new bakery opened. Anna already went to that bakery today.'

a. #Hey, wait a minute. I had no idea that there is a bakery.
b. #Hey, wait a minute. I had no idea that she went to that new bakery.
c. That's not true. She didn't go to that new bakery. She went to the one on Main Street instead.
d. #That's not true. That's not a bakery she went to.

The 'hey, wait a minute' test employed by von Fintel (2004) is aimed at detecting presupposition failures, and it does not seem to work well in cases where a preceding sen-

tence clearly establishes the uniqueness of the referent the anaphoric DD is identified with. This is why the reaction in (40)a is odd. The unacceptability of (40)b, on the other hand, can be explained straightforwardly, because the speaker is challenging the assertive content, not the presuppositional content. The 'that's not true' test does seem to distinguish between the at-issue and the non-at-issue content. The response in (40)c, which dissents with the assertion, is perfectly fine, while the one in (40)d, where the presupposition that the referent of the DD in question is a bakery is denied, is odd. We can conclude that, even though the 'hey, wait a minute' test is not entirely conclusive, the treatment that Umbach suggests for given definites can be straightforwardly applied to rPPs as well.[30] And the idea that rPPs require identification within the linguistic context corresponds to the requirement that they be identified with some referent that is already part of the universe of the current discourse.

Let us now turn to cPPs.[31] The conclusion reached in Chapter 2 was that cPPs, in contrast to rPPs, do *not* require information provided in the surrounding linguistic content in order to identify the intended referent. Rather, they are used in cases where the referent is identifiable independently of the current conversation. As a reminder, consider the following three examples repeated from Chapter 2.

(41) Die Amerikaner flogen als erste <u>zum / #zu dem Mond</u>.
,The Americans were the first to fly to the moon.'

(Raffelsiefen 1987: 127)

(42) Anna ging zu einer Würstchenbude <u>am / #an dem {Bahnhof, Rathaus, Strand}</u>.
,Anna went to a sausage stand near the {train station, town hall, beach}.'

(adapted from Bosch & Cieschinger 2014)

(43) *Context: There is a game being played with competing teams solving math problems, who have to write down their solutions into a solution book, and a different book is assigned to each group. Anna and Ben belong to different teams.*
Anna schrieb <u>die Lösung</u> <u>ins / #in das Buch</u> (und Ben auch).
,Anna wrote the solution into the book (and Ben did, too).'

The cPP in (41) is most readily understood as making reference to the unique moon that orbits Earth. The utterance in (42) is felicitous if Anna went to a sausage stand near some unique train station, town hall, or beach. Presumably, the sausage stand is near the train station or town hall of Anna's (or the speaker's) home town, or near the beach at Anna's vacation location. Finally, in (43), Anna is writing the solution into the book that was assigned to her group, while Ben wrote *his* solution into *his* book. Note that all three utterances are perfectly fine at the beginning of a discourse and do not require the previous mention (or demonstration of) of a suitable antecedent. Note also that in the interpretation of the utterances in (41), (42), and (43) the intended referent is always related to some other individual in some way or another. Even though certain DDs (e.g., '*the moon*', '*the sun*') are frequently characterised as 'denoting a singleton,' or 'referring

[30] Note that also demonstrative uses of rPPs can be accounted for in a similar manner, assuming that the newly introduced discourse referent can be bound by an already established referent *or* by a referent that is anchored externally, i.e. to an individual in the utterance context.
[31] We will postpone a discussion of cPPs used as Weak Definites until Chapter 5 below and will concentrate on ,uniques' and covariation / bridging uses in this section.

uniquely,' I propose that such a relation is *always* involved in interpreting cPPs.[32] A semantic representation along the lines of Umbach's analysis of non-given definites thus suggests itself, as non-given definites are assumed to involve a 'bridging relation.' Consider the following examples for illustration.

(44) Die Amerikaner flogen als erste zum Mond.
,The Americans were the first to fly to the moon.'
a. [x, y, z: Americans(x), fly_to(x,y), moon(y), R(z,y), [: [w: R(z,w), moon(w)] → [: w = y]]]
b. [x, y, z_k: Americans(x), fly_to(x,y), moon(y), $speaker_k$(z), R(z,y), [: [w: R(z,w), moon(w)] → [: w = y]]]

In the DRS in (44)a, I analyse the expression '*die Amerikaner*' ('*the Americans*') as a proper name, and the presupposed material is adapted from Umbach's account. Here, the presuppositions are that there is an individual *z,* a relation *R*, and that the moon-referent *y* is unique with respect to being R-related to *z* and being a moon. A crucial difference to the representation of non-given definites that we have seen so far is that here the so-called bridging antecedent cannot be identified with a discourse referent that is already part of the main DRS, but has to be identified with, for instance, the speaker of the utterance. The relation *R(z,y)* could then be paraphrased as 'y is unique in the world of z.' (We will return to the question of how to restrict possible values for *R* in Chapter 3.) The result of accommodating the speaker of the utterance into the universe of the current discourse and of accommodating the presuppositions is given in (44)b, which is true (in a model) if there is an individual *z* who is the speaker of the utterance, an individual *x* called '*the Americans,*' and an individual *y* which is the unique moon in the speaker's world, and *x* flew to *y*. Crucially, the interpretation of the cPP in (44) does not require identification with an already established discourse referent, but rather introduces a new referent, whose uniqueness is determined by its description and by being *R*-related to some other individual (which need not have been mentioned explicitly).

(45) Anna ging zu einer Würstchenbude am Bahnhof.
,Anna went to a sausage stand near the train station.'
a. [x, y, z, w: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), R(w,z), [: [u: R(w,u), trainStation(u)] → [: u = z]]]
b. [x, y, z, w: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), w = x, R(w,z), [: [u: R(w,u), trainStation(u)] → [: u = z]]]
c. [x, y, z: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), R(x,z), [: [u: R(x,u), trainStation(u)] → [: u = z]]]

Again, the cPP in (45) introduces a new referent (which is a train station) and it triggers the presupposition that there is a relation between this unique referent and another referent (which may or may not have been mentioned explicitly in the preceding discourse). This is represented by the DRS in (45)a. In the DRS in (45)b, which is equivalent to the one in (45)c, the 'bridging antecedent' is identified with Anna (but see Section 4.2 for further discussion of possible interpretations of the individual variable) and all pre-

[32] See Footnote 13 above.

suppositions are accommodated. This gives us a reading under which the train station is the unique train station R-related to Anna (for instance, by being the only train station in Anna's home town).

Finally, let us consider the representation of the sentence in (43), which is slightly more complicated because it contains two expressions that need to be analysed analogously to non-given definites, namely '*die Lösung*' ('*the solution*') and '*ins Buch*' ('*into the book*').

(46) Anna schrieb <u>die Lösung ins Buch</u>.
,Anna wrote the solution into the book.'

a. [x, y, z, <u>v</u>, <u>w</u>: Anna(x), solution(y), <u>R_1(v,y)</u>, <u>[: [u: R_1(v,u), solution(u)] → [: u = y]]</u>, wrote(x,y,z), book(z), <u>R_2(w,z)</u>, <u>[: [u_1: R_2(w,u_1), book(u_1)] → [: u_1 = z]]</u>]

b. [x, y, z, v, w: Anna(x), solution(y), v = x, R_1(v,y), [: [u: R_1(v,u), solution(u)] → [: u = y]], wrote(x,y,z), book(z), w = x, R_2(w,z), [: [u_1: R_2(w,u_1), book(u_1)] → [: u_1 = z]]]

c. [x, y, z: Anna(x), solution(y), R_1(x,y), [: [u: R_1(v,u), solution(u)] → [: u = y]], wrote(x,y,z), book(z), R_2(x,z), [: [u_1: R_2(w,u_1), book(u_1)] → [: u_1 = z]]]

As we can see in the DRS in (46)a, both the DD '*die Lösung*' ('*the solution*') and the cPP '*ins Buch*' ('*into the book*') introduce a new discourse referent (here, *y* and *z*, respectively) and they trigger presuppositions to the effect that there are two relations, R_1 and R_2, which relate these new referents to other presupposed referents (here, *v* and *w*) such that the new referents are uniquely determined by being *R*-related and fulfilling their descriptive content. In other words, the interpretation of '*die Lösung*' makes use of a presupposed relation R_1 and its descriptive content to refer to the unique solution of Anna's (group), and, similarly, the cPP '*ins Buch*' requires a relation R_2, which relates the newly introduced book-referent to some other referent, and uniqueness is achieved via the relation R_2 in combination with the descriptive content of the cPP. The result is given in (46)b, which is equivalent to the DRS in (46)c. Note also that the two tests for presuppositions and asserted content support the analysis presented above.

(47) Anna schrieb <u>die Lösung ins Buch</u>.
'Anna wrote the solution into the book.'

a. Hey, wait a minute. I had no idea that she / her group had solved the problem.
b. Hey, wait a minute. I had no idea that she / her group was assigned a unique book.
c. #Hey, wait a minute. I had no idea that she wrote it down, I thought the groups had to shout out their solutions.
d. That's not true. She wrote the solution on the blackboard.
e. #That's not true. She / her group didn't solve the problem.
f. #That's not true. She / her group wasn't assigned a unique book.

The reactions in (47)a and (47)b challenge the presuppositions triggered by '*die Lösung*' and by '*ins Buch,*' respectively and are perfectly fine. In (47)c, in contrast, the speaker appears to be challenging the assertion, namely that she wrote down some solution or

other, and the utterance is not felicitous. Turning to the 'that's not true' test for asserted vs. non-asserted content, corresponding to (47)c we see in (47)d that the assertion can felicitously be dissented with. Dissent with either of the presuppositions triggered by '*die Lösung*' and '*ins Buch*', however, is not appropriate, as shown in (47)e and (47)f. Similar observations can be made for the examples in (44) and (45) as well.

3.2.2 Further Refinement of the Proposal

I have argued in this section that Umbach's (2001) account can by and large be adapted to the German data considered in Chapter 2. There is one prediction of her proposal, however, that does not fit the observed difference between rPPs and cPPs. As we saw in Chapter 2, there is a general consensus that while both rPPs and cPPs can be used with non-restrictive modifiers, rPPs must be used whenever the relevant noun is modified restrictively. This cannot easily be explained within Umbach's framework, since she explicitly claims that non-given definites "may also involve adjectival modification, attributive genitives or restrictive relative clauses making use of an indexical element" (Umbach 2001: 259). The examples she gives for such DDs are '*the Italian president,*' '*the president of Italy,*' and '*the man who is elected for president in Italy*'. If we translate these into German and create contexts that in principle allow for contractions, we get the following sentences.

(48) Anna hat gestern einen Brief <u>vom / #von dem italienischen Präsidenten</u> bekommen.
'Yesterday, Anna got a letter from the Italian president.'

(49) Anna hat gestern einen Brief <u>vom / ?von dem Präsidenten Italiens</u> bekommen.
'Yesterday, Anna got a letter from the president of Italy.'

(50) Anna hat gestern einen Brief #<u>vom /von dem Mann</u> bekommen, <u>der in Italien zum Präsident gewählt worden ist</u>.
'Yesterday, Anna got a letter from the man who has been elected president in Italy.'

In the sentence in (48), the cPP is appropriate, while the rPP is not.[33] Should we then conclude that definites modified by adjectives are always possible in out-of-the-blue utterances and require cPPs? Such a move would be premature, however, given that other adjectives clearly cannot be felicitously used to modify definites at the beginning of a discourse, i.e. as non-given definites (cf. (51)). Note also that here the cPP is no longer felicitous, and an rPP (indicating an anaphoric or demonstrative interpretation) is the only acceptable option.

[33] With contrastive stress on the adjective, the rPP is possible after all. A detailed discussion of contrastive readings, however, goes beyond the scope of this dissertation.

(51) Anna hat gestern einen Brief #vom / von dem {schwarzhaarigen, großen, alten, ...} Präsidenten bekommen.
'Yesterday, Anna got a letter from the {black-haired, tall, old, ...} president.'

What seems to be crucial for the acceptability of (48), as opposed to (51), is the fact that '*the Italian president*' is interpreted analogously to '*the moon*' or '*the sun*' in that a unique referent is easily determined (via accommodation of a discourse referent for the speaker of the utterance and of a relation like 'the unique x that belongs to y's world'; see example (44) above). Indeed, it is plausible to view such expressions as 'complex' nouns, rather than as 'simplex nouns modified by an adjective,' i.e. a DRT representation of (48) would look like the one in (52)a, rather than the one in (52)b.

(52) Anna hat gestern einen Brief vom italienischen Präsidenten bekommen.
'Yesterday, Anna got a letter from the Italian president.'

a. [x, y, z, w: Anna(x), letter(y,z), italianPresident(z), R(w,z), [: [u: R(w,u), italianPresident(u)] → [: u = z]]] [34]

b. x, y, z, w: Anna(x), letter(y,z), president(z), italian(z), R(w,z), [: [u: R(w,u), president(u)] → [: u = z]]]

An analysis along the lines of (52)a is also supported by the fact that a cPP *could* be used felicitously in (51), but only if something like '*the black-haired / tall / old president*' were interpretable as a complex noun, e.g. in a setting where all discourse participants regularly talk about and take for granted a particular individual they commonly refer to as '*the black-haired / tall / old president*'. (We will return to a discussion of such 'complex nouns' in Chapter 5 below.)

With respect to the example in (49), the judgements are not entirely clear. According to my own intuitions, the cPP is better, but other native speakers might disagree. *If* it turns out that the cPP is indeed preferred, then we can explain this analogously to the utterance in (48), i.e. as interpreting '*president of Italy*' as a complex noun. If, on the other hand, the rPP is considered to be more acceptable, then we could analyse the PP '*of Italy*' as a restrictive modifier of the noun '*president,*' and we saw in Chapter 2 that it is generally assumed that restrictive modification requires the use of non-contracted forms. It seems that in examples like (49), there is some variability regarding the inner structure assigned to the cPP.[35]

Turning to the example in (50), the cPP is *not* acceptable, in accordance with the often-observed infelicity of contracted forms in combination with (restrictive) relative clauses. I suggest that we can explain this observation as follows: Non-restrictive relative clauses (or other appositive modifying expressions) can only be used if a suitable referent is part of the universe of discourse and is then further specified by the material

[34] Alternatively, one could also analyse ‚*the Italian president*' as a proper name. This would give us the DRS in (52)a, but with*out* the presupposed material.

[35] Note also that examples such as Umbach's original example ‚*the president of Italy*' are discussed extensively, and controversially, in the literature on genitives and on possessives (see, among others, Barker 1995, 2004; Partee 1997; Partee & Borshev 2001; Kim et al. 2004). It might thus be the case that any uncertainties regarding the acceptability of (non-)contracted forms are influenced by uncertainties regarding the interpretation of such genitive / possessive structures.

provided by the modifier. In the case of DDs used as given definites in the sense of Umbach, this addition of new information to an already established referent proceeds straightforwardly (cf. (53)).[36]

(53) Berlin has a new mayor. The mayor, who by the way is getting bald, is 45 years old.
   a. [x, y, z: Berlin(x), mayor(y), new(y), have(x,y), mayor(z), get_bald(z), 45yo(z)]
   b. [x, y, z: Berlin(x), mayor(y), new(y), have(x,y), z = y, mayor(z), get_bald(z), 45yo(z)]]
   c. [x, y: Berlin(x), mayor(y), new(y), have(x,y), get_bald(y), 45yo(y)]]

If a non-restrictive relative clause is used with a non-given definite, as in (54), then the modifying predicates are asserted to hold of the newly introduced referent.

(54) The mayor, who by the way is getting bald, is 45 years old.
   a. [x, y: mayor(x), get_bald(x), 45yo(x), R(y,x), [: [z: R(y,z), mayor(z)] → [z = x]]]
   b. [x, y_k: mayor(x), get_bald(x), 45yo(x), $speaker_k$(y), R(y,x), [: [z: R(y,z), mayor(z)] → [z = x]]]

As long as the discourse referent *y* can be identified, as well as a suitable value for the relation *R*, the non-restrictive relative clause is perfectly fine. Note that these observations straightforwardly carry over to rPPs and cPPs as well (cf. (55) and (56), respectively).

(55) Berlin hat einen neuen Bürgermeister. Anna hat gestern einen Brief von dem Bürgermeister, der übrigens langsam eine Glatze bekommt, bekommen.
'Berlin has a new mayor. Yesterday, Anna got a letter from the mayor, who, by the way, is getting bald.'
   a. [x, y, v, u, z: Berlin(x), mayor(y), new(y), have(x,y), Anna(v), letter(u), mayor(z), get_bald(z), receive(v,u,z)]
   b. [x, y, v, u, z: Berlin(x), mayor(y), new(y), have(x,y), Anna(v), letter(u), z = y, mayor(z), get_bald(z), receive(v,u,z)]]
   c. [x, y, v, u: Berlin(x), mayor(y), new(y), have(x,y), Anna(v), letter(u), get_bald(y), receive(v,u,y)]]

(56) Anna hat gestern einen Brief vom Bürgermeister, der übrigens langsam eine Glatze bekommt, bekommen.
'Yesterday, Anna got a letter from the mayor, who, by the way, is getting bald.'

[36] Non-restrictive relative clauses can also be analysed as conventional implicatures (CIs) in the sense of Potts (2005). While we are not concerned with CIs in this dissertation (see also footnote 7), the proposal presented in Section 3.2 could probably extended to cover CI-based analyses of appositive modifiers and of epithets by introducing another layer to the LDRT framework discussed briefly in Section 3.1.2 that we then give the semantics of CIs. This is just a stipulation at this point and further research is clearly needed.

a. [x, v, u, y: Anna(v), letter(u), mayor(x), get_bald(x), receive(v,u,x), R(y,x), [: [z: R(y,z), mayor(z)] → [z = x]]]
b. [x, v, u, y_k: Anna(v), letter(u), mayor(x), get_bald(x), receive(v,u,x), $speaker_k$(y), R(y,x), [: [z: R(y,z), mayor(z)] → [z = x]]]

Turning to restrictive modification, the idea is that the information conveyed by the modifier (together with the descriptive content of the DD) is essential for determining the intended referent. This is clearly at odds with given definites, which achieve uniqueness not via description but via identification. Umbach's claim that restrictive relative clauses[37] can occur with non-given definites thus seems appropriate. Consider the example in (57) for illustration.

(57) The mayor who is getting bald is 45 years old.
a. [x, y: mayor(x), get_bald(x), 45yo(x), R(y,x), [: [z: R(y,z), mayor(z), get_bald(z)] → [z = x]]]
b. [x, y_k: mayor(x), get_bald(x), 45yo(x), speaker(y_k), R(y,x), [: [z: R(y,z), mayor(z), get_bald(z)] → [z = x]]]

The DD '*the mayor who is getting bald*' introduces a new discourse referent *x*, and presupposes the existence of a referent *y* and a relation *R* with the help of which we can uniquely determine *x*. Note that the antecedent of the universal presupposition not only includes the condition *R(y,z)* and the condition *mayor(z)*, but also the condition *get_bald(z)*. This corresponds to the intuitive presupposition triggered by the utterance in (57), namely that there must be some individual who is unique in being *R*-related to, say, the speaker *and* in being a balding mayor. Note that the utterance in (57) is perfectly fine at the beginning of a discourse, confirming that it involves a non-given definite. Note also, however, that it could occur *after* a sentence that introduces a suitable referent, as in (58).

(58) Two of John's friends are mayors. One of them has full black hair, the other one is getting bald. The mayor who is getting bald is 45 years old.
a. [x, y, z: John(x), friend(x,y), mayor(y), black-haired(y), friend(x,z), mayor(z), get_bald(z)]
b. [v: mayor(v), get_bald(v), 45yo(v)]
c. [x, y, z, v: John(x), friend(x,y), mayor(y), black-haired(y), friend(x,z), mayor(z), get_bald(z), v = z, mayor(v), get_bald(v), 45yo(v)]
d. [x, y, z: John(x), friend(x,y), mayor(y), black-haired(y), friend(x,z), mayor(z), get_bald(z), 45yo(z)]

Here, the DD '*the mayor who is getting bald*' is used anaphorically, i.e. as a given definite and is analysed accordingly in (58)b. The DRS in (58)c, which is equivalent to the one in (58)d, is the result of merging the two DRSs in (58)a and (58)b, and of resolving the pre-

[37] In fact, Umbach (2001: 259) only speaks of „ restrictive relative clauses making use of an indexical element." I am not sure why the indexical element should play a crucial role here, and I will therefore *not* restrict the discussion to relative clauses containing an (overt) indexical element.

suppositions. Restrictive modification is thus possible in combination with given and non-given definites.

With respect to the German data, however, we have a problem: Restrictive modification is generally incompatible with cPPs, which we have treated analogously to non-given definites so far. Consider the example in (59) for illustration.

(59) Anna hat gestern einen Brief <u>von dem / ?vom Bürgermeister, der eine Glatze hat</u>, bekommen.
'Yesterday, Anna got a letter from the mayor who is bald.'

The variant with the non-contracted form is interpreted analogously to the relevant sentence in (58) and is felicitous in case some salient bald mayor is part of the universe of discourse. The representation would then be analogous to the one in (58) above. The contracted form, in contrast, is generally considered to be infelicitous. This version is marked with a question mark here, rather than with a hash mark, in order to highlight that such a sentence may in fact be acceptable, but only in certain contexts. Similarly to the sentence in (57) above, the cPP *is* felicitous if the hearer can straightforwardly accommodate the existence of an individual that is unique in being a bald mayor (that is *R*-related to some other referent).[38],[39] (For instance, in case there are two mayors playing an important role in the speaker's community, one of which is bald.) A DRT-representation of the sentence in (59) with a cPP could then look as in (60).

(60) Anna hat gestern einen Brief <u>vom Bürgermeister, der eine Glatze hat</u>, bekommen.
'Yesterday, Anna got a letter from the mayor who is bald.'
a. [x, y, z, <u>v</u>: Anna(x), letter(y), mayor(z), bald(z), receive(x,y,z), <u>R(y,z)</u>, <u>[: [w: R(y,w), mayor(w), bald(w)] → [w = z]]</u>]
b. [x, y, z, v_k: Anna(x), letter(y), mayor(z), bald(z), receive(x,y,z), speaker(v_k), R(v_k,z), [: [w: R(v_k,w), mayor(w), bald(w)] → [w = z]]]

This leaves us with the question, however, what to do with so-called 'establishing relative clauses' (Hawkins 1978; cf. (61)) more generally. Establishing relative clauses introduce a new referent into the discourse, yet they typically require rPPs, as the example in (62) illustrates.[40]

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[38] Maybe an explanation along these lines could also help shed some light on Cabredo Hofherr's (2014) alleged instances where cPPs do allow restrictive relative clauses?

[39] The notion of accommodation is notoriously vague. For illustration, consider the following quote from von Fintel (2008: 162): "As long as the conditions are right, hearers will accommodate a speaker who is using a sentence whose presuppositions are not yet satisfied by the common ground. The common ground will be adjusted quietly and without fuss to a new common ground that satisfies the presupposition, in a way that is most plausibly the one the speaker intended." I have ignored this issue so far, and it is not the main focus of my dissertation, but I hope that the discussion in Chapter 3 will determine at least *some* parameters that may make accommodation 'easy.'

[40] As in (60), the cPP could in principle be used as well, given certain background knowledge. We will ignore this possibility in the following.

(61) A: What's wrong with Bill?
  a. Oh, the woman he went out with last night was nasty to him.
  b. Oh, he went out with a woman last night, and she / the woman was nasty to him.
  c. Oh, he went out with a woman last night who was nasty to him.

(Hawkins 1978: 131; via Schwarz 2009: 49)

(62) Sie ist #vom / von dem Mann, mit dem sie gestern ausgegangen ist, versetzt worden.
'She was stood up by the man that she went out with yesterday.'

(Schwarz 2009: 49)

The DD in (62) that contains the relative clause seems to be used to introduce a new referent into the on-going discourse rather than requiring identification with an already established discourse referent. Above we came to the conclusion, however, that rPPs are analysed in line with Umbach's account of given definites, i.e. as achieving uniqueness via identification (or demonstration). I propose that identification in indeed the default route to uniqueness for rPPs, but that there may be cases where a new discourse referent needs to be accommodated.

Given definites in Umbach's framework are analysed as introducing a discourse referent that requires identification with another referent in the universe of discourse. In anaphoric uses of rPPs, or of DDs more generally, this identification is straightforward (provided some reference resolution mechanism that makes use of salience, recency, syntactic embedding, etc.). If identification fails, however, the hearer will have to accommodate a new referent. In Chapter 2, I concluded that rPPs indicate that *information in the linguistic context* is vital in determining the intended referent, and I propose that it is this indication that is exploited in the interpretation of so-called establishing relative clauses (or other cases of 'establishing' modification). A hearer of (62) might reason as follows: "The speaker is using an rPP, therefore the identification of the intended referent depends on linguistic information alone. There is no suitable referent that has been introduced into the current discourse (or that is pointed at) and that the newly introduced referent could be identified with, so the speaker expects this new referent to be accommodated."[41]

In a similar vein, it was pointed out in Chapter 2 that the contracted form can be used in cases where its referent is co-referential with an already established referent. Consider the examples in (63) and (64), repeated from Chapter 2, for illustration.

(63) A: Ich habe heute morgen einen Brief vom Bürgermeister bekommen, bin aber noch nicht dazu gekommen, ihn zu lesen. Ich frage mich, was da wohl drin steht?
'I received a letter from the mayor today. I wonder what it says.'
B: Ach, bestimmt nichts Wichtiges. Ich kriege ständig irgendwelche Briefe vom / #von dem Bürgermeister und meistens geht es nur um Kleinigkeiten.

[41] In the case of DDs that occur without a preposition (or that do not allow contraction due to other, non-semantic, constraints), the hearer will need to apply similar reasoning along the following lines: There is no obvious choice of value for the relation *R*, so the speaker cannot expect determination of the intended referent via description and the presupposed relation. An anaphoric interpretation is not possible, so the intended referent needs to be accommodated.

‚Oh, don't worry. I get letters from the mayor all the time and they are usually only about trivial matters.'

(64) A: Ich habe heute morgen einen Brief von Hamburgs Bürgermeister bekommen, bin aber noch nicht dazu gekommen, ihn zu lesen. Ich frage mich, was da wohl drin steht?
‚I received a letter from the mayor of Hamburg today. I wonder what it says.'
B: Ach, bestimmt nichts Wichtiges. Ich kriege ständig irgendwelche Briefe #vom / von dem Bürgermeister und meistens geht es nur um Kleinigkeiten.
‚Oh, don't worry. I get letters from that mayor all the time and they are usually only about trivial matters.'

Crucially, in the discourse in (63), on the reading we are currently interested in, B is referring to the very same mayor that A was talking about (presumably the mayor of A and B's home town), nonetheless the non-contracted form is not felicitous. The opposite holds in (64). How can this be? As briefly hinted at in Chapter 2, I suggest that the crucial difference between B's replies in (63) and (64) lies in *how* the referents in the two discourses can be determined uniquely. In (63), extra-linguistic knowledge (about the existence of a unique mayor of A and B's home town) provides a suitable value for the relation *R* and an *R*-related referent, and thus makes the accommodation of this presupposition triggered by the cPP easy. The mayor referred to in B's utterance in (64), in contrast, cannot be determined via its descriptive content and world-knowledge inferences involving the presupposed relation *R* (as this interpretation process would yield the same interpretation as in (63) and the DD would not be interpreted as referring to the mayor of Hamburg). Instead, the rPP needs to be interpreted anaphorically via identification with another referent, i.e. the determination of the intended referent depends on information in the linguistic context.

The characterization of given and non-given definites in terms of achieving uniqueness either via identification or via description, respectively, is very helpful in explaining Umbach's observations regarding the different interpretations of stressed vs. unstressed DDs. And this characterization also gets us a long way in accounting for the differences between rPPs and cPPs. As the discussion of the examples in (62), (63), and (64) has shown, however, (non-)contracted forms are also subject to general conceptual constraints: cPPs indicate that the identification of the intended referent can be established independently of the current conversation, i.e. via extra-linguistic world knowledge (in the form of suitable values for the relation variable *R*, and for the presupposed individual variable). The opposite holds of rPPs, as here the linguistically provided information in the surrounding discourse is crucial to determining the intended referent.[42] The following quote from Haberland (1985: 104), repeated from Chapter 2, makes this constraint on felicitous uses of rPPs particularly clear.

> [Die nicht-verschmolzene Folge] wird ausschließlich verwendet, wenn der Sprecher ... eigens darauf aufmerksam machen will, dass die Eindeutigkeit der Referenz einer [Nominalphrase] im weiteren sprachlichen Kontext zu suchen ist.

[42] Note that this does *not* mean the same as saying that uniqueness is achieved via description (which holds of non-given definites). Rather, the suitable antecedent referent, with which the referent of an rPP is identified, must be part of the linguistic context.

'The non-contracted form is used only if the speaker explicitly wants to draw attention to the fact that the unambiguous reference of a noun phrase is determined by the surrounding linguistic context.' (my translation)

Note that these considerations apply to DDs in general as well, not only to those that can be distinguished explicitly by occurring either in rPPs or in cPPs. As noted in Chapter 2, in many cases a contracted form is simply not available (cf. (65)), and a DD can of course also occur outside of PPs (cf. (66), repeated from (46) above).

