DEFINITE AND DEMONSTRATIVE DESCRIPTIONS: A MICRO-TYPOLOGY*

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1 Introduction

While the issue of definite descriptions has been discussed as early as Russell 1905, the field remains active and open with recent efforts to look at how definiteness is encoded in languages that do not have dedicated articles (Dayal 2012, Jenks 2015, Jiang 2012, a.o.), what kinds of readings form natural subclasses of what has traditionally been called 'definite' (Schwarz 2009, 2013), what the building blocks of definite articles are (Coppock and Beaver 2015), how they are related to demonstratives (Roberts 2002, Wolter 2006), and more. This paper focuses on presenting cross-linguistic data on different readings made available by definite descriptions, ranging from unique and anaphoric readings to exophoric readings. I show that cross-linguistic examination of how definiteness is encoded allows us to a) consider the English definite and demonstrative descriptions in a new light, and b) understand the relations between the available readings in terms of a spectrum that different languages can morphologically divide up in different ways.

There are two main lines of research that motivate this paper. The first is the weak-strong distinction in definiteness proposed in Schwarz 2009. Schwarz argues that a definite article like *the*, traditionally either analyzed as denoting uniqueness (Russell 1905, Frege 1892, a.o.) or familiarity (Heim 1982, a.o.), is in fact ambiguous between the two meanings. He proposes that the uniqueness denoting ('weak') definites and familiarity denoting ('strong') definites are morphologically distinguished in German as well as many other languages. This distinction is found and further discussed in various languages in subsequent works including Jenks 2015. Jenks (2015) discusses the weak-strong distinction in classifier languages, arguing that the weak definites are realized with bare nouns while the strong definites are realized with demonstratives. This leads to the second set of works that is important for the current discussion, which is the semantic analysis of the English demonstrative *that*, discussed in Roberts 2002 and Wolter 2006. Arguing against a fixed reference analysis of Kaplan (1977), where he argues that a demonstrative descriptions in their fixed scope reference are like proper names, both Roberts and Wolter argue

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that the demonstrative *that* interacts with the meaning of the rest of the sentence and has a meaning similar to a definite article *the* but with differences in its presupposition.

Dividing definiteness into uniqueness and familiarity on one hand and analyzing demonstratives as a subclass of definites on the other hand together raise some questions. When we say demonstratives are like definites, do we mean that they are like the weak definites or the strong definites? If there is an overlap between the two categories, is the overlap complete, or are there additional sub-categories of definites that we need to posit? Starting with these questions, I look closely at data from English, Korean, ASL, and Romanian and argue that definiteness should be analyzed as a spectrum, and that there are at least three main distinctions within the spectrum: unique, anaphoric, and exophoric. The semantics underlying the three uses — whether they have different meanings, and whether external factors such as focus and accessibility govern their distribution — is currently being investigated and not presented in this paper.

2 Background

2.1 Two Types of Definites: Strong vs. Weak

Schwarz (2009) presents two types of definite articles in German and argues that these must receive two distinct semantic analyses: uniqueness and familiarity. Various dialects in German make a distinction between the two kinds of articles lexically, as in Fering, or through phonological contraction, as in the standard dialect of German. The distinction is visible in the standard dialect of German when a preposition precedes the article: the weak article allows contraction, while the strong article does not.

(1)

Contracted form (*zum*)	weak article	glossed as P-the$_W$
Non-contracted form (*zu dem*)	strong article	glossed as P-the$_S$

The two kinds of articles have distinct distributions. The weak article is available, Schwarz (2009) argues, when there is a unique referent fitting the description of the noun phrase. This uniqueness requirement can be satisfied with respect to immediate situations, as shown in (2), as well as larger or global situations as in (3).

(2) Das Buch, das du suchst, steht **im** / **#in dem** Glasschrank.
the book that you look for stands in-the$_W$ / in the$_S$ glass-cabinet
'The book that you are looking for is in the glass-cabinet.'

