



## About very

Julie Goncharov<sup>1</sup> 

Accepted: 20 July 2024 / Published online: 22 December 2024  
© The Author(s) 2024

### Abstract

There is a peculiar class of degree modifiers, represented by *very* in English, that can occur in definite descriptions with no apparent gradable property, such as *the very man we saw yesterday*. These modifiers are commonly assumed to have the same mechanism of modification as regular degree modifiers, like *really* and *extremely*. This paper argues that this assumption is fallacious. Modification by *very* and its kin involves a special mechanism that crucially relies on the availability of a context shift of a particular kind. This special mechanism explains the appearance of *very* in definite descriptions with no gradable properties and also accounts for a number of additional facts about the distribution of *very*.

**Keywords** Degree modifiers · Definite description · Emphatic elements · Context

## 1 Introduction

*Very* is a curious little word whose distribution can reveal a great deal about language. Let me begin this paper with a couple of simple observations about *very* when it is used inside a noun phrase. One observation is that, unlike other (high-degree) degree modifiers, *very* can occur in noun phrases with no apparent gradable property; compare (1)a with (1)b–d.

- (1) a. a/the very/really/extremely tall man
- b. from the very/\*really/\*extremely beginning
- c. the very/\*really/\*extremely man (we saw yesterday)
- d. the very/\*really/\*extremely same man (that we saw yesterday)

Another observation is that *very* inside a noun phrase can be iterated in some cases, but not in others; compare (2)a, b with (2)c, d.

- (2) a. a/the very very tall man

---

✉ Julie Goncharov  
julie.goncharov@uni-goettingen.de

<sup>1</sup> Seminar für Englische Philologie, Georg-August-Universität Göttingen, Wilhelmsplatz 1, 37073 Göttingen, Germany

- b. from the very very beginning
- c. the (#very) very man (we saw yesterday)
- d. the (#very) very same man (that we saw yesterday)

These observations divide the constructions in which *very* can occur into three broad categories. It is useful to describe these categories here and give them names. The first category—*gradable constructions*—consists of the well-studied cases where *very* (on a par with other degree expressions) modifies a gradable property; see (1)a. In these cases, *very* can be iterated; see (2)a. The second category, which I call *precision cases*, includes constructions where the use of *very* conveys a high degree of precision. In precision cases, no other degree modifier is possible—see (1)b—but, like in gradable constructions, *very* can be iterated; see (2)b. The constructions that make up the third category are the main focus of this paper. *Very* in these constructions is used as an emphatic element and only when the noun phrase is definite. I give these constructions a generic name *emphatic definite descriptions*. What sets emphatic definite descriptions apart is that *very* is the only degree modifier that can be used in these constructions and used only once; see (1)c, d and (2)c, d.

At this point, one might wonder what makes *very* special compared to other degree modifiers that allows it to be used where other degree modifiers are banned, and why *very* can be iterated in gradable constructions and precision cases, but not in emphatic definite descriptions. As I try to show in this paper, we already know the answers to these questions. In particular, I argue that the analysis of *very* as a context-shifting operator in Klein (1980) can account for the observations in (1) and (2) without difficulty, if we accept the following two claims: (i) degree modifiers do not constitute a uniform class, in the sense that they may involve different ways of modification that on the surface look the same, and (ii) (some) definite descriptions involve an identity relation that is context-dependent. The first claim allows us to say that *very* has a distinct way of modification—modification via a context shift. Therefore, unlike other degree modifiers, it can apply in cases that have no gradable property, explaining the modification restrictions in (1). With respect to the second claim, we will see that there is already a consensus in the semantic literature that definite descriptions relevant for our discussion of *very* involve a DP-internal identity relation. In this paper, I add to this picture the consideration that the DP-internal identity relation is context-dependent, which is enough to warrant modification by *very* and formation of emphatic definite descriptions. However, because the identity relation is not vague (by definition), re-application of *very* in case of emphatic definite descriptions is trivial, unlike in gradable constructions and precision cases, which explains the iteration pattern in (2).

The conclusions we draw from this paper touch on our understanding of gradable phenomena in general. For one thing, the availability of *very* in emphatic definite descriptions leads to a fuller taxonomy of predicates that can undergo DP-internal modification. This is because the modification by *very* points to a full dissociation of gradability and context-dependence. A partial dissociation of this kind is argued for by Kennedy (2007) using the distinction between relative adjectives, such as *tall* and *expensive*, and absolute adjectives, such as *straight* and *bent*. As argued by Kennedy (2007), the former are gradable and their positive form is context-dependent. The latter are also gradable, but their positive form is not context-dependent. In the sense

that what counts as being straight in any context is an object that is straight to the maximum degree and what counts as being bent in any context is an object that is bent to a minimum degree. We also have predicates like *wooden* and *geological*, which are neither gradable nor context-dependent. The presence of *very* in emphatic definite descriptions allows us to detect the fourth missing kind of properties: a non-gradable context-dependent property. If the analysis in this paper is on the right track, a DP-internal identity relation is such a property. This outcome is discussed further in Sect. 5.

Another result of the present inquiry about *very* concerns the recognized disagreement between the two major approaches to gradable phenomena: a degree-based approach and a supervaluation approach. The two approaches share the same assumption that degree modification results from the same mechanism. That is to say, there is no difference between modification by *very* and modification by *really* or *extremely*. However, this is not what we see in (1). While both approaches have to do additional work to accommodate the data in (1), as I discuss in Sect. 5, the supervaluation approach has to do less, and therefore, it is more appealing.

Although the attention in this paper is on English *very*, the discussion of DP-internal modification is assumed to be more general. There are other languages (not closely related to English) that can use what looks like a degree modifier in emphatic definite descriptions. Below, I show examples from two such languages, Russian and Lithuanian. These languages use modifiers that can be translated as ‘self’ in the configurations in which English *very* is used. Moreover, these ‘self’-modifiers in Russian and Lithuanian replicate the modification restrictions and the iteration patterns of *very* that we saw in (1) and (2). This is illustrated in (3) and (4) for Russian and in (5) and (6) for Lithuanian.<sup>1</sup>

- (3) a. samyj / očen' / èkstrimal'no vysokij čelovek  
       self / very / extremely tall man  
       ‘the most/very/extremely tall man’ (Russian)
- b. tot samyj / \*očen' / \*èkstrimal'no čelovek kotorogo ...  
       that self / very / extremely man whom ...  
       ‘that selfsame/\*very/\*extremely man whom ...’
- (4) a. samyj samyj vysokij čelovek  
       self self tall man  
       ‘the very tallest man’ (Russian)
- b. tot (#samyj) samyj čelovek kotorogo ...  
       that self self man whom ...  
       ‘that (#very) very man whom...’

<sup>1</sup> I do not want to put much weight on the diachronic development of *very* and ‘self’-modifiers in Russian and Lithuanian, but it is worth mentioning that their historical paths are different from the paths of run-of-the-mill degree modifiers, such as *-ly* adverbs in English or comparable expressions in Russian and Lithuanian. English also has an archaic form *selfsame*, which seems to have had the meaning and distribution similar to the present-day *very*.

- (5) a. tas pàts / labai / itin aukštas žmogus  
 that self / very / exceptionally tall man  
 ‘that most/very/exceptionally tall man’ (Lithuanian)
- b. tas pàts / \*labai / \*itin žmogus  
 that self / very / exceptionally man  
 ‘that selfsame/\*very/\*exceptionally man’
- (6) a. nuo pàt pàt ryto  
 from self self morning  
 ‘from the very very morning’ (Lithuanian)
- b. tas (#pàts) pàts žmogus  
 that self self man  
 ‘that (#very) very man’

Of course, there are differences between constructions with *very* in English and constructions with ‘self’ in Russian and Lithuanian that come from language-specific characteristics. For example, in Russian and Lithuanian gradable constructions, ‘self’ is a special superlative marker, whereas English *very* expresses a high degree. That ‘self’-superlatives in Russian and Lithuanian are not regular superlatives can be demonstrated by the fact that ‘self’-superlatives can be reinforced by iteration of ‘self’, as in (4)a and (6)a, and can also co-occur with regular superlative morphology in the language (see the Appendix). Also, the determiner systems in Russian and Lithuanian are different from the determiner system in English. For instance, since Russian does not have articles, it is forced to use demonstratives in emphatic definite descriptions, which as we will see are obligatorily definite and require an anaphoric mechanism. On the other hand, as we will also see in this paper, English *same* is ambiguous and some effort is needed to show that modification by *very* is possible only with some uses of *same*. The ambiguity of English *same* does not carry over to other languages, for example, Russian (see the Appendix). For languages without the ambiguity, it is easier to demonstrate that *very*-like modifiers are restricted to a particular use of ‘same’. These are only some examples of language-specific differences that need to be taken care of when examining *very*-like modifiers in other languages.

I describe the distribution of ‘self’-modifiers in Russian and Lithuanian in some detail in the Appendix. However, a cross-linguistic investigation of *very*-like modifiers is not in the scope of this paper. The purpose of mentioning Russian and Lithuanian examples here is to highlight that the discussion of *very* is intended to be more general than an investigation of one word in one language. I believe that what *very* is showing us is that there is an additional mechanism of DP-internal modification in natural languages that has to be distinguished from regular degree modification.<sup>2</sup>

My plan for the paper is as follows: in the next section, I discuss emphatic definite descriptions and their structure. As we will see in that section, not all definite descriptions allow modification by *very*. Those that do involve a DP-internal identity relation

<sup>2</sup> There has been some interesting work on a cluster of neighbouring phenomena that involve DP-internal ‘self’ and ‘same’ in Germanic languages (e.g., Eckardt, 2001; Gast, 2006; Leu, 2008) and French (e.g., Zribi-Hertz, 1995; Charnavel, 2013; 2015b). I thank an anonymous reviewer for reminding me about this literature.

with one side determined contextually. Section 3 begins with a review of the analysis of gradable predicates and degree modification in Klein (1980). I then argue that his analysis of degree modification can explain modification by *very*, not only in gradable constructions, but also in precision cases and in emphatic definite descriptions. After that, in Sect. 4, I show that the context shift that (according to Klein) makes modification by *very* possible with gradable predicates is also available in definite descriptions with a DP-internal identity relation. In Sect. 5, I return to the two observations presented at the beginning of this introduction and discuss how they can be explained. Section 6 contains some concluding remarks.

## 2 Emphatic definite descriptions

*Emphatic definite descriptions* are definite descriptions in which a high-degree degree modifier, such as *very*, is used without an overt gradable property. However, not all definite descriptions allow modification by *very*. As we see in this section, to warrant the use of *very*, a definite description should involve an identity relation with one side determined contextually. We look at three exemplary cases here: simple definite descriptions, such as *the very man*, definite descriptions with *same*, such as *the very same man*, and definite descriptions with relative clauses, such as *the very man we saw yesterday*.

### 2.1 Simple definite descriptions

Based on their meaning, definite descriptions can be divided into two broad categories: those that are used anaphorically and those that express mere uniqueness. Anaphoric and merely unique definites can differ not only with respect to their meaning, but also with respect to their morphosyntactic properties. The German article system is a good illustration of morphosyntactic differences between anaphoric and merely unique definite descriptions. In German, anaphoric definites do not allow for contraction of the article with a preceding preposition, as in (7), whereas merely unique definites prefer contracted forms, as in (8) (see Schwarz, 2009 and works cited there).

- (7) a. Hans hat einen Schriftsteller und einen Politiker interviewt. Er hat von dem/#vom Politiker keine interessanten Antworten bekommen.  
'Hans interviewed a writer and a politician. He didn't get any interesting answers from the politician.'
- b. Hast Du schon mal einen Studenten durchfallen lassen? – Ja. Von dem/#Vom Studenten habe ich nie wieder etwas gehoert.  
'Have you let a student fail before? – Yes, I never heard from the student again.'  
(Schwarz, 2009, pp. 30–31)
- (8) a. Der Empfang wurde #von dem/vom Bürgermeister eröffnet.  
'The reception was opened by the mayor.'
- b. Armstrong flog als erster #zu dem/zum Mond.  
'Armstrong was the first one to fly to the moon.'  
(Schwarz, 2009, p. 40)

In light of these (and other) meaning related and morphosyntactic differences, recent theories postulate structural (syntactic and/or semantic) differences between anaphoric and merely unique definites (Elbourne, 2005; Schwarz, 2009, 2013; Simonenko, 2014; Hanink, 2018, 2020, among others). For example, anaphoric DPs are said to contain an index head  $\text{Idx}_i$  which encodes an identity relation with the anaphoric antecedent determined by the index and the assignment function; see (9) (e.g., Hanink, 2020). By contrast, merely unique DPs do not include an index head and their denotation does not involve an identity relation; see (10).

- (9) a.  $[\text{DP the } [\text{IdxP Idx}_i [\text{NP N } ]]]$   
 b.  $\llbracket \text{the } [ \text{Idx}_i \text{ P } ] \rrbracket^{M,c,a} = \iota x. P(x) \wedge x = a(i)$   
     defined only if in  $c$ :  
      $\exists! x [P(x) \wedge x = a(i)]$
- (10) a.  $[\text{DP the } [\text{NP N } ]]$   
 b.  $\llbracket \text{the P } \rrbracket^{M,c,a} = \iota x. P(x)$   
     defined only if in  $c$ :  
      $\exists! x [P(x)]$

It is argued that the presence of  $\text{Idx}_i$  is responsible for the impossibility of article contraction in anaphoric definites in German examples like in (7). In merely unique definites, like in (8),  $\text{Idx}_i$  is absent, which makes contraction of the article with a preceding preposition possible (see Hanink, 2021 for details).

The distinction between anaphoric and merely unique definites is important for our discussion of DP-internal *very* because it appears that *very* can modify anaphoric definites, but not merely unique definites. Although modification by *very* is more common in definite descriptions with relative clauses (which I discuss in Sect. 2.3), there are some examples where *very* occurs in simple definite descriptions. Consider the situation in (11) where Alice and Bennett are talking about Charlie, who can help them to fix their malfunctioning printer, and at that moment, Charlie enters the room. In this situation, Alice can exclaim *The very man!* Alice's exclamation in (11) is natural. We can understand it as conveying that the man who enters the room is identical to the man she and Bennett have been talking about. The presence of *very* adds a flavor of surprise (or unexpectedness) about the fact that the identity relation holds. The same thought can be expressed by Alice uttering a sentence containing a definite description with a relative clause, such as *The very man we've been talking about is here*.