(65) Ben geht gerne <u>in die Kirche</u>.
'Ben likes to go to (the) church.'

(66) Anna schrieb <u>die Lösung</u> ins Buch.
'Anna wrote the solution into the book.'

The sequence *'in die'* does not have a corresponding contracted form in Standard German, nonetheless the DD contained in the PP '*in die Kirche*' ('*to the church*') can be interpreted analogously to other cases of cPPs and a presupposed relation is necessary for the interpretation. On one reading of the sentence in (65), we could, for instance, make the intended relation explicit and paraphrase the sentence as 'Ben likes to go to the local church.'[43] Similarly in (66), the interpretation of the DD '*die Lösung*' ('*the solution*'), which, importantly for our current concern, is not embedded in a PP, requires the accommodation of a suitable relation, namely that the speaker is referring to the (unique) solution that Anna's group has worked out. An anaphoric interpretation of the relevant expressions in (65) and (66) is, of course, also possible. Such a reading would then be computed 'text-internally', i.e. with*out* making use of a presupposed relation whose value is provided by world knowledge or that is part of the common ground.[44]

3.2.3 The Compositional Structure of rPPs and cPPs

While I have not provided a step-by-step derivation of the complete DRSs for our examples in the discussion of the representation of rPPs and cPPs, we do need to address the question of how exactly the meaning of rPPs and cPPs is computed compositionally, i.e. which syntactic structure we assign to rPPs and cPPs.

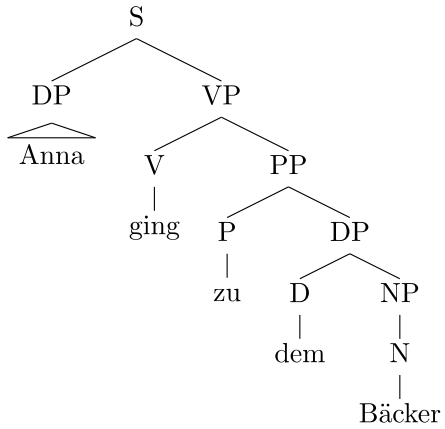
In the case of non-contracted forms this question may not seem as pressing, because we can simply assume a standard constituent structure of the rPP. I am ignoring syntac-

[43] Such an interpretation is especially plausible if we assume that Ben is not particularly religious and does not attend mass at the local church, but is, say, an architect who admires the building. Another reading would be one paraphrased as ‚Ben likes to go to church.' We will return to readings of this kind (albeit not with special attention to bare singulars) in Chapter 5.

[44] In fact, I propose that this reading is *not* the default reading of DDs, *pace* familiarity-based accounts of definiteness, unless the previous discourse explicitly introduces suitable antecedents. This is confirmed by the relatively low frequency of anaphoric readings of DDs observed both by Fraurud (1990) and by Poesio & Vieira (1998). (See also the discussion of establishing relative clauses in connection with the example in (62) above.)

tic intricacies here as they are not the main focus of this dissertation, and will simply suggest that rPPs are assigned the following constituent structure.

(67) Anna ging zu dem Bäcker.
'Anna went to the bakery.'
a.



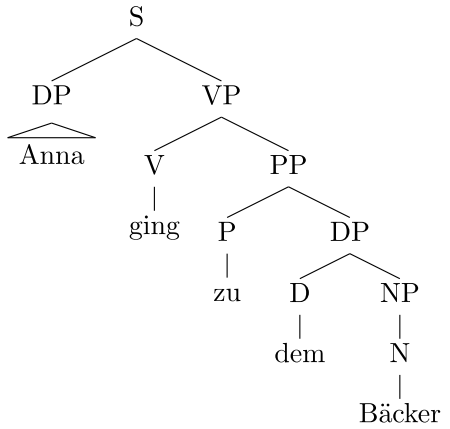
In classic DRT, this tree would be the input to which DRS-construction rules are applied to yield the final DRS representing the complete sentence in a step-wise fashion.[45] (Note, however, that nothing in the theory proposed in this dissertation hinges on a particular semantic framework. I chose DRT mainly for its highly intuitive representational clarity.) Generally speaking, the definite determiner will combine with a noun phrase (NP) to form a determiner phrase (DP), which then combines with a preposition (P) to form a ('regular') prepositional phrase (PP). This PP then enters the derivation of the rest of the sentence.

If we turn to non-contracted forms, however, it becomes obvious very quickly that the syntactic structure of cPPs is not as easily determined, indeed it is not even clear what part-of-speech category the contracted forms (*beim, zum,* etc.) belong to. As pointed out by Bosch (2013), the contracted form is neither a determiner (D) nor a typical preposition (P). If the contracted form were a determiner, then the complete cPP would have to be a determiner phrase (DP), which is not the case. On the other hand, a prepositional phrase (PP) needs a preposition as its head, but the contracted form does not seem to be a preposition, because then it would combine with a DP and not with a noun phrase (NP). What we do know is that a cPP is a PP, but there seem to be various potential constituent structures *inside* the PP.

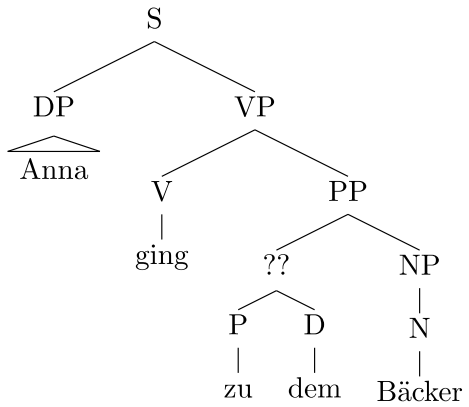
[45] As before, I am not concerned with discussing these DRS-construction rules.

(68) Anna ging <u>zum Bäcker</u>.

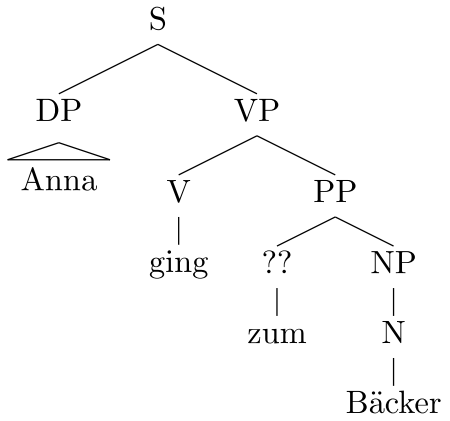
a.



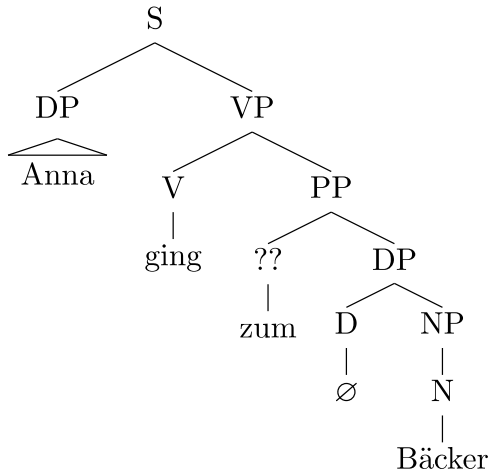
b.



c.



d.



The version in (68)a assigns both cPPs and rPPs the very same constituent structure (cf. (67)a), at least on some level of Deep Structure. We would then have to assume that some phonological process takes place, which eventually gives us the Surface Structure of the sentence under consideration. It is not entirely clear, however, how we would then be able to explain why sometimes phonology kicks in giving us contracted (surface) forms, and sometimes it does not, given that the phonological and syntactic environment would be identical in both cases.

The variant in (68)b would also require some additional phonological machinery in order to arrive at the surface forms, but at least we could then say that *if* we do find such a syntactic structure, *then* contraction is possible. But it is not at all clear why '*zu dem*' should be considered to be a syntactic constituent in the first place. And would we really want to introduce two new phrase structure rules into our grammar, just in order to account for contracted forms? We would need one rule to take care of the syntactic combination of a preposition and a definite determiner, and one for then combining this with an NP. Furthermore, the PP would then have an NP as one of its daughters, not a DP as is typically the case. Note also that we would have to stipulate that only the definite determiner can occur in such a position in order to exclude constituents like '*zu jedem, zu einem, zu keinem,*' etc., for which we have no motivation at all to posit such an internal structure.

The option given in (68)c, would not need any suspect phonological rules, but at the cost of introducing both a new part of speech category *and* a new phrase structure rule that combines NPs with this new kind of expression in order to form a PP (which would then *not* have a DP as one of its daughters, as in (68)b). To my knowledge, however, there is no independent evidence for such a move.

Finally, the version in (68)d is suggested by Bosch (2013). Roughly put, he argues that cPPs are non-referential expressions that are best analysed as restrictive modifiers of properties. Instances of cPPs that are used as 'uniques' in our terminology are analysed on a par with proper names on the assumption that proper names denote sets of properties. As we can see in (68)d, Bosch proposes that contracted forms are in fact prepositions (he calls them '*Verschmelzungs-Präpositionen*' ('*contracted prepositions*')) that combine with determinerless singular DPs to form a PP. In order to capture the fact that DDs other than those contained in cPPs also can have readings analogous to cPPs, Bosch further suggests that the definite determiner is ambiguous and also that prepositions are ambigous: The definite determiner can either denote a function from proper-

ties to individuals (capturing the 'normal / classic' interpretation of the resulting DDs) or the determiner denotes a function from properties to sets of properties (capturing the non-referential status of the resulting DDs). Similarly, prepositions either denote functions from individuals to property modifiers or functions from sets of properties to property modifiers. Without going into the details of Bosch's proposal[46], in addition to positing a new kind of preposition, namely contracted prepositions, we need to assume an ambiguity of the definite determiner and of prepositions.

What are we to do then? None of the four options seems very appealing at first, as they require suspect phonological mechanisms, stipulated new phrase structure rules, or multiple ambiguities. Clearly, the variant in (68)b is the least desirable candidate as it requires a new part-of-speech category, new phrase structure rules, *and* a phonological rule. Similarly, the variant in (68)c requires a new part-of-speech category and an unusual composition within the PP. So we are left with the two options in (68)a and (68)d. I suggest that the one in (68)a is in fact preferable to the one in (68)d. As we have seen throughout our discussion, the meaning associated with the contracted form is not restricted to cPPs, but is observable in other contexts as well. Consider the following examples for illustration.

(69) John hat ein altes Haus auf dem Land. Letzten Sommer hat er <u>den SCHUPPEN</u> renoviert.
'John has an old cottage. Last summer he reconstructed the shed.'

(70) John hat sein Haus für Halloween dekoriert. <u>Im SCHUPPEN</u> hat er sogar eine kleine Geisterbahn aufgebaut.
'John decorated his house for Halloween. He even set up a small ghost train in the shed.'

In both cases, the DDs are used as bridging definites, even though only the example in (70) makes use of a cPP. As argued above, we therefore need to posit an ambiguity of the definite article in general, not just inside cPPs. Positing just this ambiguity is more parsimonious than assuming an ambiguity of the definite article *plus* a new lexical category for contracted forms (as is required in the variant in (68)d). In order to arrive at the desired surface form, namely a contracted form, I suggest that a phonological rule along the following lines is at work: The lexical entry of the cPP-like definite article contains the information that it is pronounced differently in the presence of one of a (small) set of prepositions. The description in (71) illustrates the basic idea.[47]

(71) The article form '*dem₂*' (singular masculine dative) is pronounced '*-m*' in the presence of one of the following prepositions: *'an', 'von', 'zu', 'bei', 'in'*; the article form '*der₂*' (singular feminine dative) is pronounced '*-r*' in the presence of the

[46] For instance, while Bosch's proposal may be reasonably plausible for weak definites and for 'uniques' that can be viewed as proper names, it is not so clear that his account can be straightforwardly extended to capture covariation and bridging uses of DDs.

[47] The underlying mechanism appears to be similar to the one governing fused forms in English: The forms ‚*aren't*' or ‚*isn't*' are possible, even though ‚*not*' cannot be shortened in other cases (*‚*amn't*' = ‚*am not*'). Further research is needed, however, to clarify the details of the rule in (71) and whether the processes in German and English really are comparable.

preposition *'zu'*. General phonological rules, such as assimilation, are applied in order to arrive at the surface forms '*am', 'vom', 'zum', 'beim', 'im',* and '*zur'*. [48]

The subscript on the article forms indicates that the rule only applies to the word forms derived from the lexical entry in (73), not to the one in (72).[49]

(72) $[\![der_1]\!]$:
  a. at-issue: $\lambda P.\iota x\ P(x)$
  b. presupposition[50]: the property P holds of the referent x, and x is to be identified with a referent in the immediate linguistic context (or is identified via a demonstration act)

(73) $[\![der_2]\!]$:
  a. at-issue: $\lambda P \lambda Q.\exists x\ (P(x) \wedge Q(x))$
  b. presupposition: $\lambda R \lambda w.\ R(w,x) \wedge \forall y\ (R(w,y) \wedge P(y) \rightarrow y = x)$

The lexical entry in (72) corresponds to the given, i.e. anaphoric / demonstrative, interpretation of DDs, while the one in (73) corresponds to the non-given interpretation of DDs. The requirement that given DDs are identified with another discourse referent in the current discourse or with a demonstrated referent is built into the presuppositional content in (72)b, while the presupposition in (73)b captures the characteristic dependence of non-given DDs on extra-linguistic information, represented as a relation and an individual variable. I suggest that these two lexical entries account for *all* uses of DDs. In cases where the conditions described in (71) are met, i.e. if one of the prepositions '*an', 'bei', 'von', 'zu', 'in'* is followed by a singular masculine dative or if '*zu*' is followed by the singular feminine dative form of the definite article variant in (73), then the surface realization of the resulting PP is a cPP.

[48] Nübling (2005), for instance, argues that the six contracted forms we are dealing with here are *grammaticalized*, in contrast to non-contracted forms, and that other contracted forms that are marginally acceptable or acceptable in spoken German only are ‚on their way to become grammaticalized some time in the future.' This description does not provide an explanation of the difference in interpretation between rPPs and cPPs and also does not explain why the meaning differences associated with rPPs and cPPs can also be found in other DDs that, for instance, occur without a preposition (e.g., '*der Schuppen*' ('*the shed*') in (69) above or other examples of non-given definites), but maybe the grammaticalization of certain contracted forms leads to their being part of the rule suggested in (71).

[49] For simplicity, I will ignore intensional interpretations of the two definite articles in the lexical entries (and throughout this dissertation).

[50] It should be noted that the variable x in the presuppositional component can be dynamically bound by the existential quantifier (which is contained within the iota operator in (72)a) in the at-issue semantics (cf., e.g., Beaver 1992 for a formal implementation).

3.2.4 Intermediate Summary

In this section, I developed a semantic representation of rPPs and cPPs that can be extended to capture uses of DD more generally as well. rPPs are formally analysed as given definites which achieve uniqueness via identification with another discourse referent. The non-contracted form thus typically occurs in anaphoric (and demonstrative) uses, but it is also used in combination with so-called establishing modification. Here, the referent of the rPP is not identified with another referent, but rather needs to be accommodated. What is common to both anaphoric and establishing uses of rPPs is that the non-contracted form indicates that the intended referent can be identified with the help of information provided by the linguistic context of the current discourse. Crucially, this characteristic allows us to clearly distinguish between the felicity conditions on rPPs on the one hand and on cPPs on the other: In contrast to the non-contracted form, the contracted form indicates that the referent can be identified via its descriptive content *plus* extra-linguistic world knowledge, and can thus in principle be determined independently of information explicitly given in the current discourse. Typical uses of cPPs are therefore 'uniques', but also covariation (without an explicit antecedent) and bridging uses can be accounted for straightforwardly.

As we saw throughout our discussion in this section, the semantics assigned to (non-) contracted forms also carries over to instances where the DD does *not* occur in the form of either a cPP or rPP (either due to the absence of a preposition or due to the presence of a preposition that does not allow a contracted form in Standard German). In order to capture this observation, I concluded that the definite determiner is ambiguous, roughly along the lines of the distinction drawn by Umbach, with the exception of modified DDs. The claim that the definite determiner is indeed ambiguous, i.e. that the difference between the two interpretations of DDs is semantically significant, rather than purely pragmatic, will be investigated in more detail in Section 3.3.

3.3 An Ambiguity of the Definite Article

The proposal outlined in Section 3.2 is by no means unique in assuming that definite descriptions can have more than one reading. A crucial question to ask then is whether DDs are *semantically* ambiguous or whether the perceived ambiguity can be relegated to *pragmatics*. Roughly speaking, the assumption that different interpretations of DDs are semantically significant requires, at least, two different lexical entries for the definite determiner. In unitary accounts, i.e. those that propose a single lexical entry for the definite determiner, the different readings of DDs need to receive a pragmatic explanation.

With respect to DDs, the discussion of a potential ambiguity of the definite article standardly revolves around Donnellan's (1966) distinction between referential and attributive DDs (or, if you prefer, between referential and attributive *uses* of DDs), which I will briefly describe in Section 3.3.1 below.[51] Section 3.3.2 will then be concerned with

[51] To my knowledge, the only other discussion of an ambiguity of the definite article that is *not* concerned with referential and attributive (uses of) DDs can be found in Schwarz (2009), who distinguishes between an anaphoric definite determiner (used in rPPs) and a definite deter-

the question of whether the referential / attributive distinction can help explain the meaning differences between rPPs and cPPs, and I will conclude that this is *not* the case. Rather, the relevant distinction seems to be that between linguistically provided information on the one hand, and information provided by (non-linguistic) world knowledge on the other. Following Kripke's (1977) influential criticism of Donnellan, most authors opt for a pragmatic account of the two different readings of DDs, while others maintain that the ambiguity is semantically significant. These opposing camps have both put forth many good arguments for and against their respective views, and I will not attempt to give a comprehensive overview of these discussions in this dissertation (see, for instance, Heim 1991, Sec 1.3 for an overview), but we will take a very brief look at two of these arguments in Section 3.3.3.

3.3.1 Referential and Attributive (Uses of) Definite Descriptions

Let us begin our discussion with a brief summary of the distinction between referential and attributive DDs.[52] Consider the following sentence for illustration.

(74) <u>The caretaker</u> is lazy.

How can we now decide whether the DD in (74) is referential or attributive? Well, not at all. At least not yet. The sentence itself does not give us any information about the way in which the DD is used, because "a definite description occurring in one and the same sentence may, on different occasions of its use, function in either way" (Donnellan 1966: 281). In isolation from the 'occasion of its use,' Donnellan (1966) claims, we cannot say anything about whether the description is used referentially or attributively. So let us consider two different situations in which sentence (74) could be uttered.

(75) Felix sees a man sleeping in his chair in the sun. That man is wearing an overall and Felix thinks that he must be the caretaker of the building.
(76) Felix visits his friends. The building in which they live is very dirty and some of the light bulbs are broken.

In (75), Felix has a specific person in mind when he uses the DD '*the caretaker*,' the man who is sleeping in his chair. And he says about that particular person that he is lazy. In (76), on the other hand, Felix uses '*the caretaker*' in a rather different way. He thinks that there is a caretaker for the building (i.e. that someone fits the description of the DD he uses), but he does not know who that person is. He does not ascribe laziness to

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miner that encodes situational uniqueness (used in cPPs). Schwarz (2009: 180, fn.10) remains explicitly agnostic about any relations between his and Donnellan's (1966) distinction.

[52] I will mainly speak of ‚referential / attributive DDs' in the following, even though, strictly speaking, this terminology ignores the fact that in general speakers *use* linguistic expressions in certain ways in order to achieve certain goals (cf. our very brief discussion of semantic vs. pragmatic presuppositions in Section 3.1.1 above).

someone specific, as in (75), but rather states something about whoever fits the description he uses. So whoever is the caretaker in Felix's friends' building is lazy in Felix's opinion.

These two scenarios illustrate the different uses of DDs as introduced by Donnellan. In the first scenario '*the caretaker*' is used referentially and attributively in the second. In (75), the description is used to *refer* to someone in particular. Felix wants to say something about the man asleep in his chair (this is sometimes called a *singular proposition*) and he uses the DD '*the caretaker*' to help the hearer pick out the person he is talking about.[53] It "is merely one tool for doing a certain job – calling attention to a person or thing – and in general any other device for doing the same job, another description or name, would do as well" (Donnellan 1966: 285). In our example Felix could also have said something like '*The man who is asleep in his chair is lazy*' or '*Scruffy is lazy,*' and the hearer presumably would still have picked the right person as the intended referent of the DD. In (76), however, the description is used attributively, and here "the attribute of being the so-and-so is all important" (Donnellan 1966: 285). Felix says something about whoever is the caretaker of the building (this is sometimes called a *general proposition*). An attributive DD cannot always be substituted by another description and least of all by a proper name.[54] In the referential use the attribute of being the, say, caretaker is not as crucial to determining the intended referent as in the attributive use, as we have seen by substituting the referential DD '*the caretaker*' as used in scenario (75) by '*Scruffy*' and '*the man who is asleep in his chair*'.

One of the most controversial claims of Donnellan's is concerned with cases of misdescription, i.e. cases where the intended referent of a given DD does not in fact fulfil the descriptive content of that DD. According to Donnellan, a speaker using a referential DD might still succeed in stating something true, even in case the intended referent does not fit the description. For illustration, consider an utterance of (74) in the following scenario.

(77) Felix sees a man sleeping in his chair in the sun. That man is wearing an overall and Felix thinks that he must be the caretaker of the building. However, the sleeping man is in fact not the caretaker, but rather someone who works as a mechanic, has just returned from work, and fell asleep while taking a sunbath.

The sleeping man in the scenario in (77) does not fit the description '*the caretaker*'. As suggested by Donnellan, it might still be possible for the hearer to know who Felix was referring to, even though the description he used does not fit the person he wanted to talk about. If we interpreted the DD referentially, we might still be able to determine the intended referent, namely the sleeping man in the chair. Felix will, according to Donnel-

[53] Note that a demonstration gesture accompanying the DD in question would also do the same job. As pointed out by Umbach (2001: 274), "Kaplan (1989) paraphrases the referential use by a demonstrative: "*Who is that man with the martini?*" or "*Who is that?*" followed by an appositive, parenthetical, whispered "*man with the martini*" (Kaplan 1989, Afterthoughts, p. 583)."

[54] A possible substitution for '*the caretaker*' in (74) used attributively might be something along the lines of '*the person who is responsible for cleaning the building and changing broken light bulbs*'. Note that this paraphrase gives a partial definition of the noun '*caretaker*' by naming some of the properties that typically hold of caretakers. Substitution of the attributive DD by a proper name is not possible under an account of proper names where they directly refer to a particular individual, i.e. where they are used referentially only.

lan, have stated something true if the sleeping man, i.e. the person he was referring to, is in fact lazy. This is independent of the fact that the man is the caretaker or not, as the property of being the caretaker is not essential here. We could correct Felix by saying something like '*I know who you mean, but that man is not the caretaker*' or simply '*He is not the caretaker*,' but this does not change the fact that the speaker can have said something true about the sleeping man. In the attributive use of a definite description, in contrast, this kind of correction is not possible in cases of misdescription (cf. the scenario in (78)).

(78) Felix visits his friends. The building in which they live is very dirty and some of the light bulbs are broken. Felix assumes wrongly that there is a caretaker for the building.

In (78), we could say '*There is no caretaker*' or ask '*What do you mean? There is no caretaker for this building*,' but this is surely not the same as in the referential use. Note that we get similar results by applying the 'hey, wait a minute' test and the 'that's not true' test to the two readings of DDs. Let us begin with the referential DD in (79) in a scenario like (77).

(79) <u>The caretaker</u> is lazy.
   a. Hey, wait a minute. I had no idea that that guy / he is a caretaker.
   b. #Hey, wait a minute. That guy / He is not lazy.
   c. #That's not true. That guy / He is not a caretaker.
   d. That's not true. That guy / He is not lazy.

As indicated by the contrast between (79)a and (79)b, "the speaker presupposes of some *particular* someone or something that he or it fits the description" (Donnellan (1966: 288). Conversely, the contrast between (79)c and (79)d indicates that (the speaker of) the sentence asserts that the intended referent is lazy, but the proposition that this referent is a caretaker is not asserted. Turning to misdescriptions involving the attributive reading of the DD '*the caretaker,*' we can observe the following.

(80) <u>The caretaker</u> is lazy.
   a. Hey, wait a minute. I had no idea that there is a caretaker for this building.
   b. #Hey, wait a minute. I had no idea that the caretaker was lazy.
   c. #That's not true. There is no caretaker for this building.
   d. ?That's not true. The caretaker is not lazy.

In a situation like (78), the presupposition triggered by the relevant DD requires the existence of a (unique) caretaker (for the building), as indicated by the contrast between (80)a and (80)b. The 'that's not true' test gives us slightly messier results, as it is not clear what the assertion is in cases of misdescription and how to express dissent with it (cf. (80)c vs. (80)d). This fits with Donnellan's (1966: 291f.) suggestion that "if nothing fits the description the linguistic purpose of the speech act [e.g. an assertion, a question, or a command] will be thwarted."

3.3.2 The Irrelevance of the Referential / Attributive Distinction for Our Data

As noted above, Donnellan's suggestion that utterances containing referential DDs can be true even in cases of misdescription is controversial.[55] The discussion of the examples in (77) – (80) nonetheless serves to illustrate an apparent relation between Umbach's proposal discussed in Section 3.1 and the referential / attributive distinction. Remember that in the shed-example (cf. (81), repeated from (5) above), the deaccented DD is interpreted as a given definite referring to John's old cottage.

(81) John hat ein altes Haus auf dem Land. Letzten Sommer hat er <u>den Schuppen</u> RENOVIERT.
'John has an old cottage. Last summer he RECONSTRUCTED the old shack / thing.'

Also here, the intended referent, John's cottage does not fit the descriptive content of the DD '*der Schuppen*' ('*the shed*') (the referent is a cottage, not a shed), nonetheless the utterance is interpretable as expressing a singular proposition about a particular individual, namely John's cottage. Note that in Umbach's formalism this observation seems to be captured by given definites triggering the presupposition that the descriptive content holds of the intended referent. In cases of misdescription that nonetheless succeed in stating something true or false of the referent, one will then need to assume that the description used by the speaker is accommodated, i.e. added to the common ground. (We will return to this issue below.)

The similarity to cases of misdescription in referential DDs is striking. Indeed, Umbach suggests that given DDs and referential DDs are alike in achieving uniqueness via identification or demonstration, rather than via description (as is the case, according to Umbach, for both non-given and attributive DDs). She concludes that "[g]iven definites as well as referentially used definites then involve direct reference, the descriptive content being mere auxiliary information" (Umbach 2001: 274). According to Umbach, this claim is supported by the observation made by Bosch (1988) that epithets need to be deaccented, whereas an accent on the relevant description forces a non-anaphoric interpretation.

(82) When Jones returned they ignored {him, the idiot, the bastard, the old goat, the pig}.
(83) When Jones returned they ignored {HIM, the IDiot, the BASTard, the old GOAT, the PIG}.

(Bosch 1988: 213)

The relevant DDs in (82) will all be typically interpreted as referring back to Jones[56], while the ones in (83) do not allow for an anaphoric reading. Translating this into Um-

[55] This claim is also not accepted by all researchers in either the no- or pro-semantic ambiguity camps (see, for instance, Nunberg 2004: 262f; Reimer 1998: 93).
[56] As pointed out by Bosch (1988), they can also refer to some particular individual satisfying the descriptive content, for instance, an old goat or a pig.

bach's terminology, the DDs in (82) are given definites, the ones in (83) are non-given definites. In order to illustrate that epithets can only be used referentially, Umbach creates the following scenarios.

(84) *Context: Sherlock Holmes and Watson are chasing a drug dealer gang. They are sitting in a bar, secretly watching the criminals. One of them takes out a mobile phone and starts to leave the bar. Holmes tells Watson*:
   a. FOLLOW the man with the phone.
   b. FOLLOW the pig.

(85) *Context: Sherlock Holmes and Watson are chasing a drug dealer gang. They are on their way to a bar, where they think the criminals will meet. One of them will have a mobile phone, and the gangsters will wait for a phone call and will then leave the bar separately. Holmes tells Watson*:
   a. Follow the man with the PHONE.
   b. ?Follow the PIG.

In (84), Holmes has a particular individual in mind that he intends to refer to with either '*the man with the phone*' or, being quite emotional, '*the pig*'. We thus seem to be concerned with referential DDs in (84)a and (84)b, and in both cases Watson will likely interpret both DDs as referring to the man with the phone. The scenario in (85), in contrast, is intended to illustrate the attributive use of DDs, assuming that Holmes does not have a particular individual in mind that he is referring to, but rather refers to whoever uniquely meets the descriptive content. The utterance in (85)a is perfectly fine, but the DD in (85)b cannot be interpreted as an epithet and is thus odd in the given scenario (in which there will presumably not be a unique pig). "Evidently, in the referential case, but not in the attributive one, *pig* can be used as a derogatory designation for the drug dealer." (Umbach 2001: 275)

The similarities between given / referential DDs on the one hand and non-given / attributive DDs on the other are clearly observable in Umbach's examples. The results suggested by (79) and (80) also seem to fit her proposal. Nevertheless, there are two problems with (i) Umbach's analysis of epithets in general and with (ii) the claim that given definites are essentially referential DDs, while non-given definites correspond to attributive DDs.

