

The landscape of German definites and demonstratives

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Abstract

Schwarz (2009) describes German as having strong and weak definite articles, with the strong definite used for anaphors and the weak definite used in cases of uniqueness. However, the strong definite *der/die/das* may also occur with relative clauses and with deixis, passing the homogeneity test (Löbner, 1985). This appears to put it on a par with demonstratives, which may also occur anaphorically, with relative clauses or with deixis. Further, the weak definite may also occur in seemingly anaphoric story-telling contexts, and both definite articles combine equally well with NPs with complements. In this squib, I show that the distinction between the German demonstratives, strong definite and weak definite is much less crisp than Schwarz suggests. This line is further blurred by Aargau Swiss German, a dialect of Swiss German which uses a form closely resembling the Standard German strong definite as its demonstrative. I argue that no current theory (Chierchia and Saĝ, 2022; Dayal and Jiang, 2021; Schwarz, 2009) that captures the strong/weak distinction also accounts for the significant similarity between strong definites and demonstratives, and briefly discuss whether Ahn (to appear), which motivates why demonstratives occur precisely with deixis, relative clauses and anaphora, may be extended to strong definites, concluding that more theoretical and empirical work is needed to capture this complicated picture.

1 The Standard German landscape according to Schwarz (2009)

Schwarz (2009) describes German as having two definite articles, which are distinguished by their behaviour with prepositions. In the presence of the certain prepositions such as *zu* ‘to’, *von* ‘from’ and *in* ‘in, into’, one article, which Schwarz refers to as the *weak definite*, contracts with the preposition, while the other, which Schwarz refers to as the *strong definite*, does not:

- (1) a. Hans ging **zum** Haus.
 Hans went to.the.M.DAT house
 ‘Hans went to the house.’
- b. Hans ging **zu dem** Haus.
 Hans went to the.M.DAT house
 ‘Hans went to the house.’

(Schwarz, 2009, p.7)

The exact prepositions with which the weak definite may contract vary by register. In all registers, the following contractions are possible:

- (2) *am* *an* + M.DAT ‘at the’
 beim *bei* + M.DAT ‘at the’
 im *in* + M.DAT ‘in the’
 ins *in* + N.ACC ‘in the’
 vom *von* + M.DAT ‘from the, by the’
 zum *zu* + M.DAT ‘to the’
 zur *zu* + F.DAT ‘to the’

Additional contractions such as *durchs* (*durch* + N.ACC, ‘through the’) are possible in colloquial or spoken German. For a full list including statistics on the frequency of contraction, see Schwarz (2009, pp.15-16). I will omit the full case/gender specification of definites in the glosses of future examples, since it can be looked up here and is not relevant to the distinctions at hand.

Schwarz argues that the (contracting) weak definite occurs in cases of uniqueness, for example, in a context (say, a movie set) where there is only one house. This ties in with a long line of research beginning with Russell, 1905, Frege (1892) and Strawson (1950) which views definites as representing uniqueness. The other line of research on definites, which began with Heim (1982) and views them as expressing familiarity, is represented by the strong definite, which is used anaphorically to refer to a previously mentioned or contextually salient house. This split, according to Schwarz, extends across covarying situations and so-called bridging contexts (Clark, 1975; Hawkins, 1978), in which the uniqueness (or anaphor) of the noun phrase in question is mediated by a previous noun:

- (3) Der Kühlschrank war so groß, dass der Kürbis problemlos **im** Gemüsefach
 the fridge was so big that the pumpkin without.problem in.the vegetable.compartment
 untergebracht werden konnte.
 stowed be could
 ‘The fridge was so big that the pumpkin could easily be stowed in the crisper.’ (Schwarz, 2009, p.52)

We will discuss these examples in more detail in Section 3.3. For now, note that Schwarz paints a cleanly split picture of definite articles across strong (anaphoric) and weak (unique) uses, no matter the context. We will see that the picture is not as crisp as Schwarz might like to imply.

In addition to these two definite articles, German possesses two demonstratives, *dieser/e/es* and *jener/e/es* (given here in nominative case and M/F/N gender), which are proximal and distal respectively. Schwarz does not discuss these demonstratives at all, but by comparing them with the strong definite below we will see that they and the strong definite share many characteristics.

2 A review of English

Before examining Standard German, I will take a moment to review the English definite/demonstrative picture and introduce the tests that we will be applying. We will test definite *the* and the two demonstratives *this* and *that* with deixis, anaphoricity, uniqueness, so-called bridging contexts (often regarded as the most “standard” use of definites besides anaphora), restrictive relative clauses and NPs specified by modifiers or complements.

2.1 Deixis

The ability for an article to take a pointing or other indicating gesture (deixis) is easiest to see in sentences where the article is used with two different gestures. We use the exact same noun phrase with contradictory assertions about each instance. If the sentence is nonetheless felicitous, then clearly the noun phrase is picking up its referent from an outside source, namely the gesture (here via its article). The following set of examples is modelled after Schwarz’s German example (Schwarz, 2009, p.34), similar to the homogeneity test of Löbner (1985):

- (4) Pointing at one car with gesture δ_1 and a different car with gesture δ_2 :
- John came in **that** $[\delta_1]$ car, not in **that** $[\delta_2]$ car.
 - John came in **this** $[\delta_1]$ car, not in **this** $[\delta_2]$ car.
 - #John came in **the** $[\delta_1]$ car, not in **the** $[\delta_2]$ car.

Since (4c) is infelicitous, we see that English definite *the* is not able to pick up a referent from deixis despite the available pointing gesture. The phrase *the car* has to refer to one single car across the sentence, making the sentence a contradiction. By contrast, the two demonstratives *this* and *that* are entirely happy to refer to two distinct cars, allowing the sentence to be meaningful.

A further test for the ability of articles to carry deixis is given by Roberts (2002). Here, a counterfactual situation is used which changes the identity of the person at the location being pointed at. Demonstratives, which are anchored to the current world, do not pick up on the antecedent of the counterfactual which imagines this change of place, while definite descriptions which describe the pointing act are able to do so:

- (5) *Context: Charles is from Charleston, West Virginia, Paul is from St. Paul, Minnesota. δ is a pointing by the speaker in the direction of Paul, who is seated on a chair in front of the speaker:*
Look over here [δ , the gesture held throughout the next sentence]. If Charles and Paul had changed chairs, then
- the** man being pointed at would be from Charleston.
 - #**he** $[\delta]$ would be from Charleston.
 - #**this** man being pointed at $[\delta]$ would be from Charleston. (Roberts, 2002, p.4)

Roberts notes that (5a) is felicitous because the definite description means something like ‘the man I would be pointing at in that (counterfactual) situation’ (the nonfinite description *being pointed at* carefully does not specify whether the current or counterfactual situation is meant). By contrast, (5b) and (5c) are infelicitous because *he* and *this man* are stuck referring to Paul, the person being pointed at in the current world. In other words, demonstratives are directly referential, or *rigid* (in the terminology of Ahn, 2022) across counterfactual worlds. Paul and Charles changing chairs in the counterfactual world has no effect on Paul being from St. Paul, not from Charleston.

That said, it is an oversimplification to say that demonstratives are always directly referential. Previewing Section 2.4, distal demonstratives may also occur felicitously with a relative clause in English, especially in the plural. We can adapt Roberts’ example as follows:

- (6) *Context: The Smiths are from Smithville, Tennessee, the Joneses are from Jonesboro, Arkansas. Each family is sitting around a table. δ is a pointing by the speaker in the direction of the Smith family, who are seated around a table in front of the speaker:*
Look over here [δ , the gesture held throughout the next sentence]. If the Smiths and the Joneses had changed tables, then
- the** people being pointed at would be from Jonesboro.
 - ?**those** people being pointed at would be from Jonesboro.
 - those** people who I would be pointing at would be from Jonesboro.
 - #**they** $[\delta]$ would be from Jonesboro.

Provided that the stress in (6c) is somewhere in the relative clause, such as on *would* or *pointing* and not on *those*, the counterfactual reading is available. Of course, we've lost Robert's careful ambiguity between *currently pointing at* and *would be pointing at* here, but this still shows that the distal demonstrative is able to pick up its referent from the counterfactual relative clause instead of from the deixis also present in the situation. This may also be true of (6b), but it's hard to say since the other, infelicitous reading with a non-restrictive relative clause (*those_[δ] people, who are currently being pointed at*) is also available.

2.2 Anaphoricity and uniqueness

Both demonstratives and definites have well-known anaphoric uses, typically to an entity not present in the current context but previously mentioned in the discourse:

- (7) John bought a book and a magazine. **The** book was expensive. (Schwarz, 2009, p.3)
- (8) I saw one quilt which was quite abstract, with lots of asymmetric diagonals. Another one was more traditional, worked in an old Amish pattern. **This** quilt was less busy than the other, but just as bold. (Roberts, 2002, p.3)

Other cases of anaphora include covarying cases and donkey anaphora:

- (9) a. John gave every child a toy that he enjoyed more than **the** child. (Schwarz, 2009, p.4)
 b. Every dog in my neighbourhood, even the meanest, has an owner who thinks that **that** dog is a sweetie. (Roberts, 2002, p.3)
- (10) a. If a farmer owns a donkey (and a goat), he beats **the** donkey. (Schwarz, 2009, p.5)
 b. Everyone who carries a laptop in their luggage must present **that** laptop to airport security if required.