(3) Armstrong flog als erster **zum** Mond.
Amstrong flew as first to-the$_W$ moon
'Armstrong was the first one to fly to the moon.' [Schwarz 2009, p.28]

The strong article on the other hand is licensed in anaphoric contexts. It allows anaphoric reference to a previously mentioned entity as in (4), or a covarying reading with an antecedent in the restrictor of a quantifier, as in (5).

(4) Hans hat einen Schriftsteller und einen Politiker interviewt. Er hat **#vom / von dem** Politiker keine interessanten Antworten bekommen.
Hans has a writer and a politician interviewed He has from-the$_W$ / from the$_S$ politician no interesting answers gotten
'Han interviewed a writer and a politician. He didn't get any interesting answers from the politician.'

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

Schwarz (2009) proposes the following meanings for the two kinds of definites:

(6) $[\![\text{the}_W]\!] = \lambda s_r.\ \lambda P\text{: } \exists!x(P(x)(s_r)).\ \iota x.P(x)(S_r)$

(7) $[\![\text{the}_S]\!] = \lambda s_r.\ \lambda P.\ \lambda y\text{: } \exists!x(P(x)(s_r)\ \&\ x{=}y)\ \iota x[P(x)(s_r)\ \&\ x{=}y]$

The weak article looks for a unique entity x in situation s such that $P(x)$. The strong article is identical except for the introduction of an index argument: it returns the unique entity x in s such that $P(x)$ and $x = y$, where y is an index that is either a bound anaphor or a variable.

This weak-strong distinction has been shown in many other languages including Icelandic (Ingason 2016), ASL (Irani 2016), Korean (Cho 2017), and other classifier languages (Jenks 2015) (see Schwarz 2016 for a full list). In classifier languages like Thai, Korean, and Mandarin, it has been argued that the weak definite is realized with a bare noun while the strong definite is realized with a demonstrative (Jenks 2015). In this paper, I will discuss the demonstratives in Korean and Romanian, as well as the IX (indexical) in ASL which has been analyzed as a demonstrative in some works (cf. Koulidobrova and Lillo-Martin 2016). Before doing so, I review how the English demonstrative has been analyzed in previous works.

2.2 Demonstratives

Kaplan (1977) argues that unlike the definite *the* which interacts with the rest of the sentence to indirectly refer to an entity, the demonstrative *that* is a case of a direct reference which rigidly refers to one specific entity regardless of scope or the content of the remaining sentence. Thus, *that person* in (8) is odd even though in the counterfactual world where John and Mary did switch places, the person being pointed at would be indeed John, thus male.

(8) (Pointing at Mary) #If John and Mary switched places, **that** person would be male.

Wolter (2006) and Roberts (2002) identify this exophoric use as one of many uses of demonstratives and argue that demonstratives also enter the semantic computation and interact with the rest of the sentence. While details differ, they both assume that definites contribute a presupposition of uniqueness and that demonstratives differ from definites minimally in their presuppositions. Below I present brief descriptions of their analyses.

Roberts (2002) analyzes a demonstrative as an extension of a definite description and a pronoun. Under her account, a definite presupposes a familiar (strong, global, contextual,

accommodated) discourse referent that is unique within the set of discourse referents. A pronoun is only different from a definite description in that it requires that unique entity to be in the set of salient discourse referents, a subset of the discourse referent set. A demonstrative description is just like a pronoun, except that it further presupposes that there is a familiar demonstration, and the demonstratum is equated with the unique, salient discourse referent.

Wolter (2006) argues that both *that* and *the* carry the uniqueness presupposition, and that the demonstrative determiner carries an additional presupposition-triggering semantic feature [non-default]. The [default] and [non-default] distinction is built on Stalnaker's (1977) discussion of the two ways a world (situation) variable is used when a sentence is uttered. Situation variables associated with the main predicate determine the truth value of the proposition, while situation variables associated with nominal constituents fix the reference of referential expressions to establish what proposition has been uttered. Wolter calls the situation variables with the former use the [default] situations, and the rest of situation variables the [non-default] situations. The demonstrative determiner requires a non-default situation.