- (11) [Context: Alice and Bennett are talking about Charlie who is good with printers and could help them with the malfunctioning printer in their office. At this moment, Charlie enters the room.]  
 Alice: Oh, Charlie! The very man!

By contrast, in a similar situation where instead of Charlie, Darcy enters the room, Alice's exclamation *The very man!* would not be felicitous; see (12). This is because there is no anaphoric antecedent for Darcy in (12).

- (12) [Context: Alice and Bennett are talking about Charlie who is good with printers and could help them with the malfunctioning printer in their office. At this

moment, Darcy enters the room.]  
 Alice: Oh, Darcy! #The very man!

As we will also see below, the contextual mechanism that supports the use of *very* in a definite description does not need to be a full-fledged discourse anaphoric relation. Alice's exclamation *The very man!* will be felicitous, even if she sits alone besides a broken printer, vaguely recalling that Charlie or, perhaps, some other colleague of hers is good with printers, privately wishing that that someone were there to help her, and then sees Charlie entering the room. In this situation, Alice could also express this thought by saying *The very man I've been thinking about is here*.

Another example of *very* in a simple definite description is shown in (13). Here, instead of a definite article, a demonstrative is used, but the main point remains the same: *very* is used in the definite description that contains an identity relation and an anaphoric mechanism. In (13), the identity holds between the man Bobby is staring at and the man who killed Bobby's father.<sup>3</sup>

- (13) [Context: Berlin is trying to get at the guns that are locked in the cabinets of Bobby's room.]  
 Berlin: "Where's the keys, Bobby? I need a gun."  
 Bobby: "They're my Dad's guns."  
 Berlin: "Come on, Bobby, for God's sake. I wanna get the man that killed him."  
 Bobby stares at Berlin as though he's staring at that very man. (COCA)

On the other hand, merely unique definites, which do not contain a DP-internal identity statement—see (10) above—do not allow modification by *very*. For example, in (14), where by assumption there is only one Queen of England, the surprise that the Queen opened the ceremony cannot be expressed by the addition of *very*. To add the flavor of surprise (or unexpectedness) in cases like (14), expressions with *-self* are used, as in *The ceremony was opened by the Queen herself*.<sup>4</sup>

- (14) [Context: uttered in 2021 in the UK about a royal event that can be opened by any member of the royal family.]  
 The ceremony was opened by the (#very) Queen.

The problem with merely unique definite descriptions like (14) is not that the description picks out a unique individual (anaphoric definite descriptions also pick out unique individuals). Rather, the problem is that the context does not provide a way to describe that unique individual in (at least) two different ways so that the identity relation can be constructed. In the felicitous uses of *very* above, the individual picked out by the definite description was depicted as a participant in two different events: as a person Alice and Bennett were talking about and the man entering the room in (11) and as the killer of Bobby's father and the man Bobby is staring at in (13). One of the representations in each pair is determined by an anaphoric relation, the other is present in the utterance itself.

<sup>3</sup> As mentioned in the introduction, for Russian, which does not have definite articles, using a demonstrative determiner in emphatic definite descriptions is the only way to mark obligatory definiteness and anaphoricity (see the Appendix). This underscores the fact that for the use of *very* and similar expressions in other languages, definiteness and anaphoricity are essential.

<sup>4</sup> See fn. 2 for the literature on emphatic elements based on *-self*.

However, a fully fledged anaphoric mechanism is not necessary for emphatic definite descriptions. The use of *very* can be made felicitous by creating a substantial contextual contrast (or opposition) between a common representation of an individual and their representation in the discussed situation. This contrast (or opposition) brings about two representations that can be related using a DP-internal identity statement. For example, in the movie description in (15), the Queen of England, who stereotypically has positive characteristics, such as being just, honest, and trustworthy, is also depicted as a possible kidnapper. The contrast between these two contextually available representations of the Queen is significant enough to warrant the use of *very*.

- (15) One day, a strange woman convinces the girl that her parents have been kidnapped by the very Queen of England.

In Sect. 4, I discuss a pragmatic mechanism involving DP-internal identity statements that makes modification by *very* possible in emphatic definite descriptions. I suggest that because a definite description presupposes the existence of a (unique) individual who fits the description, the availability of two distinct individuals in the context triggers a context shift. This context shift is what makes modification by *very* possible in emphatic definite descriptions. We model a context as common beliefs of the participant of a conversation (e.g., Stalnaker, 2002, 2014). Informally, for (15), this mechanism will amount to saying that in the initial context, the Queen of England is known under two representations that can be captured by the definite descriptions ‘the just, honest, and trustworthy Queen of England’ and ‘the Queen of England involved in kidnapping’. Since the initial context does not entail the existence of one Queen of England, the individuals picked out by the two representations above are related by identity and the context is shifted to accommodate the identity statement. Unlike in anaphoric definite descriptions, what we see in (15) is that one side of the identity relation is determined contextually, as a stereotypical representation of the Queen of England.

As already mentioned above, one conversational contribution of *very* in emphatic definite descriptions is to convey surprise (or unexpectedness) created by the situation where two individuals with different (often contradictory, as in (15)) characteristics turn out to be one and the same individual. This aspect of emphatic definite descriptions is shown more dramatically in (16) using definite descriptions with relative clauses, which I discuss in Sect. 2.3.

- (16) a. [She] is interviewed for a job with the very man who made her the subject of his ridicule.  
 b. [I was] betrayed by the very man who taught me the value of trust.  
 c. [It has] much to do with the self-aggrandizement of the very man who led the nation out of white supremacist rule. (COCA)

In this paper, I do not explore the surprise contribution of *very* in emphatic definite descriptions. Its connection to the surprise contribution of *very* in gradable constructions and precision cases is direct. For example, being very tall is a less likely and therefore more surprising event than being tall. To make the surprise contribution of *very* explicit within the framework used in this paper, we could, for instance, appeal



to utility-based accounts of belief updates (e.g., Stalnaker, 1996; van Rooij, 1999) and model expectations of the participants of a conversation.

To summarize, the examples in this section show that *very* can be felicitously used in simple definite descriptions when they involve a DP-internal identity statement with one side determined contextually. It may be contextually determined via an anaphoric mechanism, as is the case with anaphoric DPs in (11) and (13), or it may be determined as part of common beliefs or knowledge of the participants of a conversation, as it is the case with the stereotypical representation of the Queen in (15). In the next two sections, we will see that both the identity relation and the contextual/anaphoric mechanism are needed. In these sections, we look at definite descriptions with *same* and definite descriptions with relative clauses. These constructions come in different varieties, all of which involve an identity relation, but only those that also have access to a contextual/anaphoric mechanism allow modification by *very*.

## 2.2 Definite descriptions with *same*

As is commonly known, *same* in English is two-way ambiguous. First, it is ambiguous between a type- and a token-identity reading. This distinction does not play a role in our discussion, because *very* can modify *same* with either a type- or a token-identity reading.<sup>5</sup>

More important for us is the second ambiguity of *same*, between a deictic and a sentence-internal reading. As we will see, *very* can be used only with the deictic *same*, which requires an anaphoric relation, but not with the sentence-internal *same*, where no anaphoric mechanism is involved. Provided that in both its deictic and sentence-internal uses *same* conveys an identity between two individuals, we conclude that only the identity relation that involves an anaphoric mechanism is suitable for modification by *very*.<sup>6</sup>

<sup>5</sup> The type- and token-identity readings of *same* are illustrated in (i) and (ii) using the famous examples from Nunberg (1985) and Hobbs (1985). Under the type-identity reading of *same* in (i), Enzo drives a car of the same kind as the speaker; namely, a Ford Falcon. Under the token-identity reading of *same* in (i), Enzo drives the exact vehicle that the speaker also drives, which happens to be a Ford Falcon. In (ii), the type-identity reading of *same* surfaces very clearly, because the most natural interpretation of the situation excludes the token-identity reading. *Very* can modify *same* with either type- or token-identity reading; see (i)–(ii). Some speakers of English report that they have a slight preference for the token-identity reading when *very* is added, but even for them, the type-identity reading is not ruled out. This can be demonstrated using (ii), which calls for the type-identity reading.

(i) I drive a Ford Falcon. Enzo drives the (very) same car. (type/token)

(ii) A 1965 Mustang jumped the center divider of Highway 101 and hit the (very) same car. (type/#token)

<sup>6</sup> I describe these different meanings of *same* as ambiguities in a non-technical sense. I stay non-committal to whether these ambiguities are due to the fact that *same* in English has different lexical entries or is underspecified.

## Deictic versus sentence-internal *same*

It has been known since at least Carlson (1987) that English *same* has a deictic and a sentence-internal use.<sup>7</sup> In the deictic use, the identity is established between the entity introduced in the sentence and a contextually given entity, as in (17). Deictic uses of *same* can surface in sentences that describe only one eventuality; for example, Bennett's reading a book in (17).

(17) [Context: Alice read *War and Peace*.] Bennett read the same book.

In the sentence-internal use, the identity is established between two entities introduced in the sentence itself. Sentence-internal uses of *same* crucially require a plural eventuality. For example, in (18), there are two book-reading events—one by Alice and one by Bennett.

(18) Alice and Bennett read the same book.

The identity conveyed by *same* can also be established with respect to the entity specified by the relative clause, as in *Bennett read the same book that/as Alice read*. We look at these examples in the next section, where we discuss definite descriptions with relative clauses.

Sentences with plural eventualities, such as in (18), are ambiguous. Although the most natural interpretation of *same* in (18) is sentence-internal, *same* in (18) can also be interpreted deictically as referring to some salient book that both Alice and Bennett read. However, there are configurations that help to disambiguate sentences like (18) by disallowing the deictic use of *same*. One such configuration is a negated antecedent (Hardt et al., 2012). With negated antecedents, the deictic reading of *same* is blocked; compare (19)a with (19)b.

- (19) a. Alice read *War and Peace* and Bennett read the same book.  
 b. Alice didn't read *War and Peace* #and/but Bennett read the same book.

By combining a negated antecedent with a plural eventuality in the second conjunct, we can ensure that *same* has only the sentence-internal interpretation; see (20). I use this strategy below when testing for modification by *very*.

- (20) [Context: Alice, Bennett, and Charlie were assigned to read one book of their choice by Tolstoy.]  
 Alice didn't read *War and Peace* and Bennett and Charlie read the same book.  
 (#deictic/sentence-internal)

There is a variety of analyses of the second ambiguity of *same* in the literature. They differ along the following lines: whether they attempt to unify deictic and sentence-internal uses of *same* or not and whether they attempt to integrate the analysis of *different*—another adjective that has a deictic and a sentence-internal use—or not. These analyses also differ with respect to the framework they adopt and within the

<sup>7</sup> Some recent works on this topic are Lasersohn (2000), Barker (2007), Brasoveanu (2011), Hardt et al. (2012), Charnavel (2015a), Hardt and Mikkelsen (2015), Hanink (2021), and Sun (2021).

generative semantics framework, with respect to the compositional structure of sentences with *same*. What (most of) the analyses converge on is the presence of an identity relation in sentences with *same*.

To be concrete, let me briefly show the analysis proposed in Heim (1985), which many later works relate to. Heim proposes to analyze *same* on a par with comparative operators like *-er*. Whereas *-er* compares individuals with respect to a gradable property, *same* says that individuals are identical. In this system, the logical form of our example with the sentence-internal *same*, repeated in (21)a below, is as in (21)b. The meaning that *same* contributes is the identity relation. Heim formulates the meaning of *same* using the meaning convention in (21)c. As a result, the sentence in (21)a is true only if the entity determined by the  $\lambda$ -expression applied to *a* (for Alice) is identical to the entity determined by the  $\lambda$ -expression applied to *b* (for Bennett); see (21)d. That is, only if Alice and Bennett read identical books, as desired.

- (21) a. Alice and Bennett read the same book.  
 b.  $[[\text{same} [\text{Alice and Bennett}]] [\lambda x [x \text{ read the book}]]]$   
 c.  $\llbracket \text{same} < a, b > f \rrbracket^{M,c,a} = 1 \text{ iff } f(a) = f(b)$   
 d.  $(\lambda x \lambda y. \text{read}(x, y) \wedge \text{book}(y))(a) = (\lambda x \lambda y. \text{read}(x, y) \wedge \text{book}(y))(b)$

Putting aside the question of how (21)c is arrived at compositionally, let us see how Heim's proposal can be extended to the deictic reading of *same* and also explain the disappearance of the deictic use in case of a negated antecedent. For our sentence with the deictic *same*, repeated in (22)a, Heim suggests that the implicit argument for comparison is provided by the context. That is, (22)a is true only if (22)b holds, where  $a(i) = \text{War and Peace}$ . In case of a negated antecedent, as in (19), Heim could argue (if the data had been known then) that the implicit argument is not available since there isn't any book read by Alice. Thus, the deictic reading is disallowed.

- (22) a. [Context: Alice read *War and Peace*.] Bennett read the same book.  
 b.  $(\lambda x \lambda y. \text{read}(x, y) \wedge \text{book}(y))(b) = a(i)$

Hardt and Mikkelsen (2015) give a slightly different version of Heim's proposal for the deictic *same*.<sup>8</sup> According to their version, instead of the implicit argument for comparison, the context supplies one of the arguments for the function *f*—a function from individuals to individuals that determines the comparison argument. In this version, the deictic *same* and the sentence-internal *same* look more explicitly alike; see (23), where  $a(i) = \text{Alice}$ . They both involve an identity relation, but the deictic *same* has one side of the relation determined anaphorically.

- (23) a. [Context: Alice read *War and Peace*.] Bennett read the same book.  
 b.  $(\lambda x \lambda y. \text{read}(x, y) \wedge \text{book}(y))(b) = (\lambda x \lambda y. \text{read}(x, y) \wedge \text{book}(y))(a(i))$

The version of Heim's account in Hardt and Mikkelsen (2015) is also more transparent when it comes to accounting for cases where the deictic reading is not available. For the case of a negated antecedent in (19), we can say that the function *f* (that returns the

<sup>8</sup> Hardt and Mikkelsen's (2015) own analysis is similar in spirit to what Heim (1985) proposes but is spelled out in the DRT framework.

book read by the contextually supplied individual) cannot return *War and Peace* when applied to Alice, because the event didn't happen (Alice didn't read *War and Peace*). As there is no other contextually salient individual (by assumption), the identity statement fails.