Note in (8) that the demonstrative favours uses in which there are multiple salient quilts, and is often framed as carrying with it an anti-uniqueness presupposition (Dayal and Jiang, 2021). However, determining to what degree and in what (larger) context anti-uniqueness must hold is subtle: in the covarying situation of (10b), while there are definitely many laptops in the world, most people will only possess a single laptop (that is, once we narrow the context down to being able to identify *that* laptop as a single laptop at all, there is arguably only one salient laptop). Similarly, consider:

- (11) I saw a politician yesterday. **That** politician asked me to vote for his new reforms.

(11) is still felicitous with *that* even if there was only one politician present in the area, and no politicians were mentioned previously in the discourse, as long as there are multiple politicians in our world overall (in other words, as long as the indefinite is licensed over a definite in the first sentence). It arguably takes on a very mild contrastive flavour compared to using *he* or *they*¹. Thus, framing anti-uniqueness as a requirement or presupposition is too strong.

By contrast, the definite is clearly infelicitous in a context with multiple quilts, because it requires uniqueness:

- (12) #I saw one quilt which was quite abstract, with lots of asymmetric diagonals. Another one was more traditional, worked in an old Amish pattern. **The** quilt was less busy than the other, but just as bold. (Roberts, 2002, p.5)

¹Using *the politician* here is dispreferred because of the availability of a pronoun; *the politician* would be fine with an intervening sentence establishing additional possible discourse referents to render a pronoun ambiguous.

In cases of uniqueness (whether globally or in the given context), we see that the definite is felicitous and the demonstrative – due to its sense of anti-uniqueness – is not:

- (13) *In a classroom with exactly one projector:*
The / ??this / ??that projector is not being used today. (Schwarz, 2009, p.2)
- (14) The sun and the moon are part of our solar system. The earth revolves around **the / #this / #that** sun.
 (Dayal and Jiang, 2021, p.10)

(13) is felicitous with *the* even though adjacent classrooms undoubtedly also contain projectors, suggesting that the uniqueness requirement only holds within the context of the discourse. Meanwhile, using *that* or *this* may seem felicitous, but doing so immediately broadens the context to situate the projector amongst other projectors (in adjacent classrooms). We can see this more clearly in the following:

- (15) *In a town with a mayor:*
 The reception was opened by **the / #this / #that** mayor. (after Schwarz, 2009, p.40)

Here, it's difficult to make other mayors salient, resulting in infelicity for the demonstratives despite other mayors being generally available in the world.

2.3 Bridging

A classic use of definites is in cases of so-called *associative anaphora* (Hawkins, 1978) or *bridging* (Clark, 1975). In these examples, the definite is unique or anaphoric in the context of a previously mentioned noun, such as *book* or *room*:

- (16) John read a book about Schubert and wrote to **the** author. (Heim, 1982)
- (17) I walked into the room. **The** windows looked out to the bay. (Clark, 1975)

The author is clearly intended to pick out the author of the book, while *the windows* clearly refer to the windows of the room that the speaker just walked into. How exactly the uniqueness or familiarity is said to be established varies by theory: Heim (1982) proposes a kind of accommodation, while situation semantic accounts like Schwarz (2009) and Wolter (2006) propose that situations including a room typically include windows (Schwarz refers to these relationships as part-whole). However, situations containing books don't typically contain their authors in a literal sense, so more work is needed for product-producer and other relations, typically proposing some kind of anaphoric relation via the initial noun phrase (*book, room*). While some theories might propose covert content such as *the author of the book*, we see that an explicit definite or indefinite antecedent is not required for a bridging definite:

- (18) It rained all day. **The** clouds were thick and black. (Wolter, 2006)

While demonstratives are typically viewed as not being allowed in bridging contexts, Wolter (2006) shows that even demonstratives can be licensed when they receive a contrastive interpretation:

- (19) A car drove by. **The / #that** horn was honking loudly. (Wolter, 2006, p.51)
- (20) Gentian jerked the plug out of the drain and climbed out of the tub. [The cat] leapt into the sink and began biting at **that** plug.
 (Wolter, 2006, p.51, citing the 1998 book *Juniper, Gentian and Rosemary* by Pamela Dean)

Here, the plug that the cat is biting at, the sink plug, contrasts with the plug in the tub. Using *the plug* here would be insufficiently informative as it would be unclear whether Gentian was biting at the new plug in the sink or had carried the tub plug with him or her and was biting at that. In other words, demonstratives are permitted in bridging contexts as long as their sense of anti-uniqueness is satisfied, along with appropriate proximity/distance. I haven't been able to construct an example which is contrastive and proximal but bridging instead of deictic (using *this plug* in the sentence above encourages a deictic interpretation of *this* where you are standing in the bathroom), but this does not mean that it's not possible, so I will leave the question of whether *this* is allowed in bridging contexts open.

Finally, note that using demonstratives in bridging contexts isn't limited to part-whole relations, and may equally be used with a producer-product relation:

- (21) Dean grabbed the book off the shelf and complained loudly that the author wrote the most boring action sequences he'd ever seen. Then he grabbed another book and started complaining about **that** author.

2.4 Relative clauses

Restrictive relative clauses are another case in which both definites and demonstratives can occur. In English, only the distal demonstrative *that* typically occurs with restrictive relative clauses. Wolter (2006) notes that while these uses have been described as stilted or overly formal, they are in fact perfectly natural with plural or mass nouns, such as (22c).

- (22) a. **The / that** hominid who discovered how to start fires was a genius. (King, 2001)
 b. What's wrong with Bill? Oh, **the** dog that he tried to pet last Sunday bit him.
 (adapted from Hawkins, 1978, p.131)
 c. At what point exactly does fact drift over into fiction? The book is so seamlessly written that perhaps not even **those** people who own upstairs and downstairs copies of the Warren report could say for certain. (Wolter, 2006, p.112, citing a newspaper article)

In this case, it is actually the relative clause itself which guarantees the "uniqueness" (or appropriate familiarity) required by the definite or demonstrative. Notice that in (22b), we can paraphrase this with an indefinite as *Bill tried to pet a dog last night, and it bit him* or *Bill tried to pet a dog last night which bit him instead*. Schwarz (2009) suggests that this shows that their referent is in some sense introduced by the relative clause. Of course, if we use the same restrictive relative clause again later in the discourse to refer to the same dog (e.g. if there are already other dogs in the discourse), this merely refers to the original discourse referent.

- (23) A: What's wrong with Bill?
 B: Oh, [**the** dog that he tried to pet last Sunday] bit him.
 A: Huh, Bill had no trouble when he tried to pet a dog in the park a few weeks ago.
 B: Turns out that he's not the dog-charmer that he thought he was!
 A: So, did Bill ever see [**the** dog he tried to pet last Sunday] again?

Thus, it's possible that the effect that Schwarz is observing is merely an effect of accommodation, which is facilitated by the relative clause (the relative clause provides enough information that the dog in question and its uniqueness is easy to accommodate, which is not the case for just *the dog*).

- (24) *Assuming there is no salient dog in the previous discourse/context:*
 #What's wrong with Bill? Oh, **the** dog bit him.

Interestingly, we don't see an anti-uniqueness effect when using demonstratives with relative clauses, even if we assume there to be exactly one such hominid or dog (consider: *hominid who first discovered...*) I will speculate for now that perhaps the anti-uniqueness is discharged at the level of hominids (of which there are many), not at hominids who first discovered how to start fires, perhaps similar to the effect we saw for covarying laptops in (10b).

On the other hand, if *this* occurs with a relative clause, as in (25), it is usually the case that the NP (hominid) in question is already known in the discourse, since we cannot simultaneously introduce a new discourse referent and have them be proximal.

(25) **This** hominid who discovered how to start fires was a genius.

There are two options: either the relative clause loses its restrictive meaning, becoming merely a repetition of a description previously used for the hominid (or a not at-issue fact about the hominid if some other description of this hominid was previously used; for this sentence, that seems unlikely). Alternatively, *this* takes on an emotive effect (Wolter, 2006). (The emotive reading is also relevant for (22a), especially for those who find this example stilted otherwise.) I will not test for emotive uses of definites / demonstratives explicitly in this paper, but we will see them again in other cases where the proximal demonstrative is not felicitous otherwise.

2.5 Other modified NPs

Lastly, consider another way of specifying NPs, namely adding modifiers. Specifically, we consider two cases which will be relevant for German: phrases such as *the colour red* and NP complements. Phrases like *the colour red* specify a globally unique colour, meaning that just as for unique items like *the sun* and *the moon*, we can only use the definite and not a demonstrative with them:

(14) The sun and the moon are part of our solar system. The earth revolves around **the** / **#this** / **#that** sun.

(26) They asked me what I thought of **the** / **#that** colour red.

Likewise, an NP with a complement uniquely specifies that NP. Unlike for restrictive relative clauses (which also uniquely specify the NP), we do see something like an anti-uniqueness effect here, reducing the use of demonstratives to having an emotive effect or referring to a previously mentioned rumour:

(27) a. **The** rumour that the CEO is retiring is patently false.

b. **That / this** rumour that the CEO is retiring is patently false.

While (27b) is felicitous², it seems to presuppose the listener already knowing about the rumour, unlike its counterpart (27a), which can be used to introduce the rumour in question.