(9) a. $[\![\text{the}_n]\!]$: λP.P(s_n) is a singleton set.
If defined, denotes ιx.P(x)(s_n)

b. $[\![\text{that}_n]\!]$: λP.P(s_n) is a singleton set and s_n is non-default.
If defined, denotes ιx.P(x)(s_n)

The default situation is simply the contextually salient, discourse context. The non-default situation can be identified in a number of ways. For example, the speaker can set up a new, smaller subsituation by pointing at something ('zoom-in'; (10)), or introduce a new, larger situation that includes an entity unnoticed by the addressee ('zoom-out'; (11)).

(10) I like **that** painting but not **that** painting. [pointing at different paintings]

(11) **That** bucket is full of water. [pointing at a bucket not known to addressee]

Thus, in both Roberts 2002 and Wolter 2006, *that* is analyzed as having the same semantic content as the definite *the*: given some information about the speech context, a situation variable for Wolter and a set of discourse referents for Roberts, it returns the unique entity that meets the property denoted by the noun. The difference between *that* and *the* lies only in the presuppositional content that restricts the selection of the referent further.

2.3 Status of Exophoric Definites

The English demonstrative *that* has both anaphoric and exophoric uses. By the term 'exophoric' I intend to refer to all uses of demonstrative descriptions that refer to entities actually in the speech context. They are often accompanied by co-speech gesture such as pointing (indicated here with $that_{\rightarrow}$). Some examples are given below.

(12) Look at **that**$_{\rightarrow}$ star! (Pointing at a star)

(13) I like **that**$_{\rightarrow}$ book. (Pointing at one book out of many)

All other uses of *that* where the referent is introduced through a linguistic antecedent are called 'anaphoric,' with examples shown below.

(14) I saw a star. **That** star was bright.

(15) Every time I found a book I read **that** book.

In both Roberts 2002 and Wolter 2006, the exophoric use of *that* as in (12) and the anaphoric use as in (14) are assumed to derive from the same semantics. This is taken to be an advantage because in English the same morpheme is indeed used for both readings. Heim and Kratzer (1998) also note that the difference between an anaphoric reference and an exophoric reference is merely in the property of the referent, and not something that is reflected in the semantics. However, there are at least two reasons for treating the exophoric *that* independently of the anaphoric *that*. The first, empirical reason is that the pointing gesture, which accompanies exophoric uses, has semantic, truth-conditional consequences. The second, typological reason is that the anaphoric and the exophoric uses are morphosyntactically distinguished in various languages. I discuss the first reason in the remainder of this section, focusing on English data. Then, in Section 3, I discuss the typological data in more detail.

In English, the exophoric *that* differs from the anaphoric *that* in two respects: often it is phonologically stressed as in German (Schwarz 2009), and it accompanies pointing or any other co-speech gesture that is used to indicate the targeted reference.

This co-speech pointing gesture results in a meaning difference even in languages like English where the exophoric and the anaphoric uses are not overtly distinguished in the morphosyntax. More specifically, pointing cancels out the anaphoric or covarying reading. In (16), the demonstrative description *that dog* covaries with the owner. In (17), however, where *that dog* is accompanied with co-speech pointing, only one dog, the one pointed to, can be the referent.

(16) Every dog has an owner who thinks **the/that** dog is the best. [Covarying]

(17) Every dog has an owner who thinks **that**$_{\rightarrow}$ dog is the best. [Fixed]

Another area where co-speech pointing results in a meaning difference is the affective use of *that*. While affective uses are generally associated with proximal demonstratives like *this*, analyzed as a marker of solidarity (Potts and Schwarz 2010, a.o.), Lakoff (1974) identifies affective uses of the distal demonstrative *that* as shown in (18).