Before turning to modification by *very*, let me mention another case in which the deictic *same* is blocked. This case involves non-parallel antecedents, a situation where there is no common predicate that can subsume the action in the antecedent sentence and the action in the main sentence (see Hardt & Mikkelsen, 2015). Hardt and Mikkelsen (2015) observe the contrast between (24)a and (24)b. They propose that the contrast can be explained using the analysis in (23). The deictic *same* in (24)a is infelicitous because there is no (non-trivial) predicate that subsumes the meaning of reading and praising and can be used as the meaning of the function *f*. By contrast, in (24)b, we can think of *evaluate* as the predicate that subsumes both praising and criticizing and use it as the meaning of the function *f* that allows the deictic *same*. We use non-parallel antecedents to disambiguate the meaning of *same* when discussing modification by *very* below.

- (24) a. Alice praised *War and Peace* #but Bennett read the same book.  
b. Alice praised *War and Peace* but Bennett criticized the same book.

The observation that is important for us with respect to constructions with *same* is that modification by *very* is fully acceptable with deictic uses of *same*, but not with sentence-internal uses; compare (25) with (26). English speakers describe the use of *very* with sentence-internal *same*, such as in (26), as 'weird' and 'unnecessary'.

- (25) [Context: Alice read *War and Peace*.] Bennett read the very same book.  
(26) [Context: Alice and Bennett were assigned to read one book of their choice by Tolstoy. I don't know which book Alice and Bennett chose, but I know that ...] Alice and Bennett read the (#very) same book.

To make the contrast more obvious, let us use *very* in constructions that block the deictic use of *same*. The example in (27) illustrates the case of a negated antecedent, where the deictic interpretation of *same* is blocked and *very* is infelicitous. The example in (28) shows the case of non-parallel antecedents. Here once again, we see that when the deictic interpretation of *same* is impossible, modification by *very* is infelicitous; compare (28)a with (28)b.

- (27) [Context: Alice, Bennett, and Charlie were assigned to read one book of their choice by Tolstoy.]  
Alice didn't read *War and Peace* and Bennett and Charlie read the (#very) same book.  
(28) [Context: Alice, Bennett, and Charlie were assigned to read one book of their choice by Tolstoy.]  
a. Alice praised *War and Peace* and Bennett and Charlie read the (#very) same book.  
b. Alice praised *War and Peace* and Bennett and Charlie criticized the very same book.

Two anonymous reviewers provide interesting (apparent) counterexamples to the claim made in this section that the sentence-internal use of *same* is incompatible with *very*. The first counterexample concerns a situation where there does not seem to be any overt anaphoric antecedent in the sentence or preceding discourse. This situation is illustrated in (29).

- (29) a. It is exploited for political gain; and it is ignored - often by the very same people.
- b. The very same person can, at the very same time, seem at peace to some people, and depressed or even suicidal to some.

Assuming that, indeed, there is no anaphoric antecedents for *same* in these examples, we can still regard them as close relatives of the examples in which *same* is used deictically. Note that in both examples, a contextual opposition (or contrast) is created between two representations. In (29)a, it is an opposition between people who exploit it for political gain and people who ignore it. In (29)b, it is an opposition between a person who appears to be at peace and a person who appears to be depressed. This contextual opposition is similar to what we saw in the Queen-the-kidnapper example in (15) and can be treated the same way (which I discuss in more detail in Sect. 4). Thus, the examples in (29) point to the same conclusion that we made with respect to simple definites; namely, a fully fledged anaphoric mechanism can be substituted by a contextual mechanism that makes two distinct representations of the same individual salient in the context.

The second counterexample involves *same* in the scope of *every*, as in (30). In (30), *same* is classified as sentence-internal and *very* is felicitous, which apparently contradicts what is suggested in this section.

- (30) a. Every boy read the very same book.
- b. Every time I called to ask about the problem, I got the very same explanation.

The use of sentence-internal *same* in the scope of a universal quantifier has been discussed in the literature. The common analysis of these examples is that *every* creates a maximal set of individuals and the distributive operator associated with *every* checks for any pair in that maximal set that it satisfies the property in the nuclear scope. The nuclear scope involves an identity (or parallelism) relation between individuals associated with each member of the restrictor set (e.g., Brasoveanu, 2011; Hardt & Mikkelsen, 2015). For example, the meaning of (30)a is that for any pair of boys—*boy*<sub>1</sub> and *boy*<sub>2</sub>—in the restrictor set, the books they read—*book*<sub>1</sub> read by *boy*<sub>1</sub> and *book*<sub>2</sub> read by *boy*<sub>2</sub>—are identical. This meaning can be generated by the analysis in (23) with suitable denotations for *every* and the distributive operator. Although at this point I do not have clear understanding what makes *very* possible in these examples (I think they present an interesting puzzle), I want to bring up two considerations. First, examples like (30) do not annul the fact that *very* with sentence-internal *same* and clearly identified individuals, as in (26)–(28), is judged to be ‘weird’ and ‘superfluous’. (Note that there is no question of *very* being ungrammatical. The judgments seem to be more refined than that.) Second, the dichotomy between the deictic and

sentence-internal uses of *same* may be an oversimplification, and cases where *same* is in the scope of a quantifier may be treated as intermediate cases that involve intricate contextual mechanisms. These contextual mechanisms, then, could be used to account for the felicitous use of *very* with quantifiers.<sup>9</sup>

To summarize, the observation that *very* is felicitous with *same* in its deictic use, but not in its sentence-internal use (with some caveats discussed above), shows that the presence of the identity relation is not sufficient for modification by *very*. Modification by *very* requires an access to an anaphoric (or another contextual) mechanism which is available with the deictic *same*, but not with the sentence-internal *same*.

### 2.3 Definite descriptions with relative clauses

Restrictive relative clauses have been recognized to be structurally ambiguous.<sup>10</sup> They can have a raising structure, in which the head noun originates in the relative clause and is interpreted in its original position, but surfaces as raised, or a matching structure, in which the head noun is interpreted in the main clause and there is a matching noun in the relative clause that is elided. The two strongest pieces of evidence for the raising structure come from relative clauses with idioms—see (31)—and from examples with bound reflexive pronouns; see (32). To receive the idiomatic interpretation, *headway* in (31)a must reconstruct and be interpreted in the relative clause, as shown in (31)b, c. Also, in order to satisfy Condition A, *himself* in (32)a has to reconstruct and be interpreted in the relative clause; see (32)b, c. The reconstructed copy, for example ‘the<sub>x</sub> headway’ in (31)c, is usually assumed to be interpreted via Trace Conversion and is assigned the following denotation ‘the  $\lambda y.x = y \wedge \text{headway}(y)$ ’ (Fox, 2002).

- (31) a. Alice was surprised by the (amount of) headway that Bennett made.  
       b. the [ headway<sub>1</sub> [ that Bennett made t<sub>1</sub> ]]  
       c. the [  $\lambda x$  [ that Bennett made the<sub>x</sub> headway ]]
- (32) a. Alice read the book about himself<sub>i</sub> that Bennett<sub>i</sub> wrote.  
       b. the [ [ book about himself<sub>i</sub> ]<sub>1</sub> [ that Bennett<sub>i</sub> wrote t<sub>1</sub> ]]  
       c. the [  $\lambda x$  [ that Bennett<sub>i</sub> wrote the<sub>x</sub> book about himself<sub>i</sub> ]]

The strongest pieces of evidence for the matching structures come from the absence of a Condition C effect in examples, such as (33), and (again) from examples with bound reflexive pronouns where the binder is in the main clause; see (34). According to the matching analysis, the clause-internal head undergoes an obligatory deletion

<sup>9</sup> An anonymous reviewer observes that examples like in (30) “must be uttered in a context where there exists some expectation or misunderstanding that every boy read different books.” This (they suggest) makes (30) similar to the Queen-the-kidnapper example in (15), in which case (30) no longer is a counterexample to the observation made in this section. I share the reviewer’s intuition about (30); it might provide an important ingredient for solving the puzzle about *very same* under quantifiers. However, I think the puzzle remains because, unlike in the Queen-the-kidnapper example, the individuals distributed over by *every* are not introduced contextually.

<sup>10</sup> Relative clauses have been extensively studied in linguistics. Some representative works include Chomsky (1965), Vergnaud (1974), Carlson (1977), Heim (1987), Kayne (1994), Bianchi (1995), Borsley (1997), and Grosu and Landman (1998).

which is similar to Comparative Deletion in *Alice saw a longer boat than was ever seen*. Because this kind of obligatory deletion does not impose a strict identity between the external head and the elided NP, the Condition C violation in (33) can be avoided by analyzing the elided NP as containing a reflexive pronoun, as shown in (33)b. Following the same reasoning, the example with the reflexive pronoun bound by the matrix subject in (34) can be explained by replacing *herself* in the elided head with a referential expression; see (34)b. As before, the copy of the lower head is interpreted via Trace Conversion (Sauerland, 2003, 2004; Hulsey and Sauerland, 2006).

- (33) a. The relatives of Bennett<sub>i</sub> that he<sub>i</sub> likes live in Paris.  
 b. the relatives of Bennett<sub>i</sub> [ ~~the relatives of himself<sub>i</sub>~~<sub>T</sub> [ that he<sub>i</sub> likes t<sub>1</sub> ] ]  
 c. the relatives of Bennett<sub>i</sub> [ λx [ that he<sub>i</sub> likes the<sub>x</sub> relatives of himself<sub>i</sub> ] ]
- (34) a. Alice<sub>i</sub> read the book about herself<sub>i</sub> that Bennett wrote.  
 b. the book about herself<sub>i</sub> [ ~~the book about Alice<sub>i</sub>~~<sub>T</sub> [ that Bennett wrote t<sub>1</sub> ] ]  
 c. the book about herself<sub>i</sub> [ λx [ that Bennett wrote the<sub>x</sub> ~~book about Alice<sub>i</sub>~~<sub>T</sub> ] ]

*Very* appears to be sensitive to the distinction between relative clauses discussed above. Although the judgments are delicate, speakers of English report a contrast between *very* in relative clauses that have only the matching structure—see (35)b—and *very* in relative clauses that have only the raising structure; see (35)c. The latter is degraded. The sentence in (35)a is a default ambiguous case that does not force either analysis and *very* is unproblematic there.

- (35) a. Alice read the (very) book about Charlie that Bennett wrote.  
 b. Alice<sub>i</sub> read the (very) book about herself<sub>i</sub> that Bennett wrote.  
 c. Alice read the (#very) book about himself<sub>i</sub> that Bennett<sub>i</sub> wrote.

Before concluding this section, let us briefly look at definite descriptions where both *same* and a relative clause are used. In (36), *very* modifies a definite description with *same* in which the comparison is introduced by a *that/as*-clause. *That/as*-clauses in such cases are argued to be matching relatives (Hanink, 2021). One piece of evidence comes from the fact that they too can obviate Condition C, as shown in (37). For the purpose of this paper, I assume the matching analysis for *that/as*-clauses in definite descriptions with *same*.

- (36) Alice read the (very) same book that/as Bennett read.  
 (37) Alice holds the same opinion of Bennett<sub>i</sub> as he<sub>i</sub> does.

To summarize, if the judgments above prove to be robust, they point to the same direction as the observations about simple definite descriptions and definite descriptions with *same*; namely, for *very* to be used felicitously within a DP, that DP should involve an identity statement with one side determined contextually. In case of simple definite descriptions and definite descriptions with *same*, the contextual mechanism can be straightforwardly defined as an anaphoric antecedent relation (for anaphoric definites and deictic *same*) or a contextual mechanism that creates two salient representations of the same individual (as in the Queen-the-kidnapper case and examples like (29)). In case of matching relative clauses, the anaphoric mechanism is less clear, given the current state of our understanding of these constructions.



## 2.4 Closing remarks

In this section, we have seen that *very* can be used as an emphatic element within a DP in case two conditions are met: (i) there is a DP-internal identity relation and (ii) one side of that DP-internal identity relation is determined contextually (anaphorically or via a contextual opposition). That both conditions are needed is shown by two facts. First, definite descriptions with *same* that have the sentence-internal reading cannot be modified by *very*, although *same* here introduces an identity relation. Second, definite descriptions with raising relative clauses modified by *very* are degraded, although according to the copy theory based on Trace Conversion, raising relative clauses involve a DP-internal identity relation.

For simple anaphoric definites and deictic *same*, we have the denotations as in (38)a, b repeated from above. In (38)a, b, the anaphoric mechanism is captured via the assignment function that for a particular index returns an individual as one side of the identity relation. Note that in (38)a and (38)b, the identity statements and anaphoric antecedents are introduced differently. In (38)a, they are contributed by the index or by the index head, if we assume that indices are part of the syntactic structure. In (38)b, they come from the meaning of *same*, which puts additional restrictions on sentences with *same* discussed in Sect. 2.2 (e.g., parallel antecedents, no negated antecedent).

- (38) a.  $\llbracket \text{the man}_i \rrbracket^{M,c,a} = \iota x.man(x) \wedge x = a(i)$   
           defined only if in  $c$ :  
            $\exists!x[man(x) \wedge x = a(i)]$   
       b.  $\llbracket same < b, a(i) > f \rrbracket^{M,c,a} = 1$  iff  $f(b) = f(a(i))$

For DPs with matching relative clauses, we have the denotation as in (39). In (39), the DP-internal identity relation is compositionally introduced by the copy theory via Trace Conversion within the lower copy in both the raising and the matching structures. The anaphoric mechanism in case of matching relatives is part of the Relative Deletion that postulates an obligatory deletion of the internal head under an anaphoric relation with the external head (e.g., Sauerland, 2003).<sup>11</sup>

- (39)  $\llbracket \text{the man we saw the}_x\text{-man yesterday} \rrbracket^{M,c,a} = \iota x.man(x) \wedge \text{we-saw-yesterday}(\iota y.x = y \wedge man(y))$

I assume that this analysis will also be suitable for *that/as*-clauses in definite descriptions with *same*.

It should be noted at this point that the analysis of definite descriptions with *same* and definite descriptions with relative clauses are not fully satisfactory. Their compositional structure is not fully agreed on in the literature. Developing fully compositional analysis for deictic *same* and relative clauses is a separate undertaking that I do not pursue in this paper. In the upcoming section, I illustrate a compositional analysis of *very* in emphatic definite descriptions using simple anaphoric definites where the

<sup>11</sup> A slightly different version of trace treatment where the indexed definite determiner *the*<sub>x</sub> is analyzed as a pronoun carrying a semantic presupposition (i.e.,  $\llbracket \text{the}_i P \rrbracket^{M,c,a} = a(i)$ , defined only if  $P(a(i)) = 1$ ) gives a clearer picture of the anaphoric mechanism, but loses the identity statement and also requires additional work to distinguish raising and matching relative clauses (see Sauerland, 1998, 2003, 2004).



picture is clear. I believe that this analysis can be extended to DPs with *same* and relative clauses once we have better tools for capturing them.