2.6 Summary of English

Our findings about English demonstratives and definites are summarized in the following table. P-P represents product-producer and P-W represents part-whole bridging; “with δ ” abbreviates the fact that the distal

²The version with the proximal demonstrative may be a little hard to get, but consider the following context:

(i) *Context: A and B are talking about several rumours in the office.*

A: Did you hear the rumour that Mark isn't getting promoted this year?

B: No, but I heard that the CEO might be retiring.

A: Look, this rumour that the CEO is retiring circulates every year, and it's patently false.

demonstrative is only rigid when it takes its referent from deixis, and is not rigid with a relative clause. Lacking a better abbreviation, I will refer to the class of phrases like *the colour red* as Nominal Modifiers (NM), following Hawkins (1978). I will not include emotive uses of demonstratives in this table (applicable for *this* for restrictive relative clauses and for *this* and *that* for NP complements).

	Deixis	Rigidity	Anaphora	RRCs	Bridging	NP compl.	NM	Unique	Distance
<i>this</i>	yes	yes	yes	no	no?	anaph. only	no	anti ¹	proximal
<i>that</i>	yes	with δ	yes	yes	P-P, P-W	anaph. only	no	anti ¹	distal
<i>the</i>	no	no	yes	yes	P-P, P-W	yes	yes	yes	neutral

Table 1: English demonstratives and definites.

¹Demonstratives show an anti-uniqueness/contrasting effect when stressed or when used with deixis, but this effect is subtle when they are used anaphorically or with relative clauses.

We see that English has two classes: demonstratives (*this* and *that*) and definites (*the*). Any differences between *this* and *that* can be attributed to difficulties fulfilling the proximity requirement of *this* in the relevant environment.

3 The Standard German data

We now turn to the data in Standard German, following the same set of tests as above. We will test the two demonstratives *dieser/e/es* and *jener/e/es*, as well as the strong (non-contracting) definite and the weak (contracting) definite. I will use Schwarz's labels 'strong' and 'weak' throughout this section, but I will use them primarily as convenient ways of describing the non-contracting and contracting definites rather than attaching any major theoretical import to these labels. Data will be drawn from Schwarz (2009) where available and extended with my own judgements for demonstratives as well as with naturally occurring examples.

3.1 Deixis

Beginning with deixis, we see that the strong definite and *dieser* support picking up their referent exclusively from multiple instances of deixis, while the weak definite does not:

- (28) a. Hans ist **in dem** $[\delta_1]$ / **diesem** $[\delta_1]$ Auto gekommen, nicht **in dem** $[\delta_2]$ / **diesem** $[\delta_2]$ Auto.
 Hans is in the / this car come not in the / this car
 'Hans came in this car, not in this car.' (pointing at car 1 with gesture δ_1 then car 2 with δ_2)
 (Schwarz, 2009, p.54)
- b. #Hans ist **im** $[\delta_1]$ Auto gekommen, nicht **im** $[\delta_2]$ Auto.
 Hans is in the car come not in
 'Hans came in the (by) car, not in the (by) car.' (pointing at car 1 with gesture δ_1 then car 2 with δ_2)

(28b) is a contradiction, essentially meaning that Hans both came by car and didn't come by car. (This reading becomes preferred because there is no single salient car in the situation for the weak definite article to latch onto, resulting instead in an English-style weak definite reading along the lines of *take the train*.) The weak definite article is simply unable to pick up the two different cars as referents from the deixis.

Constructing this example with *jener/e/es* is difficult simply because it is very difficult to have a situation in which you can use distal *jener/e/es* for both cars. It is likely that one car is physically closer or more salient than the other, in which case you would use *diesem...jenem* or *dem...jenem* for contrast. While having one car close and the other far away licenses a single use of *jener/e/es*, it seems that it has stricter distal requirements than English *that*, or perhaps a requirement for contrasting distance, since having both cars be moderately far away still makes using *jener/e/es* twice dispreferred.

(29) *Perhaps in a situation where the two cars are so distant that you can barely see them, and also far apart from each other:*

?Hans ist **jenem**[δ_1] Auto gekommen, nicht **jenem**[δ_2] Auto.

Hans is in that car come not in

‘Hans came in that car, not in that car.’ (pointing at car 1 with gesture δ_1 then car 2 with δ_2)

Certainly, *jener/e/es* can be used with deixis, as in the following:

(30) Hans ist **in diesem**[δ_1] Auto gekommen, nicht **in jenem**[δ_2] Auto.

Hans is in the car come not in the car

‘Hans came in this car, not in that car.’ (pointing at close car 1 with gesture δ_1 then far car 2 with δ_2)

The next test, the Roberts-style test where we test deixis by virtue of anchoring to the current word (rigidity), has some issues. We cannot use the exact example of being from a city because we need a prepositional verb, such as *an jmdm. Interesse zeigen* ‘be interested in sb.’ More unfortunately, there is no way to translate the nonfinite clause *the man being pointed at* into German such that it remains nonfinite. We need to use a relative clause, at which point the strong definite becomes required with the relative clause (at least according to Schwarz (2009) – see Section 3.4 for discussion).

(31) *Context: Karl and Paul are sitting on two chairs in the park with Paul’s puppy, Leo, who likes to chew on shoelaces. Karl is wearing shoes with big floppy shoelaces and Leo is very interested in him and his shoes. The speaker is pointing at Paul and holds this gesture δ throughout the utterance. Assume that Karl and Paul are close to the speaker (for *diesem*) or far from the speaker (for *jenem*) as required.*

a. Wenn Karl und Paul Platz gewechselt hätten, dann wäre Leo **#?am / an**
if Karl and Paul place swapped have.COND.3PL, then be.COND.3SG Leo at.the / at
dem Mann, auf den gezeigt würde, sehr interessiert.
the man to whom pointed be.COND.3SG very interested

‘If Karl and Paul had swapped places, then Leo would be very interested in the man who would be (being) pointed at.’

b. #Wenn Karl und Paul Platz gewechselt hätten, dann wäre Leo **an dem**[δ] /
if Karl and Paul place swapped have.COND.3PL, then be.COND.3SG Leo at the /
diesem[δ] / **jenem**[δ] Mann sehr interessiert.
this / that man very interested

‘If Karl and Paul had swapped places/chairs, then Leo would be very interested in this man.’

- c. #Wenn Karl und Paul Platz gewechselt hätten, dann wäre Leo **am**[δ] Mann
 if Karl and Paul place swapped have.COND.3PL, then be.COND.3SG Leo at.the man
 sehr interessiert.
 very interested
 ‘If Karl and Paul had swapped places/chairs, then Leo would be very interested in the man.’

What we can conclude is that when deixis is present, the strong definite (with no relative clause) and the two demonstratives retain their referent from the current world, i.e. continue refer to Paul despite Karl being in that place in the counterfactual world. As we saw earlier, the weak definite is unable to pick up a referent from deixis and so (31c) is infelicitous because there is no unique man in the situation. Lastly, we can conclude that when a relative clause is attached to the strong definite which describes the outcome of the pointing in the counterfactual world, the strong definite need not pick up its referent from the deixis and can instead successfully refer to Karl, rendering (31a) felicitous. In fact, this is also true for the demonstrative *jener/e/es*, which also works well with relative clauses (see Section 3.4; *dieser/e/es* generally does not occur with relative clauses), similar to what we saw in English:

- (32) Wenn Karl und Paul Platz gewechselt hätten, dann wäre Leo an **jenem** Mann, auf
 if Karl and Paul place swapped had.COND, then would.be Leo at that man to
 den gezeigt würde, sehr interessiert.
 whom point would.be very interested
 ‘If Karl and Paul had swapped places, then Leo would be very interested in that man who would be (being) pointed at.’

What we cannot conclude is anything about how the weak definite would behave with a counterfactual relative clause, since it cannot occur with one for independent reasons.

3.2 Anaphoricity and uniqueness

Next, we will investigate anaphoricity and uniqueness. These are precisely the areas where Schwarz (2009) argues that the strong and weak definite are distinguished. Schwarz argues that for anaphors, we must use the strong definite, while for items which are unique in the broader context or the world, the weak definite is required. For example, in (33), *book* is non-unique in situation the speaker is in, since we are in a library, so we must use the strong definite:

- (33) In der New Yorker Bibliothek gibt es ein Buch über Topinambur. Neulich war ich
 in the New York.GEN library exists there a book about topinambur recently was I
 dort und habe **#im** / **in dem** Buch nach einer Antwort auf die Frage gesucht,
 there and have in.the / in the book for a answer to the question
 ob man Topinambur grillen kann.
 searched whether one topinambur grill
 ‘In the New York public library, there is a book about topinambur [Jerusalem artichoke]. Recently, I was there and searched in the book for an answer to the question of whether one can grill topinambur.’
 (Schwarz, 2009, p.30)

Meanwhile, in the following two examples, the NP is either unique in context or globally unique³:

- (34) a. *In a town with a mayor:*
 Der Empfang wurde **vom** / **#von dem** Bürgermeister eröffnet.
 the reception was by.the / by the mayor opened
 ‘The reception was opened by the mayor.’ (Schwarz, 2009, p.40)
- b. Armstrong flog als erster **zum** / **#zu dem** Mond.
 Armstrong flew as first to.the / to the moon
 ‘Armstrong was the first (one) to fly to the moon.’ (Schwarz, 2009, p.40)

Schwarz gives another example of anaphoricity where it is possible that the described NP happens to be unique in the (narrow) context. (There will certainly be other politicians in the world, but there may only be one salient one.) Nevertheless, because it is anaphoric, he says that the strong definite must be used:

- (35) Hans had einen Schriftsteller und einen Politiker interviewt. Er hat **von dem** / **#vom**
 Hans has a writer and a politician interviewed he has from the / from.the
 Politiker keine interessanten Antworten bekommen.
 politician no interesting answers gotten
 ‘Hans interviewed a writer and a politician. He didn’t get any interesting answers from the politician.’
 (Schwarz, 2009, p.30)

I disagree somewhat with Schwarz’s judgement that *vom* is infelicitous here (though as a diglossic speaker of German / Swiss German, with Swiss German using *vom* in a different way to Standard German – see Section 5 – my claims need further verification). To me, this depends on the intended meaning. I find *von dem Politiker* slightly more contrastive (either with the writer or with other politicians), and that I tend to slightly stress *Politiker* when using *von dem*. Provided that no other specific politicians are salient, though, I also find *vom Politiker* fairly acceptable if there is no stress. Schwarz also notes that in stories where the main character is essentially unique (or becomes unique / by far the most salient as we settle into the narrative), the weak definite may be used with anaphoric effect, as shown in (36). Schwarz argues that it is not actually anaphoric, but instead uses uniqueness to achieve the same effect.