(18) How's **that** toe?

Spoken by a nurse to a patient, this results in an affective reading, which Lakoff (1974) calls a puzzle, since "the distance marker seems to establish emotional closeness between speaker and addressee" (p. 351).

I suggest that the demonstrative description *that toe* in (18) is actually anaphoric, not exophoric. The affectiveness may arise, not from a distance marking, but from the nurse's acknowledgement that he knows about the patient's problematic toe. Treating *that toe* in (18) as anaphoric is supported by the observation that co-speech pointing removes this affective reading.

(19) How's **that**$_{\rightarrow}$ toe?

In (19) the affective, anaphoric reading is gone, and only the exophoric referencing remains. Thus, if (18) is analyzed as involving an anaphoric *that*, the affective reading is no longer a puzzle: it is simply another way affectiveness may arise.

Thus, what we see is that even in a language where the exophoric and the anaphoric readings are not morphologically distinguished, pointing blocks an anaphoric reading, only allowing a fixed, exophoric reference of the kind found in (8). In the next section, I show that various languages including Korean, Romanian, and ASL distinguish this exophoric reading in their morphology.

3 Cross-linguistic Evidence

3.1 Diagnostics for an Exophoric Use

In this paper, I use two diagnostics to identify exophoric uses of a demonstrative description. The two diagnostics are a subset of properties that Wolter identifies for the English demonstrative *that*: zoom-in and zoom-out contexts. In a zoom-in context, the situation in which uniqueness is evaluated is restricted to ensure uniqueness. This occurs in examples such as (20), where there is more than one unique star in the default situation. Pointing allows a speaker to point to one star that becomes the unique referent in the updated situation.

(20) Context: There are many stars.
I like **that**$_{\rightarrow}$ star.

Zoom-out, on the other hand, expands a situation to ensure the inclusion of the targeted referent. In contexts where the addressee is not familiar with the referent the speaker mentions, pointing is necessary. For example, in (21), the pointing that accompanies *that* allows the speaker to point to a star and make it the unique referent in the introduced situation.

(21) Context: Addressee is not aware of the star.
Look at **that**$_{\rightarrow}$ star!

Note that while I adopt the names 'zoom-in' and 'zoom-out' from Wolter 2006 to describe the nature of the referent with respect to the addressee's ability to locate it, I do not make any stance on whether situations should be used to analyze demonstrative descriptions. Throughout this paper, I use the terms zoom-in and zoom-out only as short-hands for 'a context where there are many potential referents meeting the description of the noun' and 'a context where the potential referent is not yet known to the addressee,' respectively.

In the next three subsections, I discuss how Korean, Romanian, and ASL, respectively, realize different meanings of definites. I start with the weak and strong distinction and then discuss the exophoric reading.

3.2 Evidence from Korean: *Ku* vs. *Ce*

Korean is similar to other classifier languages in that it only marks the strong article overtly (Jenks 2015). The overt marking is realized as *ku*, which is generally analyzed as one of the three demonstratives used in the language. Bare nouns in Korean can be used in contexts where the weak article is used in other languages (cf. Cho 2017 for a detailed discussion of how bare nouns in Korean correspond to the weak article). To illustrate, I give the large situation use in (22) and the global situation use in (23). The NPs *taythonglyeng* ('president') and *tal* ('moon') appear bare,

without the determiner *ku*. In fact, the demonstrative *ku* is not licensed in the two cases, since there is no linguistic antecedent.[1]

(22) **(*ku)** taythonglyeng-i hayngsa hyencang-ul pangmwunhayss-ta.
ku president-NOM event venue-ACC visited
'The president visited the event venue.'

(23) amsuthulong-un inlyu-sasang choycholo **(*ku)** tal-ey chaklyukhayss-ta.
Armstrong-TOPIC man-history first ku moon-DAT landed
'Armstrong was the first to land on the moon in human history.'