### 3 What is *very*?

There have been two main approaches to the analysis of gradable properties and their modification: a degree-based approach (Cresswell, 1977; Seuren, 1973; von Stechow, 1984; Kennedy, 1999, among others) and a supervaluation approach (Kamp, 1975; Klein, 1980), among others). I talk more about these two approaches in a later section. Here, I adopt the analysis of gradable predicates and modification by *very* in Klein (1980) and show how it can be extended to precision cases and emphatic definite descriptions.

Klein (1980) assumes that vague predicates like *tall* in (40) are partial functions evaluated relative to a comparison class. That is, the truth value of (40) is determined not only by physical properties of Charlie, but also by whether Charlie's height is comparable to that of basketball players.

(40) Charlie is tall. (for a basketball player)

So, (40) is true iff Charlie is tall compared to basketball players, false iff Charlie is not tall compared to basketball players, and undefined iff Charlie's height is not comparable to that of basketball players.

For *very*, Klein (1980) develops the idea from Wheeler (1972) that *Charlie is very tall* is true iff Charlie is tall as compared to tall people. In other words, non-compositionally, *very* defines the comparison class for evaluating *tall* in some context *c* as the positive extension of *tall* in *c*.<sup>12</sup>

$$(41) \llbracket \text{tall} \rrbracket^{M,c,a} = \lambda x [\text{tall}_c(x)]$$

$$(42) \llbracket \text{very}(\text{tall}) \rrbracket^{M,c[X],a} = \lambda x [\text{tall}_{c[X]}(x)]$$

$$X = \text{pos}_{\text{tall}}(c) = \{u \in U : \text{tall}_c(u) = 1\}$$

In (42), *c[X]* is some context *c'* that is just like *c* except that the comparison class in *c'* is narrowed to *X*—the positive extension of *tall* in *c*. The meaning of *tall* is a partial function which is undefined when the individual is not in the positive extension of *tall* in *c*. This means that *Charlie is very tall* is true iff Charlie is tall with respect to tall people (i.e., Charlie is in the positive extension of *tall* in *c[X]*), false iff Charlie is not tall with respect to tall people (i.e., Charlie is in the negative extension of *tall* in *c[X]*), and undefined iff Charlie is not tall (i.e., Charlie is not in the positive extension of *tall* in *c*).<sup>13</sup>

<sup>12</sup> In this paper, I use the formal implementation in Klein (1980) as an illustration. Any (more modern) system that can capture context-dynamics can be used instead.

<sup>13</sup> An anonymous reviewer asks why if, according to Klein (1980), *Charlie is very tall* is undefined whenever Charlie is not tall, this sentence is perceived as a falsehood. Klein is aware of the problem. With respect to negation, he points out that the sentence like in (i) comes out as true when Charlie is not tall, rather than undefined, as predicted by his account. He proposes that (i) introduces an accommodation which extends the negative extension of *tall* in *c[X]* to the set outside of *X*, i.e.,  $\text{neg}_{\text{tall}}(c[X]) \cup U - X$ . Correspondingly, this strategy will make the reviewer's example false.

(i) Charlie is not very tall.

$$(43) \quad \llbracket \text{Charlie is very tall} \rrbracket^{M,c[X],a} = \begin{cases} 1 & \text{iff } \text{charlie} \in \text{pos}_{\text{tall}}(c[X]) \\ 0 & \text{iff } \text{charlie} \in \text{neg}_{\text{tall}}(c[X]) \\ \# & \text{iff } \text{charlie} \notin \text{pos}_{\text{tall}}(c) \end{cases}$$

To achieve a compositional analysis of *very tall*, Klein (1980) develops an augmented language L, in which it is possible to define functions from contexts to extensions, such as  $\lambda c \llbracket \text{tall} \rrbracket^{M,c,a}$ , which he calls ‘characters’ (relating to Kaplan, 1989, which first appeared in 1977). In order to augment L in this way, Klein introduces a character operator  $\cap$  and its inverse  $\cup$  (parallel to Montague’s intensional operators  $\vee$  and  $\wedge$ ). These operators enable one to express characters in the object language. So, for any expression  $\alpha$ ,  $\cap \alpha$  denotes the character of  $\alpha$  and  $\cup \alpha$  denotes exactly what  $\alpha$  denotes. Also, we add another basic type  $k$  for ‘character’, such that an expression of type  $\langle k, \tau \rangle$  is a function from contexts  $C$  to  $D_\tau$ , and the following two clauses for interpretation hold:

$$(44) \quad \begin{array}{l} \text{a. } \llbracket \cap \alpha \rrbracket^{M,c,a} = \lambda c \llbracket \alpha \rrbracket^{M,c,a} \\ \text{b. If } \alpha \in D_{\langle k, \tau \rangle}, \text{ then } \llbracket \cup \alpha \rrbracket^{M,c,a} \text{ is } \llbracket \alpha \rrbracket^{M,c,a}(c) \end{array}$$

In the augmented language L, *very* is a function from a character of the predicate it modifies to the extension of this predicate; see (45). That is to say, if a predicate is of type  $\langle \tau \rangle$ , then *very* takes an argument of type  $\langle k, \tau \rangle$  and returns an expression of type  $\langle \tau \rangle$ . The contribution of *very* is to restrict the contexts in which our predicate is evaluated to the contexts in which its comparison class is the positive extension of the predicate in the initial context.

$$(45) \quad \llbracket \text{very} \rrbracket^{M,c,a} = \lambda K [K(c[X])] \\ \text{where } X = \{u \in U : K(c)(u) = 1\}$$

As an example, let us take *tall*, which we assume to be of type  $\langle e, t \rangle$ . By (44)a,  $\cap \text{tall}$  is the (extensional) character function of *tall* of type  $\langle k, \langle e, t \rangle \rangle$ . *Very*, which is of type  $\langle \langle k, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle$ , combines with  $\cap \text{tall}$  in the object language and yields *tall* of type  $\langle e, t \rangle$ , which is now interpreted with respect to the positive extension of *tall* in the initial context; see (46).

$$(46) \quad \llbracket \text{very } \cap \text{tall} \rrbracket^{M,c,a} = \lambda x [\text{tall}_{c[X]}(x)]$$

The above meaning of *very* can be extended to precision cases, if we treat nouns like *beginning* as a composite, such as ‘early point’. Then, we can say that ‘early’ sorts points by their order on a temporal or spatial scale and *beginning* denotes a set of points that are in the positive extension of ‘early’. The role of *very* is to shift the context in such a way that ‘early’ is interpreted with respect to a new comparison class—those points that are in the positive extension of ‘early’ in the initial context. That is, the same way as *a/the very tall man* is a man, who is a member of the set of ‘(tall(tall(men)))’, *the very beginning* is a point which is a member of the set of ‘(early(early(points)))’.

$$(47) \quad \llbracket \text{very } \cap \text{beginning} \rrbracket^{M,c,a} = \lambda x. \text{point}(x) \wedge \text{early}_{c[X]}(x)$$

Note that in both gradable constructions and precision cases, *very* not only shifts the context, but shifts it in a particular way: the domain of individuals, to which

the predicate modified by *very* applies, becomes smaller compared to the domain of individuals in the initial context. I want to suggest that the availability of such a domain-reducing context shift is what makes modification by *very* possible not only in gradable constructions and precision cases, but also in emphatic definite descriptions. That is, we can say more generally that modification by *very* is possible, when there is a context shift such that in the shifted context the domain of individuals, to which the predicate modified by *very* applies, is smaller than the domain of individuals in the initial context.

Modification by *very* in emphatic definite descriptions is shown in (49) using a simple anaphoric definite description. For the purpose of illustration, let us continue assuming that in anaphoric definites, an *Idx*-head is present in syntax and say that it has the denotation in (48), as in Hanink (2021). Let us add to these assumptions that *Idx* like *tall* and *early* is interpreted relative to a context, which we indicate by the subscript *c* on the equal sign in (48). Also, like *tall* and *early*, *Idx* can be raised to the character function  $\cap \text{Idx}$  and when *very* applies to  $\cap \text{Idx}$ , it shifts the context relative to which *Idx* is evaluated from *c* to *c'*; see (49).

$$(48) \quad \llbracket \text{Idx}_i \rrbracket^{M,c,a} = \lambda x. x =_c a(i)$$

$$(49) \quad \llbracket [\text{very } \cap \text{Idx}_i] \text{ man} \rrbracket^{M,c,a} = \lambda x. \text{man}(x) \wedge x =_{c'} a(i)$$

In the upcoming section, I lay out my arguments for saying that the DP-internal identity relation present in emphatic definite descriptions (and argued for in the previous section), although it is not gradable, is context-dependent. Moreover, this context-dependence is of the right kind for modification by *very* as it makes available a domain-reducing context shift.

In this section, we saw that Klein's (1980) analysis of *very* as a context-shifting operator in gradable constructions can be extended to the use of *very* in precision cases and emphatic definite descriptions. The difference between gradable constructions and precision cases, on the one hand, and emphatic definite descriptions, on the other hand, is that in emphatic definite descriptions the property to which *very* applies is not gradable. The reason why *very* can apply to a non-gradable property is that gradability is not a necessary condition for modification by *very*. What is needed for modification by *very*, according to Klein's analysis, is that the property is context-dependent.

## 4 What makes *very* possible?

As we discussed in Sect. 2, anaphorically used definite descriptions, definite descriptions with relative clauses, and definite descriptions with *same* involve a DP-internal identity statement. For example, when *the man* is used anaphorically, it denotes a unique most salient man identical to the individual determined by the assignment function, as in (50). The definite description *the man we saw yesterday*, in its turn, denotes a unique most salient man identical to the (unique most salient) man whom we saw yesterday, as in (51).

- (50)  $\llbracket \text{the man}_i \rrbracket^{M,c,a} = \iota x.\text{man}(x) \wedge x = a(i)$   
 defined only if in  $c$ :  
 $\exists!x[\text{man}(x) \wedge x = a(i)]$
- (51)  $\llbracket \text{the man we saw the } \bar{x} \text{ man yesterday} \rrbracket^{M,c,a} = \iota x.\text{man}(x) \wedge \text{we-saw-yesterday}(\iota y.x = y \wedge \text{man}(y))$   
 defined only if in  $c$ :  
 (i)  $\exists!x[\text{man}(x) \wedge x = \iota y.\text{we-saw-yesterday}(y)]$   
 (ii)  $\exists!y[\text{we-saw-yesterday}(y)]$

It is standardly assumed that definite descriptions, such as in (50) and (51), are meaningful only if there exists a unique individual in the context of the utterance that fits the relevant description. In this section, we look at two examples where the context, more precisely, the *initial* context—the context before an utterance is made—does not entail the existence of a unique individual satisfying the definite description. The part of the definite description that will not be satisfied in our two examples is the identity statement. We will see that this situation requires the initial context to be shifted in a way that accommodates the use of the identity statement. What is important for the purpose of our discussion about *very* is that the context shift that accommodates the use of the definite description also leads to shrinking of the domain of relevant individuals. As suggested in the previous section, the availability of a domain-reducing context shift is what makes modification by *very* possible in emphatic definite descriptions. The goal of this section is to argue for the availability of such a context shift in case of definite descriptions that involve a DP-internal identity statement.

#### 4.1 Two examples

Our two examples are devised using variations on the stories from the *de re* belief ascription literature. In the first example, exploiting the old story about Ralph and Ortcutt, we consider a situation in which one actual individual is represented in two different ways. In the second example, using a less known story about Harvey and his Treasure Island, we look at a reverse situation, in which two actual individuals have the same representation. As it will become clear from the discussion of the examples, the difficulties created by DP-internal identity statements are closely related to the difficulties familiar from the literature on *de re* belief ascriptions. The difference between our examples and *de re* belief ascriptions is in the nature of the propositional attitude involved. In our examples, instead of believing, the relevant propositional attitude is presupposing (or accepting for the purpose of conversation). Although it would be interesting to explore the connection between unsatisfied DP-internal identity statements and *de re* belief ascriptions, for reasons of space and coherence, I leave this discussion for another occasion. Here, I just point out that the solution for our examples that (as we will see) can be formulated in terms of a context shift is intimately linked to the pragmatic solution for *de re* belief ascriptions advocated by Stalnaker (1988, 2009). In both cases, the essential role is played by the context in which the individual in question is identified.

## Old story about Ralph

We begin with the old story about Ralph.<sup>14</sup> Recall that Ralph knows Orcutt under two representations: as a grey-haired man from the beach, whom Ralph believes to be a pillar of the community; and as a man in a brown hat, whom Ralph suspects to be a spy. Suppose that Ralph has a sister Phoebe, who is a philosophy student. Phoebe knows Orcutt and also knows about Ralph's situation regarding Orcutt (that is, that Ralph knows Orcutt under two representations), but she has never troubled herself to correct Ralph by pointing out that the man from the beach and the man in the brown hat are one and the same individual. Yesterday, Ralph and Phoebe went to a bar, where they saw a man whom Ralph would identify as that suspicious man in the brown hat and Phoebe would identify as Orcutt. Today, Ralph and Phoebe go for a walk and see Sophie, their mutual acquaintance, talking with a grey-haired man whom Ralph would identify as that man from the beach and Phoebe (again) would identify as Orcutt. At this moment, Phoebe says to Ralph:

(52) Look! Sophie is talking to the man we saw yesterday.

Intuitively, we can describe what happens in this example as follows: in the initial context (before (52) is uttered), Phoebe believes that there is one relevant individual—Orcutt—who can appear under two guises (as a man in the brown hat and as a grey-haired man from the beach). In the same initial context, Ralph believes that there are two relevant individuals whom he would describe as the man in the brown hat and the grey-haired man from the beach. Upon hearing (and accepting) (52), in addition to learning a new fact about Sophie (that she is talking to some man), Ralph realizes that the man in the brown hat is the same individual as the man from the beach. Below, I suggest that Ralph's "realization" is forced by the need to accommodate the presupposed DP-internal identity statement, which is not entailed by the initial context. The accommodation results in a context shift that reduces the domain of relevant individuals by one individual.