In our discussion of the example in (81) above, we noted that, according to Umbach, the descriptive content presupposed by a given definite used as an epithet will need to be accommodated even if the intended referent does not fit the description.[57] As pointed out to me by Peter Bosch, however, this move is questionable. First of all, the descriptive content of an epithet characteristically does not hold of its intended referent. It is thus not clear how this descriptive content can be accommodated at all. Furthermore, even if such an accommodation were possible in the case of (81), then how can we explain the infelicity of the utterance in (86)?

[57] Note also that Donnellan (1966: 288) suggests something very similar, namely that in the case of referential uses of DDs the speaker presupposes that the referent does indeed fit the descriptive content.

(86) #John hat ein altes Haus auf dem Land. Letzten Sommer hat er das Auto RENOVIERT.
'John has an old cottage. Last summer he RECONSTRUCTED the car.'

Also here, the descriptive content '*car*' does not fit the referent corresponding to John's cottage, just like in the shed-example in (81), so why is accommodation possible in the one case, but not in the other? As pointed out by Umbach (2001: 276), her proposal cannot provide an answer to the question of "[h]ow much deviation is possible? – *the man with the martini* will not work for a man with tomato juice [as opposed to water]". Similarly, '*the car*' will not do as a DD that is intended to have John's cottage as a referent. But where exactly is the cut-off line? Consider also the following example for illustration.

(87) *Context: I think I see at some distance a man walking and ask…*
Is the man carrying a walking stick the professor of history?
(Donnellan 1966: 295)

According to Donnellan, the speaker of (87) can succeed to refer, i.e. the DD will be felicitous, in the following three cases: (i) there is a (unique) man with a walking stick; (ii) there is a (unique) man, but he is carrying an umbrella instead of a walking stick; (iii) there is not a man, but a rock that looks like one. The DD does not seem to be felicitous, however, in case "there is nothing at all where I thought there was a man with a walking stick; and perhaps here we have a genuine failure to refer at all, even though the description was used for the purpose of referring." (Donnellan 1966: 296) While Donnellan's example is intuitive enough, it does not provide a clear-cut distinction between cases that allow for misdescription of the referent, and cases that do not.

My main concern in this dissertation is not with epithets in particular (but see, e.g., Potts (2005) and related work for discussions of epithets), nor with cases of misdescription more generally. With respect to the proposal advocated in this chapter, I will continue to analyse rPPs as outlined in (72) in Section 3.2.3, i.e. as presupposing their descriptive content. With respect to the shed-example used extensively in the discussion of Umbach's proposal, I suggest that it is part of the lexical meaning of the noun '*Schuppen*' ('*shed*') that it can be used to refer to buildings (in a derogatory way).[58] This information will then enable the anaphoric interpretation of '*der Schuppen*' ('*the shed*') in (81). Instances of misdescription, such as those argued for by Donnellan with the help of the example in (87), on the other hand, could be explained by general mechanisms regarding charitable interpretations along the following lines: The speaker used a particular DD which is not, strictly speaking, appropriate and in order to make sense of the speaker's utterance the hearer will try to find out which object the speaker *could have meant* instead. In some cases, this search will be successful, in others, it will not, but this is not a matter of the semantics of DDs in general.

The second objection to Umbach's proposal regards the claim that given definites are essentially referential DDs, while non-given definites correspond to attributive DDs. As we saw above, DDs like '*the moon,*' '*the town hall,*' or '*the SHED*' are analysed as non-given definites and should therefore not be interpretable as referential DDs unless accompanied by a demonstration gesture. It seems obvious, however, that a speaker may very

[58] Indeed, it is plausible to assume that nouns like ‚*pig, idiot, goat*' generally are lexically specified as being possible epithets. (Peter Bosch, p.c.)

well have a particular individual in mind when using these (non-given) definite descriptions.

(88) Tonight, you can only see a little piece of the moon.
(89) I need to go to the town hall to pick up my new ID card.
(90) John has an old cottage. Last summer he reconstructed the *SHED*.

The speaker of (88) most likely has a particular individual in mind that she wants to refer to, namely the moon (that orbits Earth), and she will presumably be understood as referring to this individual independently of any demonstration gesture. Similarly in (89), the speaker seems to very well know which particular town hall he is talking about, and an interpretation along the lines of 'whatever town hall' is unlikely. The example in (90) is one of Umbach's original examples illustrating non-given definites, but also here it is not clear that this DD cannot be used referentially (i.e. having as its referent the individual the speaker had in mind), or can only be used to express a general proposition about 'whoever or whatever fits the descriptive content.' These examples thus provide evidence against the claim that non-given DDs are interpreted as attributive DDs.

Regarding the suggestion that given definites are essentially referential DDs, this may hold for demonstrative uses of DDs, but, as we saw above, also anaphoric uses are analysed as involving given DDs.[59] Note that Donnellan's own classic example of the man with the martini can easily be construed as anaphoric. Consider the following scenario: The chairman of the local Teetotallers Union "has just been informed that a man is drinking a martini at their annual party. He responds by asking his informant, 'Who is the man drinking a martini?' In asking the question the chairman does not have some particular person in mind about whom he asks the question ... the attribute of being the man drinking a martini is all-important" (Donnellan 1966: 287). An anaphoric analysis of the relevant DD is straightforward in Umbach's framework, identifying the intended referent of the DD in the chairman's utterance with the referent introduced into the discourse by his informant. It thus seems that also given definites can be interpreted attributively.

To conclude, in this section I have argued against the view that there is a significant correspondence between given and referential DDs on the one hand, and non-given and attributive DDs on the other. As hinted at above, there may be good reason to suggest that a DD that is used demonstratively is also used referentially in the sense that the speaker has a particular object or person in mind that he intends to refer to with the DD in question. But other than that, I fail to see how the distinction between referential and attributive DDs helps explain the interpretive differences between given and non-given definites as characterized by Umbach. Furthermore, a look at the German data clearly shows that the referential / attributive distinction is *not* related to that between rPPs and cPPs. The arguments for this latter point are essentially the same as those made above in our discussion of a potential correlation between given / referential DDs and non-given / attributive DDs. For instance, the examples in (88) and (89) where the DDs are used referentially, when translated into German, require cPPs, as shown in (91) and

[59] Surprisingly, anaphoric DDs do not generally seem to play an important role in discussions of Donnellan's distinction.

(92). In (93), in contrast, the cPP can be used attributively (for instance, in a situation in which the speaker only knows of the assignment of solution books to different groups, but does not have a particular book in mind).

(91) Vom / #Von dem Mond sieht man heute nur ein ganz kleines Stück.
(92) Ich muss nachher noch im / #in dem Rathaus meinen neuen Perso abholen.
(93) Anna schrieb die Lösung ins / #in das Buch.

These three examples clearly show that the referential use of a DD, i.e. the fact that the speaker has a particular individual in mind that s/he wants to refer to, is neither a sufficient nor a necessary condition for the felicitous use of cPPs.

Conversely, the example in (94), where the DD is attributive, requires the non-contracted form. The rPP in (95), however, is used referentially. Taken together, these two examples show that the attributive use of a DD, where the speaker does not have a particular referent in mind, is neither a sufficient nor a necessary condition for the felicitous use of rPPs.

(94) *Context: Ben's children were on the playground. They come home and tell him that, again, a woman talked to them and they got scared. Ben has never seen this woman himself and does not know who she is. Later that day he angrily tells his wife about their children's experiences at the playground.*
Wenn ich wenigstens wüsste, wer das ist, würde ich zu der / #zur Frau sagen, dass sie endlich unsere Kinder in Ruhe lassen soll.
'If only I knew who it was, then I'd tell that woman to leave our kids alone.'
(95) Ich habe gestern gesehen, wie Anna mit einem Mann gestritten hat. Nach einiger Zeit hat sie lautstark zu dem / #zum Mann gesagt, er sei ein Feigling.
‚Yesterday, I saw Anna arguing with a man. After a while she loudly told the man that he was a coward.'

Generally speaking, whether or not the speaker of a given DD has a particular individual in mind is irrelevant for the (in)felicity of either the contracted or the non-contracted form. As argued above, I suggest that what is crucial for using rPPs or cPPs appropriately is whether their interpretation depends on information in the surrounding linguistic context (cf. also the examples in (94) and (95)), or on extra-linguistic information in the form of implicit individual and relation variables (cf. (91), (92), and (93)). This is straightforwardly captured in the semantic representation argued for in Section 3.2.

3.3.3 Further Arguments for a Semantic Ambiguity of the Definite Article

There is general agreement that DDs can indeed on many occasions be interpreted either referentially or attributively, i.e. as either referring to some particular individual the speaker has in mind or to whatever individual that uniquely fulfils the descriptive

content of the DD in question. The question of whether this difference in interpretation is semantically significant (i.e. whether we need two lexically distinct definite articles), however, has not yet been settled.[60] As argued in Section 3.3.2, Donnellan's (1966) distinction is not in fact relevant for our current purposes, but an (albeit very restricted) look into the literature discussing this distinction might be helpful in collecting possible arguments that could *in general* be put forth either for or against an ambiguity of the definite article independently of whether this ambiguity is intended to reflect the referential / attributive distinction or not. In other words, the aim of this section is to take a brief look at two prominent arguments targeted at the question of whether or not there are two distinct definite articles, one reflecting Donnellan's referential use and the other one reflecting the attributive use. For both arguments (one from each side[61]; see, for instance, Part II of Reimer & Bezuidenhout (2004) for more detailed discussions of this issue), we will then check whether or not the argument could also be applied to the meaning distinction between rPPs and cPPs.

One argument against a semantic ambiguity of the definite article regards the 'need' for positing two different lexical entries. This argument is typically attributed to Kripke (1977), and is concisely summarized by Nunberg (2004: 265) in the following quote.

> [Kripke (1977) argues that the status of referentially used DDs] should be thought of in methodological terms. He asks us to imagine a stipulated variety of English in which definite descriptions could have only quantifier interpretations [corresponding to the attributive use of DDs]. Even in that case, he argues, we can see how referential readings could arise on Gricean principles. And for that reason, according to Grice's 'modified Occam's razor' principle ('senses are not to be multiplied beyond necessity' [Grice 1989]), there is no ground for introducing a semantic ambiguity.

As argued throughout this chapter, there is ample reason to propose an ambiguity of the definite determiner. But even if the theoretical assumptions should not be convincing,

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[60] Donnellan himself is of no help either with respect to this issue: It is not „at all attractive to suppose an ambiguity in the meaning of the words; [a particular DD] does not appear to be semantically ambiguous. (Perhaps we could say that the sentence is pragmatically ambiguous: the distinction between roles that the description plays is a function of the speaker's intentions.) These, of course, are intuitions; I do not have an argument for these conclusions." (Donnellan 1966: 297)

[61] I will not discuss Umbach's arguments against a semantically significant ambiguity in detail, since I do not fully understand them. She claims that her analysis allows for different *uses* of DDs, but not of „two readings of the definite article. The definite article *the* is assumed to uniformly indicate that the referent is unique and can be identified, either making use of the order of salience or making use of the descriptive content." (Umbach 2001: 272) So far, I fully agree, but Umbach further suggests that the two uses of DDs are distinguished by (de-)accenting and „[t]hus the two uses must not be regarded as an ambiguity which is left to the hearer to be resolved. Instead, the speaker indicates the intended use by intonation, and if it doesn't match with the context, the utterance will not be felicitous." (Umbach 2001: 273) But isn't this exactly what would correspond to positing two different lexical entries for the definite determiner, namely that the hearer does not have to guess (or otherwise resolve the ambiguity), but is given obvious clues by the speaker (for instance, choosing either a contracted or a non-contracted form, or (de-)accenting)?

the German data clearly speaks in favour of an ambiguity[62]: There are two different forms, namely contracted and non-contracted forms, which overtly mark the different interpretations and thus provide strong evidence for a semantically significant ambiguity. I suggest that this ambiguity is present in *all* uses of DDs (see also Section 3.2.3), not just in German and not just in those cases where a contracted form is used: The interpretive differences between rPPs and cPPs discussed in this dissertation serve as an indicator for a much more general phenomenon.

Let us now consider a popular argument in favour of a semantic ambiguity. As pointed out by, for instance, Devitt (2004) and Reimer (1998), the referential use of DDs is very frequent, and "[t]his regularity is strong evidence that there is a convention of using 'the *F*' to express a thought about a particular *F*, that this is a standard use." (Devitt 2004: 283) While I have no objections to this claim, it does seem to be taken a bit too far by both Devitt (2004) and Reimer (1998). Consider the following two quotes for illustration.

> [In the referential use] there need be no special stage setting enabling [the speaker] to conversationally imply what she has not literally said, nor any sign that her audience needs to use a Gricean derivation to understand what she means. (Devitt 2004: 283)

> ... in a linguistic community (such as our own) where [the referential use of a DD is] standard, it is plausible to suppose that the intended meaning would be grasped *immediately*: that is, without the mediation of any Gricean-style inferences. That the intended 'singular' [referential] reading of a sentence of the form in question could be grasped without first grasping the 'general' [attributive] reading of such an utterance, suggests (even if it does not establish) that definite descriptions can be used literally in utterances of the form *The F is G*, to express singular propositions. (Reimer 1998: 99)

The suggestion that pragmatic principles are not involved if we cannot 'feel'[63] them is quite preposterous. Utterances like those in (96) and (97) can easily be understood without requiring any explicit hint to use intricate Gricean reasoning.

(96) Can you pass the salt?
(97) John ate some of the cookies.

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[62] This is not meant to include the German data that Devitt (2004: 287, fn. 14), following Larson & Segal (1995), proposes as an indication for an ambiguity: First of all, Larson & Segal (1995) use the data to indicate a distinction between referential and quantificational DDs, which is not necessarily identical to that between referential and attributive DDs (and which Devitt (2004) argues for). Secondly, the examples provided by Larson & Segal (1995: 335) are not convincing (even if we ignore the typos).

i. Der letzte Pharao ist weggegangen. ('The last Pharaoh is gone.')
ii. Der Hans ist weggegangen. ('Hans is gone.')

The DD in the first sentence is somewhat odd on a non-referential (in Donnellan's sense) interpretation, because of the predication, and can only be interpreted as referring to some particular last pharaoh. With respect to the second sentence, it should be pointed out that in Standard German the definite determiner is *not* in fact used with proper names, much less obligatorily.

[63] I am not aware of any experimental studies investigating whether referential interpretations are ‚grasped immediately' or not, so I conclude that both Devitt (2004) and Reimer (1998) base their arguments that such readings ‚do not require a sign to use Gricean reasoning' or are ‚grasped immediately' on intuitions alone, i.e. ‚feelings' regarding the processing of DDs.

The contents of these utterances is 'grasped immediately' even though the Gricean maxim of relevance clearly is involved in understanding (96) as a request, and a scalar implicature (here, 'some = some, but not all') is likely involved in the interpretation of (97). The systematic, rather than 'frequent' or 'regular,' use of a particular expression to convey a particular meaning is indeed a strong argument in favour of this particular meaning corresponding to the expression's lexical entry. The fact that there seems to be no intricate reasoning involved in arriving at the intended interpretation is not.

To sum up this section, there are two very good reasons for positing a semantically significant ambiguity of the definite determiner as presented in Section 3.2: (i) Grice's modified Occam's razor is not violated in proposing two different lexical entries, because their existence is supported by empirical data (in particular, observations regarding the use of rPPs and cPPs); (ii) the two definite determiners are systematic in their respective uses, i.e. we can make clear and falsifiable predictions within our theory regarding the two uses of DDs (that can be instantiated by rPPs and cPPs): DDs that depend on information in their linguistic context, and DDs whose intended referent can be determined primarily with the help of extra-linguistic information, i.e. largely independently of the current discourse.

3.4 Summary

In this chapter I discussed the semantics of German rPPs and cPPs. My proposal is inspired by Umbach's (2001) (DRT-based) account of so-called given and non-given definites in assuming that rPPs (like given definites) presuppose a discourse referent that needs to be identified with another referent (either previously established in the current discourse, via a demonstration gesture, or, if both other options fail, via accommodating the DD's discourse referent). With this analysis we can straightforwardly capture the fact that rPPs are used anaphorically, demonstratively, or with restrictive (or establishing) modification. cPPs, on the other hand, are analysed by and large as non-given definites, which introduce a new discourse referent and trigger the presuppositions that there is some referent that is related to the newly introduced referent *and* that the new referent is unique in standing in the relevant relation and in fulfilling the descriptive content of the DD in question. In order to allow for indexical elements (like the speaker of the utterance under discussion) to serve as referents that are related to the DD's referent, I sketched how this could be accomplished by following the proposal by Geurts & Maier (2013). The two examples in (98) and (99) are repeated from above and illustrate the analysis of rPPs and cPPs, respectively.

(98) Ein neuer Bäcker hat gestern aufgemacht. Anna war heute schon bei dem Bäcker.
,Yesterday, a new bakery opened. Anna already went to that bakery today.'

a. [x: newBakery(x), opened(x)]
b. [y, <u>z</u>: Anna(y), went_to(y,z), <u>bakery(z)</u>]
c. [x, y, z: newBakery(x), opened(x), Anna(y), z = x, went_to(y,z), bakery(z)]
d. [x, y: newBakery(x), opened(x), Anna(y), went_to(y,x), bakery(x)]

(99) Anna ging zu einer Würstchenbude am Bahnhof.
‚Anna went to a sausage stand near the train station.'
a. [x, y, z, w: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), R(w,z), [: [u: R(w,u), trainStation(u)] → [: u = z]]]
b. [x, y, z, w: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), w = x, R(w,z), [: [u: R(w,u), trainStation(u)] → [: u = z]]]
c. [x, y, z: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), R(x,z), [: [u: R(x,u), trainStation(u)] → [: u = z]]]

Furthermore, I argued for an ambiguity of the definite determiner along the lines of the lexical entries sketched in (100) and (101).

(100) $[\![der_1]\!]$:
a. at-issue: $\lambda P.\iota x\ P(x)$
b. presupposition: the property *P* holds of the referent *x,* and *x* is to be identified with a referent in the immediate linguistic context (or is identified via a demonstration act)

(101) $[\![der_2]\!]$:
a. at-issue: $\lambda P \lambda Q.\exists x\ (P(x) \wedge Q(x))$
b. presupposition: $\lambda R \lambda w.\ R(w,x) \wedge \forall y\ (R(w,y) \wedge P(y) \rightarrow y = x)$

Different uses of DDs are typically discussed in connection with Donnellan's (1966) distinction between referential and attributive uses of DDs. We briefly discussed this distinction and considered two arguments regarding the semantic significance of the distinction, one in favour of a semantic ambiguity of the definite determiner, one against such an ambiguity. I suggested that neither argument is conclusive and that, more generally, the referential / attributive distinction is not in fact relevant for understanding the differences between rPPs and cPPs. Rather, the German data strongly suggests a distinction between the different kinds of contexts in which DDs can be used felicitously: rPPs crucially depend on the linguistic context for their interpretation, while the interpretation of cPPs heavily relies on extra-linguistic information and is in principle independent of the current conversation. With respect to the extra-linguistic information, the representation argued for in this chapter assumes two contextually determined free variables, one over individuals and one over relations. These variables require further explanation and, importantly, restriction regarding their possible values. Chapter 4 deals with this issue.

Before we turn to the pragmatics of rPPs and cPPs, however, let me briefly introduce some new terminology. As noted above, the proposal put forth in this chapter is intended to not only cover rPPs and cPPs, but also uses of DDs more generally. In order to be able to discuss characteristics of DDs *in general*, it is therefore necessary to be able to talk about 'rPP-like' and 'cPP-like' DDs. Following the representations in (100) and (101), I will in the following speak of *referential DDs* (i.e. rPP-like DDs) and *quantificational DDs* (i.e. cPP-like DDs), respectively.[64] Furthermore, on my analysis quantifica-

[64] I am well aware that the distinction ‚referential vs. quantificational' has been used in other research areas (see, for instance, Fodor & Sag 1982 for indefinites), as well as as cover terms for Fregean and Russelian conceptions of definiteness, respectively (see, for instance, Heim 1991 for

tional DDs rely on material that is not explicitly stated, i.e. they rely on the interpretation of *implicit content*, in our case a free individual and a free relation variable. DDs that make use of implicit content are typically called *incomplete descriptions*, a notion that will be explained briefly in Section 4.1 in the next chapter.

an overview). It should be noted that in the following the two terms will be used as outlined in this chapter, i.e. as corresponding to DDs contained in rPPs and cPPs, respectively.

4 The Pragmatics of rPPs and cPPs

In Chapter 3, I have argued for an ambiguity of the definite article, and I have suggested two different semantic analyses of the two definite articles: On the one hand, we have referential definites (i.e. DDs denoting individuals) that depend on the identification with referents given in the immediate linguistic context. Quantificational DDs (i.e. DDs that form part of an existential), in contrast, crucially depend on extra-linguistic information that is required in order to determine the values of the free individual variable and the free relation variable that are presupposed by non-referential DDs. In this chapter, we will take a closer look at the determination of these free variables. In particular, we will consider possible restrictions on suitable values for the variables.

Section 4.1 provides some basic theoretical background that will help position the theory proposed in this dissertation with respect to on-going debates about incomplete descriptions. The free individual variable presupposed by quantificational DDs will be discussed in Section 4.2, followed by an in-depth investigation of the free relational variable in Section 4.3. In Section 4.4, possible counterarguments against the view argued for in this chapter will be considered and refuted.

4.1 Theoretical Background: Incomplete Descriptions

As noted by Neale (2004: 105), "[t]he label 'incomplete description' is misleading. But we need to begin somewhere, so ... Let us say for the moment that a description is proper if, and only if, its nominal ... is true of exactly one thing, and *improper* otherwise. And let us say that an *improper* description is *empty* if it is true of nothing, and *incomplete* if it is true of more than one thing."[1] The reason why incomplete DDs have been, and still are, discussed extensively in the philosophical and linguistic literature is that they, first of all, seem to pose a serious challenge to any Russellian theory of definiteness based on uniqueness (e.g., Russell 1905; Neale 1990): How can speakers felicitously use DDs that are clearly true of more than one individual, i.e. in cases where uniqueness obviously does not hold? As pointed out by Strawson (1950: 332), given that there are many tables in the world, "it is quite false that the phrase 'the table' in the sentence 'the table is covered with books,' used normally, will 'only have an application in the event of there being one table and no more.'"[2] Secondly, incomplete DDs appear to be instances of a very

[1] The label ‚incomplete description' is misleading, because, as convincingly argued by Neale (2004), these DDs are not ‚defective', or ‚incomplete', in the same way, say the phrase ‚*Bob to Brussels*' is in an utterance of ‚*Peter went to Paris, Bob to Brussels*' (Neale 2004: 104). In other words, so-called incomplete DDs do not need completion to render them grammatical, as opposed to cases of sentence ellipsis illustrated by the preceding example about Peter's and Bob's travels.

[2] Note that here, Strawson is concerned with drawing attention to uses of DDs that correspond to Donnellan's (1966) referential DDs, discussed in Section 3.3 above. As far as I can tell, discus-

wide-spread phenomenon of natural language, namely the context dependence of linguistic expressions on implicit content. Consider the following list of examples taken from Neale (2004: 102f).

(1)

a. I haven't had breakfast (this morning).
b. It's snowing (in Reykjavik).
c. I hadn't noticed (that Mike was limping).
d. The car (Tom bought this morning) broke down on the way (to Tom's) home.
e. The (former) hostages were greeted at the White House.
f. Every farmer (in my village) owns exactly one donkey and feeds the donkey (he owns).
g. (In the Sherlock Holmes stories) Moriarty was Holmes' arch-enemy.

All of these examples illustrate that implicit content is necessary in order to arrive at the intended interpretation of verb phrases, noun phrases, or whole sentences in (1).

Turning back to incomplete DDs, they are typically viewed as contextually sensitive expressions that rely on the context to somehow 'complete' them (see, for instance, Elbourne (2008) for an overview of different theories of this general type). In the following, I will roughly assume an explicit approach[3] to incomplete descriptions as suggested by Neale (2004: 121):

> The basic idea is explicitly *modal*: the nominal is often shorthand for, elliptical for, an abbreviation of at least one richer nominal the speaker *could have* used and *could* produce if asked to be more explicit. (Hence the name.) Consider the following dialogue:
>
> A: The table is scratched.
>
> B: Which table?
>
> A: The table I bought this morning. (*Or*: The one I bought this morning.)
>
> According to the explicit approach, this type of dialogue is suggestive of what is going on when we make felicitous uses of incomplete descriptions: *B* is intended to interpret *A*'s utterance of 'the table' as if it were an utterance of 'the table I bought this morning.'

---

sions of incomplete descriptions revolve almost exclusively around such referential uses, as opposed to attributive uses of DDs (but see, for instance, Lepore (2004) and references therein for a critical discussion of incomplete attributive DDs). As argued in the preceding chapter, the referential / attributive distinction is not relevant for the purposes of this dissertation, and furthermore I see no principled reason why attributive DDs (as in certain uses of ‚*the man drinking a Martini*') should *not* involve implicit content (as, for instance, in ‚*the man drinking a Martini (at this party)*'). Note also that, on my proposal, it is only quantificational DDs that depend on implicit content in the form of free variables, and I will therefore only concentrate on these DDs.

[3] The idea underlying explicit approaches to incompleteness is that the DD in question is enriched or supplemented by additional material in order to be interpreted correctly, while implicit approaches rely on restricting the domain of evaluation enough so that the DD ends up denoting uniquely, i.e. being true of exactly one individual. Note that neither approach necessarily implies that implicit content is operative at the level of syntax, or occupies (unpronounced) slots in the syntactic structure of the utterance in question.

As argued in Chapter 3, quantificational DDs crucially involve two free variables in their presupposition, an individual variable and a variable over relations (cf. (2), repeated from Section 3.2.3).

(2) $[\![der_2]\!]$:
  a. at-issue: $\lambda P \lambda Q . \exists x \left(P(x) \wedge Q(x)\right)$
  b. presupposed: $\lambda R \lambda w . R(w,x) \wedge \forall y \left(R(w,y) \wedge P(y) \rightarrow y = x\right)$

Slightly deviating from Neale's more general proposal, I suggest that incomplete DDs are completed, as it were, by assigning suitable values to these free variables. Note also that the implicit content in the form of the variables in question does not correspond to aphonic, unarticulated, or hidden elements in the syntactic structure of DDs, but operates on the level of semantic representation only. In Chapter 3, I have shown that the semantic analysis in (2) captures cPPs and other quantificational uses of DDs adequately. The aim of the current chapter then is to provide (at least some bits of) a pragmatic theory of these DDs. Again, I quote Neale (2004), who captures this distinction succinctly: "A semantic theory explains the sorts of values the speaker can intend, say, 'he' to have on different occasions, and a pragmatic theory explains how hearers go about identifying these values on particular occasions." (Neale 2004: 108) So far, all I have said about the determination of suitable values for the free variables is that the context provides these values. But of course, "the mere act of positing a context-sensitive aphonic lurking in the sentence's LF [logical form] that gets interpreted in the right way, thereby making everything work out just right, does not itself constitute an explanation of *how* it gets interpreted in the right way" (Neale 2004: 108). The issue of how the implicit content of DDs is interpreted is discussed in Sections 4.2 and 4.3 below.

4.2 Determining the Value for the Individual Variable

As argued in Chapter 3, quantificational DDs presuppose the existence of some individual that is *R*-related to the discourse referent introduced by the DD. In the DRT-representations introduced in Chapter 3, this presupposed individual is represented as a discourse referent in need of being bound or accommodated. We can, of course, also think of this presupposed referent as a free variable over individuals that is assigned its value by the utterance context or that can be bound by a quantifier. For illustration, consider the following two examples ((3) and (4) are repeated from Chapter 3, (5) is a slightly modified example from Chapter 3).