In almost all cases corresponding to the strong article use in Schwarz 2013, Korean uses the demonstrative *ku*. It is known that bare nouns in Korean can be used in some anaphoric contexts as well (Jiang 2012, Cho 2017, a.o.). This seems restricted, however, to discourse anaphora. I discuss an instance of this later in the section. Korean is described as having a three-way distal distinction in demonstratives (Sohn, 1994). While demonstrative markers in Korean are often analyzed as adjectives (Fukui, 1995), Chang (2009) provides arguments that the three demonstratives in Korean must be analyzed as occupying the position of D. For detailed discussion of the arguments, I refer the reader to Chang 2009 and assume henceforth that Korean demonstratives are determiners like the definite articles discussed in Schwarz 2013. The three-way distinction in demonstratives is summarized below. The descriptions are taken from Ionin et al. (2011), who attribute the generalization to Sohn (1994).

(24) a. *i*: 'this'
b. *ce*:'that over there'
c. *ku*: 'close to hearer or known to both speaker and hearer'

These demonstratives cannot be used in isolation. They are always accompanied by an NP complement. For example, personal pronouns in Korean are formed by combining the demonstratives and the word for 'child,' and locations are indicated with demonstratives and the location morpheme *ki*. Examples are given below:

(25)

demonstrative	pronoun (dem+*ey* 'kid')	location (dem+*ki*)
i	*yey*	*yeki*
ce	*cey*	*ceki*
ku	*key*	*keki*

Because the third demonstrative *ku* appears in all cases that correspond to the strong article use in other languages, I argue that *ku* can receive the same analysis based on familiarity that Schwarz gives to the German strong article. In the next subsection, I present data support this claim below.

[1]On this point this paper diverges from the claim made in Cho 2017 that *ku*, but not bare nouns, allows reference to implicit antecedent. The exact way in which bare nouns and demonstrative descriptions with *ku* differ in various anaphoric contexts has to be investigated further, in the broad scope of investigating how anaphoric bare nouns work in various classifier languages (cf. Jiang 2012, a.o.). This is not discussed further in the current paper.

3.2.1 Korean *Ku* Is Anaphoric

In all contexts associated with the strong article in Schwarz 2009, Korean requires the anaphoric determiner *ku*. The discourse anaphoric use is shown in (26), and the covarying use is given in (27).

(26) Cheyk han-kwen-ul sass-ta. **?(ku)** cheyk-un pissass-ta.
book one-CL-ACC bought. **ku** book-TOP expensive.was
'I bought a book. The book was expensive.'

(27) Thulephul-ey tayha-n chayk-i issnu-n motun tosekwan-eyse
truffle-DAT about-RC book-NOM exist-RC every library-DAT
na-nun ***(ku)** chayk-ul pillyewass-ta.
I-TOPIC **ku** book-ACC borrowed
'In every library that has a book about truffles, I checked out the book.'

There is one difference that is worth noting. Schwarz (2009) discusses sentences like (28), where there is a linguistic antecedent in the previous sentence, and the strong article is used to refer back to that antecedent.

(28) Hans hat einen Schriftsteller und einen Politiker interviewt. Er hat **#vom / von dem** **Politiker** keine interessanten Antworten bekommen.
Hans has a writer and a politician interviewed He has from-the$_W$ / from the$_S$
politician no interesting answers gotten
'Han interviewed a writer and a politician. He didn't get any interesting answers from the politician.'

However, in Korean, the demonstrative *ku* is at best optional.

(29) John-un cakka-wa cengciin-ul intepyu hass-ta. Haciman **(?ku)** cakka-uy yeki-man capci-ey siless-ta.
John-TOP author-CONJ politician-ACC interview did But author-GEN story-only magazine-LOC included
'John interviewed a writer and a politican. But he only included the politician's story in the magazine.'