Before expanding on the mechanism behind a domain-reducing context shift, I want to discuss another example with a presupposed DP-internal identity statement that is not entailed by an initial context. In this example, two individuals in the actual world share the same representation for one of the participants in a conversation. In this sense, it is a reverse situation compared to the story about Ralph and Orcutt. The goal of introducing the second example is to raise doubts about a naive approach to our first example that can go as follows. Suppose we postulate a distinction between "real" individuals (individuals existing in the actual world) and their representations. According to the naive approach, the domain of "real" individuals remains constant and Ralph's "realization" is a way to synchronize his representations of "real" individuals with "real" individuals. The reverse example that we are about to discuss makes this naive approach implausible, because the example would require the domain of representations of "real" individuals to be taken as constant and the synchronization to go the other way. The domain of "real" individuals would have to be adjusted to correspond to the domain of representations of one of the participants of a conversation. Although

<sup>14</sup> See Quine (1956).

giving a privileged status to the domain of “real” individuals may be justified, it is not clear how we can justify a privileged status of the domain of representations of one of the participants of a conversation (independently of their role in the conversation). Nor is it clear how to motivate the move from one privileged domain in one scenario to another privileged domain in a different scenario. The accommodation mechanism that I suggest for our examples avoids these problems by framing a context shift in terms of an update of common beliefs of the participants of a conversation.

### Harvey and his Treasure Island

The story about Harvey and his Treasure Island is adapted from Stalnaker (2008). My version keeps the main point that Harvey has one representation (‘Treasure Island’) for two distinct islands in the actual world. But my version does not involve the so-called “slow switching” component of the original story (and similar stories).<sup>15</sup> Rather, Harvey’s (mis)representation has the same underlying reason as Ralph’s (mis)representation; namely, a lack of knowledge.

My version of Harvey’s story goes as follows: Harvey and Everly are brother and sister. Since their childhood, Harvey and Everly (first with their parents, then by themselves) have been spending a getaway weekend on a distant island twice a year—once in spring and once in fall. When Harvey was little, he coined the name ‘Treasure Island’ for the island of their getaways. Unbeknown to Harvey, they have been spending their spring getaways on Island One and their fall getaways on Island Two. The two islands are the same with respect to their landscape features and can only be distinguished by their shorelines when the tide is low. When Everly was a teenager, their father showed her the difference between the two islands. Everly knows about Harvey’s epistemic situation and his ‘Treasure Island’, but she has never troubled herself to correct him by pointing out that they have been actually visiting two distinct islands. One cold November morning, Harvey and Everly pass by Sophie’s office and see on her desk travel documents and a brochure with a picture of the island that Harvey would identify as his ‘Treasure Island’, recognizable by its unique landscape features. The picture also captures the island’s shoreline during low tide, so Everly could identify it as Island One (the one they visit in spring). At this moment, Harvey says to Everly:

(53) Look! Sophie is going to the island we’ve just come from.

The intuitions here seem to be similar to what we had for the story about Ralph and Orcutt. In the initial context (before (53) is uttered), Harvey believes that there is only one relevant island that he calls the Treasure Island, whereas Everly knows that there are two distinct islands. But since Everly is aware of Harvey’s epistemic situation (that he does not distinguish between the islands), she can suspend her knowledge and accept (53) as conveying some true information about Sophie going to an island that is associated with their getaway vacations. (Note that the sentence in (53) is factually false since Sophie is going to Island One, but Harvey and Everly have just come from their fall getaway on Island Two.) The difference between our first example and the

<sup>15</sup> Different versions of “slow-switch” cases can be found in Boghossian (1994), Bonomi (1995), Aloni (2005), and Stalnaker (2008).

present story is that the situation is reversed: instead of learning true information about actual individuals (as Ralph does), Everly accepts for the purpose of conversation a false identity relation between two distinct actual islands. The result, however, is the same as in the first example: we have a domain of relevant individuals reduced by one individual.

## 4.2 Context shift

As discussed above, what we see in the story about Ralph and in the story about Treasure Island is that the initial context—the context before the utterance takes place—is different from the context in which the utterance is evaluated. That is, the context undergoes a shift to accommodate the presupposition of the definite description that there is a (unique) individual that satisfies the DP-internal identity statement. In this section, I try to show how we can describe this context shift formally. The exposition consists of two parts. In the first part, I discuss a simple case that does not involve confusion about the identity of the individual in the object position (e.g., for the story about Ralph, we assume that both Phoebe and Ralph know that the man in the brown hat they saw yesterday and the grey-haired man Sophie is talking to today are one and the same individual). The discussion of the simple case will allow me to introduce the notion of context as common knowledge (Stalnaker, 2002, 2014) and diagonalization—a mechanism that permits us to treat identity statements as contingent propositions (Stalnaker, 1978, et seq.). Readers familiar with these ideas can safely skip this part. In the second part, I turn to the cases that interest us here; namely, the cases in which one of the participants of a conversation has to adjust his or her beliefs to allow the context to satisfy the presupposition of the definite description in the object position.

### A simple case

Following Stalnaker (2002, 2014), we associate a context of an utterance with Common Ground represented as a set of possible worlds that participants of a conversation accept for the purpose of conversation—a Context Set. The attitude of acceptance for the purpose of conversation has the structure of common knowledge (i.e., an iterated attitude ‘the speaker knows that the hearer knows that ...’). To define Common Ground in terms of common knowledge, we use a transitive closure of the epistemic accessibility relations for each of the participants of a conversation. Let  $R_P$  and  $R_R$  be relativized epistemic accessibility relations such that  $\{w' : wR_P w'\}$  is a set of possible worlds compatible with everything Phoebe believes to be the case in the actual world  $w$  and  $\{w' : wR_R w'\}$  is a set of possible worlds compatible with everything Ralph believes to be the case in the actual world  $w$ . Then, we can define  $R_{\{P,R\}}$  as a transitive closure of  $R_P$  and  $R_R$  and say that  $\{w' : wR_{\{P,R\}} w'\}$  is a set of possible worlds compatible with everything Phoebe and Ralph commonly believe to be the case in the actual world  $w$ . If Phoebe and Ralph are the only participants of a conversation, we say that  $\{w' : wR_{\{P,R\}} w'\}$  is the Context Set for the utterances made during this conversation. We also follow Stalnaker (1978) and later works by assuming that the role of an assertion is to reduce the Context Set by excluding the worlds that are incompatible



with the asserted proposition. That is to say, when a sentence  $S$  translatable as  $\phi$  is asserted, the Context Set  $CS$  is updated with  $\phi$ , i.e.,  $CS \subseteq \{w \in W : \phi \text{ is true in } w\}$ .

Let us see what the Context Set for the utterance in (54) looks like in a simple case which is the same as our first story about Ralph except that both Phoebe and Ralph know that the man (in the brown hat) whom they saw yesterday and the grey-haired man Sophie is talking with today are one and the same individual.

(54) Sophie is talking to the man we saw yesterday.

Let us abbreviate the property expressed by the relative clause in (54) as  $S$  ('was Seen by Ralph and Phoebe yesterday'), the property expressed by the main clause as  $T$  ('is Talking with Sophie today'), and have  $b$  represent the individual referred to by the definite description 'the man in the brown hat' and  $p$  represent the referent of 'the man from the beach' (who is the pillar of the community). In this simple case, the Context Set—the set of worlds commonly accepted for the purpose of conversation by Phoebe and Ralph—minimally consists of two worlds  $\alpha$  and  $\beta$ ; see (55). In  $\alpha$ , Phoebe and Ralph saw the man in the brown hat yesterday, Sophie is talking to the grey-haired man today, and the identity statement holds ( $\alpha$  is the actual world). In  $\beta$ , Phoebe and Ralph saw the man in the brown hat yesterday and the identity statement holds, but Sophie is not talking to the grey-haired man today ( $\beta$  will be excluded by assertion of the sentence in (54)). This Context Set satisfies the presupposition of the definite description *the man we saw yesterday* in the relevant part that concerns the identity statement.

(55) Context set for the simple case

- a.  $\alpha : Sb \wedge b = p \wedge Tp$
- b.  $\beta : Sb \wedge b = p \wedge \neg Tp$

It is important to point out here that according to Stalnaker's view about assertion, the identity statement ('the man in the brown hat is the grey-haired man') is not a necessary truth although both descriptions refer to the same individual, Ortcutt (nor is the reverse statement a necessary falsehood). Stalnaker (1978) famously argues that identity statements should be treated as contingent propositions. For this purpose, he introduces a notion of a *diagonal* proposition which is based on the intuition that possible worlds play a double role with respect to a sentence. On the one hand, they determine the truth-value of the proposition expressed by a sentence (i.e., our standard semantic values depicted as horizontal propositions in Fig. 1). On the other hand, they determine the truth-value of what is expressed by the sentence (i.e., what is being said depicted as vertical propositions in Fig. 1).

As an illustration, suppose that Phoebe utters the sentence in (56) in a context that consists of two worlds:  $w_1$ , which is the actual world where the astronomical facts are the way they actually are, that is, the bright 'star' visible in the early dawn and in the evening twilight is the planet Venus, and  $w_2$ , a counterfactual world in which the astronomical facts are different and the 'star' that appears on the morning sky and on the evening sky are two distinct celestial bodies.

(56) The morning star is the evening star.



**Fig. 1** A propositional concept for *The morning star is the evening star*

	$w_1$ :	$w_2$ :
$w_1$ :	T	T
$w_2$ :	F	F

Stalnaker argues that, intuitively, (56) is a contingent proposition that is true in  $w_1$  and false in  $w_2$ . However, if we standardly assume that definite descriptions like proper names are rigid designators (e.g., Kripke, 1980) and that *is* expresses identity, (56) must denote a necessary truth (a proposition that is true in all possible worlds). In other words, our semantic rules do not derive a contingent proposition which we intuitively assign to (56).

This tension (Stalnaker continues) can be resolved in two-dimensional semantics where we take into consideration both roles that possible worlds can play. Figure 1 shows a two-dimensional representation (called a *propositional concept*) for the context consisting of  $w_1$  and  $w_2$ , in which (56) is asserted. The worlds in the top row assign ordinary semantic truth-values and thus, form ordinary propositions for (56) (sometimes called ‘horizontal propositions’). These propositions are a necessary truth when (56) is uttered in  $w_1$  and a necessary falsehood when (56) is uttered in  $w_2$ . The worlds in the first column determine what is being said. Stalnaker’s proposal is that (56) denotes not an ordinary (horizontal) proposition, but a *diagonal* proposition that is true in a possible world  $w$  for each  $w$  only if this proposition expressed in  $w$  is true in  $w$ . That is to say, as a diagonal proposition  $\phi := \{w \in W : \llbracket \phi \rrbracket_w \text{ is true in } w\}$ . As a result, (56) expresses a contingent diagonal proposition that is true in  $w_1$  (when it is expressed in  $w_1$ ) and false in  $w_2$  (when it is expressed in  $w_2$ ). By excluding  $w_2$  from the context, we learn new information that the morning star is the evening star.

The same logic should be applied to DP-internal identity statements. When I say that Phoebe knows or believes (and Ralph doesn’t) that the man in the brown hat is the man from the beach, I mean that they believe (don’t believe) a contingent proposition and not a necessary truth. When, on hearing and accepting (52), Ralph realizes that the man in the brown hat is the man from the beach, Ralph learns a contingent proposition that is true when expressed in the actual world (and the worlds according to Phoebe’s beliefs) in which the man in the brown hat and the man from the beach are, indeed, the same man. Similarly for Everly and Harvey. They do not subscribe to a necessary truth and falsehood (respectively); the content of their beliefs are contingent propositions. By suspending her knowledge (upon hearing (53)), Everly does not embrace a necessary falsehood that Island One is Island Two, rather, she accepts a contingent proposition that is true in those worlds where (as Harvey believes) the islands are the same as it is expressed in those worlds.

### Returning to Ralph and Harvey

Let us now return to our two examples and (again) start with the story about Phoebe and Ralph, in which Ralph does not know that the man in the brown hat they saw yesterday and the grey-haired man Sophie is talking to is the same individual, but Phoebe does know that. We assume that the context of an utterance can be represented as a set of possible worlds commonly believed (or accepted for the purpose of conversation)

by the participants of a conversation—a Context Set (Stalnaker, 2002, 2014). The minimal Context Set for the situation described in the story about Phoebe and Ralph will consist of four worlds  $\alpha$ ,  $\beta$ ,  $\gamma$ , and  $\delta$ ; see (57). The worlds  $\alpha$  and  $\beta$  are as described above for the simple case: in both worlds Phoebe and Ralph saw the man in the brown hat yesterday, in both worlds the identity statement holds; in  $\alpha$  Sophie is talking to the grey-haired man today, whereas in  $\beta$ , she is not ( $\alpha$  is the actual world). In  $\gamma$ , the state of affairs is as in  $\alpha$ , except that the identity statement does not hold. In  $\delta$ , the state of affairs is as in  $\beta$ , except for the identity statement. (The identity statements are interpreted as diagonal propositions that are contingent propositions, rather than necessary truths or falsehoods, as argued in Stalnaker (1978) and later works.) In the story about Ralph, the worlds  $\alpha - \delta$  constitute the minimal set that represents common beliefs of Phoebe and Ralph before the utterance in (52) takes place. Both Phoebe and Ralph believe and each of them believes that the other believes etc. that they saw the man in the brown hat yesterday, that either that man is the same as the grey-haired man from the beach or he is not, and that either Sophie is talking to the grey-haired man or she is not. The commonly believed proposition can be represented as a conjunction of disjunctions  $Sb \wedge ((b = p) \vee (b \neq p)) \wedge (Tp \vee \neg Tp)$ . (Abbreviations:  $S$  = ‘was Seen by Ralph and Phoebe yesterday’,  $T$  = ‘is Talking with Sophie today’,  $b$  = ‘the man in the brown hat’,  $p$  = ‘the man from the beach’ (who is the pillar of the community).) The four worlds in (57) represent each possibility compatible with the common beliefs of Phoebe and Ralph instantiated separately.