(3) Die Amerikaner flogen als erste <u>zum Mond</u>.
  ‚The Americans were the first to fly to the moon.'
  a. [x, y, <u>z</u>: Americans(x), fly_to(x,y), moon(y), <u>R(z,y)</u>, <u>[: [w: R(z,w), moon(w)] → [: w = y]]</u>]
  b. [x, y, z_k: Americans(x), fly_to(x,y), moon(y), $speaker_k$(z), R(z,y), [: [w: R(z,w), moon(w)] → [: w = y]]]

(4) Anna ging zu einer Würstchenbude <u>am Bahnhof</u>.
‚Anna went to a sausage stand near the train station.'

a. [x, y, z, <u>w</u>: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), <u>R(w,z)</u>, <u>[: [u: R(w,u), trainStation(u)] → [: u = z]]</u>]

b. [x, y, z, w: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), w = x, R(w,z), [: [u: R(w,u), trainStation(u)] → [: u = z]]]

c. [x, y, z: Anna(x), go_to(x,y), sausageStand(y), near(y,z), trainStation(z), R(x,z), [: [u: R(x,u), trainStation(u)] → [: u = z]]]

(5) Jedes Mädchen schrieb <u>die Lösung ins Buch</u>.
‚Every girl wrote the solution into the book.'

a. [: [x: girl(x)]→ [y, z, <u>u_1</u>, <u>u_2</u>: solution(y), <u>$R_1(u_1,y)$</u>, <u>[: [v_1: $R_1(u_1,v_1)$, solution(v_1)] → [: v_1 = y]]</u>, book(z), <u>$R_2(u_2,z)$</u>, <u>[: [v_2: $R_2(u_2,v_2)$, book(v_2)] → [: v_2 = z]]</u>, wrote(x,y,z)]]

b. [: [x: girl(x)]→ [y, z, u_1, u_2: solution(y), u_1 = x, $R_1(u_1,y)$, [: [v_1: $R_1(u_1,v_1)$, solution(v_1)] → [: v_1 = y]], book(z), u_2 = x, $R_2(u_2,z)$, [: [v_2: $R_2(u_2,v_2)$, book(v_2)] → [: v_2 = z]], wrote(x,y,z)]]

c. [: [x: girl(x)]→ [y, z: solution(y), $R_1(x,y)$, [: [v_1: $R_1(x,v_1)$, solution(v_1)] → [: v_1 = y]], book(z), $R_2(x,z)$, [: [v_2: $R_2(x,v_2)$, book(v_2)] → [: v_2 = z]], wrote(x,y,z)]]

In the DRS in (3)b, the presupposed referent is identified with the speaker of the utterance. Identifying the free individual variable with Anna in (4)c gives us the interpretation that Anna went to a sausage stand near the train station of Anna's home town.[4] In (5), both the individual variable implicit in the DD '*die Lösung*' ('*the solution*') as well as the variable implicit in the cPP '*ins Buch*' ('*into the book*') are bound by the quantified expression '*jedes Mädchen*' ('*every girl*'), giving us the interpretation that for every girl there is a solution and a book such that she wrote that solution into that book. While the representations are straightforward enough, the question of *how* the appropriate values for the individual variables are determined is still in need of an answer.

I suggest that the free variable functions essentially like a pronoun. Just like pronouns, the individual variable can be either assigned a value by the utterance context or it can be bound by some quantifier. (The examples in (3), (4), and (5) illustrated these possibilities.) Note that, for instance, Heim & Kratzer (1998: 291) represent Cooper's (1979) analysis of so-called E-Type pronouns[5] (cf. (6)) as in (6)a, i.e. as containing two implicit variables, one over relations and one over individuals.[6]

---

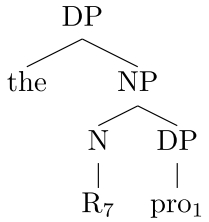
[4] Of course, other interpretations of the cPP ‚*am Bahnhof*' ('*near the train station*') are possible as well, for instance, the train station could be the one of the speaker's home town. Note that this could straightforwardly be represented in our formalism as well.

[5] A detailed discussion of E-Type pronouns lies outside the scope of this dissertation (see, for instance, Evans (1980), Cooper (1979), and Heim (1990) for classic discussions). I believe, however, that my proposed analysis of quantificational DDs could in principle be extended to cover E-Type pronouns as well, assuming that such pronouns are essentially definite descriptions (cf., e.g., Elbourne (2005) or Roberts (2004) for viewing pronouns as DDs).

[6] Heim & Kratzer (1998: 291) suggest that the DP in (6)a is pronounced ‚*it*': „Let us simply assume that DPs which consist of a definite article followed by nothing but unpronounced items will always be spelled out as pronouns."

(6) Every host bought just one bottle of wine and served <u>it</u> with the dessert.

a.



E-Type pronouns characteristically seem to co-vary with another quantificational expression in the same sentence even though the E-Type pronoun cannot be bound syntactically by that quantifier. In the analysis in (6)a, for instance, the pronoun '*it*' is interpreted as '*the bottle he*$_1$ *bought,*' and the unpronounced individual variable *pro*$_1$ in (6)a is then bound by the quantificational phrase '*every host.*' (The relation R_7 in our example is intended to be a relation between people and bottles of wine that they bought. We will take a closer look at the relation variable in Section 3.3 below.) It is important to keep in mind that while such binding appears to be mandatory in the case of E-Type pronouns, on my proposal the individual variable implicit in quantificational DDs *can* be bound, but it can also receive its value from the utterance or discourse context (cf. in (3) and (4), respectively).

Further evidence for treating the free individual variable as potentially being bound by another expression comes from sloppy readings in VP ellipsis constructions.

(7) Anna schrieb <u>die Lösung ins Buch</u> und Ben auch.
'Anna wrote the solution into the book, and Ben did too.'

(8) (On Roman's birthday), Philipp went to <u>his office</u>. Marcel didn't.

(Heim & Kratzer 1998: 255)

In (7), repeated from Chapter 2, the strict reading tells us that Anna and Ben wrote their solutions into one and the same book, namely that assigned to Anna, whereas they wrote their solutions into their respective books on the sloppy reading, i.e. Anna wrote the solution into her book, Ben wrote the solution into his book.[7] Similarly in (8), the second sentence can be understood as 'Marcel didn't go to Roman's (or Philipp's) office' (strict reading), or as 'Marcel didn't go to his own office' (sloppy reading). Standardly, such cases of sloppy readings, such as in (8), are taken as evidence that the elided material must contain a variable that is bound by the proper name(s), and I suggest that essentially the same mechanism is involved in cases like (7) as well.

Now that we have seen that the individual variable in the implicit content of quantificational DDs can either be bound or be assigned a value by the utterance context, we are still left with the awkward question of how a hearer knows which mechanism to apply on a particular occasion. In other words, how do we know whether the variable should be bound or not, and by which quantifier (in case there is more than one potential 'bind-

[7] The DD ‚*die Lösung*' ('*the solution*'), on its quantificational interpretation, allows for both a strict and a sloppy reading under VP ellipsis as well (Anna's solution vs. Anna's and Bob's solutions, respectively). For ease of presentation I skipped this complication in the description in the text.

er' available)? And in the case of an assignment of a value by the context, how do we find the suitable referent (assuming that in most cases there will be more than one potential referent available)? These are important and difficult questions and, as briefly hinted at in Chapter 3, theories of pronoun resolution are dealing with these same issues.

Unfortunately, I do not have a full-fledged solution to this problem either. I do want to emphasize, however, that, in addition to constraints on potential values regarding case, gender, or embedding in syntactic structure, very general pragmatic constraints are clearly at work here. The complexity of determining these constraints is nicely captured in the following quote from Neale (2004: 122f.). What we eventually need is

> ... a general *pragmatic* theory, a theory of the cognitive processes involved in utterance interpretation, a theory that explains how hearers integrate linguistic and non-linguistic information in interpreting one another, a theory that explains not only how we interpret utterances of incomplete descriptions but also how we assign reference to names and pronouns, establish binding (where syntax falls short), and resolve potential ambiguities, and how we identify and interpret utterances replete with irony, metaphor, elision, anacoluthon, aposiopesis, and on top of all of this how we identify what a speaker is *implying* as well as saying.

As a first step in the direction of a more comprehensive theory of the interpretation of incomplete descriptions, which is our main concern in this chapter, I suggest that the determination of the intended value of the individual variable is closely interconnected with the intended value of the relation variable (which will be discussed in detail in the next section). The argument roughly goes as follows: Suitable values for the relation variable are provided by background knowledge and inferences, and these values need to be, among other things, plausible and relevant to the current discourse. The value that the individual variable can have is then constrained by these relations, i.e. the intended individual needs to stand in the intended relation to the referent introduced by the explicit utterance of the DD in question. For instance, assuming that the hearer believes that a part-whole relation is a possible value for the relation variable, the individual variable can plausibly only take on values that the referent of the DD can actually be a *part of.* Consider the example in (9) for illustration.

(9) Anna has been trying to repair her car for hours. She is quite frustrated because <u>the engine</u> just won't start up.

Knowledge about engines might make a part-of relation more plausible than, say, a kinship relation. If we then try to determine the value for the individual variable, i.e. what the engine is an engine of, the previously mentioned car of Anna's is a very likely candidate, as opposed to, say, the speaker's motorboat. We hence arrive at an interpretation of the DD '*the engine*' analogous to '*the engine of Anna's car.*' Of course, the interaction between the individual and the relation variable can go both ways, and a particularly salient value for the individual variable might restrict the value that can reasonably be assumed for the relation variable. I want to point out that such freedom is indeed desirable in order to capture the full range of possible interpretations of DDs, and the framework proposed in this dissertation is well-suited for this purpose, because it does *not* restrict possible values for (either the individual or the relation) variables to explicitly mentioned entities.

4.3 Determining the Value for the Relation Variable

In the theory proposed in this dissertation, fixing the value of the presupposed relation is crucial to interpreting a quantificational DD. While in most cases this relation is easily retrieved by hearers from the context, it is notoriously difficult to pinpoint this mechanism. For illustration, consider the following quote from Clark (1975: 170f.) regarding the relation implicit in bridging readings of DDs:

> Bridging from previous knowledge to the intended Antecedent can take many forms ... Given information often has as its Antecedent some piece of information ... associated with the object, event, or situation mentioned. ... The associated pieces of information vary in their predictability ... from absolutely necessary to quite unnecessary.

The fact that a wide range of different relations can be part of the implicit content of incomplete descriptions is also illustrated by the following examples.

(10) *Context: We are taking care of one of Mary's many cats. We return to see a vase knocked over.*
Mary's cat must have done that.

(Elbourne 2008: 102)

(11) Jister wul wi deel an Sina bischük, an üüs wi diar uunkem, do as a dör feest.
   a. Gestern wollten wir (runter) und Sina besuchen, und als wir da ankommen, da ist die Tür verschlossen.
   ‚Yesterday, we wanted to go and visit Sina, and when we got there, the door was locked.'

(Ebert 1971a: 171)

(12) Gestern wollten wir Sina besuchen und als wir zur / #zu der Tür kamen, war sie verschlossen.
‚Yesterday, we wanted to visit Sina, and when we got to the door, it was locked.'

The example in (10) is built from a Saxon genitive and should, according to Elbourne (2008), be analysed analogously to DDs. Importantly for our purposes, the relation that Elbourne suggests as implicit in the DP '*Mary's cat*' "could mean something like 'temporarily residing in this house and owned by'. In other occurrences, R would take on other values, as suggested in work on the semantics of the genitive by Barker (1995) and others."[8] (Elbourne 2008: 102) Turning to (11) and (12), which is a slightly modified ver-

[8] In fact, Barker (1995, Ch. 2) suggests that the possession relations involved in genitives can be of two fundamentally different types: There are lexical relations and extrinsic relations that receive their value from the utterance context. Barker (2011:1116) further points out that extrinsic relations need to be distinguished from control relations as discussed by Storto (2000, 2004), because the former cannot be expressed felicitously by double genitives. Control relations hold, according to Storto (2004), if the possessor has some sort of physical or volitional control over the possessum, as illustrated in the example below.

i. Yesterday, John and Paul were attacked by two (different) groups of dogs.

sion of Ebert's original translation of the Fering sentence in (11), Ebert (1971a: 171) writes that "Sinas Tür ist die Tür, durch die wir zu Sina gelangen können. Dies ist die Bedeutung von 'Tür,' wenn wir Sina besuchen wollen."[9] Ebert further argues that this relation is more appropriate than, say, '*the door of Sina's house,*' because Sina might actually live in an apartment or in a rented room. All of the examples in (10), (11) and (12) are perfectly fine, but making the value of the relation variable in the implicit content explicit illustrates that the relations can be of seemingly very different kinds and are moreover heavily context-dependent. I will not attempt to classify or group possible relations, because, first of all, it is not at all certain that such a classification would really cover all possible values the relation variable can take on particular occasions. Secondly, it is not clear that, even in case a classification *were* possible, such a list would be of any interesting or explanatory import.[10] Rather, I want to focus on more general *characteristics* that possible relations share. Getting a step closer to understanding how we can restrict the potential values of free relation variables is important for the interpretation of expressions other than DDs, but the relevance of this issue is also directly related to the German data that was introduced in Chapter 2. Consider the following example for illustration.

(13) *Context: There is a game being played with competing teams solving math problems, who have to write down their solutions into a solution book, and a different book is assigned to each group.*

a. A: Anna schrieb die Lösung #<u>in das / ins Buch</u>.
'Anna wrote the solution into the book.'
b. B: Which book?
c. A: #No idea.
d. A: #I don't know – the one she wrote the solution into.
e. A: I don't know – the one that was assigned to her group.

The answer in (13)b is not appropriate, because the speaker is required to be able to provide additional identifying information regarding the book in question. More important for our current purposes, however, is the contrast between (13)c and (13)d. In both cases the speaker provides a relation that could be the value of the presupposed relation variable. Nonetheless, only the answer in (13)d is appropriate. How can this be?

The following sections will provide an explanation for this seemingly surprising observation. We begin our discussion in Section 4.3.1 by taking a look at a proposal put

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a. Unfortunately, <u>John's dogs</u> were rabid.
b. #Unfortunately, <u>the dogs of John's</u> were rabid.

(adapted from Storto 2004)

Neither Barker's nor Storto's discussions of contextually supplied relations allow us to draw more general conclusions about possible values for the implicit relation variable. Unfortunately, a critical discussion of possessives goes beyond the scope of this dissertation.

[9] „Sina's door is the door through which we can get to Sina. This is the meaning of ‚door,' if we want to visit Sina." (my translation)

[10] Langacker (1995), for instance, comes up with 18 different possession relations, including ‚an unowned possession' (*the baby's crib*), ‚something manipulated' (*her rook*), and ‚something hosted' (*the dog's fleas*). But does this really tell us something relevant about the meaning and the systematicity of possessives in particular, or of natural language in general?

forth by Endriss (2009)[11] regarding the characteristics of functions as they appear in functional wide-scope readings of indefinites. In Sections 4.3.2, 4.3.3, and 4.3.4, I will then propose three main characteristics that help restrict possible values for the implicit relation variable: plausibility, nameability, and informativity, respectively.

4.3.1 Endriss (2009): Functional Wide Scope Readings of Indefinites

Indefinite descriptions such as '*a(n) N*' or '*some N*' can characteristically escape so-called scope islands, in contrast to most other quantificational expressions. For instance, *if*-clauses constitute such scope islands, as the following examples illustrate.

(14)

a. Peter will be happy if <u>a / some movie</u> is shown.
   [*if* > ∃] [∃ > *if*]
b. Peter will be happy if <u>three movies</u> are shown.
   [*if* > 3] [3 > *if*]
c. Peter will be happy if <u>few movies</u> are shown.
   [*if* > *few*] *[*few* > *if*]
d. Peter will be happy if <u>almost all movies</u> are shown.
   [*if* > *alm* ∀] *[*alm* ∀> *if*]

(adapted from Endriss 2009: 9)

Bare singular indefinites and bare numeral quantifiers (cf. (14)a and (14)b, respectively) can take scope out of the scope island constituted by the *if*-clause, i.e. they can take exceptional wide scope. The utterance in (14)a, for instance, can be used to convey that there is a particular movie, say, *Pulp Fiction*, such that if this movie is shown, then Peter will be happy. The sentence in (14)c, on the other hand, cannot mean that there are a few movies, say, *Reservoir Dogs* and *Kill Bill*, that are such that Peter will be happy if they are shown (similarly for (14)d).

Of interest to our current purposes are so-called functional wide scope readings of indefinites, as illustrated in (15).[12]

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[11] See also Ebert & Endriss (2007) for related discussions.

[12] The indefinite in (15)d is realized emphatically, as indicated by the arrow and small caps. This is the usual intonation for a left-dislocated indefinite in such constructions, and is of no vital concern for us (but see, Endriss (2009, Ch. 5) for further discussion). The subscript ‚*fn*' on the picture-predicate indicates a functional interpretation of this predicate. According to Endriss (2009: 86), most NPs „allow for a functional interpretation, even if they do not seem functional at first sight. The NPs *book* or *picture* for example can be reinterpreted as functional items to mean *a book belonging to / written by someone* or *a picture of someone*, respectively." Such an interpretation is particularly salient when the indefinite contains an overt pronoun (as in (15)), but functional interpretations are also possible without overt pronouns.

(15) Context: At school, the arts teacher wanted to make a collage with her pupils and asked each pupil to bring a picture to the next lecture. The day before the arts class she reminded her pupils again not to forget, because usually at least some children forget what they were asked to bring. When the teacher came to the arts lecture, she was surprised, ...

a. denn jeder Schüler hatte tatsächlich <u>ein Bild</u> von sich mitgebracht.
'because every pupil had brought a picture of himself, indeed.'

b. $\forall x\ [pupil(x) \rightarrow \exists f\ [picture_{fn}(f) \wedge bring(x, f(x))]]$

c. $\forall x\ [pupil(x) \rightarrow \exists y\ [picture(y) \wedge of(y,x) \wedge bring(x,y)]]$

d. denn ↑<u>EIN Bild von sich</u>, das hatte überraschenderweise jeder Schüler mitgebracht.
'because, surprisingly, every pupil had brought a certain picture of himself.'

e. $\exists f\ [picture_{fn}(f) \wedge \forall x\ [pupil(x) \rightarrow bring(x, f(x))]]$

(Endriss 2009: 87f.)

In the sentence in (15)a, the indefinite '*ein Bild von sich*' ('*a picture of himself*') has a narrow scope reading, according to which every pupil brought along some picture or other (as indicated in (15)b and (15)c). The indefinite in (15)d, in contrast, has a functional wide scope reading, i.e. a reading where the function associated with the indefinite takes widest scope (cf. (15)e). Under this interpretation it is not possible that every pupil brought some arbitrary picture, but the pupils and their pictures need to stand in a functional relation. This is made particularly clear in the following continuations to the utterance in (15)d.

(16)

a. Nämlich das (jeweilige) Einschulungsbild.
'Namely the picture of the pupil's first day at school.'

b. ?Nämlich / Und zwar Peter ein Bild seiner Einschulung, Fritz ein Bild, auf dem er auf einem Pferd reitet, Maria ein Bild von ihr und ihrer Mutter, ...
'Namely Peter brought a picture of his first day at school, Fritz, a picture where he is riding a horse, Maria, a picture of her and her mother, ...'

(Endriss 2009: 89)

The continuation in (16)a makes the intended function explicit, i.e. a function that maps every pupil to the picture of his/her first day at school. The continuation in (16)b is not appropriate, because here the pupils and the pictures do not stand in some non-arbitrary functional relation to one another. This listing of pupil-picture pairs typically describes the so-called pair-list reading of a given expression.[13] Note that it is, in principle, possible to define a function that captures the pair-list enumeration, but the contrast between (16)a and (16)b clearly shows that *if* we assume such a function to be at work in pair-list readings, then it must be a function that is somehow different from the function involved in a genuine functional reading. Otherwise the contrast between the continuations in (16) could not be accounted for.

[13] As pointed out by Endriss, the difference between functional readings and pair-list readings is also relevant with respect to answers to *wh*-questions (cf., e.g., Krifka 2001).

The 'special' nature of the functions involved in true functional readings, also called natural functions, can, according to Endriss, be accounted for by two characteristics that all natural functions share, namely they have to be both nameable and informative.

Endriss suggests the following definition of nameability: It "means that it must be possible to refer to the function by a linguistic object. Concepts such as *every pupil's picture of his first day at school* then have a name and hence denote functions. Pair-lists on the other hand do not count as 'naming a function' and therefore do not denote functions in this sense." (Endriss 2009: 93f.) Intuitively speaking, if we can describe the function by linguistic means, i.e. if we can give something like a name to the intended function, then the function is obviously nameable. Endriss further assumes that in any language model, the existence of any object that has a name can be taken for granted. A speaker must make sure that the hearer can, at least in principle, take for granted the existence of the particular function the speaker is assuming, and, since only named entities can be so taken for granted, also the function assumed by the speaker must be a nameable object, or else the hearer could not interpret the speaker's utterance. According to Endriss, such reasoning illustrates that the nameability criterion is not restricted to functional wide scope readings of indefinites alone, but is a general feature of natural language. This argument is not very convincing. Why should the existence of functions like '*every pupil's picture of his first day at school*' or, for that matter, '*the cat residing in this house and owned by some contextually specified individual*' be taken for granted in 'any language model'? It seems reasonable to assume that objects whose names have been agreed on in a particular community (such as proper names, names of kinds, predicates, etc.), but do we really want to clutter our universe with *any*thing that can be described by some linguistic expression, however complex? And can the existence of such objects reasonably be taken for granted, i.e. accepted independently of additional contextual information? The answer to all these questions appears to be 'no.' As argued in Section 4.3.3 below, appealing to the difference between extrinsic and intrinsic definitions of a function appears to be a more suitable generalization.[14] As we will see in that section as well, however, the basic idea of nameability as characterized by Endriss does help restrict possible values for a function or relation variable.

The second criterion natural functions have to fulfil is that of being informative. This means that the intended function needs to convey information that is not already known by the time the functional indefinite in question is interpreted or is entailed by the rest of the utterance. For illustration, the sentence in (15)d above cannot felicitously be continued with (17). The examples in (18) and (19) illustrate that the informativity constraint appears to be a general constraint, i.e. this constraint is not restricted to functional wide scope readings of indefinites.

(17)

a. #Namely the picture that every pupil brought.
b. #Namely, every pupil brought the picture that he brought.
c. $\exists f\,[bring\_picture_{fn}(f) \wedge \forall x\,[pupil(x) \rightarrow bring(x, f(x))]]$

(Endriss 2009: 95)

[14] Note that we also need to be able to exclude something like ‚the *y* such that $x = x_1$ *and* $y = y_1$ *or … or* $x = x_n$ *and* $y = y_n$' as nameable functions (cf. Endriss 2009: 94). As argued in Section 3.3.3, the intrinsic / extrinsic distinction can straightforwardly exclude such a definition.

(18)

a. If some relative of mine dies, Paul will inherit a fortune.
b. #Namely the relative that is such that if he dies Paul will inherit a fortune.

(ibid.)

(19)

a. Who killed Paul?
b. #Paul's murderer. / #Someone.

(ibid.)

All the continuations in (17), (18), and (19) "would be uninformative, because they do not rule out any worlds that support the information before the very utterance is made." (Endriss 2009: 95) We will see in Section 4.3.4 that the informativity constraint applies to the implicit relation variable of quantificational DDs as well.

Endriss discusses (and dismisses) a further potential criterion on the functions involved in genuine functional readings of indefinites, namely salience (as suggested by Sharvit (1997)). Consider the following examples for illustration, again assumed as continuations of (15)d.

(20) Nämlich das Bild, das auf der letzten Klassenfahrt gemacht wurde und den jeweiligen Schüler mit einem dreiköpfigen Dinosaurier zeigt.
'Namely the picture that had been taken during the last school trip, which shows the respective pupil with a dinosaur with three heads.'

(Endriss 2009: 92)

(21) Nämlich – überraschenderweise – ein Bild, das zeigt, wie er Nudelsuppe isst.
'Namely – quite surprisingly – a picture showing him eating noodle soup.'

(Ebert & Endriss 2007: 199)

Both continuations in (20) and (21) are perfectly fine in our pupil-picture scenario,[15] yet this would be unexpected, according to Endriss and Ebert & Endriss, if the function had to be "contextually salient in any sense" (Endriss 2009: 92) or if "salience is to be understood as 'contextually given' or 'familiar'" (Ebert & Endriss 2007: 199). While the utterances in (20) and (21) are acceptable even though none of the two relevant functions is particularly salient, the two examples do not convincingly rule out 'salience in any sense' as a criterion on suitable functions. The original example in (15)d that stands proxy in Endriss' discussion for functional wide scope readings of indefinites generally, is quite odd when *not* followed immediately by any of the (appropriate) continuations we have encountered so far. Uttering a sentence like (15)d would also not be felicitous if the underlying function has been made explicit in a preceding utterance.

(22) Jeder Schüler hat ein Bild von seiner Einschulung und eines, auf dem er Nudelsuppe isst. #Und ↑EIN Bild von sich, das hatte jeder Schüler zum Unterricht mitgebracht.

[15] I want to point out that the acceptability of (20) and (21) makes a strong case *against* the idea that the existence of all nameable functions can be taken for granted.

> 'Every pupil has a picture of himself on his first day at school and one of him eating noodle soup. Every pupil had brought a certain picture of himself to class.'

It thus seems that the felicity of the function is, apart from being nameable and informative, dependent on the *non*-familiarity or contextual *non*-salience, if you will. Crucially, however, the speaker needs to immediately provide the intended function, otherwise the indefinite is not felicitous. As we will see in the next section, the presupposed relations of DDs clearly behave differently with respect to their salience or familiarity in the sense that the intended value for the relation variable needs to be determined contextually or via general world knowledge.

Summing up, Endriss (2009) suggests two properties of natural functions, i.e. of functions that are at work in genuine functional wide scope readings of indefinites. Such functions need to be describable by linguistic expressions (nameability), and they need to convey information not already asserted or entailed by the utterance in which they occur (informativity). We will return to nameability in Section 4.3.3, and to informativity in Section 4.3.4, while the next section will focus on plausibility as a constraint of possible values for the implicit relation variable in quantificational DDs.

4.3.2 Plausibility

First off, the proposal outlined in Chapter 3 does not assume functions as part of the implicit content of quantificational DDs, but relations. Both functions and relations can map more than one individual onto a single object, but relations characteristically differ from functions in that they allow a single object to be assigned multiple values. In our discussion so far, we have encountered examples for both many-to-one mappings and for one-to-many mappings of the presupposed relation (cf. (23), repeated from (3), and (24), repeated from (9), respectively).

(23) Die Amerikaner flogen als erste <u>zum Mond</u>.
,The Americans were the first to fly to the moon.'

(24) Anna has been trying to repair her car for hours. She is quite frustrated because <u>the engine</u> just won't start up.

The relation implicit in (23), which can be paraphrased along the lines of 'an object *y* orbiting the world of *x*,' maps many different individuals to one and the same object, namely the moon orbiting Earth. Conversely, the part-of relation is presupposed in an utterance of (24), capturing the fact that an engine is part of a car. Given that cars have many different parts (steering wheels, tires, exhaust pipes, trunks, seats, etc.) the relation maps one object to multiple objects. Note that in the formalism presented in Chapter 3 an additional presupposition is at work, namely one that tells us that whatever is *R*-related to the value of the free individual variable *and* is an object fitting the description of the particular DD used is unique. That way we can make sure that we can felici-

tously use a DD to talk about the unique engine (of a car), the unique steering wheel (of a car), but not easily about a unique wheel or unique seat (cf. (25)).[16]

(25) Anna has been trying to repair her car for hours. ??She is quite frustrated because the tire / the seat just won't inflate / stop creaking.

In the following we will therefore be concerned with characteristics of relations, rather than functions, but the considerations about functions discussed so far can straightforwardly be applied to relations as well. We now turn to a discussion of the first characteristic of the relations implicit in quantificational DDs, namely plausibility.

Plausibility is, of course, a ubiquitous phenomenon in natural language interpretation. Focussing on DDs, however, consider the following example.

(26) Every student read the book.
  a. [there is a book] such that [every student] read it.
  b. [for every student] [there is a book] such that s/he read it.

(adapted from Isac 2006: 276)

The interpretation in (26)a captures the wide scope reading of the DD '*the book.*' While such readings are often found for DDs, they crucially can receive co-varying interpretations as well, as illustrated by the narrow scope reading in (26)b, where there are possibly different books for different students. Typically, such covariation readings require contextual support, as indicated in the following quote from Isac (2006: 279, fn. 1).

... if [(26)] is preceded by *The teacher assigned each student a book*, the supposedly missing reading in which *the book* is dependent on [*every*] *student* ('For [every] student there is a book such that he read it') is in fact quite easy to get. Crucially though, in order for this interpretation to arise, the context must have provided information about the association of books to students. [...] This allows for a reading under which *the book* covaries with [*every*] *student*. This kind of evidence ultimately supports the quantificational view of definites.

Importantly for our current purposes, the explicit introduction of a value for the relation variable (here, the relation between students and books that they were assigned) makes this value particularly suitable. This corresponds exactly to what happens in the following example repeated from (13) above.

(27) *Context: There is a game being played with competing teams solving math problems, who have to write down their solutions into a solution book, and a different*

[16] In order to arrive at an appropriate interpretation of (25) we will need to assume a more complex relation, possibly something like 'the thing *y* that is a part of *x* and that Anna has been trying to repair.' While such an interpretation is not entirely *im*possible, I suggest that it is definitely marked in most contexts, due to the fact that accommodation gets more difficult the more inferential steps are necessary to arrive at the intended interpretation. Clearly, further investigation of this issue is needed.

book is assigned to each group. Anna and Bob belong to different teams.
Anna schrieb die Lösung ins / #in das Buch (und Ben auch).
'Anna wrote the solution into the book (and Ben did, too).'

Assuming that the rules of the game in (27) were uttered explicitly, this makes the intended relations (here, between (groups of) players and books assigned to them, and between (groups of) players and their solutions) very plausible values for the relation variable implicit in the DDs '*die Lösung*' ('*the solution*') and '*ins Buch*' ('*into the book*'). Note, however, that possible relations need not be mentioned explicitly. Consider the following examples, repeated from (3) and (4) above.

(28) Die Amerikaner flogen als erste zum Mond.
,The Americans were the first to fly to the moon.'
(29) Anna ging zu einer Würstchenbude am Bahnhof.
,Anna went to a sausage stand near the train station.'