- (36) In Olersem lebte einmal ein Fisher mit seiner Frau und sieben Kindern. Jeden Nachmittag
 In Oldsum lived once a fisherman with his wife and seven children every afternoon
 gingen die Dorfbewohner **zu dem** Fisher, um Fisch zu kaufen und den
 went the village.inhabitants to the fisherman in.order.to fish to buy and the
 neuesten Tratsch auszutauschen. Auch die Dorfkneipe wurde **vom** Fischer täglich mit
 newest gossip to.exchange also the village.pub was by.the fisherman daily with
 frischem Fisch versorgt...
 fresh fish supplied
 ‘In Oldsum there once lived a fisherman with his wife and seven children. Every afternoon, the inhabitants of the village went to the fisherman to buy fish and to exchange the newest gossip. The village pub was also supplied daily with fresh fish by the fisherman...’ (Schwarz, 2009, p.47)

³Technically, even *moon* is not globally unique, since we may comfortably talk about Jupiter’s moons. However, this requires an expansion of the discourse’s “horizon” not dissimilar to invoking a counterfactual antecedent. Our default discourse context, whatever that is, contains one moon, and so the moon is typically regarded as globally unique.

Schwarz adapts this example from Fering, a dialect of German which has distinct articles for the strong and weak definite (*a* and *di*). Notice that the first reference to the fisherman uses the strong definite *zu dem*. If it used the weak instead, this would either have an English-style weak definite reading (like *going to the butcher*, which may be any butcher) or it would tend to imply to me that the village only has one fisherman (and that this should be a known / easy to accommodate fact about the village), which seems improbable given that Oldsum is a village on a small island in the North Sea. The second reference, by contrast, uses the weak definite *zum*. Apparently we are now at a stage in the story where we don't need to contrast this fisherman with other fishermen, or where this fisherman is sufficiently unique, or where we are not at risk of an even "weaker" non-specific reading. The pattern is the same for the original Fering example. It's not possible to disentangle these possibilities given this single story, but the fact remains that (once certain conditions are met) the weak definite can be used in an apparently anaphoric fashion.

Previewing Section 3.3 on bridging in German, Schwarz finds in an experiment on bridging that the strong definite is consistently preferred for certain types of bridging, but it's not the case that the weak definite is rated a huge amount lower for those types (just consistently slightly lower). Thus, what we may be seeing is that in situations where there is clearly not uniqueness, the strong definite is required for anaphors, but in situations where uniqueness in some sufficiently narrow context is given, it depends whether the speaker is focusing on that narrow context or situating the sentence meaning in a broader context (in which there are indeed several politicians or fishermen), and that variation might occur for that reason. We do know whether in that case the weak definite is indeed anaphoric in a formal sense, or whether it (as Schwarz argues) achieves the same effect by appealing to uniqueness in the context.

Schwarz notes that these effects are not limited to straightforward discourse anaphora, and also occur in covarying contexts:

- (37) a. Der Hemul gab jedem Kind ein Geschenk, das ihm mehr Spaß machte als **dem** Kind.
 the Hemul gave every child a present that him more fun made than the child
 'Hemul gave every child a present that he enjoyed more than the child.' (Heim, 1991, p.507)
- b. In jeder Bibliothek, die ein Buch über Topinambur hat, sehe ich **#im** / **in dem** Buch
 in every library that a book about topinambur has look I in.the / in the
 nach, ob man Topinambur grillen kann.
 book whether one topinambur grill can
 'In ever library that has a book about topinambur [Jerusalem artichoke], I check in the book
 whether one can grill topinambur.' (Schwarz, 2009, p.33)

Schwarz does not give an example like (37a) which has the quantifier directly bind the definite. When I try to construct these, such as (38), I find both the strong and the weak definite acceptable, depending on the situation (see the discussion above), so I am unable to comment on whether the strong/weak distinction is borne out for directly bound covarying anaphora. I agree with Schwarz that (37b) only allows the strong indefinite, since there are many books. I believe that Schwarz would argue that because the donkey is unique in the per-farmer situation in (38), we would expect only the weak definite to be grammatical, since Schwarz argues that his uniqueness/anaphoricity distinction is preserved across covarying contexts. I am tentatively inclined to agree with Schwarz, since I prefer the weak definite, but I am not sure whether the strong definite is ruled out.

- (38) Wenn ein Bauer einen Esel und ein Pferd besitzt, erwartet er **vom** / **?von dem**
 if a farmer a donkey and a horse owns expects he from.the / from the
 Esel meistens weniger.
 donkey usually less
 ‘If a farmer has a donkey and a horse, he usually expects less from the donkey.’

This covers the distribution of the strong vs. weak definite to the extent that we can determine it. We see that the weak definite requires uniqueness and that the strong definite is required in anaphoric contexts where uniqueness is not met. I will now repeat these examples with demonstratives, showing that German demonstratives can be used anaphorically but are not compatible with uniqueness. As in English, the degree to which anti-uniqueness is present for anaphoric demonstratives is subtle.

- (39) In der New Yorker Bibliothek gibt es ein Buch über Topinambur. Neulich war ich
 in the New York.GEN library exists there a book about topinambur recently was I
 dort und habe **in diesem** Buch nach einer Antwort auf die Frage gesucht, ob
 there and have in this book for a answer to the question searched
 man Topinambur grillen kann.
 whether one topinambur grill
 ‘In the New York public library, there is a book about topinambur [Jerusalem artichoke]. Recently, I was there and searched in the book for an answer to the question of whether one can grill topinambur.’
 (Schwarz, 2009, p.30)

- (40) *Telling a story about the city you used to live in a long time ago:*
 In dieser Stadt gab es viele Bibliotheken, davon besuchte ich aber fast ausschließlich
 in this city was there many libraries, of.them visited I but almost exclusively
 die Universitätsbibliothek. **In jener** Bibliothek gab es nämlich die besten Lesesessel.
 the university.library in that library was there PART the best reading.chairs
 ‘In this city there were many libraries, but among them I almost always visited the university library. This is because that library had the best reading chairs.’

- (41) a. *In a town with a mayor:*
 #Der Empfang wurde **von diesem** / **jenem** Bürgermeister eröffnet.
 the reception was by this / that mayor opened
 ‘The reception was opened by the mayor.’
 b. #Armstrong flog als erster **zu diesem** / **jenem** Mond.
 Armstrong flew as first to this / that moon
 ‘Armstrong was the first (one) to fly to the moon.’

(41a) is infelicitous on the intended reading. It’s felicitous if *diesem* is emotive (this possibility doesn’t appear to be available for *jenem*, interestingly), and of course is felicitous if we expand our context / discourse to discuss multiple mayors, in which case either demonstrative may be used anaphorically to refer to a particular mayor. Meanwhile, there is no way to rescue (41b) while still referring to Earth’s moon.

Finally, in cases where the NP need not be unique, we see rather interestingly that *diesem* has a stronger anti-uniqueness effect than *jenem*:

- (42) Hans had einen Schriftsteller und einen Politiker interviewt. Er hat **von diesem** / **von**
 Hans has a writer and a politician interviewed he has from this / from
jenem Politiker keine interessanten Antworten bekommen.
 that politician no interesting answers gotten
 ‘Hans interviewed a writer and a politician. He didn’t get any interesting answers from this / that
 politician.’ (Schwarz, 2009, p.30)

While in English, both *this* and *that* seem acceptable just as anaphors, to me German *diesem* suggests a contrast with other politicians that *jenem* does not.

3.3 Bridging

Moving to bridging cases, Schwarz (2009) argues that the same strong/weak split (strong definites for anaphors, weak definites for uniqueness) is maintained for bridging. That is, in part-whole situations where the presence of the whole necessarily implies the presence of the (unique) part, the weak definite is used, while in cases such as product-producer (*play–author*), the strong definite is needed. In his situation-semantic theory, Schwarz justifies this because the author is not unique or even present in the situation that contains the book (and presumably once we expand it to contain the author, there are many authors), so the relation must be anaphoric via the book instead.