(57) Initial context set for the story about Ralph

- a.  $\alpha : Sb \wedge b = p \wedge Tp$
- b.  $\beta : Sb \wedge b = p \wedge \neg Tp$
- c.  $\gamma : Sb \wedge b \neq p \wedge Tp$
- d.  $\delta : Sb \wedge b \neq p \wedge \neg Tp$

As discussed at the beginning of this section, the difficulty is that in this initial context, the part of the presupposition of the definite description *the man we saw yesterday* that concerns the identity statement is not satisfied. In worlds  $\gamma$  and  $\delta$ , there is no (unique) individual who can be described as the man in the brown hat and of whom it can be asserted that Sophie is talking to him. An obvious way to solve this difficulty is to propose that when the sentence in (52) is uttered, the context changes so that worlds  $\gamma$  and  $\delta$  are excluded from the Context Set. This change is what we detect as the intuition that on hearing (52), Ralph learns new information about the actual world (or rather the individuals in the actual world) in addition to the facts about Sophie. The role of the assertion in (52), then, is to exclude  $\beta$  from the shifted context and as a result, we are left with the proposition that Sophie is talking to the unique individual who is also the man Phoebe and Ralph saw yesterday in the bar, which is true in the actual world  $\alpha$ .

What is important for us in the story about Ralph is that there is a sense in which, before the context shift, we have access to more distinct individuals than after the context shift. Assuming that each possible world comes with its own domain of possible individuals (e.g., Lewis, 1986; Stalnaker, 2012), the domain of distinct individuals in  $\gamma$  and  $\delta$  must be larger than the domain of individuals in  $\alpha$  and  $\beta$ . By excluding  $\gamma$  and

$\delta$  from the Context Set, we shrink the domain of distinct individuals to which we have access for the purpose of the conversation. This is a domain-reducing context shift that (as I suggested above) makes *very* possible in emphatic definite descriptions.

The same point can be demonstrated even more lucidly using our second story about Harvey and his Treasure Island. In this story, we have two distinct actual individuals—Island One and Island Two—which are presupposed (or pretended) to be one and the same individual to which Harvey refers as Treasure Island. Consider the initial Context Set for our second example, as depicted in (58). Here,  $\alpha$  is the actual world in which the two islands are distinct, Harvey and Everly have just returned from their getaway on Island Two, and Sophie is going to Island One. The world  $\beta$  is the same as  $\alpha$ , but in  $\beta$ , Sophie is not going to Island One. Worlds  $\gamma$  and  $\delta$  are the same as  $\alpha$  and  $\beta$  respectively, but in these worlds, the identity relation between Island One and Island Two holds. (Abbreviations:  $C$  = ‘Harvey and Everly have just Come from’,  $G$  = ‘Sophie is Going to’,  $i_1$  = Island One,  $i_2$  = Island Two.)

(58) Initial context set for the story about Harvey and his Treasure Island

- a.  $\alpha : Ci_2 \wedge i_1 \neq i_2 \wedge Gi_1$
- b.  $\beta : Ci_2 \wedge i_1 \neq i_2 \wedge \neg Gi_1$
- c.  $\gamma : Ci_2 \wedge i_1 = i_2 \wedge Gi_1$
- d.  $\delta : Ci_2 \wedge i_1 = i_2 \wedge \neg Gi_1$

As before, we assume that the identity statements are diagonalized, that is to say,  $i_1 \neq i_2$  is not a necessary truth (in fact, for Harvey it is false). In the Context Set in (58), worlds  $\alpha$  and  $\beta$  are compatible only with Everly’s beliefs and worlds  $\gamma$  and  $\delta$  are compatible only with Harvey’s beliefs. The relevant common beliefs, as above, can be represented as a conjunction of disjunctions  $Ci_2 \wedge ((i_1 = i_2) \vee (i_1 \neq i_2)) \wedge (Gi_1 \vee \neg Gi_1)$ . As in the story about Ralph, the difficulty is that the Context Set in (58) does not entail the part of the presupposition of the definite description *the island we have just come from* that concerns the identity statement. In worlds  $\alpha$  and  $\beta$ , there is no (unique) island from which Harvey and Everly have just returned and of which it can be asserted that Sophie is going to that island. And as in the story about Ralph, the difficulty can be resolved by saying that upon hearing the sentence in (53), Everly pretends that Island One and Island Two are one and the same island; this excludes worlds  $\alpha$  and  $\beta$  from the initial Context Set, reducing it to  $\{\gamma, \delta\}$ . The role of the assertion in (53), then, is to exclude  $\delta$ . Thus, we arrive at a proposition that is true just in case Sophie is going to the island that is the one Harvey and Everly have just returned from. This proposition is false in the actual world  $\alpha$ , but is informative in the accommodated context and the conversation can carry on. The context shift that accommodates the DP-internal identity statement in our second example is similar to the context shift in the story about Ralph in that it results in the domain of relevant individuals becoming smaller as compared to the domain of individuals in the initial context. This is what we need to make modification by *very* possible.<sup>16</sup>

<sup>16</sup> Two anonymous reviewers raise an issue that seems to me to be the same, although they articulate it from different angles. The issue touches on a profound theoretical question that I am not able to answer

### 4.3 Closing remarks

The two examples we discussed in this section were designed to show that the inclusion of an identity statement into the denotation of (certain) definite descriptions has consequences for their pragmatic acceptability. In situations that involve confusion of an identity, the presence of a DP-internal identity statement in a definite description forces a context shift that leads to the domain of individuals being (temporarily) restricted in a way that satisfies the identity statement. I suggested that this context shift is what makes the DP-internal identity relation context-dependent. It also makes definite descriptions with DP-internal identity statements suitable for modification by *very*.

We can see the restriction of the domain of individuals in the fact that after a sentence with a DP-internal identity statement is uttered (and accepted), a pronoun can be used to pick out the individual that before the utterance was two distinct individuals. For example, suppose that shortly before talking with Phoebe, Ralph saw the man in the brown hat on the other end of the city. After hearing (and accepting) the sentence about Sophie in (52), Ralph might say or think to himself:

(59) He must have a car because I've just seen him on the other end of the city.

The pronouns *he* and *him* in (59) pick out the individual for whom Ralph previously had two representations: the grey-haired man from the beach for *he* and the man in the brown hat for *him*. This becomes possible because in the context in which (59) is uttered, the man from the beach and the man in the brown hat is one and the same individual.

Similarly, after the sentence in (53) is uttered (and accepted), Everly can talk about the Treasure Island by pulling together information about Island One and Island Two. For example, if Everly knows that Island One and Island Two are not popular tourist destinations when counted separately, but can pass as a popular tourist destination

---

Footnote 16 continued

(or even describe in a comprehensive way) here. I only point to the tension that this question creates and a way to resolve it. Here is how one of the reviewers phrases the issue: "making [the domain-reducing context shift] a strict requirement [on the use of *very*] is too strong, but if it is not needed, then there might be an over-generation problem with *very* predicted to be available across the board where an (indexed) definite already was available." The theoretical question here is how we model context-dependent phenomena in language. Two approaches that are often contrasted are *relativism* (which roughly says that the *content* of an utterance is determined by the meaning of the sentence plus the context) and *contextualism* (where the context determines the *way* the content of an utterance is specified). There are different brands of relativism and contextualism (Stalnaker, 2014, Ch. 8). The tension in the present paper comes from the fact that Sect. 3 looks as if a variety of relativism is assumed (this is indicated by Klein's use of the Kaplanian character and the general impression of a simple compositional analysis), whereas Sect. 4 assumes contextualism (as signaled by the use of two-dimensional semantics). I tried to reduce this tension by using weak language (for example, saying that the domain-reducing context shift makes *very* possible rather than necessary). I fully acknowledge that the tension is there. There is an attempt to resolve the tension between the more compositionality-friendly relativist approach to context-dependence and the more expressive contextualist approach in Stalnaker (2014, Appendix) using Lewis's C,I-framework. This attempt is not fully formalized and requires quite some work before it can be applied to explain context-dependent phenomena.

when the numbers of people who visit both islands are combined, she might reply to Harvey's remark about Sophie in (53) by saying:<sup>17</sup>

(60) Many people seem to be visiting it these days.

The pronoun *it* in (60) picks out the Treasure Island, rather than Island One or Island Two, which do not count as popular tourist destinations when taken separately. As in case of (59), this becomes possible because the context for (60) presupposes (counterfactually) that the two islands are one and the same thing.

## 5 What makes *very* special?

In the previous section, we discussed what makes modification by *very* possible focusing on emphatic definite descriptions that do not involve a suitable gradable property. In this section, we return to our initial two observations in the introduction and answer the question what makes *very* special.

### 5.1 Modification by *very*

The first observation that we saw in the introduction was that *very* can be used in gradable constructions, precision cases, and emphatic definite descriptions, whereas other comparable degree modifiers like *really* and *extremely* can only appear in gradable constructions. These data are repeated in (61).<sup>18</sup> How can we explain these patterns?

- (61) a. the very/really/extremely tall man  
 b. from the very/\*really/\*extremely beginning  
 c. the very/\*really/\*extremely man (we saw yesterday)  
 d. the very/\*really/\*extremely same man (that we saw yesterday)

<sup>17</sup> An anonymous reviewer raises an issue about the empirical status of (60). They note that “it seems odd to [them] for Everly to attribute properties to the single island that’s simply assumed for purposes of current discourse on her perspective and attribute properties to it that result from combining those for island one and two.” I think the oddness comes from the assumption that Everly’s accommodation is short-lived (i.e., just for the current conversation). If we think of Everly’s accommodation as continuous—that is, she pretends that Island One and Island Two are one and the same island for every conversation with Harvey (and their friends who share or accommodate Harvey’s misrepresentation), (60) becomes natural. The oddness of the short-lived accommodation is that properties attributed to Treasure Island do not participate in any additional (beyond the current discourse) reasoning or deliberations about the object. This oddness disappears when the accommodation is continuous in the relevant sense.

<sup>18</sup> It is worth highlighting here that we are interested in DP-internal modification. For example, in precision cases, it is possible to use *exactly* as a DP-/PP-external modifier (e.g., *exactly from the beginning*). Such cases should be separated from DP-internal modification by *very*. The cases with *exactly* can be accounted for using, for example, pragmatic halos (Lasersohn, 1999). Our precision cases are more selective and cannot be explained using the pragmatic halo mechanism. For instance, the prototypical example of a pragmatic halo, *Mary arrived (exactly) at 3 o’clock*, cannot involve modification by *very*. Also *same* can involve DP-external modification as in *almost/not quite/roughly the same book*. Based on these examples, *same* is sometimes argued to express a gradable property (Alrenga, 2006). In this paper, the meaning of *same* is taken to be an identity relation, following the common view. I believe it is possible to explain DP-external modification of *same* without postulating gradability of *same*.

As mentioned above, there are two major approaches to gradable predicates in semantic literature. The first—degree-based—approach associates gradable predicates with measure functions, by either analyzing gradable predicates as measure functions (that is to say, functions from individuals to abstract representations of measurement, such as scales and degrees) or by analyzing gradable predicates as relations between degrees and individuals (Seuren, 1973; Cresswell, 1977; Kennedy, 1999). In this approach, the role of degree modifiers, such as *very*, *really*, *extremely*, and others, is to specify the degree to which the property holds of the individual. The second approach, which is based on supervaluation, treats gradable predicates as partial functions from individuals to truth values with context-dependent extensions (Kamp, 1975; Klein, 1980). In this approach, degree modifiers manipulate the context in a specific way which leads to re-sorting individuals into the positive extension, the negative extension, and the extension gap. In Sect. 3, we used Klein’s analysis, which belongs to the second camp, to explain modification by *very*; see (62), repeated from above.

- (62) a.  $\llbracket \text{very} \cap \text{tall} \rrbracket^{M,c,a} = \lambda x \llbracket \text{tall}_{c[X]}(x) \rrbracket$   
 b.  $\llbracket \text{very} \cap \text{beginning} \rrbracket^{M,c,a} = \lambda x. \text{point}(x) \wedge \text{early}_{c[X]}(x)$   
 c.  $\llbracket \llbracket \text{very} \cap \text{Id}_{x_i} \rrbracket \text{man} \rrbracket^{M,c,a} = \lambda x. \text{man}(x) \wedge x =_{c'} a(i)$

The two approaches share the same assumption, namely that degree modification (in case of gradable constructions) is due to the same mechanism. So, both approaches explicitly state that there is no difference between modification by *very*, *really*, and *extremely*. But this is not what we see in (61). As I suggest below, although both approaches need to do some work to explain (61), the supervaluation approach scores better because it needs to do less.

A simple descriptive explanation why modifiers like *really* and *extremely* cannot be used as DP-internal modifiers in precision cases and emphatic definite descriptions can be given by appealing to sub-categorization. That is, we can say that *-ly* adverbs (and similar run-of-the-mill degree modifiers) cannot modify nouns. A more demanding question is why this might be the case. The question may have different answers that depend on our theoretical assumptions. The easiest way out would be to assume that both approaches to degree modification are right and represent different mechanisms of modification: *very* manipulates the context, whereas modifiers like *really* and *extremely* manipulate the degree argument of the property they combine with. In this case, we can say that *really* and *extremely* are not possible in precision cases and in emphatic definite descriptions because nouns do not have a degree argument. Whether this solution is plausible (or desirable) cannot be decided on the distribution of DP-internal *very* alone, so I leave it as a possibility and do not pursue further in this paper.

Let us say that we want to stay within one camp. Which camp should we choose based on the data presented in this paper? I suggest that the supervaluation approach is a better choice because it already captures why *very*, *extremely* and *really* are possible with gradable properties and (as argued in this paper) why *very* is possible in precision cases and in emphatic definite descriptions.<sup>19</sup> What it needs to explain is why *extremely*

<sup>19</sup> Within the degree-based approach, it can be argued that *very* in precision cases is a slack regulator (as in, for example, Hanink, 2021). However, it is less clear how the same idea can be extended to emphatic definite descriptions.

and *really* are not possible with nouns. I discuss a possible answer below. Let us now count the questions that the degree-based approach has to address. One question I already mention: it has to explain what makes *really* and *extremely* incompatible with nouns or impossible in precision cases and emphatic definite descriptions. I also mentioned a plausible answer to this question: nouns do not have a degree argument. However, in addition to this question, the degree-based approach has to provide an explanation of what makes *very* possible in all three kinds of constructions. This explanation will have to be somewhat involved, because in gradable constructions *very* behaves like a degree modifier but also combines with non-gradable properties. Whether we can find such an explanation and make it look natural is an open question.