The relations that can be paraphrased along the lines of 'an object *y* orbiting the world of *x*' and 'a train station *y* in the home town of *x*' clearly need not be made explicit for the felicity of (28) or (29). Rather, they are provided by general world knowledge (for instance, about train stations and towns) and by 'frequency effects.' If certain linguistic expressions are frequently interpreted as involving particular, well-known relations (such as that between the Earth and its moon), then these relations can be regarded as 'default' values. Unless they are intended to receive values *other than* their default values (as can be indicated by additional contextual information), these relations need not be made explicit.[17] These relations are plausible in the sense that a speaker can typically expect the hearer to arrive at the intended value without further specification. Generally, and not surprisingly, incomplete DDs are used felicitously only in case the speaker can reasonably expect the hearer to arrive at the correct interpretation of the implicit material, including, of course, the correct value for the relation variable *R*. Consider the examples below for illustration.

(30) #Ben is reading the book.
(31) Warum übst du nicht Geige?
'Why don't you practice the violin?'
a. #Mir ist die Saite gerissen.
'The string broke.'

(Heim 1991: 491)

(32) Yesterday, Ben got a new pet.
a. The dog is terrifying.
b. ??The giraffe is terrifying.

In (30), uttered out of the blue, we can imagine a multitude of possible plausible relations between Ben and books ('book Ben is currently reading,' 'book Ben got for Christmas this year,' 'book Ben's best friend recommended to him,' etc.). It is therefore impos-

[17] This characteristic clearly distinguishes quantificational DDs from the functional indefinites discussed in Section 4.3.1, where the intended function needs to be made explicit.

sible without further information to decide on *one* such relation that could, at least in principle, provide a suitable value for the relation variable *R*. The situation is somewhat different in (31), because here it is difficult to decide on any suitable relation at all. In other words, it is not clear what a *plausible* relation between a unique string and the violin (or the speaker) would look like, thus making the utterance in (31)a infelicitous. Turning to the next example, the continuation in (32)a is significantly better than the one in (32)b, even though a having-as-a-pet relation is made explicit in (32). While dogs are typical pets, giraffes are not, thus making the (rather implausible) interpretation of the DD '*the giraffe*' more difficult. This is not to say that (32)b is completely out, however. Hearers can be quite charitable in this respect and will probably arrive at an interpretation like 'the giraffe that Ben has as a pet' eventually. This markedness may also be at the root of Barker's judgements of infelicity in the examples below, which are intended to indicate that not all relations are equally plausible.

(33) A man walked in.

a. His dog was with him.

b. #His giraffe was with him.

(adapted from Barker 2000: 213f.)

(34)

a. John is not very fond of his cat.

b. #John is not very fond of his squirrel.

(Barker 1995: 88)

According to Barker (1995: 88), „possessives are good as descriptions of novel entities only to the extent that the nature of the possession relation is made clear, either through lexicalization or through conventionalized expectation. That is, the [examples in (33)a and (34)a] work only to the extent that our expectations make it reasonable for us to assume that we know what the relationship between the possessor and the possession is without needing further inquiry."[18] While we are not concerned with possessives in this dissertation, the basic insight in the quote from Barker (1995) carries over to DDs as well, namely that the implicit relation must be clear, i.e. there must be a plausible relation between the referent of the DD and the value of the implicit individual variable, and such a relation can be established via 'conventionalized expectation,' or, as I called it above, via values that are default values due to both world knowledge or frequency.[19]

Alluding to a general assumption that 'speakers should reasonably expect the hearer to do *x*' (e.g. accommodate a referent, pick a referent from a set of potential referents, find the right value for an individual or a relation variable, etc.), while being both 'plau-

[18] Regarding lexicalized relations, Barker assumes that there are relational and non-relational nouns, which can be distinguished by the test below. The former are standardly associated with lexicalized relations, i.e. relations determined by the lexical content of the words in question, while the latter typically involve extrinsic, i.e. contextually supplied, relations when used in possessive constructions. For our purposes the alleged distinction between relational and non-relational nouns is irrelevant. The main point of the quote in the text, however, *is* relevant to our discussion.

i.	a day (*of someone)	vs.	a birthday of someone
ii.	a person (*of someone)	vs.	a child of someone
iii.	an animal (*of someone)	vs.	a pet of someone

(Barker 2011: 1111)

[19] We will return to the notion of conventionalization in Chapter 5 below.

sible' and 'reasonable,' is quite vague and clearly not satisfactory for a general theory of definiteness. I propose, however, that the combination of plausibility with nameability and informativity, as discussed in the next two sections, is very helpful in adequately restricting the determination of implicit content.

4.3.3 Nameability

As discussed in Section 4.3.1, Endriss (2009) argues that the functions involved in functional wide scope readings of indefinites need to be nameable, i.e. it must be possible to describe the function with the help of linguistic expressions. While the interpretation of incomplete DDs depends on implicit relations, rather than functions, I suggest that the nameability criterion indeed applies to our relations as well. Consider again the game scenario and the dialogue in (35).

(35) *Context: There is a game being played with competing teams solving math problems, who have to write down their solutions into a solution book, and a different book is assigned to each group.*

a. A: Anna schrieb die Lösung #<u>in das / ins Buch</u>.
   'Anna wrote the solution into the book.'
b. B: Which book?
c. A: #No idea. / I don't know.
d. A: I don't know – the one that was assigned to her group.

As the inappropriate answer in (35)c indicates, the speaker must be able to provide a description of the intended relation.[20] Note that this corresponds straightforwardly to Neale's (2004) suggestion mentioned at the beginning of this chapter that incomplete descriptions, on the explicit approach, involve implicit content that the speaker could provide if asked for clarification. He further adds that "[t]here need not be a unique description that *A* can supply, but there had better be at least one – and one that *B* could reasonably have been expected to construct at that – if the speech act is to be felicitous." (Neale 2004: 121) Note that, first of all, nameability *and* plausibility (as discussed in Section 4.3.2) are required. Secondly, it is an important improvement over a simple nameability criterion that the 'name' in question need not be uniquely determined. It is a common argument against accounts of incomplete descriptions such as the one advocated in this chapter that there may be more than one suitable value for the relation variable. For instance, in the game scenario, I paraphrased the intended relation as 'book that was assigned to Anna's group.' But what about the relation 'book assigned to Anna'? Clearly,

[20] In his discussion of so-called functional concepts, Löbner (1985: 295) suggests that „only such concepts [can be considered] ‚reasonable' which can be explicitly defined with a finite amount of information." A detailed discussion of Löbner's (1985, 2011) theory of definiteness is beyond the scope of this dissertation, but for our current purposes it suffices to note that the nameability criterion is to be understood as involving a finite amount of information in the explication of the intended relation. Note also that infinitely (or very) long and complex relations will, in most cases, not be plausible in the sense described in Section 4.3.2.

this second relation would be a suitable value for the relation variable, even though it is (albeit slightly) different from the first one. Or what about a relation like 'object *y* that is the only natural satellite of *x*'s world' or 'object *y* that is visible on most clear nights in the sky of *x*'s world' as opposed to 'object *y* that orbits the world of *x*'? It seems that we do indeed have to accept the possibility of there being more than one suitable relation. In combination with the plausibility constraint discussed above and the informativity constraint to be introduced below, this plurality should not complicate matters unduly.

Nameability is a concept not only relevant to either functional indefinites or incomplete descriptions. More generally, this criterion mirrors the intrinsic / extrinsic distinction. With respect to functions (but again, the considerations carry over to relations), Frege (1891) differentiates between the function itself and its *Wertverlauf* (value range / course of values). The Wertverlauf corresponds to an extrinsic definition of a function and can be specified as a set of ordered pairs. An intrinsically defined function, on the other hand, can be thought of as a rule or algorithm that yields the second member of a particular ordered pair, given the first. The intrinsic notion of a function is characterized by Löbner (1985: 295) as an "assignment of values to arguments, following some general rule." Consider also the following quote from Jacobson (1999: 160, fn. 23)[21], which nicely illustrates the difference between extensionally and intensionally defined functions.

> The term "natural function" is perhaps not the most felicitous one – a better one would be a "procedurally defined function". ... A procedurally defined function is an *intensional* one: its value can be computed for any new individual added to the world, provided we know everything about the world. A random list of ordered pairs – while *extensionally* equivalent to a procedurally defined function for a given domain – is not a recipe in the same sense. [emphasis added]

Nameable relations are then intensionally defined relations, and pair-lists as outlined in Section 4.3.1 correspond to extrinsic definitions of relations. The following example illustrates that an extensional definition of the implicit relation is not adequate.

(36) *Context: Anna and Ben are members of a book club, where different members are assigned different books every month, and the club members meet once a month to discuss the books. John asks where Anna is ...*
  a. A: Anna is reading <u>the book</u>.
  b. B: Which book?
  c. A: #The book she is reading right now.
  d. A: The book she was assigned this month.

An extensional definition of the implicit relation in the scenario in (36) could be the following: {<Anna, *Gone with the Wind*>, <Ben, *Atonement*>, <Charlie, *Stoner*>}. Let us suppose that this Wertverlauf is correct for both functions in (36)c and (36)d. On a purely extensional view of the intended relation, we could not account for the difference between the two answers in in (36)c and (36)d. Note also, however, that plausibility and nameability alone cannot help differentiate between the two relations either: Both relations are plausible and nameable, but nameability provides us with the possibility of distinguishing (36)c and (36)d, whereas the extensional definition affords no such pos-

[21] A shorter version of this quote is also cited by Ebert & Endriss (2007: 200).

sibility. As we will see shortly, informativity is the third property that suitable relations need to have, and this will help account for the example in (36).

4.3.4 Informativity

According to Endriss (2009), the functions involved in functional readings of indefinites have to be informative in the sense that they express information that is not already conveyed by the rest of the sentence. The very same mechanism is at play in interpreting incomplete DDs as well, as illustrated by the following two very similar examples, repeated from above.

(37) *Context: Anna and Ben are members of a book club, where different members are assigned different books every month, and the club members meet once a month to discuss the books. John asks where Anna is, ...*
   a. A: Anna is reading <u>the book</u>.
   b. B: Which book?
   c. A: #The book she is reading right now.
   d. A: The book she was assigned this month.

(38) *Context: There is a game being played with competing teams solving math problems, who have to write down their solutions into a solution book, and a different book is assigned to each group.*
   a. A: Anna schrieb die Lösung #<u>in das / ins Buch</u>.
      'Anna wrote the solution into the book.'
   b. B: Which book?
   c. A: #I don't know – the one she wrote the solution into.
   d. A: I don't know – the one that was assigned to her group.

In both (37) and (38), the felicitous continuations describe informative relations, i.e. the relation is not already asserted or entailed by the utterances in (37)a and (38)a, respectively.[22] Together with the properties of plausibility and nameability, we thus can straightforwardly account for the perceived contrasts between felicitous and infelicitous continuations. More generally, we are in a position to distinguish appropriate from inappropriate values for the implicit relation variable contained in incomplete descriptions.

[22] One might object that the relations in question are presupposed by the utterances in (37)a and (38)a, and that the felicitous answers do not in fact convey 'new' information. The examples are intended to illustrate possible appropriate discourses in case the hearer is *not* able to accommodate the intended relations straightforwardly, i.e. in situations where the presuppositions are *not* met.

4.3.5 Intermediate Summary

DDs frequently appear to be incomplete and require the hearer to determine suitable values for the involved variables in order to arrive at the intended interpretation. On the account argued for in Chapter 3, quantificational DDs crucially involve both a free variable over individuals and one over relations. As suggested in Section 4.2, values for the individual variable can either be provided by the context or the variable can be bound. The underlying mechanisms are independently motivated and are thus not stipulated or ad hoc. Determining the value for the relation variable heavily depends on extra-linguistic knowledge and inferences, and the intended relations have to have the following three properties: plausibility, nameability, and informativity. These three characteristics, when taken together, help explain the mechanisms underlying the successful interpretation of incomplete descriptions.

The pragmatic account developed in this chapter can help restrict the assignment of values to the free variables, but there is one open issue that I would like to point out. Plausibility, nameability, and informativity do not explicitly prevent as a suitable relation one like 'object *y* that was mentioned by (e.g., the speaker) *x* in previous discourse' or 'object *y* that is identical to object *x* pointed at or mentioned explicitly in previous discourse'. These relations are plausible, nameable, and informative. In other words, how can we prevent the two free variables to be resolved in such a way that the final interpretation is essentially identical to an anaphoric (or demonstrative) interpretation of the DD in question? With respect to the German data, how could we explain the difference between rPPs and cPPs, if it were possible to interpret the implicit content of cPPs in such way that the resulting interpretation is the very same interpretation we would get for the corresponding rPP?[23] Consider the following example, repeated from Chapter 2, for illustration.

(39) In jeder Bibliothek, die <u>ein Buch über Topinambur</u> hat, sehe ich #im / in dem Buch nach, ob man Topinambur grillen kann.
,In every library that has a book about topinambur I check in the book whether one can grill topinambur.'

(Schwarz 2009: 24)

[23] In a similar vein, also Umbach (2001: 271, fn. 21) stipulates that identity should be excluded as a value for the relation variable *R*, because otherwise we could no longer cleanly distinguish between given and non-given definites. Note, however, that she also suggests that so-called "semantically unique predicates (*the pope*) could easily be adapted [to her account of non-given definites] by allowing the bridging relation to be identity (x = x)." (Umbach 2001: 272, fn. 23) It seems that in the latter case, Umbach is talking about the predicate 'self-identity' (i.e., the predicate of being identical with oneself), which is trivially fulfilled by every object in the universe, because otherwise this latter statement would be a clear contradiction to the former claim. It is unclear to me whether postulating two 'kinds' of identity (self-identity vs. identity-with-something-else) would be desirable. Furthermore, given that the 'self-identity' predicate is trivially true for any object, I am not sure what explanatory purpose it would fulfil as part of the semantic representation of a particular 'unique' definite. Note also that on my view, DDs such as '*the pope*,' '*the moon*,' '*the sun*' do not have a special status and are analysed exactly as other quantificational DDs, i.e. as involving a relation between, the object in question and, say, (the community of) the speaker.

In principle, one could take the previously mentioned library as a value for the individual variable, and *R* could be something like 'object *x* has y (in its archive)'. As indicated by the felicity of the rPP, however, the expression '*in dem Buch*' ('*in the book*') cannot be interpreted as an incomplete DD in the sense employed in this chapter. As shown above (Sec. 2.4), as soon as there is an explicit antecedent available, the anaphoric reading seems to be preferred over a quantificational reading. At this point, unfortunately, I can only observe that the implicit content of DDs cannot be resolved to yield an anaphoric interpretation, without being able to provide an explanation for this fact that is not ad hoc.

4.4 Possible Counterarguments

In this section, we will consider two possible counterarguments to theories of definiteness that rely on contextual supplementation of implicit material in general, including the present proposal: (i) the problem of the formal link, as suggested by, for instance, Heim (1990); (ii) certain downstressed DDs that do not give rise to sloppy readings, as put forth by Elbourne (2013).

The problem of the formal link

According to Heim (1990), theories that rely on pragmatic factors alone in determining the interpretation of implicit content[24], run into problems because "there are data which seem to point to the existence of tighter and somehow more 'syntactic' limitations on the range of readings that actually emerge." (Heim 1990: 165) The following set of examples illustrates the 'tighter and more 'syntactic' limitations,' i.e. the formal link, that Heim has in mind.

(40)

a. Every man who has a wife sits next to <u>her</u>.
b. #Every married man sits next to <u>her</u>.

(Heim 1990: 165)

The interpretation of the pronoun '*her*' in (40)a is straightforward, but the interpretation of (40)b is not. The problem that a heavily context-dependent approach to pronouns (or, for that matter, incomplete descriptions more generally) faces is the following: The context has to provide a salient function[25] for the pronoun '*her*', and a likely candidate would be a function assigning wives to men. This function is readily available

[24] Note that Heim is concerned with so-called E-Type pronouns (cf. footnote 5 above). Her considerations regarding the problem of the formal link and its possible solution carry over to incomplete descriptions as well.

[25] Again, we are confronted with a theory dealing with functions, rather than relations as in our account. As noted above, talk of functions can, unless specified otherwise, be mapped directly to relations.

in (40)a, but not in (40)b, even though the expression '*married man'* should, in principle, make such a function just as salient as the expression '*man who has a wife'* if it is not the linguistic, but the extra-linguistic context that supplies the relevant function (assuming that '*married man'* and '*man who has a wife'* mean the same - in some sense of 'mean' that needs to be determined. We will return to this issue shortly.). A context-based account thus predicts a possible interpretation of the pronoun '*her'* in (40)b, even though such an interpretation is not in fact available.

The solution Heim proposes for the problem of the missing link is to abandon the idea that implicit content receives its value from the context. The felicitous use of an E-Type pronoun (or an incomplete DD) is then viewed as depending on the explicit mention of a suitable antecedent or of a suitable function in the linguistic context in which the expression in question occurs, with the extra-linguistic context no longer determining the implicit content. With respect to E-Type pronouns, Heim formalizes this idea with the help of a transformational rule, which copies the antecedent and the antecedent's scope into the position of the pronoun. For the donkey sentence in (41), for instance, this rule would convert the logical form in (41)a into the one in (41)b.

(41) Every man that owns a donkey beats <u>it</u>.

a. $[\text{every}_{x1}\ [\text{man}(x_1)\ \text{that}\ [[a_{x2}\ \text{donkey}(x_2)]_2\ [x_1\ \text{owns}\ x_2]]]]_1\ [x_1\ \text{beats}\ \mathbf{it_2}]$

b. $[\text{every}_{x1}\ [\text{man}(x_1)\ \text{that}\ [[a_{x2}\ \text{donkey}(x_2)]_2\ [x_1\ \text{owns}\ x_2]]]]_1\ [x_1\ \text{beats}\ \mathbf{it_2}\ \mathbf{[[a_{x2}\ donkey(x_2)]_2\ [x_1\ owns\ x_2]]}]]]$

(Heim 1990: 170; emphasis added)

As the bold face portion shows, the antecedent '*a donkey'* and the antecedent's scope 'x_1 *owns* x_2' are copied into the position of the pronoun, and with the help of a semantic rule for the interpretation of such augmented pronouns (cf. Heim 1990: 170) we end up with something like '*the unique donkey* x_2 *such that* x_1 *owns* x_2' (where x_1 is bound by the quantifier *every*$_{x1}$). Such a theory circumvents the problem of the formal link and can, for instance, easily account for the infelicity of the pronoun in (40)a because there is no suitable material in the linguistic context that could be copied into the position of the pronoun. Heim further uses the example in (42) for supporting the presence of some copy-and-paste syntactic procedure.

(42) #Speaking of the successor-function, every number is smaller than <u>it</u>.

(Heim 1990: 167)

In (42), the pronoun '*it'* cannot be read as '*its successor'*. This should be possible, however, if salience of a function (here, a function relating numbers to their successors) were sufficient, because uttering the expression '*successor-function'* should, according to Heim (1990: 167), make such a function "highly and instantly salient." This argument is not very convincing, however. Regarding (42), the utterance is simply incoherent. The phrase '*every number is smaller than it / its successor'* does not tell us anything about the successor-function, thus making the introductory part '*Speaking of the successor-function'* infelicitous. The only plausible interpretation after such an announcement would be to interpret the pronoun as referring to the successor-function, but this is ruled out via world-knowledge ('*every number is smaller than the successor-function'* does not make any sense). It seems that the source of the unacceptability of (42) with

the intended interpretation is due to more general principles regarding discourse coherence and information structure.[26]

Turning back to (40), Heim (1990: 166) claims that "just because two phrases mean the same it hardly follows that listeners processing them run through identical sequences of psychological states. Quite to the contrary, it is plausible that awareness of the relevant function occurs at a much shallower level of understanding in the processing of '*man who has a wife'* than it does in the processing of '*married man'*." I am not sure what exactly Heim means, or aims at, by referring to the listener's psychological states and shallow levels of understanding that would then aid disambiguation and reference resolution for pronouns "at an early stage in parsing" (ibid.): It seems that she assumes that a function (relating men to their wives) should automatically be present in the psychological state of the listener when hearing the phrase '*man who has a wife'* and this should then help in disambiguating the pronoun '*her'* at an early stage in parsing, which would explain why (40)a is not felt to be infelicitous while (40)b is, because an utterance of '*married man'* would not 'cause' the same psychological states and hence not make the relevant function available to the hearer at an early stage in parsing. But does this kind of argument not assume that the relevant psychological processes are actually triggered by the lexical information available in the utterance? And is this not exactly what the idea of 'contextually determined function/relation' that Heim is arguing against opposes? I am not sure I completely understand Heim's reasoning here. More generally, however, I *do* believe that an utterance of '*man who has a wife'* will generally be represented differently or make available different information to the hearer's interpretive mechanism than an utterance of '*married man.'* It is not necessary that '*married'* automatically makes a relation between husbands and wives particularly salient, rather '*married'* may be represented as a simple one-place predicate (for instance, $\lambda x.married(x)$), while '*man who has a wife'* corresponds to something like $\lambda x. \exists y\ [man(x) \wedge have(x, wife(y))]$. Of course, general world knowledge will enable us to infer that married people have wives or husbands, but such an inference might not be performed unless the utterance situation requires it.[27] Note that similar considerations apply to another example that is supposed to highlight the problem of the formal link.

(43)

a. Someone who has a guitar should bring <u>it</u>.
b. #Some guitarist should bring <u>it</u>.

(Elbourne 2005: 64, attributing the example to Heim 1982)

[26] Both discourse coherence and information structure are very interesting areas of research that may also turn out to be very relevant to theories of definiteness. A detailed discussion of these two topics goes beyond the scope of this dissertation, however. I refer the interested reader to, among many others, Kehler (2002) or Asher & Lascarides (2003) on discourse coherence, and to Endriss (2009, Ch. 1) or Hinterwimmer (2011) for overviews of theories of information structure.

[27] For instance, if Jane tells a friend of hers who has been eyeing a particular man at a party '*He's a married man*,' the existence of a wife (or husband) of that man may not actually be inferred in that situation, but rather the fact that the man is unavailable or shouldn't be flirted with.

Also in (43), '*some guitarist*' is not the same as '*someone who has a guitar*',[28] and I fail to see how this shows without any doubt that the pronoun requires a formal link to its antecedent. Furthermore, if we take into account that speakers follow Grice's (1989) Cooperative Principle (cf. (44)), we again see how more general consideration about, for instance, discourse coherence and information structure may help explain the observed contrasts in (40) and (43).

(44) *The Cooperative Principle*:
Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.

(Grice 1989: 26)

Assuming that the speaker is cooperative, s/he should have used (40)a and (43)a if s/he had wanted to continue speaking about wives or guitars, respectively, not the sentences in (40)b and (43)b. This observation is also mirrored in Roelofsen's (2008: 122) suggestion that "the conversational purpose of [(40)b and (43)b], considered in isolation, is far from clear. [... Whereas the] conversational purpose of [the examples in (45)], considered as stand-alone utterances, is much clearer."

(45)

a. If I get pregnant, I'll definitely keep <u>it</u>. (overheard in conversation)
b. John became a guitarist because he thought that <u>it</u> was a beautiful instrument.
c. Some men have been married for more than twenty years and still don't know what <u>her</u> favorite breakfast is.
d. If you don't know what <u>his</u> favorite movie is, you should plan to find out and watch it with <u>him</u> at the earliest convenience.

(Roelofsen 2008: 122)

(46)

a. Look, there is old Mr Smith walking by. <u>SHE</u> died last year, you know?
b. Mark got married last week. I believe <u>she</u>'s next door.

In all of the examples in (45), no baby, guitar, or husband is explicitly mentioned, nevertheless the pronouns are used felicitously. The same is true of the two classic examples in (46).

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[28] As pointed out by Roelofsen (2008: 123, fn. 12), the two sentences in (43) are not really minimal pairs, and a more appropriate opposition would be the following, attributed to Jeroen Groenendijk.

i.

a. #Some guitar player should bring <u>it</u>.
b. #Some guitarist should bring <u>it</u>.

(Roelofsen 2008: 123, fn. 12)

Surprisingly for a copy-and-paste account as suggested by Heim (1990), the two utterances are infelicitous, even though a potential antecedent is in principle available in the (a)-sentence.

While I do agree that the contrasts in (40) and (43) are striking and clearly in need of a full-fledged explanation, the examples do not provide clear counterevidence against approaches that assume that the value of implicit variables is determined contextually.

Downstressed DDs that prohibit sloppy readings

Elbourne (2013) argues that the implicit content of incomplete descriptions is supplied by situation variables that can either be free (and receive their value from the context) or bound by suitable binders.[29] As a case in point of his analysis, Elbourne introduces the following set of examples, which are intended to show the inadequacy of, among other approaches, the explicit approach to incomplete descriptions as advocated by Neale (2004) and loosely followed in this dissertation. (The subscript indicates downstressing.)

(47)

a. In this village, if a farmer owns a donkey, he beats the donkey and the priest beats $_{\text{the donkey}}$ too. (strict, *sloppy)
b. In this village, if a farmer owns a donkey, he beats the donkey he owns and the priest beats $_{\text{the donkey he owns}}$ too. (strict, sloppy)

(Elbourne 2013: 179f.)

(48)

a. In this village, every farmer who owns a donkey beats the donkey, and the priest beats $_{\text{the donkey}}$ too. (strict, *sloppy)
b. In this village, every farmer who owns a donkey beats the donkey he owns, and the priest beats $_{\text{the donkey he owns}}$ too. (strict, sloppy)

(Elbourne 2013: 180)

The sentences in (47)a and (48)a can only felicitously be used if the priest beats the farmer-owned donkeys, while the sentences in (47)b and (48)b additionally can mean that the priest beats his own donkey. "The basic observation ... is that, given a sentence with a donkey-anaphoric definite description containing no overt pronouns, a repetition of the definite description in a downstressed continuation does not give rise to a sloppy reading." (Elbourne 2013: 180) Elbourne then goes on to argue that the explicit approach cannot account for the absence of a sloppy reading in the case of either (47)a or (48)a, because it over-generates and does not prevent supplementing the downstressed phrase with something like '*he owns.*' If the downstressed material in (47)a and (48)a were actually 'the donkey he owns,' then the sloppy reading should be available (cf. (49)[30]). This is not the case in (47)a and (48)a, and thus, Elbourne concludes, the explicit approach is out of the running.

[29] We will not be concerned with situation semantic accounts of DDs in this dissertation (but see, for instance, Elbourne 2005, 2013; Schwarz 2009, 2012).

[30] It should also be noted that the examples in (49), which are perfectly fine according to my own intuitions, contradict Elbourne's claim that downstressing indicates "that the phrase in question conveys old information – a property repeated from another part of the sentence in the current cases." (Elbourne 2013: 179) There is no overt constituent in the antecedent of (49)a or

(49)

a. In this village, if a farmer owns a donkey, he beats the donkey and the priest beats $_{\text{the donkey he owns}}$ too. (strict, sloppy)
b. In this village, every farmer who owns a donkey beats the donkey, and the priest beats $_{\text{the donkey he owns}}$ too. (strict, sloppy)

Again, I suggest that more general pragmatic constraints are at work in the examples at hand, and a dismissal of the explicit approach is therefore not warranted. It seems that the utterances in (47)a and (48)a seem at first glance to tell us something about donkey-owning farmers, not necessarily about donkey-owning priests (cf. the contrast between (50) and (51)).

(50) A: Tell me something about farmer-owned donkeys.

a. In this village, if a farmer owns a donkey, he beats the donkey and the priest beats $_{\text{the donkey}}$ too.
b. In this village, every farmer who owns a donkey beats the donkey, and the priest beats $_{\text{the donkey}}$ too.

(51) A: Tell me something about donkeys owned by farmers or by priests.

a. #In this village, if a farmer owns a donkey, he beats the donkey and the priest beats $_{\text{the donkey}}$ too.
b. #In this village, every farmer who owns a donkey beats the donkey, and the priest beats $_{\text{the donkey}}$ too.

Without additional clues that these utterances are intended to convey the sloppy reading, the hearer might simply see no need to resolve the free individual variable to the priest, but will rather stick with interpreting the final occurrence of '*the donkey*' as anaphoric to the previously mentioned donkey. In (47)b and (48)b, on the other hand, by adding '*he owns*' explicitly, the speaker indicates that the simpler version just discussed is most likely *not* intended, and the hearer thus has an additional clue to interpret the DD '*the donkey he owns*' as covarying with the farmers and with the priest. Put more clearly, something like Partee's (2009) 'Minimum Disturbance' Principle (cf. (52)) seems to be at work here.

(52) *Minimum Disturbance Principle:*
If the interpretation derivable from the overt content of a sentence is a complete proposition that is appropriate in the given context, do not 'enrich' it, and do not 'shift' the meanings of its parts.

(Partee 2009)

In the case of the examples in (47) and (48), if there is no indication on part of the speaker that a sloppy reading is intended or otherwise plausible, then why should the hearer, as it were, switch from an anaphoric interpretation to the covarying one? In the case of an explicit pronoun (indicating that we may want to quantify over individuals)

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in the relative clause in (49)b that the downstressed material repeats. Nonetheless, the sentences can receive a sloppy interpretation.

the quantificational interpretation is more likely, giving us either a strict or a sloppy reading.

Consider also the following examples.