- (43) Der Kühlschrank war so groß, dass der Kürbis problemlos **im** / **#in dem**
 the fridge was so big that the pumpkin without.problem in.the / in the
 Gemüsefach untergebracht werden konnte.
 vegetable.compartment stowed be could
 ‘The fridge was so big that the pumpkin could easily be stowed in the crisper.’
 (Schwarz, 2009, p.52)
- (44) Das Theaterstück missfiel dem Kritiker so sehr, dass er in seiner Besprechung kein gutes
 the play displeased the critic so much that he in his review no good
 Haar **an dem** / **#am** Autor liess.
 hair on the / on.the author left
 ‘The play displeased the critic so much that he tore the author to pieces in his review.’
 (Schwarz, 2009, p.53)

Schwarz conducted a survey on 29 native speakers of German. Participants were asked to rate 12 part-whole and 6 product-producer sentences with either a strong or weak definite article on a scale of 1-5 (where 1 is good and 5 is bad, following the German school grading system). Other sentences in the experiment included ones which were strictly ungrammatical, norming the bottom end of the scale (5) at ungrammaticality (rather than e.g. infelicity). Schwarz found an overall preference for the weak article for the part-whole sentences and an overall preference for the strong article for product-producer sentences. These differences were relatively small compared to the 1-5 rating scale, measuring 0.47 points for the product-producer and 0.35 points for the part-whole case respectively. Schwarz attributes this to the presence of ungrammatical sentences which affected how the scale was used. Nonetheless, both effects were found to be statistically significant (i.e. robust). Schwarz thus concludes that part-whole situations require the weak article while other situations require the strong article. (Note that this conclusion is significantly stronger than concluding that there is a preference for one or the other.)

We see that only the examples from Schwarz that license the strong definite also license the demonstratives, provided a sense of contrast is permitted among authors:

- (45) #Der Kühlschrank war so groß, dass der Kürbis problemlos **in diesem**
 the fridge was so big that the pumpkin without.problem in this
 Gemüsefach untergebracht werden konnte.
 vegetable.compartment stowed be could
 ‘The fridge was so big that the pumpkin could easily be stowed in this crisper.’
- (46) Das Theaterstück missfiel dem Kritiker so sehr, dass er in seiner Besprechung kein gutes
 the play displeased the critic so much that he in his review no good
 Haar **an diesem** / **jenem** Autor liess.
 hair on this / that author left
 ‘The play displeased the critic so much that he tore this / that author to pieces in his review.’

Note that for me, the use of *diesem* is better in German in (46) than in the English translation; for English, we concluded that *this* was generally not available for bridging contexts.

Recall that we were able to use English demonstrative *that* for a part-whole relation when the part was contrastive. Translating (20) into German, we see that the demonstrative, specifically *diesem*, is acceptable in this case too, as is the stressed strong definite *dem*. We need it to be stressed to give the contrastive reading – unstressed *dem* would be ambiguous between plugs. I actually prefer *diesem* over *jenem* and *dem*, contrasting with English, where proximal *this* does not seem available for bridging in this context. *Jenem* would probably be okay in a context where the sink was less central to the discourse (further away spatially or metaphorically).

- (47) a. Enzian zerrte den Stöpsel aus dem Abfluss und kletterte aus der Badewanne. Die Katze
 Gentian tugged the plug out the drain and climbed out the bathtub the cat
 sprang in das Waschbecken und begann **an DEM** / **diesem** / **?jenem** Stöpsel zu
 jumped into the bathroom.sink and began at the / this / that plug to
 nagen.
 gnaw
 ‘Gentian jerked the plug out of the drain and climbed out of the tub. The cat leapt into the sink and began gnawing at that plug.’
- b. #Enzian zerrte den Stöpsel aus dem Abfluss und kletterte aus der Badewanne. Die Katze
 Gentian tugged the plug out the drain and climbed out the bathtub the cat
 sprang in das Waschbecken und begann **an dem** / **am** Stöpsel zu nagen.
 jumped into the bathroom.sink and began at the / at.the plug to gnaw
 ‘Gentian jerked the plug out of the drain and climbed out of the tub. The cat leapt into the sink and began gnawing at the plug.’

This suggests that Schwarz’s distinction between part-whole and product-producer relationships stems not from whether the relationship is unique or anaphoric, i.e. not from whether the part is literally present (and unique) in any situation containing the whole, but rather from the fact that part-whole contexts are typically unique and not contrastive, (a) conflicting with the sense anti-uniqueness/contrast of demonstratives and (b) enabling the use of the weak definite, which appears to be preferred over the strong definite when it is available to use. Remove uniqueness, and the situation inverts.

3.4 Restrictive relative clauses

Schwarz observes that strong definites, but not weak definites, can occur with relative clauses:

- (48) Fritz ist jetzt **in dem** / **#im** Haus, das er sich letztes Jahr gebaut hat.
 Fritz is now in the / in.the house that he self last year built has
 ‘Fritz is now in the house that he built (himself) last year.’ (Schwarz, 2009, p.67)

Personally, I don’t find the weak definite infelicitous in this particular example, but that may be because I have trouble getting a true restrictive relative clause meaning. In order to make it restrictive I need to accommodate a context where Fritz has several houses that he could be in and I need the relative clause to determine which house he’s in. This may be the context that Schwarz had in mind, but it isn’t one that springs to mind for me. Even in contexts where there are clearly several books, I have trouble judging whether the weak definite is felicitous or not.

- (49) In der New Yorker Bibliothek gibt es viele gute Kinderbücher. **Von dem** / **??vom** Buch,
 in the New York library there is many good children’s.books of the / of.the book
 das der Bibliothekar mir empfohlen hat, halte ich aber nicht viel.
 that the librarian me recommended has hold I but not much
 ‘There are many good children’s books in the New York library. I didn’t think much, though, of the book that the librarian recommended to me.’

I will tentatively conclude that the weak definite is ungrammatical with restrictive relative clauses, but that more judgements from native speakers are needed. I was unable to find a naturally occurring example of a restrictive relative clause with a weak definite, but this may be as much because there were many non-restrictive examples (indistinguishable without a human reading the sentence) and I did not find a restrictive example among them.

As in English, it’s easy to find examples of relative clauses with the distal demonstrative *jener/e/es*⁴, while the proximal demonstrative is ungrammatical with relative clauses.

- (50) In der Medizin bezeichnet vertikal **jene** / **#diese** Linie, die vom Scheitel zur Sohle
 in the medicine describes vertical that / this line which from.the crown to.the sole
 zieht.
 runs
 ‘In medicine, ‘vertical’ describes the line which runs from the crown of the head to the sole of the foot.’

⁴<https://de.wikipedia.org/wiki/Lotruchtung> and https://de.wikipedia.org/wiki/Badener_Artikel, both retrieved 2022-04-28

- (51) Die liberale Regierung des Kantons Luzern lud Ende Dezember 1833 zu einer
 the liberal government of.the canton Lucerne invited end December 1833 to a
 Konferenz nach Baden ein, um das Verhältnis zwischen Kirche und Staat neu zu
 conference to Baden PREP in.order.to the relationship between church and state new to
 regeln. Eingeladen waren **jene** Kantone, die zum Gebiet der Bistümer Basel, St.
 regulate invited were those cantons which to.the area of.the dioceses Basel St.
 Gallen und Chur gehörten.
 Gallen and Chur belonged

‘The liberal government of the canton Lucerne announced a conference in Baden at the end of December 1833, in order to create new regulations for the relationship between church and state. Invited were those cantons which belonged to the area of the dioceses of Basel, St. Gallen and Chur.’

In this example as well as below, *PREP* denotes the preposition of the separable verb *ein-laden* ‘invite’, which cannot stand alone and is difficult to translate.

3.5 Other modified NPs

Schwarz briefly discusses two other kinds of NPs, namely NPs with complements and ones like *the colour red*. In both cases, one would expect the NP in question to be unique in the context (there is only one colour red, and the NP complement fully specifies the content of the rumour), yet the weak definite and strong definite are both allowed:

- (52) **Am / an dem** Gerücht, dass der Bundeskanzler zurücktreten will, ist wohl nichts dran.
 at.the / at the rumour that the chancellor resign wants is probably nothing at.it
 ‘There is probably nothing to the rumour that the chancellor wants to resign.’

(Schwarz, 2009, p.70)

- (53) **Zur / zu der** Farbe rot fällt mir nichts ein.
 about.the / about the colour red come.to.mind me nothing *PREP*

‘For the colour red, nothing comes to mind.’

(Schwarz, 2009, p.70)

I agree with Schwarz on both of these judgements, and cannot find a context in which I prefer one over the other. Interestingly, the demonstratives *dieser* and *jener* are bad with *the colour red*, just as in English for *#this colour red* (if not interpreted as a subtype of red). This is one of the very few cases where the demonstrative and the strong definite pull apart.

- (54) **#Zu dieser / jener** Farbe rot fällt mir nichts ein.
 about this / that colour red come.to.mind me nothing *PREP*

‘For this / that colour red, nothing comes to mind.’

As in English, both demonstratives can be used with an NP complement, but only anaphorically in reference to a previously mentioned rumour or, for *diesem*, emotively:

- (55) **An diesem / jenem** Gerücht, dass der Bundeskanzler zurücktreten will, ist wohl nichts
 at this / that rumour that the chancellor resign wants is probably nothing
 dran.
 at.it

‘There is probably nothing to this / that rumour that the chancellor wants to resign.’