Now, I would like to discuss a possible answer to the question why *really* and *extremely* are disallowed with nouns within the supervaluation approach. The answer comes from the insights in Kamp (1975). Kamp asks the question that is similar to our question: why do nouns, being potentially as vague as adjectives, resist comparatives? His answer is that nouns, despite being vague, behave like sharp predicates. That is, in practice, nouns have very small or no extension gaps. Kamp suggests that because comparatives are most useful for sorting individuals in the extension gap, their use with nouns is relatively uninformative. The reason why nouns are sharp has to do with the physical structure of our world:

It is an interesting question how nouns ‘manage’ to be as sharp as they are. The explanation must be more or less along the following lines: Even if each of the several criteria for the noun may apply to actual objects in varying degrees, these criteria tend to be, with respect to the actual world, parallel: an object which fails to satisfy a few of them to a reasonable degree will generally fail to score well with regard to almost all of them. Consequently, it will either be recognized as definitely inside the extension of the noun, or else as definitely outside. The nature of this parallelism is very much that of a physical law—it is a feature of our world, and thus in essence empirical.

(Cited from the reprint in Kamp, 2013, p. 254.)

We can apply this reasoning to our cases. What we need to postulate is a threshold of informativity for noun modification and say that *very* passes this threshold, whereas comparatives and modifiers like *really* and *extremely* do not.

## 5.2 Iteration of *very*

The second observation discussed in the introduction was that *very* can be iterated in gradable constructions and precision cases, but not in emphatic definite descriptions. These data are repeated in (63).<sup>20</sup>

<sup>20</sup> Two anonymous reviewers ask about the status of *very* in superlatives, such as in *We use only the (very) very best ingredients* or *the very highest peak*. At this point, I do not have clear understanding of the role of *very* in superlatives. This is a hard case. To begin with, *very* can modify only synthetic superlatives, e.g., *\*the very most beautiful mountain*. Additionally, in some languages (see Russian and Lithuanian in the Appendix), a *very*-like modifier that can co-occur with a synthetic superlative can also form a superlative by itself. I have to leave superlatives for future research.



- (63) a. the very very tall man  
 b. from the very very beginning  
 c. the (#very) very man (we saw yesterday)  
 d. the (#very) very same man (that we saw yesterday)

Before explaining these observations, let me briefly repeat the proposal for *very tall* in Klein (1980) and its extension to other cases proposed in this paper. Recall that in Klein's system, *very* changes the comparison class of *tall* to its positive extension, thus creating the meaning for 'tall man', paraphrasable as 'tall for a tall man'; see (64), where  $c[X]$  is the context  $c'$ , which is just like  $c$  except that the comparison class for *tall* is shifted to  $X$ , such that  $X = pos_{tall}(c) = \{u \in U : tall_c(u) = 1\}$ .

$$(64) \quad \llbracket \text{very} \cap \text{tall man} \rrbracket^{M,c,a} = \lambda x. \text{man}(x) \wedge \text{tall}_{c[X]}(x)$$

As we saw in Sect. 3, *very* in precision cases can be assigned the same role as *very* in gradable constructions if we assume that *beginning* means something like an early point on a temporal or spatial scale; see (65), where  $X = pos_{early}(c) = \{u \in U : early_c(u) = 1\}$ .

$$(65) \quad \llbracket \text{very} \cap \text{beginning} \rrbracket^{M,c,a} = \lambda x. \text{point}(x) \wedge \text{early}_{c[X]}(x)$$

According to Klein (1980), this mechanism is based on the important characteristic of gradable adjectives; namely, that they can be applied to sort individuals in a large variety of subsets of  $U$ . For instance, positively tall individuals are not all tall exactly to the same degree, so they can be further sorted into relatively tall individuals, relatively short individuals, and individuals that fall into the extension gap. This mechanism explains the iterative use of *very*: by successively applying *very*, we every time promote the positive extension of the input predicate to the status of the comparison class. This is schematically illustrated in (66) and (67).

- (66) a. Alice is tall, Bennett is very tall, and Charlie is very very tall.  
 b.  $\text{alice} \in pos_{tall}(c) \wedge \text{bennett} \in pos_{tall}(c[X]) \wedge \text{charlie} \in pos_{tall}((c[X])[X])$
- (67) a. Let's start from the very very beginning.  
 b.  $\text{the-moment-we-start} \in pos_{begin}((c[X])[X])$

In this sense, gradable predicates are different from non-gradable predicates: the latter cannot be used iteratively for sorting. For example, *identical* in *the identical man* can be used to sort men in the relevant comparison class into the positive and negative extension, but cannot be (non-trivially) applied further, for example, to the positive extension for sorting the individuals in that subset based on their being identical to each other or not. This explains why non-gradable adjectives cannot be modified by a degree modifier (we put coercion cases aside).

Let us see what happens in case of *very* in emphatic definite descriptions. I suggested in Sect. 3 that in emphatic definite descriptions, *very* modifies a DP-internal identity relation—see (68)—where  $c'$  is the same as  $c$  except that the domain of individuals for the identity relation in  $c'$  is smaller than in  $c$ .

$$(68) \quad \llbracket [\text{very} \cap \text{Idx}_i] \text{man} \rrbracket^{M,c,a} = \lambda x. \text{man}(x) \wedge x =_{c'} a(i)$$



The question, then, is why modification by *very* in emphatic definite descriptions is possible, whereas modification by *very* in the case of the lexical predicate *identical* is ruled out. The explanation, I believe, is that *identical* is not only non-gradable, but also does not allow the context shift possible with the identity relation in emphatic definite descriptions. The context-dependence of the DP-internal identity relation is due to the contextual/anaphoric mechanism that is present in the relevant definite descriptions, argued for in Sect. 2. In the case of the lexical predicate *identical*, we cannot appeal to a similar context-dependence because *identical* applies to individuals that are already individuated in the context. But as we saw in Sect. 4, the DP-internal identity statement can play a role in individuating individuals in the context. That is to say, modification by *very* in emphatic definite descriptions is acceptable because the contextual shift *very* needs to be warranted is possible with DP-internal identity statement but not with the lexical predicate *identical*.

The answer to the question why *very* cannot be used iteratively in emphatic definite descriptions is straightforward: the identity relation (represented both as a DP-internal identity statement and in *identical*) is non-gradable. In the sense that once applied to a set of individuals (that is, once individuals in the set are sorted into identical and non-identical), no non-trivial reapplication to a different set—for example, a set of identical individuals—is possible.

### 5.3 Closing remarks

According to our previous understanding, we could divide predicates based on the kind of modification they allow and their entailment patterns into three categories (e.g., Kennedy, 2007). We can describe these categories using the notions ‘gradable’ and ‘context-(in)dependent’. We say that a predicate is gradable if it can appear in a comparative construction or take a degree modifier or a measure phrase. In this sense, *tall* and *bent* are gradable, whereas *wooden* is not; see (69).

- (69) a. This boy is too tall for his age.  
 b. This rod is too bent to be of use for our purpose.  
 c. This table is (#too) wooden to stay outdoors.

We say that a predicate is context-dependent if its positive form depends on the contextually supplied comparison class. This can be tested using entailment patterns, such as in (70). In this sense, *tall* is context-dependent, whereas *bent* and *wooden* are not.

- (70) a. This boy is not tall, but his height is normal for his age.  
 b. #This rod is not bent, but its curvature is small enough for our purpose.  
 c. #This table is not wooden, but it is made of wood.

The discussion in this section changed this picture in two respects. First, it identified a member of the missing fourth cell—a non-gradable, but context-dependent relation. This combination of properties is substantiated by the DP-internal identity relation in definite descriptions that involve an anaphoric mechanism and can be modified by *very*. In Table 1 below, this relation is represented as  $\text{Idx}_i$ .

**Table 1** Four categories of predicates based on the gradable/context-dependent combination of properties

Property		Example
Gradable	Context-dependent	<i>tall, expensive, beginning</i>
	Non-context-dependent	<i>bent, open, pure</i>
Non-gradable	Context-dependent	$\text{Idx}_i$
	Non-context-dependent	<i>wooden, geological</i>

Second, the discussion also suggested that degree modification in case of gradable predicates is not uniform, which accounts for the modification pattern in precision cases like *from the very/really beginning*. The explanation of the non-uniformity of degree modification of gradable adjectives versus gradable nouns depends on our theoretical assumptions.

## 6 Conclusions

In this paper, I discussed a number of observations concerning modification by *very* in gradable constructions, precision cases, and emphatic definite descriptions. I proposed that in all these constructions, modification by *very* is based on the same mechanism—the possibility to have a non-trivial contextual shift that results in the domain of individuals over which the property modified by *very* ranges to become smaller. This proposal capitalizes on the insights in Klein (1980) that *very* manipulates a contextually set comparison class of a gradable adjective. My proposal explains the different modification and iteration patterns that *very* has in the described constructions.

The conclusions we can draw from this paper touch on our understanding of gradable phenomena in general. For one thing, the availability of *very* in emphatic definite descriptions leads to a fuller taxonomy of predicates that can undergo DP-internal modification. As summarized in Sect. 5.3, the presence of *very* in emphatic definite descriptions allowed us to detect the fourth missing kind of properties: a non-gradable context-dependent property instantiated by a DP-internal identity relation. This is in addition to gradable context-dependent properties, like *tall*; gradable non-context-dependent properties, like *bent*; and non-gradable non-context-dependent properties, like *wooden*. Another result of the present inquiry about *very* concerns the recognized disagreement between the degree-based approach to gradable phenomena and the supervaluation approach. The two approaches share the same assumption that degree modification results from the same mechanism. That is to say, there is no difference between modification by *very* and modification by *really* and *extremely*. But the data in this paper showed that this is not the case. While both approaches have to do additional work to accommodate the data, I argued in Sect. 5 that the supervaluation approach should be preferred over the degree-based approach because the former has to do less.

## Appendix A

In this appendix, I present cross-linguistic data pertaining to the discussion in the main text. This is an overview of the data which is not intended to be comprehensive or

complete. The primary goal of the overview is to provide support for the claim that the patterns we discussed with respect to English *very* are found in other languages. We will mostly see Russian and Lithuanian.<sup>21</sup> The secondary goal of this overview is to separate language-specific and more universal characteristics of the constructions we are interested in.

### A.1 *Very/samyj/pàts* and two main observations

As we discussed in the paper, emphatic definite descriptions are definite descriptions in which a high-degree degree modifier is used without an overt gradable property. Oftentimes, these descriptions are accompanied by a relative clause. In (71)–(73), we see side-by-side English *very*, Russian *samyj* ‘self’, and Lithuanian *pàts* ‘self’ used in gradable constructions and emphatic definite descriptions.

- (71) a. a/the very tall man  
b. the very man we saw yesterday
- (72) a. *samyj* vysokij čelovek (Russian)  
*lit.* ‘self tall man’ (= the tallest man)  
b. tot *samyj* čelovek kotorogo...  
*lit.* ‘that self man whom...’ (= the very man whom)
- (73) a. *pàts* geràsis (Lithuanian)  
*lit.* ‘self good’ (= the best)  
b. ta pati knyga  
*lit.* ‘that self book’ (= that very book)

It is important to point out here that in Russian, the demonstrative is obligatory in emphatic definite descriptions. Without it the phrase becomes non-interpretable; see (74).

- (74) \*(tot) *samyj* čelovek kotorogo... (Russian)  
*lit.* ‘that self man whom...’

Our two main observations were that *very*, but not other (high-degree) degree modifiers, can be used in emphatic definite descriptions and that *very* in emphatic definite descriptions cannot be iterated. Both patterns are also attested in Russian and Lithuanian.

- (75) a. a/the very/really/extremely tall man  
b. the very/\*really/\*extremely man we saw yesterday
- (76) a. *samyj/očen’/èkstrimal’no* vysokij čelovek (Russian)  
*lit.* ‘self/very/extremely tall man’  
b. tot *samyj/\*očen’/\*èkstrimal’no* čelovek kotorogo ...  
*lit.* ‘that self/\*very/\*extremely man whom ...’

<sup>21</sup> Russian data are from Goncharov (2015) and personal communication. Lithuanian data are from Ambrazas et al. (1997) and personal communication. See also Matushansky and Ruys (2007) for relevant Russian data (I thank an anonymous reviewer for pointing out this work to me).

- (77) a. tas pàts/labai/itin aukštas žmogus (Lithuanian)  
*lit.* ‘that self/very/exceptionally tall man’  
 b. tas pàts/\*labai/\*itin žmogus  
*lit.* ‘that self/\*very/\*exceptionally man’
- (78) a. a/the very very tall man  
 b. the (#very) very man we saw yesterday
- (79) a. samyj samyj vysokij čelovek (Russian)  
*lit.* ‘self self tall man’ (= the very tallest man)  
 b. tot (#samyj) samyj čelovek kotorogo...  
*lit.* ‘that self self man whom...’

## A.2 *Very/samyj/pàts* as degree modifiers

*Very/samyj/pàts* can be used as run-of-the-mill degree modifiers; see (80). English *very* originates from Latin *verus* ‘true’ and expresses a high degree. Russian *samyj* and Lithuanian *pàts* are morphemes closely related to an emphatic reflexive ‘self’ and form what is commonly described as superlatives.

- (80) a. a/the very tall man  
 b. samyj vysokij čelovek (Russian)  
*lit.* ‘self tall man’ (= the tallest man)  
 c. pàts geràsis (Lithuanian)  
*lit.* ‘self good’ (= the best)

The superlatives formed with ‘self’ in Russian and Lithuanian (hereafter, self-superlatives) differ from regular synthetic and analytic superlatives in the languages. First, like *very* and unlike *most* in regular superlatives, *samyj/pàts* can be iterated; see (81) and (82). Second, *samyj/pàts* can co-occur with superlative morphology used in synthetic superlatives as in (83).

- (81) a. the very very tall man  
 b. the (\*most) most intelligent man
- (82) a. samyj samyj vysokij čelovek (Russian)  
*lit.* ‘self self tall man’ (= the very tallest man)  
 b. (\*naibolee) naibolee vysokij čelovek  
*lit.* ‘most most tall man’
- (83) a. the (\*most) tallest man  
 b. samyj (naj)vysšij (Russian)  
*lit.* ‘self SUPER-high-SUPER’ (= very highest)  
 c. pàts geriàusias (Lithuanian)  
*lit.* ‘self good-SUPER’ (= very best)

For these reasons, in this paper I treat *samyj/pàts* on a par with *very* as high-degree degree modifiers. I set aside the question why *samyj/pàts* are used in superlatives or how they obtain the superlative interpretation.

### A.3 *Very/samyj/pàts* in precision cases

In precision cases, *very/samyj/pàts* are used to signal precision along a scale encoded in the noun they modify. Consider the examples with *very* in (84). In (84)a, b, the scale is linear along a temporal or one of spatial dimensions. In (84)c, d, the scale is multi-dimensional in a physical or abstract space.