(53)

a. In this town, every farmer who has a spare room rents it / the room out to tourists, and the priest does too.
b. Most men who own a car like to show off with it / the car. But Peter doesn't.
c. Every male farmer who owns a donkey beats it / the donkey, but farmer Mary doesn't.

(adapted from Roelofsen 2008: 123[31])

While the examples in (53) are all structurally similar to the ones in (47) and (48), they easily allow for sloppy readings of the pronouns and DDs. Indeed, due to plausibility constraints imposed by world knowledge, the strict reading is in fact dispreferred in these examples: a given room cannot be rented out by more than one person, Peter most likely would never use another man's car to show off with, and farmer Mary is contrasted with male donkey-beating farmers, so she is unlikely to beat one of the male farmers' donkeys. Again it seems that more general constraints are at work in making a sloppy reading available. The examples put forth by Elbourne (2013) thus do not constitute conclusive evidence *against* the explicit approach to incomplete descriptions.

To sum up, we discussed two potential arguments put forth against heavily context-dependent accounts of incomplete DDs, such as our own, and concluded that neither of the two criticisms in fact applies. We have seen that both the problem of the formal link and certain downstressed DDs that do not give rise to sloppy readings involve more general pragmatic mechanisms. The two arguments therefore do not provide clear counterevidence against the view that the values of implicit variables of DDs are determined contextually.

4.5 Summary

The aim of this chapter was to elaborate on the pragmatic processes involved in interpreting incomplete descriptions. More precisely, we tried to get a firmer grip on possible restrictions on values for the free individual and relation variables that are involved in the interpretation of quantificational DDs. The individual variable can receive its value either from context or it can be bound by another quantifier. It thus functions essentially like a pronoun that can either be free or bound. We also looked in detail at properties that the values of the relation variable need to have, namely the relations have to be

[31] The examples are actually used to argue against an earlier version of Elbourne's argument, namely the one put forth in Elbourne (2005), but they are equally forceful against the 2013-version.

plausible, nameable, and informative. Taken together, these three characteristics help restrict the possible values of *R* significantly. This restriction provides a clear indication that the problem of the formal link does not in fact constitute a good argument against a heavily context-dependent analysis of implicit content such as the theory advocated in this dissertation. Plausibility, nameability, and informativity, *plus* more general pragmatic principles, such as the Cooperative Principle or the Minimum Disturbance Principle, can avoid potential criticism from both the problem of the formal link and from down-stressed DDs that do not permit sloppy readings.

So far, we have seen ample evidence that the theory proposed in Chapter 3 can adequately account for the data discussed in Chapter 2, i.e. for the difference between German rPPs and cPPs, and for DDs in general. In particular, anaphoric (and demonstrative) DDs are analysed as DDs whose referent needs to be identified with another referent in the current discourse setting. Quantificational DDs, in contrast, are incomplete in the sense that they contain implicit content, which is formally represented by two free variables, one over individuals and one over relations. As discussed in detail in the present chapter, they thus depend heavily on extra-linguistic knowledge for their interpretation. There is one group of DDs, however, that we have not yet been concerned with, namely so-called Weak Definites (WDs) in the sense of Carlson et al. (2006). As we will see in the next chapter, also WDs can be accounted for in the proposal suggested in this dissertation: They are analysed as quantificational DDs, analogously to the quantificational DDs looked at in Chapters 3 and 4.

5 Weak Definites

In Chapters 3 and 4, we have been concerned with referential DDs and with quantificational DDs like 'uniques,' bridging, or covarying DDs. This set of DDs is, however, only a subset of the DDs that the analysis suggested in this dissertation is aimed to capture. In this chapter I argue that the theory advocated in the preceding chapters is applicable also to so-called Weak Definites (WDs) in the sense of Carlson et al. (2006).

As outlined in Chapter 2, WDs exhibit an interesting set of characteristics, which makes them at first glance incompatible with classic uniqueness-based theories of definiteness. As we will see below, however, this is a misconception and I propose that WDs can indeed be analysed as quantificational DDs. Such an approach can account for the core properties of WDs, and it also captures the fact that WDs require the use of contracted forms in German as shown in Chapter 2.

This chapter is structured as follows. The core characteristics of WDs are briefly described in Section 5.1, repeated from Section 2.5 above. Section 5.2 shows that WDs are in fact quantificational DDs, and furthermore addresses (and dismisses) potential arguments against the view that WDs are essentially identical to other covarying DDs. The meaning enrichment that is typically associated with WDs is discussed in detail in Section 5.3, where I propose that it is the value of the relation variable contained in the implicit content of quantificational DDs that roughly corresponds to the meaning enrichment, and that the enrichment is furthermore dependent on the existence of established concepts.

5.1 The Phenomenon

According to Carlson et al. (2006)[1], WDs exhibit a number of characteristics that, taken together, distinguish them from 'regular / strong' definite descriptions:

i. WDs allow sloppy-identity readings in VP-ellipsis constructions.
ii. There appear to be lexical restrictions on the nouns that can be used in WDs and on the prepositions or verbs the WD co-occurs with.
iii. Modification destroys the weak reading.
iv. WDs are truth-conditionally equivalent to indefinites.
v. Also like indefinites, they scopally interact with other quantificational expressions.
vi. WDs involve so-called semantic enrichment.

[1] See also Carlson & Sussman (2005) for related discussion.

We will briefly look at each of these characteristics in turn and will in all cases consider corresponding German examples as well.

Typically, DDs "have a reference that carries over in anaphora ... [while] there is no such requirement of referential identity" (Carlson et al. 2006) for WDs. Consider the contrast between (1) and (2) for illustration.

(1) Mary heard about the riot, and Bob did, too.

(Carlson et al. 2006)

(2) Mary heard about the riot on the radio, and Bob did, too.

(ibid.)

For the truth of the utterance in (1), Mary and Bob must have heard about the same riot, while they may have been listening to different radios in (2). Similarly in German, the definite description contained in the use of an rPP in (3) requires Mary and Bob to have listened to the news on the same radio (presumably, a particular radio that was explicitly mentioned earlier in the discourse)[2], while the sentence with a cPP can be true if Mary and Bob have been listening to two different radios.

(3) Mary hat die Nachrichten im / in dem Radio gehört und Bob auch.
'Mary heard the news on the radio, and Bob did, too.'

Carlson et al. (2006) further argue that weak readings are lexically restricted to certain nouns (i.e. substitution of near-synonyms destroys the weak reading) and can only arise in the presence of particular other lexical items the WD co-occurs with, usually a certain preposition or verb.

(4)
a. He went to the hospital.[3]
b. He went to the building.

(Carlson et al. 2006)

(5)
a. Kenneth is at the store.
b. Kenneth is behind the store.

(ibid.)

[2] The rPP is in principle always possible, but it can never have a weak reading in cases where the corresponding contracted form is available. I will therefore ignore rPPs in the following examples.

[3] Note that there are certain differences between standard American and British English regarding the use of the definite article. For instance, in British English one goes '*to hospital*' or is '*in hospital*'. Unless specified otherwise, I will assume American English usage in the following discussion of WDs.

(6)

a. Sally checked the calendar.
b. Sally tore the calendar.

(ibid.)

(7)

a. Anna ist im Krankenhaus.
,Anna is in the hospital.'
b. Anna ist im Gebäude.
,Anna is in the building.'

(8)

a. Ben ist im Kino.
,Ben went to the cinema.'
b. Ben ist hinterm Kino.
,Ben went behind the cinema.'

(9)

a. Anna geht zur Schule.
,Anna goes to school.'
b. Anna rennt zur Schule.
,Anna runs to (her) school.'

In all of the (a)-cases in (4) – (9), the relevant definite description can have a weak interpretation, while this is not the case in the (b)-cases.

Modification appears to be incompatible with English WDs[4],[5] (as shown in (10) and (11)), and the same seems to be true of German WDs as well (cf. (12) and (13)).

(10) Fred went to the big store.

(Carlson et al. 2006)

(11) They both checked the calendar that was hanging upside down.

(ibid.)

(12) Fred ging #zum großen Supermarkt.
,Fred went to the big supermarket.'

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[4] As noted by Carlson et al. (2006), modification by *affective* expression like '*ol''* or '*doggone*' preserve the weak interpretation. I am not sure about corresponding German examples.

i. I hear Bob is back in the ol' / doggone hospital again.
ii. Bob liegt schon wieder #im verfluchten / dämlichen Krankenhaus.

[5] Aguilar-Guevara & Schulpen (2014) suggest that, contrary to Carlson et al.'s observations, WDs can indeed be modified, namely by adjectives denoting properties of kinds, as illustrated by the examples below.

i.

a. Lola went to the psychiatric hospital, and Alice did too.
b. Lola went to the alternative doctor, and Alice did too.
c. Lola went to the organic store, and Alice did too.

(Aguilar-Guevara & Schulpen 2014: 237)

Their experimental results only show that „[kind level]-adjectives are more acceptable in weak definite constructions than [individual level]-adjectives" (Aguilar-Guevara & Schulpen 2014: 262), but this conclusion is rather weak. Furthermore, the results show that kind-level modification of DDs makes weak readings *less* available than unmodified DDs.

(13) Sie schauten beide #im Kalender, der falsch herum hing, nach, ob sie Zeit hatten.
‚They both checked the calendar that was hanging upside down to see whether they had free time.'

A further characteristic property of WDs is their truth-conditional similarity to indefinites. This means that a speaker can felicitously use a WD without referring to a particular individual. This is particularly obvious in the similarity of VP-ellipsis constructions containing WDs and indefinite descriptions (as in (14), repeated from (2) above, and (15), respectively).

(14) Mary heard about the riot on the radio, and Bob did, too.
(Carlson et al. 2006)

(15) Mary was wearing a hat, and Bob was, too.

In both (14) and (15), it is not necessary that Mary and Bob were listening to the same radio or wearing the same hat, respectively. Note also that the speaker is under no obligation to provide further identifying information for utterances containing either a WD or an indefinite (cf. (16) and (17)).

(16)
a. Charlie: "Anna ging zum Supermarkt."[6]
'Anna went to the supermarket.'
b. Diana: "Which supermarket?"
c. Charlie: "No idea."

(17)
a. Charlie: "Anna ging zu einem Supermarkt."
'Anna went to a supermarket.'
b. Diana: "Which supermarket?"
c. Charlie: "No idea."

(18)
a. Charlie: "Anna ging zu dem Supermarkt."
'Anna went to the supermarket.'
b. Diana: "Which supermarket?"
c. Charlie: #"No idea."

Both in (16) and (17), Charlie's answer is perfectly fine. In (18), in contrast, where the use of the non-contracted form makes it clear that Charlie is referring to a particular (previously mentioned) supermarket, his answer is not felicitous. A further similarity between WDs and indefinites is highlighted by the following passage from Carlson et al. (2006):

[6] In addition to the weak reading we are concentrating on in this section, the cPP here can also have a reading as discussed in Sections 3 and 4, namely one where the intended referent is some supermarket known (independently of the current conversation) to the interlocutors, possibly the one usually frequented by them, the one closest to their current location, the only one in their town, etc. (See also the quote of Carlson et al (2006) in the main text.)

If, for instance, Sam takes his family on a vacation in an entirely unfamiliar place, he can still go out to "the store" to get his family some goodies for the motel room, even when no one party to the conversation has any idea whatsoever what stores, if any, might be around. If he's at home, then there are typical, expected places he will frequent, but even there it is not required that he shop at any one of those places. Any store, even unfamiliar ones in distant and unlikely places, will do.

Importantly, in an utterance like (16)a, the speaker is conveying that Anna went to *some supermarket or other*, which is truth-conditionally identical to an utterance like (17)a.

Indefinite descriptions typically interact with other scope-taking operators, i.e. they can be scoped over (each woman clearly could have bought different hats in (19)) or distributed over (the girls may all want different horses in (20)). WDs exhibit the same pattern, both in English (cf. (21) and (22), respectively) and in German (cf. (23) and (24)), i.e. the mobsters may have been sent to different prisons, and the children could all go to different doctors.

(19) Each woman bought <u>a hat</u> for the party.
(20) The girls want <u>a horse</u>.
(21) Each mobster was sent to <u>the pen</u> for nine to twelve.

(Carlson et al. 2006)

(22) My children need to see <u>the doctor</u>.

(ibid.)

(23) Jeder Verbrecher musste für 9 bis 12 Jahre <u>ins Gefängnis</u>.
,Every criminal was sent to prison for 9 to 12 years.'
(24) Meine Kinder müssen <u>zum Arzt</u>.
,My children need to see the doctor.'

Finally, WDs usually come with *semantic enrichment.* This notion will be discussed in detail in Section 4.3 below, for now let us simply characterize semantic enrichment as "lending the sentences an 'activity' reading" (Carlson et al. 2006) as exemplified in (25).

(25)

a. Going to the store is going to *a* store and more ... (shopping)
b. Being in the hospital is being in *a* hospital and more ... (healing)
c. Looking at the calendar is looking at *a* calendar and more ... (gathering information of the type calendars are designed for)

(Carlson et al. 2006)

We will now turn to a discussion of how the proposal outlined in Chapters 3 and 4 can be applied to WDs as well. The six properties of WDs presented above will all be accounted for throughout the rest of this chapter.

5.2 WDs as Quantificational DDs

Quantificational DDs involve two free variables, one over individuals and one over relations. The former can either be bound or receive its value from the broader context, the value of the latter is supplied contextually. The suitable values for the relation variable are restricted to relations that are plausible, nameable, and informative. As a reminder, consider the example of a quantificational DD in (26), repeated from Chapter 4.

(26) *Context: There is a game being played with competing teams solving math problems, who have to write down their solutions into a solution book, and a different book is assigned to each group.*

a. A: Anna schrieb die Lösung #in das / ins Buch.
   'Anna wrote the solution into the book.'
b. B: Which book?
c. A: #No idea.
d. A: #I don't know – the one she wrote the solution into.
e. A: I don't know – the one that was assigned to her group.

The infelicity of the answers in (26)b and (26)c illustrates that the speaker must be able provide *some* information regarding the intended value of the implicit relation, and that this relation must be informative, i.e. it must convey information that is not already asserted or entailed by the original utterance (here, (26)a). If we try the same for the WD expressed by the cPP '*zum Supermarkt*' ('*to the supermarket*'), we get the following result.[7]

(27)

a. A: Anna ist zum Supermarkt gegangen.
   'Anna went to the supermarket.'
b. B: Which supermarket?
c. A: No idea.
d. A: #I don't know – the one she went to.
e. A: I don't know – I think she actually went to two different ones.

Note that, first of all, the uninformative answer in (27)d is not felicitous in the case of a WD. Strikingly, however, the answer in (27)c is perfectly fine. If we apply similar reasoning as we did in the case of (26), namely that the infelicity of (26)c indicates that there must be *some* underlying relation, then we would have to conclude that WDs do *not* require the existence of an implicit relation. (We will see presently, however, that this conclusion would be wrong.) Complicating things further, the felicitous answer in (27)e shows that more than one supermarket may be involved without rendering the original utterance in (27)a infelicitous.

[7] Note that the cPP here is ambiguous between the weak reading we are after in this chapter and other readings as discussed in Chapters 3 and 4 (for instance, as ‚the unique (local) supermarket' or as ‚the supermarket Anna always shops at'). We will concentrate only on the weak reading in the following.

We will return to the apparent violation of the uniqueness requirement that is built into the presuppositional content of quantificational DDs below, but let us first concentrate on the contribution of the implicit relation variable to the interpretation of WDs. I propose that WDs involve relations of the following general form: *R(x,y) = y is a potential {work place, means of transportation, source of information, ...} for x*. For illustration, consider the following examples.

(28) Ein Freund von mir arbeitet im Krankenhaus.
'A friend of mine works in a hospital.'

(29) Anna hat im Radio von dem Aufstand gehört.
'Anna heard about the riot on the radio.'

(30) Anna liest gerade die Zeitung.
'Anna is reading the newspaper.'

a. [x, y, v: Anna(x), newspaper(y), read(x, y), source-of-information-for(y,v), [: [z: source-of-information-for(z,v), newspaper(z)]→ [: z = y]]]

b. [x, y: Anna(x), newspaper(y), read(x, y), source-of-information-for(y,x), [: [z: source-of-information-for(z,x), newspaper(z)]→ [: z = y]]]

(31) Anna war gestern im Supermarkt.
'Yesterday, Anna went to the supermarket.'

a. [x, y, v: Anna(x), store(y), read(x, y), service-destination-to-buy-groceries-for (y,v), [: [z: service-destination-to-buy-groceries-for(z,v), store(z)]→ [: z = y]]]

b. [x, y: Anna(x), newspaper(y), read(x, y), service-destination-to-buy-groceries-for(y,x), [: [z: service-destination-to-buy-groceries-for(z,x), store(z)]→ [: z = y]]]

The source-of-information relation and the service-destination relation play a crucial role in the interpretation of the examples in (30) and (31), and the utterances in (28) and (29) are interpreted analogously (with a work-place relation and a source-of-information relation, respectively). Note also that the relations in (30) and (31) fulfil the three properties introduced in Chapter 4, plausibility, nameability, and informativity. The relations are plausible in the sense that general world knowledge tells us that newspapers are likely sources of information or that supermarkets are places where you can buy groceries. The nameability criterion is easily fulfilled, as can be seen by possible descriptions of the relations as '*a source of information for someone*' or '*a place where one can buy groceries,*' respectively. And finally, informativity also holds in the sense that, for instance, the relation in (30) conveys the information that not only is Anna reading some newspaper, but the newspaper she is reading serves as a source of information for her, i.e. that she is reading the newspaper *in order to* get informed about events in the world. Similarly in (31), the fact that Anna went to the supermarket (in order) to buy groceries is more informative than just the fact that she went to some supermarket. Turning back to the observation in (27)c above, I propose that the felicity of the answer does not in fact allow us to conclude that no relation is involved in the interpretation of WDs, but rather that the identity of the referent is irrelevant for the current conversational purposes. We will see below that WDs are standardly part of a description of a typical / conventional / habitual activity, and that the concrete identity of the newspaper(s), supermarket(s), etc. involved is not relevant for the communicative pur-

pose at hand.[8] If the speaker had wished to talk about some particular newspaper or supermarket, s/he should have used a different form of expression instead: In the cases of (28) – (31) above, the speaker could have, for instance, used an rPP instead of a cPP; in English, DDs are always ambiguous between a referential and a quantificational reading (including WDs), but the speaker could, for instance, have used an indefinite description like '*this newspaper / supermarket*' in order to make absolutely clear that s/he is talking about some specific newspaper or supermarket (cf. Ionin 2006). The example in (27) thus does not contradict the claim that WDs do indeed function just like other quantificational DDs and we need to determine the value of their implicit relation variable for successful interpretation.[9]

Generally, the value for *R* is determined by conceptual constraints underlying the general availability of a weak reading of a particular DD. We will return to conceptual constraints again below, but I want to suggest that the following categories illustrate ingredients for typical potential relations involved in the interpretation of WDs.

(32)

a. Mass transportation: e.g. bus, train, subway (but not airplane)
b. Mass communication: e.g. radio, newspaper, news, calendar, phone (but not book)
c. Service destination: e.g. hospital, doctor, movies, store, bank, bathroom (but not stadium)
d. Body and building parts: e.g. knee, eye, window, stairs, wall (but not bone)

(adapted from Klein et al. 2013: 189)[10]

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[8] This is nicely illustrated in the following quote about the easily available weak reading of ‚*the phone*' as opposed to the DD ‚*the book*' which cannot typically receive a weak interpretation: „For instance, the mass communication nouns that can support weak definite interpretations [cf. discussion below in the text] are objects that are used to facilitate the flow of current information. *Talking on the phone* has much more to do with having a conversation than using a particular piece of equipment, and phones themselves are relatively interchangeable as long as the parties on each end on the line are the same. By contrast, a book is reliant on the fixed content that has been published. Picking up either *Infinite Jest* or *Middlemarch* may both involve *reading*, but the experience will be quite different." (Klein et al. 2013: 189)

[9] The value of the free individual variable *x* will typically be resolved to, or bound by, the subject of the sentence the WD occurs in. Unfortunately, I have no explanation at this point for why WDs should *not* allow their individual variable to receive a contextually supplied value. In the following discussion, we will focus on suitable values of the relation variable only.

[10] A further category of Klein et al.'s is ‚Chore / routine / hobby: e.g. dog, piano, dishes, trash, lawn (but not exercise).' I have not listed them in the text, because this group rather seems to belong to the quantificational DDs discussed in Chapters 3 and 4, in the sense that dogs are typically dogs owned by someone, that pianos are typically owned / played by someone, that trash typically is produced by someone / a household. These seem to be relations that are different from those involved in WDs, where usually the relation between the referent of the DD and another referent is ‚looser.' For instance, it does not really seem to matter which supermarket I went to when I say ‚*I went to the supermarket,*' while for an utterance of ‚*I forgot to feed the dog*' the identity of the dog in question is typically fixed. Note, however, that this difference of classifying a particular DD as weak or as a 'normal' quantificational DD is not a problem for my proposal. Rather, these examples emphasize that the line between weak and 'other' DDs is not clear-cut.

Klein et al. (2013) assume that the availability of weak readings is determined by the lexical content of the nouns in question, and they use the categories in (32) to illustrate that the nouns that can be used as WDs fall almost exclusively into one of these categories. On the account proposed in this dissertation, the lexical meaning of the nouns does not determine whether or not a particular noun can be interpreted as a WD or not. Rather, world knowledge and inferences are involved in determining suitable values for the implicit content of quantificational DDs (see also Chapter 4 for discussion), and thus it is clearly not only lexical information that fixes the interpretation of a given quantificational DD, but more general conceptual constraints. Nonetheless, the categories in (32) can help restrict possible values for the implicit relation variable of WDs.[11] For instance, the examples in (30) and (31) make use of relations involving mass communication (cf. (32)b) and a service destination (cf. (32)c). It should be noted, however, that the list in (32) is not exhaustive, as illustrated, for instance by the example in (28), where a relation like 'x is a potential work place for *y*' is plausibly involved.

Regarding the three properties of relations introduced in Chapter 4, the conceptual constraints are subsumed under the plausibility requirement, i.e. the conceptually restricted values for the relation variable are plausible. Note also that pair-listings, i.e. extensionally defined relations, are not possible values for the implicit relation variable, despite the following example.

(33) Every accident victim was taken to <u>the hospital</u>.
(John to Mercy Hospital, Bill to Pennsylvania Hospital, and Sue to HUP.)
(Schwarz 2014: 214)

The example in (33) is intended to illustrate that WDs can have covarying interpretations under quantification (here, the hospitals vary with the accident victims). While the continuation in the round brackets is acceptable, it cannot serve as the *value* of the underlying relation. The relation in (33) can be paraphrased as 'service destination *y* where injured people *x* are treated,' and this relation must remain stable under quantification, i.e. all the hospitals and the victims involved must be related via the service-destination relation just mentioned. The continuation in (33) can then be interpreted as telling us that John was taken to Mercy Hospital *for treatment*, Bill was taken to Pennsylvania Hospital *for treatment*, and Sue was taken to HUP *for treatment*. We cannot get an interpretation where the relations between John, Bill, Sue and 'their' respective hospitals vary: (33) cannot mean something like '*John was taken to Mercy Hospital for treatment, Bill was taken to Pennsylvania Hospital because he works there as a doctor, and Sue was taken to HUP because she works there as a nurse'.* So, despite appearances in (33), the value of the implicit relation variable is intensional, i.e. nameable. Note also, that the relation is informative in the sense that it tells us that the accident victims were taken to the hospital *for treatment*. The very same considerations also apply in the case of (34) below.

[11] Klein et al. carefully acknowledge that "weak definites may share common conceptual features that contribute to their exceptional interpretations" (Klein et al. 2013: 189). I want to emphasize that it is these conceptual constraints / features that are *crucial* for the interpretation of WDs, not the lexical content of the nouns.

(34) Bill is in the hospital, and John is, too.
(Bill is at Mercy and John is at HUP.)

(Schwarz 2014: 214)

The examples in (33) and (34) further show that the account of WDs argued for in this chapter successfully explains two of the properties of WDs introduced in Section 5.1, namely that WDs allow sloppy readings in VP ellipsis constructions and that they scopally interact with other quantificational expressions.

Now that we have shown that WDs do indeed make use of implicit relations, and that these relations share essentially the same properties as those discussed in Chapter 4, let us return to the example in (35), repeated from (27) above.

(35)

a. A: Anna ist zum Supermarkt gegangen.
'Anna went to the supermarket.'
b. B: Which supermarket?
c. A: No idea.
d. A: #I don't know – the one she went to.
e. A: I don't know – I think she actually went to two different ones.

As noted above, the felicitous answer in (35)e indicates that Anna may have gone to more than one supermarket without making the original utterance in (35)a inappropriate. When considering WDs, the uniqueness requirement that is built into the presuppositional content of quantificational DDs in our account does present an intriguing puzzle. On the one hand, we have examples like the one in (36), repeated from Chapter 3, clearly indicating that uniqueness is at play.

(36) John hat ein altes Haus auf dem Land. Letzten Sommer hat er den SCHUPPEN renoviert.
'John has an old cottage. Last summer he reconstructed the SHED.'

The utterance in (36) is felicitous only in case there is just one shed that belongs to John's cottage; continuing with something like '*And then he repainted the other shed*' or '*In fact, there are two sheds that belong to John's cottage*' is not acceptable. On the other hand, the uniqueness of a particular referent does not seem to be required in any of the examples below.

(37) Anna war gestern den ganzen Tag beim Arzt. Erst beim Augenarzt, dann beim HNO, und danach auch noch beim Hautarzt.
‚Anna was at the doctor's all day. First she went to the eye doctor, then to the ENT doctor, and she also went to the dermatologist.'

(38) Anna lang lange im Krankenhaus. Sie musste sogar mehrmals verlegt werden, weil ihre Verletzungen so schwerwiegend waren.
‚Anna spent a long time in the hospital. She even had to be moved to different hospitals several times, because her injuries were so extensive.'

(39) Anna war gestern im Supermarkt. Sie war sogar in zwei verschiedenen, weil in dem ersten die Milch ausverkauft war.
‚Yesterday, Anna went to the supermarket. She actually had to go to two different ones, because the milk was sold out at the first supermarket she had been to.'

(40) Jacqueline took the train from Paris to Moscow.
  a. ... it was clean and ran right on time.
  b. ... they were all clean and ran right on time.

(Carlson et al. 2006)

The WDs in (37), (38), and (39) are all felicitous, even though more than one doctor, more than one hospital, and more than one supermarket are involved, respectively. Carlson et al.'s classic example in (40) makes a similar point: The DD '*the train*', when used as a WD, does not necessarily require the existence of a unique train, as the continuations in (40)a and particularly (40)b show. Carlson et al. use this example to argue against an analysis of WDs in terms of "bridging from events, e.g. if Jill checked the calendar, then there was some one unique calendar she checked in that event, regardless of how many other calendars might have been around at the time." (Carlson et al. 2006) The example in (40) shows, however, that in the event described, i.e. Jacqueline's train-ride from Paris to Moscow, more than one train may be involved. A DRT-representation of a simplified version of the first sentence in (40) is given in (41).

(41) Jacqueline took the train.
  a. [x, y, v: Jacqueline(x), train(y), take(x, y), means-of-transportation-for(y,v), [: [z: means-of-transportation-for(z,v), train(z)]→ [: z = y]]]
  b. [x, y: Jacqueline(x), train(y), take(x, y), means-of-transportation-for(y,x), [: [z: means-of-transportation-for(z,x), train(z)]→ [: z = y]]]

The problem raised by Carlson et al. then is that our representation requires that there be a unique object that is both a means of transportation for Anna *and* a train, i.e. that there be a unique train that serves as a means of transportation for Anna. First of all, I want to point out again that for the conversational purpose, the identity (or uniqueness) of a particular train is not relevant, i.e. by using a WD the speaker indicates that the identity of the referent is irrelevant for his / her current conversational purposes. (Conversely, if a hearer interprets a particular DD as a WD, s/he assumes that the identity and uniqueness of the intended referent are irrelevant for current purposes.) While this observation provides *some* explanation for the felicity of the continuation in (40)b above, we are sill left with the open problem of why such multiple referents do not seem problematic in the case of WDs, but make other uses of quantificational DDs infelicitous (cf. (36) above). I suggest that an interpretation that involves more than one referent in fact involves implicit quantification over times. The temporal dimension is made explicit in (37) and (38), thus providing us with a straightforward way of capturing the fact that, at different times, different doctors or hospitals are unique in being both doctors and hospitals *and* in being *R*-related to Anna. Something similar seems to be going on in cases like (40) as well, i.e. at any given point in time, there is exactly one train that Jacqueline is using for transportation. Furthermore, we can explain why the quantificational DD '*the book*' in (42) is *not* felicitous in case the relation assigns more than one book to Anna.

(42) Anna is reading the book.

a. [x, y, v: Anna(x), book(y), read(x, y), was-assigned-to(y,v), [: [z: was-assigned-to(z,v), book(z)]→ [: z = y]]]

b. [x, y: Anna(x), book(y), read(x, y), was-assigned-to(y,x), [: [z: was-assigned-to(z,x), book(z)]→ [: z = y]]]

At any given point in time, there will not be a unique object that is both a book and *R*-related to Anna, i.e. assigned to her, thus making the use of the DD in (42) infelicitous. The 'lack of uniqueness' is different in (40) and (42) if we take quantification over times into account.