3.6 Summary of Standard German

We can conclude this section with the summary in Table 2. As before, P-P represents product-producer and P-W represents part-whole bridging; “with δ ” abbreviates the fact that some items are only rigid when they take their referent from deixis, and are not rigid with a relative clause. Nominal Modifier (NM) refers to the class of phrases such as *the colour red*.

	Deixis	Rigidity	Anaphora	RRCs	Bridging	NP compl.	NM	Unique	Distance
<i>dieser/e/es</i>	yes	yes	yes	no	P-P, P-W	anaph. only	no	anti ¹	proximal
<i>jener/e/es</i>	yes	with δ	yes	yes	P-P, P-W	anaph. only	no	anti ¹	distal
<i>der/die/das</i> , non-c.	yes	with δ	yes	yes	P-P, P-W ²	yes	yes	no ¹	neutral
<i>der/die/das</i> , contr.	no	– ³	yes?	no?	P-W	yes	yes	yes	neutral

Table 2: German demonstratives and definites.

¹Demonstratives show an anti-uniqueness/contrasting effect when stressed or when used with deixis, but this effect is subtle when they are used anaphorically or with relative clauses. This effect appears to be weak or not present for non-contracting *der/die/das*.

² Part-whole is supported for non-contracting *der/die/das* only when stressed, giving a contrasting reading.

³ We cannot test rigidity using the test in Roberts (2002) for the weak definite.

We see that the picture differs substantially from English: not only do we have three classes (demonstrative, strong definite, weak definite), but within the demonstratives we see differences between the English proximal and distal and their German counterparts, such as *dieser/e/es* having no trouble with bridging contexts, unlike *this*. We also see that the picture is not as simple as Schwarz suggests, and the boundaries between the three categories are not as clear as we would like. While uniqueness (and an inability to take deixis) does reliably characterise the weak definite, it’s not necessarily the case that anaphoricity characterises the strong definite. Demonstratives are also anaphoric, and the strong definite can also be deictic. In many cases, including apparently anaphoric ones, both the strong and the weak definite can be used, and their competition revolves around whether uniqueness is given by the speaker’s intended context. Perhaps something like *Maximise Presupposition!* (Heim, 1991) is all that is needed to explain why the weak definite is the only available choice in contexts of uniqueness, with the strong definite conveying the same information as the weak definite except for the uniqueness presupposition. (The strong definite can still be taken to have a uniqueness presupposition of sorts, as in e.g. Dayal and Jiang (2021), but it is weaker than the weak definite’s presupposition, since it may be satisfied by being unique in a very narrow context or uniquely equal to some anaphorically indexed individual.)

We also see that the boundary between the strong definite and demonstratives is not that clear. (Indeed, Heim (1991) refers to cases of what Schwarz calls strong definites as involving demonstratives, and Dayal (2022) questions the difference between the two.) Both strong definites and demonstratives can be used with deixis, restrictive relative clauses and anaphora, and are rigid when used with deixis (but not with a relative clause,

if they can take one). Demonstratives seem to have a stronger sense of contrast / anti-uniqueness; this is not obtained from the strong definite unless it is stressed (deixis or contrast tends to add a stress). This also results in the strong definite being preferred / least marked for anaphora. Interestingly, this does not result in the strong definite being more marked for deixis. On the contrary, *jener/e/es* is the least used and most marked of the demonstratives (see Figure 1), given its strict distal requirements; the strong definite is frequently used when emphasizing distance is not important, or in collocations such as *dies and das* ‘this and that’. In other words, the strong definite frequently seems to live a second life as a demonstrative, filling a gap left open between proximal *dieser/e/es* and highly distal *jener/e/es*.

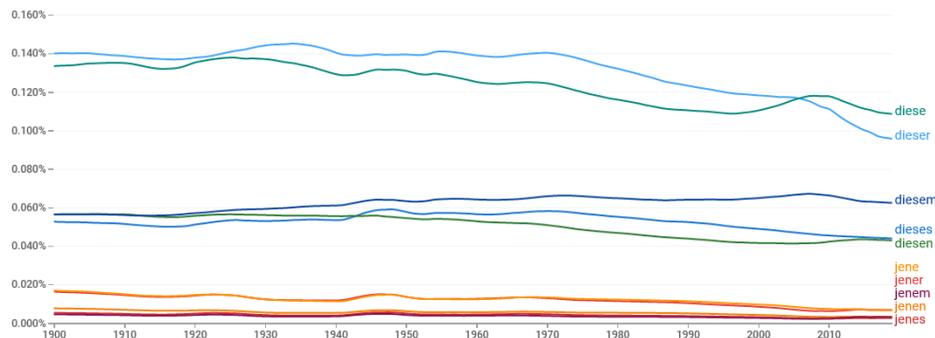


Figure 1: Frequency of German demonstratives from 1900-2019 in the Google Books Corpus⁵.

(56) a. *Referring to two pictures nearby:*

Dieses Bild ist schöner als **das** / **?jenes** Bild.
 this picture is prettier than the / that picture
 ‘This picture is prettier than that picture.’

b. Was hast du am Wochenende getan? **Dies** und **das** / **#jenes**.
 what have you at.the weekend done **this** and **the** / **that**
 ‘What did you do at the weekend? This and that.’

The only difference we see between demonstratives and strong definites is for these puzzling modified NPs (*the colour red* and NPs with complements), where the demonstrative is either unavailable or seems to introduce a sense of the complement’s content already being known, and where the strong definite and weak definite are available seemingly interchangeably. Why precisely these NPs are the locus of this contrast (and of a surprising lack of contrast between the strong and the weak) remains an open question.

4 Theoretical accounts

Most accounts of German focus only on the strong/weak distinction, with very few (among them Dayal and Jiang, 2021) attempting to also cover demonstratives. Meanwhile, theories of demonstratives often don’t discuss definites, perhaps since the English definite does not display particularly similar behaviour. While I will not discuss any individual theory in detail, I will sketch how none of the theories discussed in the seminar are able to account for the whole picture that we discovered.

⁵https://books.google.com/ngrams/graph?content=dieses%2Cjenes%2Cdiesen%2Cjenen%2Cdiesem%2Cjenem%2Cdieser%2Cjener%2Cdiese%2Cjene&year_start=1900&year_end=2019&corpus=31

Our baseline theory (Chierchia and Sağ, 2022; Chierchia p.c.) presents a straightforward account where “standard” (incl. strong) definites are unique in a domain, with appropriate domain selection forming a key part of their function ($\iota x \in D. P(x)$). Weak definites, by contrast, are said to be unique in the universe of discourse – a true $\iota x. P(x)$. Any seeming non-uniqueness is explained by covert material which provides a relation to some known material, such as *the mayor of our/this-city*. Given appropriate covert material, this makes the weak definite unique in the universe of discourse. While this covers some of the weak/strong distribution, it would need some explanation of how they compete and precisely which relations may be covert. Why is the weak definite preferred when uniqueness can be satisfied? Can we appeal to *Maximise Presupposition!* by saying that ιx is a stronger presupposition (is it a presupposition?) than $\iota x \in D$? Why can we not complete *the author* with *the author of the book* to allow it with a weak definite?

As for why relative clauses require the strong definite, we might try to argue that the relative clause establishes D , but given that we may apparently have covert material for weak definites, it’s difficult to argue why the overt relative clause can’t fulfil the same function and/or be incorporated into $P(x)$ as ιx . [house that Fritz built]]. Likewise, we might argue that D may be provided by deixis, thus explaining why strong definites can take deixis, but this then doesn’t really provide a difference between strong definites and demonstratives, since both now use the same mechanism (especially since we need to use the same relative clause and anaphora mechanisms for the demonstratives too). In some sense, this is lack of difference is desirable, given the facts, but it leaves open questions. Why are demonstratives more marked with anaphora than strong definites? Why do they have a stronger sense of anti-uniqueness / contrast? And, most importantly, what prevents demonstratives from introducing NPs with complements but not strong definites?

Schwarz (2009) presents a dynamic situation-semantic account which uses uniqueness (within the appropriate situation) for weak definites and a dynamic, anaphoric index argument for strong definites. Schwarz stipulates a separate lexical entry for the bridging uses of the strong article, however, and does not account for relative clauses or deixis in the theoretical part of his thesis. Overall, while this nicely accounts for the straightforward cases of the strong/weak distinction, it is only arguably a unified account (since we have two lexical entries for the strong definite and we have to argue that anaphoric-seeming uses of the weak definite are actually via uniqueness). It also only potentially explains why part-whole bridging is available for the strong definite in cases of contrast. Schwarz would have to argue that the weak definite isn’t available due to lack of situational uniqueness, and that the strong definite is able to establish an anaphoric relation to the previously mentioned whole in these cases. However, Schwarz then needs to explain why it does not do so in non-contrasting part-whole bridging instances. Since Schwarz does not discuss demonstratives and deixis at all, and mostly leaves relative clauses for future work, Schwarz’s account also does not explain why both strong definites and demonstratives may involve precisely deixis, anaphora or relative clauses.