In fact, with no additional context provided, the use of *ku* is somewhat odd. It is preferred that the second instance of *cakka* ('author') appears bare. In this case, English aligns with Korean: the demonstrative description *that author* is less felicious than *the author* in (30).

(30) John interviewed a writer and a politician. But he only included ?**that**/the writer's story in the magazine.

This may be due to the fact that there is only one relevant writer in the context. Thus, a weak definite reference, realized with a bare noun in Korean and with *the* in English, is sufficient. Since *that* in English is usually felicitous in all anaphoric contexts (Schwarz 2009), it seems reasonable to assume that *the* in (30) is weak. If so, it remains to be investigated in the future why there is this difference between German and English.

3.2.2 Korean *Ku* Is Not Exophoric

Thus, we see that Korean uses the demonstrative *ku* for anaphoric contexts. The crucial observation in this paper is that *ku* is not used in exophoric contexts. The descriptions in (24) suggest that *ku* has two functions: referring exophorically to something that is distally close to the hearer, or referring anaphorically to something that is known to both speaker and hearer. The latter function is what is discussed in the previous section. Now we turn to the first function of referring to something that is 'close to the hearer'. It is due to this first function that *ku* is grouped into demonstratives with the other two demonstratives *i* and *ce*. However, I argue in this paper that *ku* is only anaphoric and not exophoric.

Recall that I describe a description as being exophoric when it refers to an actual entity present in the speech context and requires pointing to that object. Both *i* and *ce* are exophoric determiners under this criterion. They require some kind of pointing gesture, unlike the third one *ku* which does not allow pointing.

That *ku* does not allow pointing is a novel claim. In fact, most descriptions of the Korean demonstrative system simply assume that an exophoric use of *ku* is possible. Upon a closer look, however, we see that an exophoric use of *that* is not detected with *ku*. To make this argument, I first start with an example from Chang 2009 that is seen as an instance of a truly exophoric use of *ku*:

(31) **ku** chayk cwue.
ku book give.IMP
'Pass me the/that book.'

Chang notes that here, the speaker can point to the book near the hearer and ask the hearer to give her the book. This is indeed the case, and *ku* is licensed in the context as she describes. However, slightly altering the context can rule out the use of *ku*. This is done by canceling the assumption of familiarity built into the context. Let's assume a context where there is a book but the hearer is at the moment not aware of the existence of the book. In this case, English allows an exophoric use of *that* as shown in (32) which accompanies pointing at a location behind the hearer that shifts the hearer's attention to the table, and a specific book:

(32) Give me **that** [pointing at book 1] book.

In Korean, however, the sentence in (31) is no longer possible. The only difference between the first context and the second is that in the latter, the hearer is not attending to the book the speaker refers to. This suggests that *ku* is not actually encoding an exophoric reference but familiarity. This becomes clearer in a slightly different example, where the hearer is holding and attending to one book, and the speaker indicates that she wants another one (behind the hearer), and not the one the hearer is holding.

(33) Context: If the hearer went to the other side of the room to grab something I asked for, and is turned towards A, and I want B which is behind him:
ku-kess mal-ko! *__ku__-kess! / **ce**-kess [pointing at book 2]!
ku-thing not-CONJ ku-thing ce-thing
'Not that book! That book!'

There is no pointing necessary in the first sentence, because the hearer is already attending to the book. In general, the gesture of pointing feels redundant when *ku* is used. However, in order to refer to the book behind the hearer, the speaker must point to it and use the deictic *ce*.

This subtle contrast suggests that that *ku* is sensitive not to the referent of pointing but to familiarity. Schwarz's familiarity-based analysis of the strong article can be applied straightforwardly to account for the distribution of *ku*: *ku* is anaphoric and thus requires some antecedent. Because the addressee is attending to the book, *ku* can be used felicitously. For the reference to the second book, however, only *ce* is allowed because there is no shared antecedent for the anaphoric *ku*.