As discussed in Chapter 4, positing implicit material does not itself provide an explanation of *how* the hearer eventually arrives at the intended interpretation. While I fully acknowledge that the assumption of implicit quantification over times is not the full story, it should be noted that such an assumption is by no means exceptional. In order to account for generic interpretations or for conditionals, for instance, implicit generic operators similar to adverbs of quantification like '*usually, generally, often*' or implicit quantification over possible worlds / situations are standardly invoked (cf., for instance, Krifka et al. (1995) and Kratzer (2014), respectively). Implicit quantification over times (or situations) is thus independently needed for natural language interpretation and is not particular to the interpretation of WDs. In this respect, the proposal just sketched is more promising than the one put forth by Corblin (2013), which is similar in spirit, but quite different in the execution.[12] In his discussion of the sentence in (43), Corblin suggests the representation in (43)a.

(43) Pierre est à l'hôpital.
'Pierre is at the hospital.'

a. ∃t ∃x. is-at(p, x, t) ∧ hospital (x) ∧ used-for-taking-care-of-as-injured-or-ill(x, p, t)

According to Corblin (2013: 112), "the *R*-relation comes with a free variable over times which is bound by the quantifier out-scoping the main predicate (*to be at*), which gives [(43)a]." Corblin suggests that the same mechanism is at play in the train-example in (40). Requiring the relation to 'come with' a time variable, however, seems stipulated and, when taking into account other instances of implicit quantification over times (or situations), unnecessary. The solution outlined above therefore appears to be more promising.

As further pointed out by Carlson et al. in their dismissal of the 'bridging from events' idea, the idea that a WD can be used whenever a unique object is involved in a described event is mistaken, as illustrated by the example in (44).

[12] We will return to Corblin's proposal at various points in this chapter. Briefly, Corblin analyses WDs as essentially relational DDs, i.e. as involving an implicit relation variable and an implicit individual variable, which is quite similar to the theory proposed in this dissertation. Crucially, however, Corblin's proposal differs significantly from the present one on several counts. We will return to these below.

(44)

a. John painted the desk, and Bill did too.
b. Each of the workers painted the desk.

(Carlson et al. 2006)

According to Carlson et al., the DD '*the desk*' cannot get a covarying interpretation in either (44)a or (44)b, thus indicating that a weak reading is not available.[13] This observation does not stand in opposition to our analysis. Whether or not a particular DD can be interpreted as a quantificational DD (exhibiting, for instance, covarying readings under quantification) depends on whether or not a suitable value can be determined for the implicit content of the DD, and does not depend on the assumption that a unique object be involved in a given event. If there is no plausible, nameable, and informative relation that the speaker could reasonably expect the hearer to find, then a quantificational interpretation will not be possible. That is why the sentences in (44) would be unacceptable if uttered out of the blue, i.e. if the hearer cannot fall back, as it were, onto a, say, anaphoric (or otherwise plausible) interpretation of the DD '*the desk.*'

Potential Criticism of a Covariation-Based Account of WDs

In this section I have argued that WDs are to be analysed as quantificational DDs in the theory put forth in this dissertation. This means that WDs are treated like other cases of DDs with covarying interpretations. In the literature on WDs, both Aguilar-Guevara (2014) and Schwarz (2014) explicitly argue against an identification of WDs and covarying DDs. Let us briefly take a look at their arguments, and at why these arguments do not in fact apply to the proposal made in this chapter.

In order to illustrate the alleged difference between WDs and 'true' covarying DDs, Aguilar-Guevara (2014) uses the examples in (45), instances of WDs, and the one in (46)a, an instance of 'true' covariation (she attributes this examples to Winter 2000).

(45)

a. Every boxer was sent to <u>the hospital</u>.
b. Victor takes <u>the bus</u> every day.

(Aguilar-Guevara 2014: 17)

(46)

a. At a shooting range, each soldier was assigned a different target and had to shoot at it. At the end of the shooting we discovered that every soldier hit <u>the target</u>.

(ibid.)

[13] Note that sloppy readings in VP ellipsis constructions and covariation under quantification are frequently used as *tests* for whether or not a given DD has a weak reading. As should have become obvious throughout this dissertation, it is not the case that all DDs that receive sloppy or covarying readings are WDs.

b. Am Schießstand wurde jedem Soldaten ein Ziel zugeordnet, auf das er schießen sollte. Am Ende des Trainings stellten wir fest, dass tatsächlich jeder Soldat ins / #in das Ziel getroffen hatte.

Aguilar-Guevara's first argument goes as follows: An utterance of (45)a can be true in a scenario where two out of three boxers were sent to the same hospital, while the third boxer was sent to a different one. (46)a, in contrast, would not be an appropriate utterance if two out of three soldiers had been hitting the same target. This is not a very convincing argument, however. The first sentence in (46)a explicitly associates every soldier with a different target, and the scenario envisioned by Aguilar-Guevara clearly violates this condition. It seems that simply substituting '*a different target*' with '*a target*' in the first sentence in (46)a would immediately make the use of the DD felicitous, also in case that two soldiers have been hitting the same target. Note also that this holds in the other direction as well. If we embed (45)a under something like '*At a boxing event, every boxer was assigned a different hospital to go to for post-fight medical examinations,*' the utterance would be considered inappropriate if two boxers had been sent to the same hospital. The perceived difference between (45)a and (46)a is thus not due to a fundamental difference between WDs and covarying DDs, but is a result of contextual restrictions regarding whether or not a DD is felicitous if the implicit relation maps more than one object in its domain onto the same object in its range.

The second of Aguilar-Guevara's arguments against a covariation-based account of WDs is that DDs like the one in (46)a "need to be enunciated in a correspondence context allowing the covariation interpretation. That is why, *Every soldier hit the target*, in contrast with *Victor takes the bus every day*, can only trigger the specific [i.e. referential] reading of the definite if it is said out of the blue" (Aguilar-Guevara 2014: 17). In other words, for the felicitous use of a covarying DD the intended relation needs to be made explicit according to Aguilar-Guevara, while this does not seem to be required for felicitous uses of WDs. As argued in Chapters 3 and 4, however, the intended relation need not always be made explicit, but can also be provided by world knowledge, as for instance in the following example.

(47) An jedem Bahnhof, in den unser Zug einfuhr, wurde mir ein Brief vom / #von dem Bürgermeister überreicht.
'At every train station that our train entered a letter from the mayor was handed to me.'

(Schwarz 2009: 138)

A relation between mayors and the towns that they are the mayor of is not made explicit, nonetheless the cPP '*vom Bürgermeister*' ('*from the mayor*') receives a covarying interpretation. General world knowledge about train stations being in towns (and not in the middle of nowhere) and about towns having mayors makes an interpretation of the cPP as '*the mayor of the respective town that the train entered*' possible. Furthermore, given the conceptual constraints on the implicit relations of WDs that we discussed so far (and also the discussion to come in the next section), it is *not* in fact the case that WDs can be uttered *completely* out of the blue: The interlocutors need to be aware of certain plausible / typical / frequently used relations that can be associated with the DD in question in order to interpret this DD as a WD. The kind of background knowledge that is needed for the interpretation of WDs is thus closely related to the knowledge that

allows us to interpret 'unique' DDs successfully, where the underlying relation is plausibly / typically / frequently associated with DDs like '*the moon,*' '*the pope,*' or, for that matter, '*the train station*' (on the reading '*the train station of, e.g., the speaker's current location*').

To conclude, neither of the two arguments put forth by Aguilar-Guevara against analysing WDs analogously to other cases of covarying DDs directly applies to the proposal made in this dissertation, and they thus do not provide conclusive counterevidence.

An argument similar to the second one of Aguilar-Guevara's is also brought forth by Schwarz (2014), namely that covarying DDs differ from WDs in that the former require contextual support, whereas the latter do not (cf. (48) and (49), respectively).

(48) Every race-car driver tightly gripped <u>the steering wheel</u>.

(Schwarz 2014: 216)

(49) Every hospital victim was taken to <u>the hospital</u>.

(Schwarz 2014: 217)

In our short discussion of Aguilar-Guevara's criticism, however, we concluded that, first of all, WDs also require contextual support, possibly involving discourse-independent knowledge, and that, secondly, not all instances of covarying DDs need explicit mention of a suitable relation. Schwarz further argues that covarying DDs "come with the sense of a clear relation between the individuals in the quantificational domain and the values of the definite (e.g. each race-car driver gripped the steering wheel of his car), in contrast to Weak Definites. If the accident victims are taken to different hospitals, there's no strong sense in which the respective hospitals are 'their' hospitals." (Schwarz 2014: 218) As argued above in the discussion of the examples in (33) and (34) (repeated in (50) and (51)), however, there *is* a relation that is crucial for successful interpretation, namely that of receiving treatment at the hospital the patients were taken to. In this sense, if John receives medical treatment at Mercy Hospital, it is 'his' hospital, if Bill is treated at Pennsylvania Hospital, it is 'his' hospital, and the same holds for Sue and HUP.

(50) Every accident victim was taken to <u>the hospital</u>.
(John to Mercy Hospital, Bill to Pennsylvania Hospital, and Sue to HUP.)

(Schwarz 2014: 214)

(51) Bill is in <u>the hospital</u>, and John is, too.
(Bill is at Mercy and John is at HUP.)

(ibid.)

A further potential problem that is raised by Schwarz, and exemplified by (52) below, is the one we encountered above in our discussion of Carlson et al.'s (2006) train-example in (40) (see also (37), (38), and (39)), namely that WDs seem to violate the uniqueness requirement.

(52) Every accident victim ended up in the hospital for weeks. In fact, most of them ended up having to be treated in several different hospitals because of complications with their various injuries.

(Schwarz 2014: 218)

This apparent problem can be overcome, however, if we take quantification over times into account, thereby in fact requiring it to be the case that at any given point in time (in the interval quantified over, here, made explicit by the expression '*for weeks*') there is a unique hospital that is *R*-related to each accident victim (here, that there is a unique hospital the victims are being treated at at a given point in time).

Finally, Schwarz suggests that a covariation-based account of WDs is inadequate, because it cannot account for other properties of WDs, namely the meaning enrichment that comes with WDs, their apparent restriction to certain nouns and to co-occurrence with certain prepositions or verbs, and the incompatibility of WDs with modification.[14] In the next section, we will take a closer look at the meaning enrichment of WDs and we will see that we can account for the three properties that Schwarz listed as being problematic for a covariation-account of WDs.

Summing up, neither the arguments from Aguilar-Guevara (2014) nor those from Schwarz (2014) apply to the analysis of WDs proposed in this chapter. Crucially, WDs are *not* different in nature from other uses of quantificational DDs.

5.3 The Meaning Enrichment of WDs

5.3.1 The Nature of the Meaning Enrichment of WDs

One of the core characteristics of WDs is that "[t]here is typically a certain amount of 'semantic enrichment' associated with weak readings" (Carlson et al 2006). They illustrate this with the following examples, repeated from Section 5.1.

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[14] Schwarz further points out that viewing WDs as instances of covarying DDs cannot explain why WDs cannot be picked up by pronouns in subsequent discourse, as illustrated by the following example where the DD ‚*the hospital*' cannot have a weak reading if followed by a pronoun that is anaphoric to the DD.

i. Every accident victim was taken to the hospital and discovered that it had a beautiful roof-top garden.

(Schwarz 2014: 219)

We might explain this observation by alluding to the conversational purposes of the speaker when using a WD, namely that s/he does *not* consider the identity of the referent to be relevant to the on-going discourse. Using a pronoun to ‚refer back' to the referent of the WD would then be considered contradictory, and hence the hearer might adjust his / her interpretation of the DD accordingly, i.e. will *not* interpret the DD as a WD. This is quite stipulative at this point and clearly warrants further investigation. It should be noted, however, that the discourse properties of WDs are not entirely clear. We will briefly return to this issue in Section 5.4.

(53)

a. Going to the store is going to *a* store and more ... (shopping)
b. Being in the hospital is being in *a* hospital and more ... (healing)
c. Looking at the calendar is looking at *a* calendar and more ... (gathering information of the type calendars are designed for)

(Carlson et al. 2006)

The term 'semantic enrichment' suggests that this enrichment is part of the at-issue component of the meaning of WDs. It should be noted, however, that Carlson & Sussman (2005: 8) are sceptical whether "indeed this is a part of the semantics and not just a (strong) implicature." Klein et al. (2013: 190) characterize the meaning enrichment of WDs as follows:

> The term *semantic enrichment* [or *enriched interpretation*] as we use it is inspired by Levinson's (2000) use of the term 'pragmatic enrichment' to describe similar phenomena. ... we do not wish to imply that semantic enrichment creates 'extra,' more complex meanings of weak definites that arise from online computations associated with a semantic or pragmatic process. Rather, a semantically enriched interpretation can be viewed as a *construction* property, in the sense of Goldberg (1995), and for our purposes, helps characterize differences between the conventional meanings of the weak vs. regular definites.[15]

A different view of the nature of the meaning enrichment of WDs is suggested by Aguilar-Guevara (2014), who concludes that the enrichment is both an entailment and a conversational implicature. We will not go into the details of the tests for different types of contents (see Aguilar-Guevara 2014, Ch. 6 for further discussion), but consider the following examples that are intended to illustrate that the enriched meaning (EM) of WDs is detachable, reinforceable, non-defeasible, and part of the at-issue content, respectively (Aguilar-Guevara 2014: 152ff.)

(54)

a. I went to <u>the hospital</u>.
   EM = I went to get some medical services.
b. I went to #<u>the health center / #the clinic / #the sanatorium.</u>
   EM does not necessarily arise.

(55)

a. I went to <u>the store</u> to do some shopping.
b. Jason went to <u>the hospital</u> to get some medical services.

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[15] Klein et al. claim that the enrichment of WDs is a construction property. According to Goldberg (2003: 219), „[a]ny linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist." While the proposal advocated in this chapter makes heavy use of extra-linguistic information available to the speech act participants, I do not want to go as far as embracing the view that some properties of WDs are best captured as construction properties. As noted above, WDs are instances of quantificational DDs, i.e. all such DDs require the interpretation of contextually determined implicit content. So, unless one wishes to suggest that all quantificational DDs are constructions, i.e. stored pairings of form and function, there is no need to analyse WDs as constructions either.

(56)

a. #Lola went to the store but maybe she didn't go to do shopping but to attend a demonstration against violence. (Suspension)
b. #Lola went to the store but not to do some shopping but to attend a demonstration against violence. (Cancelation)

(57) A: Lola went to the store.
B: That's not true. She walked to the Wal-Mart around the corner but only to pick up a friend.

The contrast between (54)a and (54)b (where the hash mark indicates that the DD cannot receive a weak interpretation), is interpreted by Aguilar-Guevara as indicating that the meaning enrichment is detachable, i.e. that it is tied to certain lexical items. The felicity of the examples in (55), where the intended enrichment '*to do some shopping*' and '*to get medical advice*' is made explicit, show that the enrichment is reinforceable. The observation that the meaning enrichment is not defeasible is supported by the examples in (56), where the hash mark indicates that the DD cannot receive a weak interpretation. The example in (57) is intended to show that the enrichment is part of the at-issue content of the DD in question. While I do not take issue with the observations that the meaning enrichment is reinforceable and non-defeasible, Aguilar-Guevara's conclusions regarding the detachability and the at-issue status of the enrichment are not convincing. The example in (54)b shows that we cannot determine a plausible value for the relation variable without additional contextual information, but this does not tell us anything that is particular to WDs or to their meaning enrichment. Turning to (57), the reactions in (58) appear to be more felicitous than the one in Aguilar-Guevara's original example.

(58) Lola went to the store.

a. That's not true. She went someplace else. / She went to visit a friend.
b. Hey, wait a minute! I had no idea that she went shopping.

If the utterances in (58)a and (58)b are indeed acceptable, then we can conclude that the enrichment is in fact not part of the at-issue content (cf. (58)a), and that it is presupposed (cf. (58)b).

Instead of following either Klein et al. or Aguilar-Guevara, the characterization of meaning enrichment suggested by Corblin (2013) seems more adequate. According to Corblin (2013: 98), the meaning enrichment of a WD is viewed "as a specification in context of the underlying *R*-relation and as a contextual selection of the relevant argument(s) of the relation [corresponding to the free individual variable on my proposal]." We will not embrace Corblin's approach to WDs in general, but his conception of their meaning enrichment is promising, and I suggest that it is in fact the value of the implicit relation variable that roughly corresponds to the meaning enrichment associated with WDs. For instance, as noted in connection with the examples in (50) and (51), the implicit relation allows us to interpret the utterances as in (59) and (60), respectively.

(59) Every accident victim was taken to the hospital *for treatment*.
(60) Bill is in the hospital *for treatment*, and John is, too.

For the characteristic sloppy reading in VP ellipsis constructions, the interpretation crucially depends on the value assigned to the relation variable. Consider also the following examples for illustration.

(61)

a. Anna muss nachher noch zum Supermarkt und Ben muss auch noch einkaufen.
,Anna has to go to the supermarket later today, and Ben has to go grocery shopping, too.'

b. #Anna muss nachher noch zum Supermarkt und Ben muss auch noch sein Auto putzen.
,Anna has to go to the supermarket later today, and Ben has to clean his car, too.'

(62)

a. Anna liegt im Krankenhaus und Ben ist auch schwer verletzt.
,Anna is in the hospital, and Ben is severely injured, too.'

b. #Anna liegt im Krankenhaus und Ben macht auch gerade ein Nickerchen.
'Anna is lying in the hospital, and Ben is taking a nap, too.'

The particle '*auch*' ('*too*') triggers the presupposition that someone other than Ben performed the same action. Assuming that the enrichment that comes with the WDs contained in '*zum Supermarkt*' ('*to the supermarket*') and '*im Krankenhaus*' ('*in the hospital*') roughly corresponds to '*to buy groceries*' and '*to be treated for injuries,*' respectively, we can straightforwardly account for the contrasts in (61) and (62). In the two felicitous utterances in (61)a and (62)a, the action performed by Ben is the same as that performed by Anna if we take the meaning enrichment into account. In (61)b and (62)b, in contrast, the fact that Ben has to wash his car or that he is taking a nap does not match with the enrichment associated with '*zum Supermarkt*' ('*to the supermarket*') and '*im Krankenhaus*' ('*at the hospital*'), thus resulting in an infelicitous use of '*auch*' ('*too*').

A comment about the relation between the meaning enrichment of WDs and their implicit relation is in order. We said earlier that the relation implicit in an utterance of (64), repeated from (31) above, can be paraphrased as '*x is a service destination to buy groceries for y*' (cf. (64)a).

(63) Anna liest gerade die Zeitung.
'Anna is reading the newspaper.'

a. [x, y: Anna(x), newspaper(y), read(x, y), source-of-information-for(y,x), [: [z: source-of-information-for(z,x), newspaper(z)]→ [: z = y]]]

(64) Anna war gestern im Supermarkt.
'Yesterday, Anna went to the supermarket.'

a. [x, y: Anna(x), newspaper(y), read(x, y), service-destination-to-buy-groceries-for(y,x), [: [z: service-destination-to-buy-groceries-for(z,x), store(z)]→ [: z = y]]]

How do we then get from this relation to the enrichment '*(in order) to buy groceries*'? Following general pragmatic principles, the hearer might reason as follows: The speaker is being cooperative, s/he is apparently assuming an underlying relation between Anna

and supermarkets, supermarkets are service destinations to buy groceries, and hence the speaker is most likely intending to inform us that Anna in fact went to some supermarket *in order to* use it for its intended purpose. Similar considerations also apply to the example in (63), repeated from (30): Knowing that '*source of information for someone*' is a plausible value for the implicit relation of the DD '*die Zeitung*' ('*the newspaper*') makes the inferential step to a meaning enrichment in the form of '*Anna is reading the newspaper in order to get informed*' very likely.

Meaning enrichment is often related to the purpose or function of the object described by the DD in question. While on the current proposal this can be accounted for by general principles governing the interpretation of linguistic utterances, the proposals by Corblin (2013) and Aguilar-Guevara (2014) both account for this observation by relying on the telic qualia (roughly speaking, the purpose of a given object) of the nouns that are used as WDs. Following Pustejovsky (1995), lexical entries consist of different levels of representations corresponding, roughly, to different aspect of the meaning of a word. Important for our purposes is the Qualia Structure of lexical entries, which specifies prototypical features of, and relations between, objects and events that are associated with a given word. The *telic* qualia, one of four different types of qualia,[16] contains information about the purpose or function of the object described by the word in question. According to Corblin (2013: 110), the value of the implicit relation of a WD is determined by the telic qualia of the lexical entry of the head noun of the WD. Aguilar-Guevara (2014: 119f) suggests that the telic qualia of a given noun determine whether or not that noun can have a weak reading. She tentatively suggests that nouns that can be used as WDs have a specification in their lexical entries indicating that the telic qualia of that noun constitute a stereotype or a stereotyped activity. The meaning enrichment of WDs, in turn, is identified with the stereotypical activities that are associated with a particular noun.[17] Basing the meaning enrichment of WDs on the telic qualia of the nouns used in the description of the DD in question, whether in line with Corblin or with Aguilar-Guevara, is problematic in (at least) two respects. First, it is not clear that there really are *lexical* restrictions on WDs, i.e. that the lexical content of a noun determines whether or not this noun can receive a weak interpretation. On the account proposed in this chapter, it is not lexical, but conceptual constraints that make a weak reading (un-) available: A given DD can have a weak reading *if* a suitable value for the implicit relation variable is available. Clearly, some nouns are frequently associated with such relations and can therefore easily be used as WDs, but this does not mean that it is lexically encoded that these nouns (and only those) occur in WDs. For illustration, consider the example in (65).

(65) *Context: The subway entrances and the back entrances of supermarkets in Anna's city all have ventilation vents with hot air coming out of them 24 hours a day. Anna is homeless, and in cold nights, she and her friends meet at a subway entrance or behind a supermarket and spend the night there near the vents. The city officials don't like it when homeless people sleep in subway entrances or behind supermar-*

[16] The other three qualia types are formal, constitutive, and agentive qualia encoding, roughly, the attributes of the object, the internal constituency of the object, and the factors causing the object to exist, respectively.

[17] More specifically, the enrichment corresponds to the stereotypical activity associated with the kind that is denoted by the noun. The details of her kind-based account of WDs, however, are not important for our current discussion.

kets and they often call the police. That is why Anna (and her friends) chose different entrances or supermarkets on cold nights. On warm nights, they sleep somwhere else. Asking about Anna, we are told …

a. Heute ist es ziemlich kalt, also wird Anna wohl im U-Bahn-Eingang oder hinterm Supermarkt sein (um dort die Nacht zu verbringen).
'It's pretty cold out, Anna will probably be in a subway entrance or behind a supermarket (in order to spend the night).'

b. Heute ist es ziemlich kalt, also wird Anna (heute) wohl im U-Bahn-Eingang oder hinterm Supermarkt schlafen.
'It's pretty cold out, Anna will probably be sleeping in a subway entrance or behind a supermarket (tonight).'

The cPPs '*im U-Bahn-Eingang*' ('*in the subway entrance*') and '*hinterm Supermarkt*' ('*behind the supermarket*') have weak interpretations in (65) (roughly meaning something like '*some subway entrance / supermarket or other*'), and the meaning enrichment in both cases roughly seems to be something like '*in order to spend the night in a warm place*'. It does not seem desirable to require this information to actually be part of (the telic qualia of) the lexical entries of the nouns '*U-Bahn-Eingang*' or '*Supermarkt*'.

A second problem for the view endorsed by Corblin and Aguilar-Guevara becomes apparent when considering cases where the meaning enrichment is not straightforwardly related to the telic qualia of the noun used or where the meaning enrichment is felt to be rather weak. Consider the following examples for illustration.[18]

(66) Ein Freund von mir arbeitet im Krankenhaus.
'A friend of mine works in a hospital.'

(67) Ben hat schon häufig Kakerlaken an unerwarteten Orten gesehen. Neulich zum Beispiel hat Ben eine Kakerlake im Krankenhaus gesehen.
'Ben has frequently seen cockroaches in unexpected places. The other day, for instance, he saw one in a hospital.'

On a qualia-based analysis, we would be forced to conclude that '*work place of someone (as a nurse, doctor, janitor, etc.)*' (cf. (66)) or '*unlikely place for someone / anyone to see a cockroach*' (cf. (67)) are actually lexically encoded in the telic qualia of the noun '*Krankenhaus*' ('*hospital*'). Note also that the enrichment in both cases intuitively is not very strong. In (66), for instance, apart from being informed that hospitals are possible work places, what additional meaning enrichment does the WD contribute? While such cases are problematic for any account on which the meaning enrichment is part of the semantics of the DDs, i.e. is lexically encoded in the description, the proposal put forth in this chapter is not in trouble. The determination of the underlying relation is crucial, and any

[18] Note that there appears to be a difference between German and English regarding the use of a definite or an indefinite description to express the intended meaning of these particular sentences. Unfortunately, I do not have a good explanation for this observation at this point. One might suggest that German and English simply differ in which kinds of meanings can be expressed by WDs. This clearly is undesirable given the general framework advocated in this dissertation. Another option would be to take into consideration that English DDs are *always* ambiguous between a referential and a quantificational meaning and that therefore the indefinite is preferred in cases where the contextual support is particularly necessary, thereby making absolutely clear that a referential reading is to be excluded.

perceived meaning enrichment is based on that relation. If no *additional* inferences are drawn during the interpretation of the WD, then this is not problematic for the current proposal.

5.3.2 Further Conceptual Restrictions on Relations: Established Concepts

At various points in this chapter, and with varying degrees of explicitness, the intended relation was said to be plausible / conventionalized / frequently associated with a particular DD. In the following, I will use the term 'established concept' to emphasize that the value of the relation variable needs to be well-known, i.e. established, in the general background knowledge of the speech act participants. For instance, 'GOING TO THE SUPERMARKET IN ORDER TO DO GROCERY SHOPPING' is a well-established concept and makes a weak interpretation of the DD '*the supermarket*' particularly salient. While the relations involved in quantificational DDs like those discussed in Chapters 3 and 4 also need to be established in the common ground, i.e. they must be known to the speaker and the hearer, the restrictions on the potential values for the relation variable appear to be tighter for WDs. This means that the relations implicit in WDs usually correspond to conventionalized / typical / habitual activities involving the object described by the WD, while the relations in other cases of quantificational DDs can be of a more 'fleeting' nature, in the sense that they need not necessarily express, say, conventionalized relations or activities. Crucially, however, the 'established-ness' of a given relation (or concept) may be a matter of degree: Some concepts are more established than others, and some hearers might need more contextual support, more establishing information, in order to arrive at a weak interpretation. As we will see below, this also means that it may not always be easy do decide whether a particular quantificational DD has a weak or a 'normal' interpretation.

It is difficult to pinpoint exactly what it takes for a concept to count as established. In the literature on generics, the notion of well-established kinds is often used to explain why English DDs are more restricted in their ability to have generic readings than other expressions, such as plurals (see, for instance, Krifka et al 1995). For illustration, consider the classic examples in (68) (due to Barbara Partee; Carlson 1977), and those in (69).

(68)

a. The bottle has a narrow neck.
b. The Coke bottle has a narrow neck.
c. ??The green bottle has a narrow neck.
d. Green bottles / Coke bottles have narrow necks.

(adapted from Carlson 2010: 28)

(69)

a. The Indian elephant has smallish ears and is easily trained.
b. ??The friendly elephant is easily trained.

(ibid.)

The DD in (68)a cannot have a generic reading, but can only be used to make a claim about a particular bottle. In (68)b, in contrast, the DD can easily be understood to refer to the kind of Coke bottles, assuming that they are a familiar type of bottle. Without additional contextual support, the DD '*the green bottle*' in (68)c can again only be interpreted non-generically, i.e. as referring to a particular bottle. Using a bare plural, as in (68)d, on the other hand, enables a generic reading for both '*green bottles*' and '*Coke bottles*,' showing that the singular DD is more restricted in its kind-referring potential (cf. (68)c). The examples in (69) illustrate the same point: '*the Indian elephant*' can easily be used to refer to the kind Elephas maximus indicus, while the DD '*the friendly elephant*' cannot. We are not concerned with generic interpretations of DDs in this dissertation, but the examples above show that English singular DDs can have a generic reading only if the kind that they denote is well-established. The Coke bottle and the Indian elephant presumably *are* established kinds, while, say, '*the green bottle*' or '*the friendly elephant*' do not refer to established kinds. The question of interest for our current purposes is, of course, what it means for a kind to be well-established, or what properties of the context determine the 'established-ness' of a putative kind. And if we had a good characterization of what it takes for a kind to count as established, we could then try to find out whether a similar characterisation would be applicable to established concepts as well.

Turning back briefly to the perceived distinction between green bottles and Coke bottles, Dayal (2004) offers the following scenario.

(70) The factory produces two kinds of bottles, a green one for medical purposes and a clear one for cosmetics. <u>The green bottle</u> has a long neck. The clear bottle ...