Dayal and Jiang (2021) distinguish demonstratives, strong definites and weak definites by having demonstratives be unique in a (particularly) narrow and presuppose anti-uniqueness in the wider situation. Strong definites are anaphoric (and require that link to be unique), while weak definites are not anaphoric and instead require uniqueness in the situation, as for Schwarz. The satisfaction of their presuppositions (uniqueness, anti-uniqueness) governs the distribution of the three. While this is more compact than Schwarz’s account, we saw that anti-uniqueness as a presupposition is too strong for demonstratives when used anaphorically or with relative clauses. Further, it is unclear how to account for the bridging data without borrowing Schwarz’s second lexical entry and also falling prey to the same issues regarding strong definites and part-whole bridging as described for Schwarz. Lastly, as discussed for Chierchia’s theory, having the difference between demonstratives and strong definites be the narrowness of the domain in which they are unique starts to crumble when we have to expand/shrink their domain D (or equivalent situation) to each handle deixis, anaphora and

relative clauses. If both can handle each of those three, there remains little difference between them on this theory except the anti-uniqueness presupposition. While this lack of difference is in some sense desirable, as we said for Chierchia's theory, the puzzle of NPs with complements and *the colour red* remains wide open for this kind of theory.

Finally, I want to mention Ahn (2022), who provides an account for demonstratives motivating why demonstratives occur precisely with deixis, anaphors or restrictive relative clauses. Ahn gives a syntactic structure with an *R* slot adjoined to D' which may take a pointing gesture, anaphor or relative clause, each of which forms the restrictor of the demonstrative. While Ahn does not discuss definites, we have seen that this grouping extends to strong definites, further supporting it. This suggests that we may wish to incorporate her motivation for precisely why these three things cooccur (and what kind of structure might take all three) when refining the role of the domain / situation for strong definites and demonstratives in a theory like Dayal and Jiang (2021). Of course, we would still need to address why demonstratives seem to have a stronger sense of contrast / anti-uniqueness than strong definites. That said, Ahn (2022)'s theory does not seem poised to shed light on the NP complement / *colour red* puzzle either. Ahn's account of relative clauses relies on the relative clause being adjoined to D', i.e. outside of the NP, which cannot be the case for NP complements. So while this could be used to explain why NP complements can only be used with a German demonstrative anaphorically (meaning that the NP complement doesn't need to occupy that spot; the anaphor does), it means we cannot use Ahn's account for strong definites as well: what occupies *R* in the case of NP complements?

5 An aside on Aargau Swiss German

We have seen that Standard German paints a murkier picture than Schwarz describes, and that the line between strong definites and demonstratives is not so clear cut. I would like to consider one final case study, which is Aargau Swiss German. This dialect of Swiss German is unusual in not having any direct counterparts to the Standard German demonstratives *dieser/e/es* und *jener/e/es*⁶. Instead, a non-contracting article *de/die/das* that looks very similar to the Standard German strong definite seems to be functioning as the single demonstrative:

- (57) De Hans isch **i dem**[δ_1] Auto cho, nid **i dem**[δ_2] Auto.
 the Hans is in the car come not in the car
 'Hans came in that car, not in that car.' (pointing at car 1 with gesture δ_1 then car 2 with δ_2)

Distance is simply not expressed most of the time; the relevant objects can be identified by context or pointing. If it is strictly necessary to express a proximal/distal contrast, demonstrative *da* 'here' and *det* 'there' can be combined with the article to distinguish the two when necessary, similar to Scandinavian (Leu, 2015) or English *this book here*:

- (ii) *Referring to two pictures nearby*:
 a. **Das Bild da** ist schöner als **das** Bild.
 that picture here is prettier than that picture
 'This picture is prettier than that picture.'

⁶*Dieser/e/es* is available as *disä/i/es* in other dialects of Swiss German, such as Altdorf or Bernese Swiss German and a relative of *jener/e/es*, *änel/?/es*, may be available in some dialects, although dying out (Leu, 2015).

- b. **Das** Bild ist schöner als **das det.**
 that picture is prettier than that there
 ‘This picture is prettier than that one.’

Using both *das da* and *das det* in the same sentence is less common, as one is usually already enough to signal the required distinction.

There is also a shorter article *de/d/s* which looks like it contracts with prepositions, thus looking similar to the Standard German weak definite: we get *zum, vom, im, am, bim* (from prepositions *zu, vo, i, a, bi*) as in Standard German. (In Swiss German, it is actually less clear whether this is a real contraction, given that the dative form of *de* is just *(i)m*; but this is not important for our point.) However, we will see that it does not pattern in the same way as the Standard German weak definite, having encroached on the space occupied by the strong definite in being the first choice for anaphors. The full paradigms of these articles are given here. Note that *die* is spelled the same as in Standard German but is pronounced [diɛ], with two consecutive vowels, and is sometimes spelled *diä* in other dialects. There is no genitive in Swiss German.

	SG	PL		Sg	Pl
NOM/ACC	de, die, das	die	NOM/ACC	de, d, s	d
DAT	dem, dere, dem	dene	DAT	im/em, de, im/em	de

I will run through our established battery of tests for Aargau Swiss German. Tentatively, I will gloss *de/die/das* as ‘that’ and *de/d/s* as ‘the’.

5.1 Deixis

We see that the *de/die/das* supports deixis, while *de/d/s* does not.

- (58) a. De Hans isch **i dem**[δ_1] Auto cho, nid **i dem**[δ_2] Auto.
 the Hans is in the car come not in the car
 ‘Hans came in that car, not in that car.’ (pointing at car 1 with gesture δ_1 then car 2 with δ_2)
- b. #De Hans isch **im**[δ_1] Auto cho, nid **im**[δ_2] Auto.
 the Hans is in the car come not in
 ‘Hans came by car, not by car.’ (pointing at car 1 with gesture δ_1 then car 2 with δ_2)
- (59) *Context: Karl and Paul are sitting on two chairs in the park with Paul’s puppy, Leo, who likes to chew on shoelaces. Karl is wearing shoes with big floppy shoelaces and Leo is very interested in him and his shoes. The speaker is pointing at Paul and holds this gesture δ throughout the utterance.*
- a. Wenn de Karl und de Paul Platz tüschlet hätted, wäri de Leo **am** /
 if the Karl and the Paul place swapped have.COND.3PL, be.COND.3SG the Leo at.the /
?a dem Maa, uf de ich denn würd zeige, sehr interessiert.
 at that man to whom I be.COND.3SG point very interested
 ‘If Karl and Paul had swapped places, then Leo would be very interested in the man who I would then be pointing at.’

- b. #Wenn de Karl und de Paul Platz tüschlet hätted, wäri de Leo
 if Karl and Paul place swapped have.COND.3PL, then be.COND.3SG Leo at that
a dem[δ] Maa sehr interessiert.
 man very interested
 ‘If Karl and Paul had swapped places/chairs, then Leo would be very interested in this man.’
- c. #Wenn Karl und Paul Platz gewechselt hätten, dann wäre Leo **am**[δ] Mann
 if Karl and Paul place swapped have.COND.3PL, then be.COND.3SG Leo at.the man
 sehr interessiert.
 very interested
 ‘If Karl and Paul had swapped places/chairs, then Leo would be very interested in the man.’

Note that I had to switch to using a first person pronoun with the relative clause to make this sound natural in Swiss German. Using the passive relative clause in Swiss German is possible but sounds awkward and an unlikely choice for spoken language. Using *de/die/das* with the relative clause is marked because of the relative clause itself (not the counterfactual contents of the relative clause itself), just as saying *Leo would be very interested in that man being pointed at* would be marked in English – see Section 5.4 on relative clauses.

As in Standard German, (59c) is infelicitous because there is no unique/obviously anaphoric man in the context, while (59b) is infelicitous because it refers to the wrong man compared to the sentence’s truth conditions.

5.2 Anaphoricity and uniqueness

Only *de/d/s* can be used with globally unique referents, leaving *de/die/das* patterning with strong definites or demonstratives.

- (60) De Armstrong isch as erste **zum** / **#zu dem** Mond gfloge.
 The Armstrong is as first to.the / to the moon flown
 ‘Armstrong was the first (one) to fly to the moon.’

However, unlike the weak definite in Standard German, *de/d/s* does not require uniqueness and may be used with anaphora:

- (61) I de Bibliothek z New York gits es Buech über Topinambur. Vor churzem bin
 in the library in New York exists.there a book about topinambur before short am
 ich det gsi und han **im** / **in dem** Buech nach ere Antwort ufd Frag gesucht,
 I there was and have in.the / in the book for a answer to.the question
 öb mer Topinambur grille chan.
 searched whether one topinambur grill
 ‘In the New York public library, there is a book about topinambur [Jerusalem artichoke]. Recently, I was there and searched in the book for an answer to the question of whether one can grill topinambur.’

Note that the versions with *im* and *in dem* require substantially different prosody – focusing *Buech* is good for *in dem* but degrades *im*; *im* is fine if e.g. *Antwort* is focused. Without the right prosody, *im* can feel at odds with the fact that the book was not previously introduced. (This suggests another way to fix this: if the book were part of a longer story – recall the Standard German fisherman example (36) – *im* would feel better here.)

De/d/s is also perfectly good for donkey anaphora (this is as in Standard German):

- (62) Wenn en Buur en Esel und es Pferd het, erwartet er vom / #vo dem Esel
 if a farmer a donkey and a horse has expects he from.the / from the donkey
 meistens weniger.
 usually less
 ‘If a farmer has a donkey and a horse, he usually expects less of the donkey.’