- (84) a. at the very beginning/end/top/back  
 b. at this very moment  
 c. in this very city/village  
 d. the very thought/idea

Similarly, *samyj* and *pàts* can be used in precision cases. This is illustrated in (85) and (86).

- (85) a. v samom načale/konce (Russian)  
*lit.* ‘at self beginning/end’  
 b. v ètu samuju minutu  
*lit.* ‘at this self minute’  
 c. u samogo goroda  
*lit.* ‘near self city’
- (86) a. ta pàt minùte (Lithuanian)  
*lit.* ‘that self minute’  
 b. nuo pàt ryto  
*lit.* ‘from self morning’  
 c. prie pàt vandeñs  
*lit.* ‘near self water’

As we saw in the main text, in some respects, precision cases pattern with gradable constructions, whereas in other respects, they pattern with emphatic definite descriptions. With respect to the iteration of *very/samyj/pàts*, precision cases pattern with gradable constructions. That is, *very/samyj/pàts* can be iterated there, as in (87).

- (87) a. from the very very beginning  
 b. s samogo samogo načala (Russian)  
*lit.* ‘from self self beginning’  
 c. nuo pàt pàt ryto (Lithuanian)  
*lit.* ‘from self self morning’

When it comes to the availability of other (high-degree) degree modifiers in the same position, precision cases pattern with emphatic definite descriptions. No other degree modifier can be used to express a degree of precision in the same configuration; see (88).

- (88) a. from the very/\*really/\*extremely beginning  
 b. s samogo/\*očen’/\*èkstrimal’no načala (Russian)  
*lit.* ‘from self/very/extremely beginning’

- c. nuo pàt/\*labai/\*itin ryto (Lithuanian)  
*lit.* ‘from self/very/exceptionally morning’

#### A.4 *Very/samyj* with ‘same’

Expressions meaning ‘same’ can be modified by *very/samyj*. With respect to its properties, this modification is similar to what we find in emphatic definite descriptions. Specifically, the modification of ‘same’ is limited to *very/samyj*—see (89)—and is iterative—see (90).

- (89) a. the very/\*really/\*extremely same car  
 b. ta že samaja/\*očen’/\*èkstrimal’no mašina (Russian)  
*lit.* ‘that FOC self/very/extremely car’
- (90) a. the (#very) very same car  
 b. ta že (#samaja) samaja mašina (Russian)  
*lit.* ‘that FOC self self car’

In Russian, a demonstrative with a long adjectival ending and a focus particle *že* can only have the type-identity reading; see (91)a. As is the case with English *very*, *samyj* in Russian can modify both the type- and the token-identity ‘same’, although it seems to be more natural with the token identity ‘same’.

- (91) a. U menja takaj že (samaja) mašina kak u Franka. (Russian)  
*lit.* ‘at me that-ADJ FOC self car as at Frank’ type/\*token
- b. U menja ta že (samaja) mašina čto u Franka.  
*lit.* ‘at me that FOC self car that at Frank’ type/token

In Russian, there is no deictic versus sentence-internal ambiguity. The deictic ‘same’ in Russian is expressed by a demonstrative *ta/tot* and the focus particle *že*; see above and (92)a. The sentence-internal ‘same’ is expressed by adding ‘one and’ to the deictic ‘same’ construction which creates a phrase that can be translated as ‘one and the same’; see (92)b. As in English, the sentence-internal ‘same’ in Russian does not allow emphatic modification.

- (92) [Context: Three boys were assigned to read one book of their choice by Tolstoy.]
- a. Odin mal’čik pročital *Vojnu i Mir* i dva mal’čika pročitali tu že (samuju) knigu.  
*lit.* ‘one boy read *War and Peace* and two boys read that FOC self book’
- b. Odin mal’čik pročital *Vojnu i Mir* i dva mal’čika pročitali odnu i tu že (#samuju) knigu.  
*lit.* one boy read *War and Peace* and two boys read one and that FOC self book’

**Acknowledgements** I would like to thank the anonymous reviewers of *Linguistics and Philosophy* for their comments, questions, and suggestions that helped to improve this manuscript. The research reported here is partly funded by Deutsche Forschungsgemeinschaft (ZE 1040/13-1).

**Author contributions** Not applicable.

**Funding** Open Access funding enabled and organized by Projekt DEAL.

**Data availability** Not applicable.

**Code availability** Not applicable.

## Declarations

**Conflict of interest** The author has no conflicts of interest to disclose.

**Ethics approval and consent to participate** Not applicable.

**Consent for publication** Not applicable.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

## References

- Aloni, M. (2005). Individual concepts in modal predicate logic. *Journal of Philosophical Logic*, 34(1), 1–64. <https://doi.org/10.1007/s10992-004-4065-8>
- Alrenga, P. (2006). Scalar (non-)identity and similarity. In D. Baumer, D. Montero, & M. Scanlon (Eds.), *Proceedings of the west coast conference on formal linguistics* (pp. 49–57). Cascadia Proceedings Project.
- Ambrasas, V., Geniushiene, E., Tekorienne, D., Girdenis, A., Slizhiene, N., & Valiulyte, E. (1997). *Lithuanian grammar*. Baltos Lankos.
- Barker, C. (2007). Parasitic scope. *Linguistics and Philosophy*, 30(4), 407–444. <https://doi.org/10.1007/s10988-007-9021-y>
- Bianchi, V. (1995). *Consequences of antisymmetry for the syntax of headed relative clauses*. Ph. D. thesis, Scuola Normale Superiore.
- Boghossian, P. A. (1994). The transparency of mental content. *Philosophical Perspectives*, 8, 33–50. <https://doi.org/10.2307/2214162>
- Bonomi, A. (1995). Transparency and specificity in intentional contexts. In P. Leonardi & M. Santambrogio (Eds.), *On Quine: New essays* (pp. 164–185). Cambridge University Press.
- Borsley, R. D. (1997). Relative clauses and the theory of phrase structure. *Linguistic Inquiry*, 28, 629–647.
- Brasoveanu, A. (2011). Sentence-internal different as quantifier-internal anaphora. *Linguistics and Philosophy*, 34(2), 93–168.
- Carlson, G. N. (1977). Amount relatives. *Language*, 53(3), 520–42. <https://doi.org/10.2307/413175>
- Carlson, G. N. (1987). Same and different: Some consequences for syntax and semantics. *Linguistics and Philosophy*, 10(4), 531–565. <https://doi.org/10.1007/bf00628069>
- Charnavel, I. (2013). The scalar reading of *son propre* ('his own'): Evidence for the existence of a scalarity operator. In *MIT working papers in linguistics* (pp. 169–182). MITWPL.
- Charnavel, I. (2015a). Same, different and other as comparative adjectives: A uniform analysis based on French. *Lingua*, 156, 129–174. <https://doi.org/10.1016/j.lingua.2014.12.005>
- Charnavel, I. (2015b). On scalar readings of French *propre* ('own'). *Natural Language & Linguistic Theory*, 34, 807–863.
- Chomsky, N. (1965). *Aspects of the theory of syntax*. MIT Press.

- Cresswell, M. J. (1977). The semantics of degree. In B. Partee (Ed.), *Montague Grammar* (pp. 261–292). Academic Press.
- Eckardt, R. (2001). Reanalysing *selbst*. *Natural Language Semantics*, 9(4), 371–412.
- Elbourne, P. (2005). *Situations and individuals*. MIT Press.
- Fox, D. (2002). Antecedent-contained deletion and the copy theory of movement. *Linguistic Inquiry*, 33(1), 63–96. <https://doi.org/10.1162/002438902317382189>
- Gast, V. (2006). *The grammar of identity: Intensifiers and reflexives in Germanic languages*. Routledge.
- Goncharov, J. (2015). *In search of reference: The case of the Russian adjectival intensifier samyj*. Ph. D. thesis, University of Toronto.
- Grosu, A., & Landman, F. (1998). Strange relatives of the third kind. *Natural Language Semantics*, 6, 125–170.
- Hanink, E. A. (2018). *Structural sources of anaphora and sameness*. Ph. D. thesis, University of Chicago.
- Hanink, E. A. (2020). DP structure and internally headed relatives in Washo. *Natural Language and Linguistic Theory*, 39(2), 505–554. <https://doi.org/10.1007/s11049-020-09482-y>
- Hanink, E. A. (2021). Same: Structural sources of anaphora and relativization. *Glossa: A Journal of General Linguistics*, 6(1), 144. <https://doi.org/10.16995/glossa.5811>
- Hardt, D., & Mikkelsen, L. (2015). Same but different. *Linguistics and Philosophy*, 38(4), 289–314. <https://doi.org/10.1007/s10988-015-9176-x>
- Hardt, D., Mikkelsen, L., & Øsnes, B. (2012). Sameness, ellipsis and anaphora. In M. Aloni, F. Veltman (Eds.), *Proceedings of the eighteenth Amsterdam colloquium* (pp. 341–350). Foris.
- Heim, I. (1985). *Notes on comparatives and related matters*. Unpublished manuscript, University of Texas.
- Heim, I. (1987). Where does the definiteness restriction apply? Evidence from the definiteness of variables. In E. Reuland & A. ter Meulen (Eds.), *The representation of (in)definiteness*. MIT Press.
- Hobbs, J. R. (1985). Granularity. In *International joint conference on artificial intelligence* (Vol. 9, pp. 432–435). Los Angeles, CA.
- Hulsey, S., & Sauerland, U. (2006). Sorting out relative clauses. *Natural Language Semantics*, 14(2), 111–137. <https://doi.org/10.1007/s11050-005-3799-3>
- Kamp, H. (1975). Two theories of adjectives. In E. Keenan (Ed.), *Formal semantics of natural language* (pp. 123–155). Cambridge University Press.
- Kamp, H. (2013). *Meaning and the dynamics of interpretation*. Brill.
- Kaplan, D. (1989). Demonstratives: An essay on the semantics, logic, metaphysics and epistemology of demonstratives and other indexicals. In J. Almog, J. Perry, & H. Wettstein (Eds.), *Themes from Kaplan* (pp. 481–563). Oxford University Press.
- Kayne, R. S. (1994). *The antisymmetry of syntax*. MIT Press.
- Kennedy, C. (1999). *Projecting the adjective: The syntax and semantics of gradability and comparison*. Ph.D. thesis, University of California, Santa Cruz.
- Kennedy, C. (2007). Vagueness and grammar: The semantics of relative and absolute gradable adjectives. *Linguistics and Philosophy*, 30(1), 1–45. <https://doi.org/10.1007/s10988-006-9008-0>
- Klein, E. (1980). A semantics for positive and comparative adjectives. *Linguistics and Philosophy*, 4(1), 1–45.
- Kripke, S. (1980). *Naming and necessity*. Harvard University Press.
- Lasnik, P. (1999). Pragmatic halos. *Language*, 75(3), 522–551. <https://doi.org/10.2307/417059>
- Lasnik, P. (2000). Same: Models and representations. In B. Jackson & T. Matthews (Eds.), *Proceedings of SALT X* (pp. 83–97). CSLI Publications.
- Leu, T. (2008). *The internal syntax of determiners*. Ph. D. thesis, New York University.
- Lewis, D. (1986). *On the plurality of worlds*. Blackwell.
- Matushansky, O., & Ruys, E.G. (2007). Same in Russian. In *Formal Semantics in Moscow 3*. Unpublished handout.
- Nunberg, G. (1985). Individuation in context. In *Proceedings of WCCFL* (Vol. 3, pp. 203–217). University of California, Santa Cruz.
- Quine, W. V. O. (1956). Quantifiers and propositional attitudes. *Journal of Philosophy*, 53, 177–187.
- Sauerland, U. (1998). *The meaning of chains*. Ph. D. thesis, MIT.
- Sauerland, U. (2003). *Unpronounced heads in relative clauses, the interfaces: Deriving and interpreting omitted structures* (pp. 205–226). John Benjamins Publishing Company. <https://doi.org/10.1075/la.61.10sau>
- Sauerland, U. (2004). Scalar implicatures in complex sentences. *Linguistics and Philosophy*, 27, 367–391.



- Schwarz, F. (2009). *Two types of definites in natural language*. Ph. D. thesis, University of Massachusetts, Amherst.
- Schwarz, F. (2013). Two kinds of definites cross-linguistically. *Language and Linguistic Compass*, 7(10), 534–559.
- Seuren, P. A. M. (1973). The comparative. In F. Kiefer & N. Ruwet (Eds.), *Generative grammar in Europe* (pp. 528–564). Reidel.
- Simonenko, A. (2014). *Grammatical ingredients of definiteness*. Ph. D. thesis, McGill University.
- Stalnaker, R. C. (1978). Assertion. *Syntax and Semantics*, 9, 315–332.
- Stalnaker, R. C. (1988). Belief attribution and context. In R. Grimm & D. Merrill (Eds.), *Contents of thought* (pp. 140–156). University of Arizona Press.
- Stalnaker, R. C. (1996). Knowledge, belief and counterfactual reasoning in games. *Economics and Philosophy*, 12, 133–163.
- Stalnaker, R. C. (2002). Common ground. *Linguistics and Philosophy*, 25, 701–721.
- Stalnaker, R. C. (2008). *Our knowledge of the internal world*. Oxford: Oxford University Press.
- Stalnaker, R. C. (2009). What is de re belief? In J. Almog & P. Leonardi (Eds.), *The philosophy of David Kaplan* (pp. 233–245). New York: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195367881.003.0014>
- Stalnaker, R. C. (2012). *Mere possibilities: Metaphysical foundations of modal semantics*. Princeton University Press.
- Stalnaker, R. C. (2014). *Context*. Oxford University Press.
- Sun, Y. (2021). Decomposing same. *Natural Language and Linguistic Theory*, 40(3), 911–931. <https://doi.org/10.1007/s11049-021-09522-1>
- van Rooij, R. (1999). Some analyses of pro-attitudes. In H. de Swart (Ed.), *Logic, game theory, and social choice*. Tilburg University Press.
- Vergnaud, J. R. (1974). *French relative clauses*. Ph. D. thesis, MIT.
- von Stechow, A. (1984). Comparing semantic theories of comparison. *Journal of Semantics*, 3(1/2), 1–77.
- Wheeler, S. C. (1972). Attributives and their modifiers. *Noûs*, 6(4), 310–334.
- Zribi-Hertz, A. (1995). Emphatic or reflexive? On the endophoric character of French LUI-meme and similar complex pronouns. *Journal of Linguistics*, 31(2), 333–374.