The failure of *ku* to refer to a book that the hearer is not aware of suggests that *ku* is not allowed in zoom-out contexts. I present data below to show that *ku* is not allowed in zoom-in contexts either. Using the diagnostics introduced above, I can show that *ku* is not allowed in either zoom-in or zoom-out, while *ce* is necessary in the two cases.

(34) Context: There are many stars.
***ku** pyel-i yeypputa.
ku star-NOM pretty
'That star is pretty.' [Zoom-in]

(35) Context: The hearer is not aware of the star.
***ku** pyel-ul pwa!
ku star-ACC look.IMP
'Look at that star!' [Zoom-out]

As hinted by (33), the distal demonstrative *ce* can be used in exophoric contexts unlike *ku*. Below, I show that *ce* can refer exophorically in both zoom-in and zoom-out contexts.

(36) Context: There are many stars.
ce pyel-i yeypputa.
ce star-NOM pretty
'That star is pretty.' [Zoom-in]

(37) Context: The hearer is not aware of the star.
ce pyel-ul pwa!
ce star-ACC look.IMP
'Look at that star!' [Zoom-out]

Thus, what we see is that Korean morphologically distinguishes the anaphoric and the exophoric reference: *ku* is used for an anaphoric reference, while *ce* is used for an exophoric reference.

3.3 Evidence from Romanian: the Short and Long Demonstrative

Romanian has a rich system of definite and demonstrative marking, in addition to using bare nominal arguments. The definite article varies for number, gender, and case, and appears as an affix appearing in enclitic position (Cornilescu 1993).

(38) carte.**a**
book.DEF
'the book'

The definite noun, sometimes omitted following prepositions, can appear in all uniqueness-denoting contexts as in (39) (All Romanian data, unless noted otherwise, provided by Dora Mihoc, pc).

(39) Armstrong a fost primul care să aterizeze pe **lună**.
Armstrong has been first.the who SUBJ land.SUBJ+3SG on moon
'Armstrong was the first to land on the moon.'

In addition to definites, Romanian makes use of two demonstrative constructions. The first type is called the short demonstrative in Cornilescu 1993, and appears prenominally as shown in (40).

(40) **acea** stea
that star
'that star' [Short form]

The long form is used postnominally, strictly adjacent to the noun bearing the definite article. This is also called a double definite structure because the noun carries the affixal definite. This is shown in (41).

(41) stea.**ua aceea**
star.DEF that
'that star' [Long form]

Cornilescu (1993), focusing on providing a syntactic account of the two kinds of demonstratives, does not discuss any interpretive differences between the short and the long demonstratives. Testing the two types in various contexts, however, tells us that the two uses are distinguished in a way that aligns with the anaphoric-exophoric distinction.

3.3.1 Short Demonstrative Is Anaphoric

The short demonstrative is allowed in anaphoric contexts as in (42) and (43). Note that the affixal definite is also possible in discourse anaphora, as we saw with English and Korean.

(42) Am cumpărat o carte. Carte.**a** / **acea** carte a fost scumpă.
have.1SG bought a book book.DEF / that book has been expensive
'I bought a book. The book was expensive.'

(43) Am întâlnit un politician şi un filozof. Filozof.**ul** / **acel** filozof a
have.1SG met a politician and a philosopher philosopher.DEF / that philosopher has
fost de treabă.
been nice
'I met a politician and a philosopher. The philosopher was nice.' [Anaphoric]

(44) In fiecare bibliotecă care are vreo carte despre varză, caut în **acea** carte dacă
in each library that has some book about cabbage search.1SG in that book if
pot să frig la grătar varza.
can.1SG SUBJ grill.SUBJ+1SG cabbage.the
'In every library that has a book about cabbage, I look in the book whether I can grill cabbage.' [Covarying]

Crucially, the short demonstrative is not felicitous when the referent is pointed at, in an exophoric context. Instead, the long demonstrative, or the double-marked demonstrative must be used. We discuss this in the next section.