5.3 Bridging

We see our next difference when we move to bridging. Whereas the Standard German weak article was unacceptable for producer-product bridging relations, *de/d/s* is fine in Swiss German:

- (63) S Theaterstück het de Kritiker so ghasst, dass er keis Wort vo dem / vom Autor
 the play has the critic so hated that he no word from the / from.the author
 meh het welle ghöre.
 more has wanted hear
 ‘The critic hated the play so much that he didn’t want to hear another word from the / that author.’

For part-whole relations, we see that *de/die/das* is not permitted in non-contrastive situations, just as the demonstrative was not permitted in Standard German or English:

- (64) De Chühlschrank isch so gross gsi, dass de Chürbis problemlos is / #i das
 the fridge is so big been that the pumpkin without.problem in.the / in the
 Gmüesfach passt het.
 vegetable.compartment fit has
 ‘The fridge was so big that the pumpkin easily fit into the crisper.’

However, it’s fine in contrastive situations:

- (65) De Enzian het de Stöpsel usem Abfluss zerzt und isch us de Badewanne chlätteret.
 the Gentian has the plug out.the drain tugged and is out the bathtub climbed
 Denn isch d’ Chatz is Wöschbecki gumpet und het agfange, a DEM Stöpsel z’
 then is the cat into.the bathroom.sink jumped and has began at the / this
 chnabbere.
 /
 ‘Gentian jerked the plug out of the drain and climbed out of the tub. Then, the cat leapt into the sink and began gnawing at that plug.’

5.4 Restrictive relative clauses

The next difference is for restrictive relative clauses, where *de/d/s* is also acceptable (unlike the weak definite in Standard German). The other form *de/die/das* is marked in the first context, just demonstratives are in English, and suggests a contrastive reading. It improves in the same contexts which permit *jener/e/es* in Standard German. *De/d/s* is still acceptable in those contexts.

- (66) I de Bibliothek z New York gits vili gueti Chinderbüecher. ?Vo dem / vom
 in the library in New York exists.there many good children's.books of the / of.the
 Buech, wo de Bibliothekar mir empfohle het, halt ich aber nid vil.
 book that the librarian me recommended has hold I but not much
 'There are many good children's books in the New York library. I didn't think much, though, of the
 book that the librarian recommended to me.'
- (67) Ide Medizin bezeichnet vertikal die / d' Linie, wo vom Scheitel zur Sohle zieht.
 in.the medicine describes vertical that / the line which from.the crown to.the sole runs
 'In medicine, 'vertical' describes the line which runs from the crown of the head to the sole of the
 foot.'

5.5 Other modified NPs

Finally, we also see variation in the modified NPs. Unlike Standard German, Aargau Swiss German allows both forms for NPs with complements, but *de/die/das* gives an anaphoric reading where the rumour was previously mentioned, like the Standard German demonstrative. For *the colour red*, only the short for *de/d/s* is allowed, with *de/die/das* again patterning with the Standard German demonstrative.

- (68) Am / an dem Grücht, dass de Bundesrat zruggräte wett, isch glaubs nüt.
 at.the / at the rumour that the federal.councillor resign wants is probably nothing
 'There is probably nothing to the rumour that the chancellor wants to resign.'
- (69) Zu de / #zu dere Farb rot fällt mr nüt ii.
 about the / about that colour red come.to.mind me nothing PREP
 'For the / that colour red, nothing comes to mind.'

5.6 Summary of Aargau Swiss German

	Deixis	Rigidity	Anaphora	RRCs	Bridging	NP compl.	NM	Unique	Distance
<i>de/die/das</i>	yes	with δ	yes	yes	P-P, P-W ²	anaph. only	no	anti ¹	neutral
<i>de/d/s</i>	no	- ³	yes	yes	P-P, P-W	yes	yes	mostly	neutral

Table 3: Aargau Swiss German demonstratives and definites.

¹Demonstratives show an anti-uniqueness/contrasting effect when stressed or when used with deixis, but this effect is subtle when they are used anaphorically or with relative clauses.

²Part-whole is supported for *de/die/das* only when stressed, giving a contrasting reading.

³We cannot test rigidity using the test in Roberts (2002) for *de/d/s*.

We see that Swiss German *de/d/s* patterns exactly like English *the*, and *de/die/das* patterns exactly like a demonstrative. At this point, a note about uniqueness is in order – didn't we say that *de/d/s* required less uniqueness than the German weak definite, being compatible with the library book example? In fact, this is also true of English *the*: look at the translations of the German 'Topinambur' examples (shortened and replaced here with 'artichoke' for readability):

- (70) In the New York public library, there is a book about artichokes. Recently, I was there and looked in **the** book to see whether you can grill artichokes.

Evidently, Schwarz (and the Standard German weak definite) is using a narrower definition of “uniqueness” for his analysis than would be appropriate even for English.

While I can only speculate about the diachronic relationship between *de/die/das* and the Standard German strong definite, the fact that the Standard German strong definite already appears to be functioning as a demonstrative in many cases such as (56) makes it easy to imagine how Aargau Swiss German may have taken a natural step from this position to simply dropping its other demonstratives in favour of *de/die/das*.

6 Conclusion

The distinctions between demonstrative, strong definite and weak definite in Standard German are not as crisp as Schwarz (2009) and others would have them appear. While all accounts of the demonstrative/definite and weak/strong distinctions capture some important (perhaps the most defining) aspects of the respective distinction, we see that none are able to capture the whole picture, in particular the blurring of the lines between the strong definite and the demonstrative. The seeming anaphoricity of the weak definite in stories also remains an open question.

The strong definite and the demonstrative are distinguished only in cases of NP complements and *the colour red* phrases, which also interestingly allow both the strong and the weak definite (but not the demonstrative). While Schwarz (2009) mentions these cases, he does not discuss them in more detail. In fact, these puzzling cases may be precisely the testing ground we need to establish what does and does not differentiate these classes. More empirical work may help tease apart exactly what is going on in these cases, what is being presupposed, what discourse referents are being introduced when, and in what domain (if any) uniqueness or anti-uniqueness is being evaluated. Further, we need to be clear about what we mean by uniqueness, and in what situations it is supposed to apply.

Finally, Aargau Swiss German raises the question of whether a language may evolve a demonstrative from its (former) strong definite, contra the typical cycle where the definite evolves from the demonstrative (Ferrazano, 2013 i.a.), supporting that there is only a delicate line between the two. While working on the German / Swiss German / Fering paradigm allows for minute (and diachronic) comparisons between languages, clearly more work is needed on other languages that have several determiners and/or demonstratives to determine whether there is a unified cross-linguistic picture to be established here. When doing this work, we see that a much more detailed battery of test scenarios is needed than was perhaps previously thought.

References

- Ahn, Dorothy (2022). “Indirectly direct: An account of demonstratives and pointing”. To appear in *Linguistics and Philosophy*.
- Chierchia, Gennaro and Yağmur Sağ (Spring 2022). *LING 207R: Topics in Semantics (Handouts)*.
- Clark, Herbert H. (1975). “Bridging. Theoretical issues in natural language processing”. In: *Proceedings of the 1975 workshop on theoretical issues in natural language processing*. London/Glasgow: Collins.
- Dayal, Veneeta (Spring 2022). *Guest lecture for LING 207R: Topics in Semantics (Handout)*.
- Dayal, Veneeta and Li Julie Jiang (2021). “The Puzzle of Anaphoric Bare Nouns in Mandarin: A Counterpoint to Index!” In: *Linguistic Inquiry*, pp. 1–20.

- Ferrazzano, Lisa Reisig (2013). “Demonstratives in motion: The grammaticalization of demonstratives as a window into synchronic phenomena”. ISBN: 9781303535895 Publication Title: ProQuest Dissertations and Theses. PhD thesis. United States – New York: City University of New York. 275 pp.
- Frege, Gottlob (1892). “Über Sinn und Bedeutung”. In: *The Philosophical Review* 1, pp. 574–.
- Hawkins, John A. (1978). *Definiteness and indefiniteness: a study in reference and grammaticality prediction*. London : Atlantic Highlands, N.J.: Croom Helm ; Humanities Press. 316 pp.
- Heim, Irene (1982). “The semantics of definite and indefinite noun phrases”. PhD thesis. University of Massachusetts Amherst.
- (1991). “Artikel und Definitheit (Articles and Definiteness)”. In: *Semantik / Semantics*. In collab. with Arnim von Stechow and Dieter Wunderlich. Vol. 6. Berlin, New York: De Gruyter Mouton, pp. 487–535.
- King, Jeffrey C. (2001). *Complex Demonstratives: A Quantificational Account*. Vol. 2. Contemporary philosophical monographs. Cambridge: MIT Press.
- Leu, Thomas (2015). *The architecture of determiners*. Oxford University Press, USA.
- Löbner, Sebastian (1985). “Definites”. In: *Journal of Semantics* 4.4, pp. 279–326.
- Roberts, Craige (2002). “Demonstratives as Definites”. In: *Information sharing: Reference and Presupposition in Language Generation and Interpretation*. Ed. by Kees van Deemter and Rodger Kibble. CSLI Press, pp. 89–196.
- Russell, Bertrand (1905). “On Denoting”. In: *Mind* 14.56, pp. 479–493.
- Schwarz, Florian (2009). “Two types of definites in natural language”. Ph.D. University of Massachusetts Amherst.
- Strawson, Peter Frederick (1950). “On Referring”. In: *Mind* 59.235, pp. 320–344.
- Wolter, Lynsey Kay (2006). “That’s that: The semantics and pragmatics of demonstrative noun phrases”. PhD thesis.