(Dayal 2004: 425, fn. 30)

Clearly, '*the green bottle*' in (70) gets a generic interpretation, where it refers to the kind of green bottles that are produced at the factory. Dayal concludes that "[a]ny common noun can thus denote a singular kind, given an appropriate context." (Dayal 2004: 425, fn. 30) While highlighting the fact that contextual information does play a role in determining whether or not a given DD can have a kind-referring interpretation, we still do not have an answer to the question of which aspect of a context or what kind of information are responsible for making a given kind count as established or not.

One plausible answer would be that kinds count as established when they are familiar to the speech act participants (and the larger community) or are frequently encountered. As persuasively argued by Carlson (2010), however, familiarity cannot be the whole story. Going back to (68), Carlson points out that at the time when the examples were introduced, Coke bottles were of a (light) green colour, and that therefore everyone who ever experienced (or came to be familiar with) Coke bottles also experienced green bottles. Assuming further, that there may be other green bottles around, in addition to Coke bottles, this effectively makes the set of 'familiar green bottles' a superset of the set of 'familiar (green) Coke bottles.' It is not clear then, why 'green bottle' is not an established kind, even though it should be more familiar than 'Coke bottle,' which does count as a well-established kind. Similarly for (69), if we assume that all Indian elephants and some other elephants are friendly, then again experience with a friendly Indian elephant is not necessarily more frequent than experience with a friendly elephant. Nonetheless, 'friendly elephant' does not constitute a well-established kind, while 'Indian elephant' does. Familiarity or (frequent) experience with a given set of objects thus is not sufficient for counting these objects as constituting a well-established kind.

Now that we know what does *not* suffice for establishing a kind, let us now turn to a *positive* characterisation of the established concepts we are after. As briefly noted above, established concepts are often related to conventionalized activities. Conventionalized activities in turn are frequently invoked in discussions of (semantic) incorporation structures. Typically, in incorporation structures a determinerless direct object noun is joined morphologically to, i.e. incorporated into, a verb, thereby becoming a part of the verb. Consider the example from the Chukchi language in (71), which Carlson (2010) attributes to Spencer (1995).

(71)

a.	Enan	qaa-t	qErir-ninet
	2sg.Erg	reindeer.Abs.pl	seek-3sg.s/ 3pl.o
b.	Etlon	qaa-rer-g'e	
	3sg.Abs	reindeer-seek-esg.s	

'He is looking for reindeer.'

(Carlson 2010: 31)

The determinerless noun '*qaa*' is in direct object position in (71)a, and it is morphologically part of the verb in (71)b. Characteristically, the incorporated and the non-incorporated structures in languages such as Chukchi differ in meaning. In the example in (71), both (71)a and (71)b are translated uniformly into English as '*he is looking for reindeer,*' due to the lack of a corresponding construction in English. Incorporation structures (i.e. morphologically combined verbs and nouns) generally are used to describe activities that are conventionalized, typical, or habitual. Consider the following list of descriptions of this phenomenon (taken from Carlson 2006: 44).

... incorporation provides the lexicalized expression of a typical activity.

(Axelrod 1990)

Some entity, quality, or activity is recognized sufficiently often to be considered *nameworthy* ...

(Mithun 1984)

Noun incorporation in Sm'algyax occurs when a habitual activity toward an object is expressed.

(Mulder 1994)

[the incorporated form] refers to habitual, permanent, chronic, specialized, *characteristic or unintentional activities* or states, or localized events ...

(de Reuse 1994)

For a concrete instance of the type of activity or event that incorporation structures typically are used to refer to, consider the following quote from Dunn (1999) which discusses an example from the language Chukchi that we already encountered in (71). (The quote is taken from Carlson 2006: 44.)

Examples with the stem *qora-nm-at-* ('slaughter reindeer') can be misleading, as this stem refers to something which, in Chukchi culture, is a unitary activity and is exceptionally nameworthy as a focus of ritual activity and the high point of a day. The verb is translated here as *slaughter* rather than *kill* as this incorporation is lexicalised to the extent that it only refers to reindeer-

killing in its traditional Chukchi cultural context, i.e. killing of a domestic meat reindeer with a knife in the prescribed manner with all attendant ritual.

All these descriptions fit very well with the idea of established concepts. Carlson (2006) proposes that this kind of meaning enrichment is a stable feature of incorporation constructions cross-linguistically. He further emphasizes that the same kind of meaning enrichment also appears in languages that do not allow the *structural* (i.e. morphological or syntactic) incorporation of a nominal into a verb, but which have structures that can be considered cases of *semantic* incorporation (cf., for instance, van Geenhoven (1998) for West Greenlandic; Farkas & de Swart (2004) for Hungarian; Chung & Ladusaw (2004) for Chamorro; Borthen (2003) for Norwegian; Dayal (2011) for Hindi; Stvan (2009) for English bare singular count nouns). Consider the West Greenlandic example in (72) for illustration.

(72)

a. Angunguu-p aalisagaq neri-v-a-a.
Angunguaq.-ERG fish.ABS eat-IND-[+tr]-3SG.3SG
'Angunguaq ate the / a particular fish.'

b. Angunguaq aalisakka-mik neri-v-u-q.
Angunguaq.ABS fish-INST.sg eat-IND-[-tr]-3SG
'Angunguaq ate fish.'

(van Geenhoven 1998: 13f.)

The contrast between the sentences in (72)a and (72)b that is relevant for our purposes lies in the interpretation of the two structures. While the one in (72)a is a statement involving Angunguaq and some fish, the one in (72)b tells us that Angunguaq was engaged in the typical activity of fish-eating. The semantics of the latter structure thus corresponds to the semantics of structural incorporation structures, even though morphological or syntactic incorporation is not possible in West Greenlandic. Structural incorporation is also not possible in Norwegian, but, as Borthen (2003) argues, this language exhibits semantic incorporation in the sense that certain bare singulars have a semantics that is essentially that of structurally-incorporated expressions in other languages. She proposes that such constructions in Norwegian can only be used when they designate a *conventional situation type*, which she defines as follows: "A *conventional situation type* is a property, state, or activity that occurs frequently or standardly in a given contextual frame (e.g., in the macro social frame) and has particular importance or relevance in this frame as a recurring property-, state-, or activity type." (Borthen, 2003:160)

While still being somewhat vague, it seems that this characterization of the meaning enrichment in incorporation structures corresponds quite well to the notion of well-established concepts introduced above. Importantly, Borthen's definition is permissible enough to allow the introduction of *new* established concepts / conventional situation types. We have seen an example for such a contextually determined concept already (cf. (65) above), but I nonetheless want to add the following example from Mithun (1984) as well, since it nicely illustrates that contextual information is crucial for the acceptability of certain linguistic expressions that make use of established concepts. In the passage relevant for our current purposes, Mithun (1984) discusses constraints on possible compounds (which she considers to be an instance of noun incorporation), and she argues that in English verbal compounds are formed as "names of recognizable activities.

If you ask where my brother is, I might reply, *He is out berry-picking* or *He is off mountain-climbing*, but probably not *He is out ladder-climbing*, even if he is in fact climbing a ladder ... Ladder-climbing is not an institutionalized activity. If I did say it, you might suspect that ladder-climbing must refer to an activity recognized in some context – perhaps a new sport, or a test for joining the fire department." (Mithun 1984: 848) Of special interest for the account of WDs advocated in this chapter is the very last sentence of this quote: A compound like *'ladder-climbing'* may not be acceptable in an out-of-the-blue utterance, but if we enrich the context in a suitable manner (here, by adding information regarding a new sport or a test for joining the fire department), the otherwise unacceptable compound becomes permissible.[19]

Summing up the discussion so far, the type of conventionalized / typical / habitual activity that incorporation structures denote seems to closely correspond to the meaning enrichment of WDs discussed above. This observation is not new (cf., for instance, Carlson 2006; Klein et al. 2013 – we will return to this issue below). What is new, however, is the idea that the established concepts that are needed for making a weak reading of a given quantificational DD possible are essentially the same that are involved in the meaning enrichment of incorporation structures.[20] Note that on the proposal advocated in this chapter, an established concept is closely related (in some cases even identical) to the value of the implicit relation variable that needs to be fixed in order to successfully interpret a given quantificational DD. There is nothing in the semantics of the nouns that are used in WDs[21] or in the general interpretation of WDs that is fundamentally different from the interpretation of other quantificational DDs. WDs do, however, typically involve more complex inferences, as it were, relating the implicit relation to the perceived meaning enrichment that comes with WDs.

As discussed above in connection with the examples in (66) and (67), however, the enrichment is not equally strong in all uses of WDs. Furthermore, even such seemingly straightforward objects as hospitals can, in principle, be conceptualized in various ways. For instance, we can conceptualize a hospital as a place where people are operated on, as a place where surgeons and nurses work, as a place that needs to be especially clean, etc. Depending on the context, one such conceptualization may be more prominent or more plausible than others. For illustration, consider the following scenario.

(73) *Context: Ben and Anna are on a hike through South America. Ben hurts himself badly and Anna says ...*

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[19] Here is another short quote illustrating the same point: The nominal compound "*berry money* might be used by someone employed as a berry-picker, but probably not by someone unexpectedly spying boysenberries at the market" (Mithun 1984: 848). Again, the introduction of a typical activity (here, getting regularly paid for picking berries) makes an established concept available.

[20] A similar speculation is, however, put forth by Carlson (2010: 32), who asks us to "[c]onsider the possibility that the requirement for a verb-noun combination [i.e. an instance of (semantic) incorporation] to be acceptable is that it presupposes that there is a corresponding concept." Note also that Klein et al. (2013: 202) carefully acknowledge that "[w]hether the conceptual foundations of weak noun phrases can be related to incorporation is a question we leave open for future research." The current proposal can be regarded as a first step in this direction.

[21] Note also that the verbs heading the verb phrase a given WD is a constituent of are not required to be ‚special' in any particular way on the current proposal. For an approach to WDs that views verbs as effectively introducing kinds of events that involve entities of the type denoted by the WD, see Schwarz (2014).

Komm, ich bringe dich ins Krankenhaus.
'Let's take you to the hospital.'

Imagine further that Anna takes Ben to a little hut a few miles further down the road where a shaman lives. The locals usually visit this shaman in his hut when they are injured or sick, and the shaman even operates on his patients if necessary. The point this scenario is intended to illustrate is that a conceptualization such as HOSPITAL-AS-A-PLACE-WHERE-PEOPLE-ARE-OPERATED-ON (or, a relation like '*y is a place for medical treatment for x*') may be met in the described scenario, but that Ben might very well protest and tell Anna that this hut was *not* a hospital. It seems that in such a case, Ben's conceptualization of the DD contained in the cPP '*ins Krankenhaus*' ('*to the hospital*') differs in some significant way from that of Anna's, and the two of them would not agree on what *qualifies as a hospital* in the current context.[22] Taking into account that the locals habitually / typically go to the shaman's hut to be treated for injuries or illness, it seems that we need to specify the notion of established concepts further in the sense that whether or not something counts as an instance of an established concept varies intersubjectively, i.e. different (groups of) people may consider something an established concept that others do not. Clearly, further research is needed in order to get a better understanding of what factors, in addition to the ones described in Borthen's definition above, are at work in determining the degree of established-ness of a given concept.[23]

Returning to the core characteristics of WDs, taking established concepts into account we have an explanation for the meaning enrichment that frequently is associated with WDs. Analysing WDs as quantificational DDs making use of an implicit relation variable also explains the apparent lexical restrictions on the nouns that can have weak readings and on the prepositions or verbs a WD can co-occur with. For illustration, consider the examples in (74) – (79), repeated from (4) – (9) above.

(74)
a. He went to the hospital.
b. He went to the building.

(Carlson et al. 2006)

(75)
a. Kenneth is at the store.
b. Kenneth is behind the store.

(ibid.)

(76)
a. Sally checked the calendar.

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[22] It seems that Schwarz (2014: 228) has something similar in mind in his discussion of the following example:

i. *Context: We are on a cruise ship in the middle of the Atlantic, and you have an accident of some sort.*
   a. We have to get you to the hospital somehow!
   b. We have to get you to a hospital somehow!

According to Schwarz, the utterance in (a) is not felicitous in such a scenario, because there is no hospital around.

[23] Note that the same considerations apply to implicit relations as well.

b. Sally tore the calendar.

(ibid.)

(77)

a. Anna ist im Krankenhaus.
‚Anna is in the hospital.'
b. Anna ist im Gebäude.
‚Anna is in the building.'

(78)

a. Ben ist im Kino.
‚Ben went to the cinema.'
b. Ben ist hinterm Kino.
‚Ben went behind the cinema.'

(79)

a. Anna geht zur Schule.
‚Anna goes to school.'
b. Anna rennt zur Schule.
‚Anna runs to (her) school.'

The values for the relation variable have to be nameable, informative, and, crucially, plausible. The existence of a suitable established concept generally makes a particular relation highly plausible, and, likewise, the absence of such a concept (and lack of additional contextual information) may make a weak interpretation highly implausible, and hence not available. The apparent lexical and co-occurrence restrictions on WDs are thus *not* in fact lexical or co-occurrence restrictions, but *conceptual* restrictions. If there is no established concept (or an otherwise suitable relation) available in the current context, then utterances like those in (74)b, (75)b, (76)b, (77)b, (78)b, and (79)b simply cannot have a weak interpretation. If, however, contextual information helps establish a suitable concept (as in (65) above, repeated here as (80)), then a weak reading is available also for nouns that are not typically considered to allow weak readings (e.g., '*U-Bahn-Eingang*' ('*subway entrance*')) and that co-occur with a verb (cf. (80)) that is not typically considered to take a WD as its complement (here, '*schlafen*' ('*sleep*')).

(80) *Context: The subway entrances and the back entrances of supermarkets in Anna's city all have ventilation vents with hot air coming out of them 24 hours a day. Anna is homeless, and in cold nights, she and her friends meet at a subway entrance or behind a supermarket and spend the night there near the vents. The city officials don't like it when homeless people sleep in subway entrances or behind supermarkets and they often call the police. That is why Anna (and her friends) chose different entrances or supermarkets on cold nights. On warm nights, they sleep somwhere else. Asking about Anna, we are told …*

a. Heute ist es ziemlich kalt, also wird Anna wohl im U-Bahn-Eingang oder hinterm Supermarkt sein (um dort die Nacht zu verbringen).
'It's pretty cold out, Anna will probably be in a subway entrance or behind a supermarket (in order to spend the night).'
b. Heute ist es ziemlich kalt, also wird Anna (heute) wohl im U-Bahn-Eingang oder hinterm Supermarkt schlafen.
'It's pretty cold out, Anna will probably be sleeping in a subway entrance or behind a supermarket (tonight)..

The incompatibility of a weak reading and modification is also generally considered to be a characteristic of WDs (cf. (81) – (84), repeated from (10) – (13) above).

(81) Fred went to the big store.

(Carlson et al. 2006)

(82) They both checked the calendar that was hanging upside down.

(ibid.)

(83) Fred ging #zum großen Supermarkt.
‚Fred went to the big supermarket.'

(84) Sie schauten beide #im Kalender, der falsch herum hing, nach, ob sie Zeit hatten.
‚They both checked the calendar that was hanging upside down to see whether they had free time.'

Again, I suggest that the absence of a suitable relation or established concept is responsible for the unavailability of a weak reading in (81) – (84). We would need some relation or concept involving big supermarkets or calendars that are hanging upside down, respectively, in order to successfully interpret the DDs in question.[24]

Finally, I want to briefly address the viability of an analysis of WDs in terms of (semantic) incorporation, or rather why such an analysis is not feasible despite the striking similarities between WDs and incorporation structures.

Klein et al. (2013) and Carlson (2006) point out that the core characteristics of WDs correspond closely to the cross-linguistically stable features of incorporation structures, for instance, the ability of WDs to take narrow scope with respect to other quantificational expressions, and, of course, their meaning enrichment (cf. Carlson (2006) for a detailed discussion). Analysing WDs along the same lines as other instances of (semantic) incorporation is intuitively very appealing and seems to capture the distinguishing properties of WDs rather straightforwardly. While Klein et al.'s experimental results support such a view, it should be noted that the experiments corroborate the *observable* characteristics of WDs and do *not* in fact allow us to make any claims as to the specifics of the theoretical account of WDs.[25] There are three further potential problems I see for an incorporation-based analysis of WDs.

First, the formulation of a formal analysis in terms of incorporation is not at all straightforward. In the literature on semantic incorporation, it is usually a determinerless noun that gets incorporated or a noun marked by a special indefinite determiner, never a *definite* description. It is not clear how or where to fit in the definite article. The solution that Klein et al. suggest is the following: While the VPs '*read the book*' and '*read the newspaper*' have the same syntactic structure, their semantic structure is radically different. For the regular, i.e. non-weak, reading we would have something like *read*'

[24] Note also that the cPP is infelicitous in (83) and (84). This directly follows from the proposal regarding modification discussed in Chapter 3.

[25] Klein et al. (2013: 190) themselves mention that an analysis with the help of frames or constructions may yield very similar results.

(DEF (book')) and for the weak reading something like *DEF (read' (newspaper'))*.[26] As Klein et al. (2013: 201) acknowledge, "[i]n future research it will be important to develop and evaluate linguistic arguments about this analysis." This is a very important point and currently it is unclear to me where one would even go to look for independent motivation for such a constituent structure / composition on the semantic level.

A second problem I see for an incorporation-based analysis of WDs is that it is not clear why in German the same form should be used to express semantic incorporation and non-incorporation structures, namely cPPs. We would then end up with a three-fold ambiguity between referential DDs (requiring rPPs), semantically incorporated DDs (requiring cPPs), and quantificational DDs (requiring cPPs as well).

Finally, as mentioned above, there are cases of quantificational DDs where it is not entirely clear whether they are instances of WDs or of 'regular' DDs. Consider the following examples for illustration.

(85) Yesterday, Anna walked <u>the dog</u>.
(86) Ben took out <u>the trash</u>.
(87) Last Thanksgiving, Anna cooked a turkey, and Sheila cooked a turkey. This Thanksgiving, Ben will cook <u>it / the turkey.</u>
(88) Last Christmas, Al decorated a tree, and Sheila decorated a tree. This Christmas, Bill will decorate <u>it / the tree</u>.

The DDs in (85) and (86) are considered to be WDs by Klein et al. (2013: 203), while on the current account they would rather be classified as 'non-weak' instances of quantificational DDs. Similar considerations apply to the examples in (87) (which is due to Greg Carlson, p.c.) and (88), where it is not entirely clear whether the DDs should be considered to be WDs or not. Analysing WDs as semantically incorporated expressions, we could not easily explain this blurry line between WDs and other quantificational DDs, whereas this is not at all problematic on my proposal.

Given that the proposal advocated in this chapter can account for the core characteristics of WDs independently of an incorporation-based semantic analysis, there is no reason to suppose that WDs are instances of semantic incorporation.

5.4 Summary

In this chapter, I have argued that the proposal suggested in Chapters 3 and 4 can account for WDs as well, namely by analysing WDs as quantificational DDs that involve an implicit relation of the general form '*x is a potential work place / means of transportation / source of information etc. for x*'. Furthermore, WDs constitute such an interesting set of linguistic data because of their *conceptual restrictions*. A DD can achieve a weak inter-

[26] Klein et al. mention that prepositions can also be incorporated (Klein et al. 2013: 190), they do not, however, provide relevant references. I do not understand how, for instance, '*be in the hospital*' could be represented adequately. Would we have something like *DEF (in' (hospital'))* and apply this to the verb '*be*'?

pretation only if there is an established concept available that makes a particular value for the relation variable especially plausible. Taken together, the view of WDs as advocated in this chapter can account for the core properties of WDs, repeated here from Section 5.1.

i. WDs allow sloppy-identity readings in VP-ellipsis constructions.
ii. There appear to be lexical restrictions on the nouns that can be used in WDs and on the prepositions or verbs the WD co-occurs with.
iii. Modification destroys the weak reading.
iv. WDs are truth-conditionally equivalent to indefinites.
v. Also like indefinites, they scopally interact with other quantificational expressions.
vi. WDs involve so-called semantic enrichment.

The fact that WDs allow sloppy readings (i) and that they interact scopally with other quantificational expressions (v) straightforwardly follows from their quantificational nature. The apparent violation of the uniqueness constraint of DDs (iv) can be accounted for by assuming covert quantification over times or situations, which is independently needed to account for other phenomena in natural language. The apparent lexical and co-occurrence restrictions (ii) are a result of the (in)availability of a corresponding established concept (or of an otherwise suitable implicit relation). Finally, the general incompatibility of WDs with modification (iii) can be explained with the help of the implicit relation variable as well: A modified DD such as '*the big supermarket*' can have a weak reading only in case there exists a suitable relation (or established concept) involving big supermarkets.

The account of WDs proposed in this section adequately accounts for their core characteristics and is superior to other accounts in various respects, but there are two open issues that I want to draw attention to. First, the similarity of English WDs to bare singulars is not easily explained in the current framework as it does not deal with bare singulars at all, but rather focusses on *non*-bare expressions that involve an explicit definite determiner. One possibility to extend the proposal to bare singulars might be to posit a null determiner that has a semantics that is very similar (or even identical?) to the one of quantificational DDs. This is just a stipulation at this point, and further research is needed to elucidate the similarities between WDs and bare singulars. Secondly, the discourse properties of WDs are far from clear. Consider the following examples for illustration.

(89)
a. Lola listened to <u>the radio</u> until she fell asleep. ?She turned <u>it</u> off when she woke up in the middle of the night.
b. Alice played a solo on <u>the saxophone</u>. ?She didn't realize <u>it</u> was out of tune.

(Aguilar-Guevara 2014: 164)

(90) Jacqueline took <u>the train</u> from Paris to Moscow.
a. ... <u>it</u> was clean and ran right on time.
b. ... <u>they</u> were all clean and ran right on time.

(Carlson et al. 2006)

According to Aguilar-Guevara (2014, Ch. 7), the pronouns in (89) are only marginally acceptable if the DDs have weak readings. On the other hand, in Carslon et al.'s example in (90) the pronouns are perfectly fine. I suggest that, rather than positing a semantics of WDs that explicitly encodes their *in*ability to be picked up anaphorically in subsequent discourse (which would then require additional explanation regarding the example in (90)), we should indeed stick with the approach argued for in this chapter: As suggested at various points throughout this chapter, the identity of the referent of a WD appears to be irrelevant for the conversational purposes of the speaker. Using a pronoun (or a referential DD) to 'refer back' to the WD will then be considered incoherent, and the hearer will likely re-interpret the WD as an 'ordinary' DD (cf. footnote 14 above). Due to general constraints regarding discourse coherence, this re-interpretation may be easier in some cases than in others, and the pronoun may be considered more or less acceptable accordingly. For instance, the predicates of cleanness and being on time in (90) are quite compatible with the interpretation of the DD '*the train*' as '*the train that serves as a means of transportation for Anna*', thereby making the DD's re-interpretation roughly along the lines of '*the train(s) that Anna had booked a ticket for'* straightforward. Consider also the following examples for further illustration that the content of the sentence containing the anaphoric expression can influence the degree of acceptability of the anaphor.

(91) Every accident victim was taken to <u>the hospital</u> and discovered that <u>it</u> had a beautiful roof-top garden.

(Schwarz 2014: 219)

(92) Every accident victim was taken to <u>the hospital</u> and was relieved / happy to discover that <u>it</u> was specialized for his or her case.

When comparing (91) and (92), it seems that the latter example is much more coherent and thus does not seem to require a very radical re-adjustment in order to arrive at an appropriate interpretation. This is quite stipulative at this point and further research is clearly needed in order to better understand the discourse potential of WDs. Taking discourse coherence and the conversational purposes of the speaker into consideration might be a reasonable first step in this direction, while, at the same time, corroborating the analysis of WDs argued for in this chapter, namely that they are quantificational DDs.

6 Conclusion

In this dissertation, I have proposed a uniqueness-based theory of definiteness that accounts for the semantics and the pragmatics of German rPPs and cPPs in particular (cf. Chapter 2), but also of DDs in general.

As argued in Chapter 3, DDs are, in principle, ambiguous between a referential and a quantificational interpretation in the following sense: The interpretation of a referential DD crucially depends on information in the surrounding linguistic context, and paradigm examples are anaphoric uses of DDs. Quantificational DDs, in contrast, are incomplete descriptions, and the interpretation of their implicit content (a free variable over individuals and one over relations) requires general world-knowledge inferences rather than purely linguistic information. Paradigm cases of quantificational DDs are 'uniques', covariation, and bridging uses, but, as shown in Chapter 5, weak readings (in the sense of Carlson et al. (2006)) can also be accounted for. With respect to the German data discussed in Chapter 2, I have shown that rPPs are best analysed as (containing) referential DDs, while quantificational DDs are expressed as cPPs in the appropriate register and phonological context.

The determination of the free variables that are presupposed by quantificational DDs was the main topic of Chapter 4. The individual variable can either be bound or receive its value from the context, and essentially functions like a pronoun. The value of the relation variable is determined contextually and must be plausible, nameable, and informative. These three characteristics together are very helpful in adequately restricting the possible values assigned to implicit relation variables.

In Chapter 5, I proposed that Weak Definites (WDs) are analysed as quantificational DDs as well, and are thus *not* very different from other instances of quantificational DDs. The implicit relation typically encodes some kind of conventionalized activity (similar observations can also be made in cases of semantic incorporation) and the existence of an established concept is required for the successful interpretation of a WD. These (conceptual) restrictions allow for 'degrees of acceptability' – a desirable result as the border line between weak and 'normal' quantificational interpretations is not always easy to draw. The present analysis of WDs straightforwardly accounts for the core characteristics of WDs, without running into the same problems as previous analyses.

While the present proposal has a broad empirical coverage, there are interesting and important issues that were not addressed appropriately in our discussion. Let me briefly point at two such areas of possible future research.

As noted briefly in Chapter 2, generic noun phrases require the contracted form. Consider the examples below for illustration.

(1) Anders als <u>beim / #bei dem Menschen</u>, bei dem die Nase aus dem Gesicht ragt, geht <u>beim / #bei dem Leguan</u> der Kopf einfach in die Schnauze über.
,In contrast to humans, whose nose protrudes from their face, the iguana's head simply merges with the snout.'

(2)

a. Im Vergleich zur / #zu der Cola-Flasche ist das Design der Fanta-Flasche eher enttäuschend.
‚In contrast to the Coke bottle, the design of the Fanta bottle is somewhat disappointing.'

b. #Im Vergleich zur / zu der grünen Flasche ist das Design der weißen Flasche eher enttäuschend.
‚In contrast to the green bottle, the design of the white bottle is somewhat disappointing.'

(3)

a. Im Vergleich zum / #zu dem Indischen Elefanten ist der Afrikanische Elefant viel größer.
‚In contrast to the Indian Elephant, the African Elephant is much bigger.'

b. #Im Vergleich zum / zu dem friedfertigen Elefanten ist der aggressive Elefant viel größer.
‚In contrast to the friendly elephant, the aggressive elephant is much bigger.'

Whenever the DD has a generic interpretation (cf. (1), (2)a, which are due to Peter Bosch (p.c.), and (3)a), the non-contracted form is not felicitous. In cases where there does not appear to be an established kind available that the DD can refer to, as in (2)b and (3)b, neither the cPP nor the rPP is appropriate, indicating that the same restrictions as for English singular DDs (cf. Section 5.3.2) are at work in these examples as well. Given that the interpretation of cPPs requires the determination of a suitable relation, and keeping in mind further that established concepts are (at least in some uses of quantificational DDs) closely related to the implicit relations, it may be worthwhile to further investigate possible similarities between quantificational DDs and generic DDs. In particular, future research on the conceptual restrictions underlying WDs might help explain under what conditions a certain kind would count as an *established* kind. Note that such considerations could also be relevant to on-going research regarding the meaning enrichment associated with (semantic) incorporation.

Another interesting question that requires further investigation concerns the relation between the present proposal and so-called 'possessive weak definites' (Poesio 1994; Barker 2004) and possessives in general. Could the analysis put forth in this dissertation be extended or adapted to cover such cases as well? I do not have a definitive answer at this point, but, as briefly mentioned in the discussion in Section 4.3.2 (cf. (4) for illustration), the implicit possession relation seems to be subject to a constraint very much like the plausibility-constraint.

(4)

a. John is not very fond of his cat.

b. #John is not very fond of his squirrel.

(Barker 1995: 88)

The have-as-a-pet relation is a very plausible assumption in the case of (4)a, while a plausible relation cannot easily be determined in (4)b without additional contextual in-

formation. Investigating whether the other two characteristics, nameability and informativity, are also applicable to possession-relations is an important task for future research. Two further issues that still remain to be clarified concern the (very subtle?) difference between possessives and their DD-counterparts, as in (5), and the different preferences for possessive or definite descriptions in English and in German (cf. (6) and (7)).

(5)

a. John geht mit dem Hund / seinem Hund spazieren.
b. John is walking the dog / his dog.

(6)

a. Anna saß gestern den ganzen Tag am Schreibtisch.
b. Yesterday, Anna was sitting at her desk all day.

(7)

a. John hat sich den Arm gebrochen.
b. John broke his arm.

In the examples in (5), there might be a slight preference for the possessive, but the DD is not infelicitous either. Assuming that the interpretation of the DD gives us something like '*the dog that is owned by John*', what exactly is the difference between the two expressions? And what do the contrasts between German and English in (6) and (7) tell us about the (apparently) different conceptions of possession and definiteness in these two languages? I leave the task of answering these questions to future work.

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