3.3.2 Long Demonstrative Is Deictic

In zoom-in contexts, where the speaker must point out one particular star out of many stars, the long demonstrative is required, as shown in (45). The short demonstrative is not felicitous.

(45) Îmi place stea.**ua** **aceea** / ?acea stea. (pointing)
me.CL.DAT pleases star.DEF that / that star
'I like that star' [Zoom-in]

The same holds for zoom-out contexts, where the speaker points to a star that the hearer is not aware of. Only the long demonstrative is felicitous as shown in (46), and not the short demonstrative.

(46) Uităte la stea**ua** **aceea** / ***acea** stea!
Look at star.the that / that star
'Look at that star!' [Zoom-out]

Thus, we see that Romanian also shows a clear morphosyntactic distinction between the anaphoric and deictic use of definites.

3.4 Evidence From ASL: Loci vs. Referents

American Sign Language (ASL), like Korean, falls into the set of languages that only marks the strong definite overtly. Thus, a bare noun can be used to refer to unique entities, as shown in (47).

(47) FRANCE **(*IX) CAPITAL** WHAT
'What is the capital of France?' [Koulidobrova and Lillo-Martin 2016]

In anaphoric contexts, ASL uses an indexical glossed as IX in the literature.[2] The handshape for IX is identical to the co-speech pointing gesture that is used in spoken languages like English, and depending on the target of the pointing, the meaning can vary. For example, pointing to the self and the addressee are analyzed as a first-person pronoun and a second-person pronoun, respectively.

[2]IX is also used following the noun, and its analysis is mixed (cf. Koulidobrova and Lillo-Martin 2016). I focus on the pre-nominal IX for this paper, but how the post-nominal IX is different from the pre-nominal IX, especially with respect to the anaphoric-exophoric distinction is an important question that has to be investigated.

As a third-person pronoun, the sign can directly point to someone in the speech context or to an abstract location established for a particular referent (locus) (Koulidobrova and Lillo-Martin 2016).

ASL uses IX in discourse anaphora as shown in (48). IX_a BOOK indicates that a locus *a* is established and associated with the book introduced in the first part of the sentence. The IX_a in the second part of the sentence refers to the book associated with that locus.

(48) JOHN BUY IX_a BOOK, $\mathbf{IX}_b$ MAGAZINE. #(IX_a) BOOK EXPENSIVE.
'John bought a book and a magazine. The book was expensive.' [Irani 2016]

IX pointing to an abstract locus can covary like a variable as well. In (49), for example, the IX_a in the second part of the sentence refers to whoever the student is.

(49) WHEN ONE IX_a STUDENT COME PARTY, $\mathbf{IX}_a$ HAVE-FUN.
'When a student_i comes to the party, he_i has fun.' [Schlenker 2011]

IX is also used to refer to actual referents in the speech context. While the hand-shape of IX is the same, the two uses are different in that abstract loci are not used. This is shown in (50), where the IX is no longer pointing to the abstract locus created for the student in the first part of the sentence, but instead to an actual person (indicated here by $IX_{\rightarrow ref}$). Here, regardless of who comes to the party, the person who has fun is the person pointed to.

(50) WHEN ONE IX_a STUDENT COME PARTY, $\mathbf{IX}_{\rightarrow ref}$ HAVE-FUN.
'When a student_i comes to the party, he_k has fun.'

The indexical (IX) in ASL has been observed to have multiple functions: pronouns, locatives, determiners and more (cf. Meier and Lillo-Martin 2013). In Koulidobrova and Lillo-Martin 2016, IX is analyzed as a demonstrative, but Irani (2016) argues that it should instead be analyzed as the strong article. The nature of the difference between abstract locus IX and actual referent IX and how it should be analyzed is left for future investigation. However, this paper does have some implications on how to compare the two analyses of IX introduced above. This paper presents some reasons to divide what is called a demonstrative in English as anaphoric and exophoric. If the anaphoric *that* is simply the strong article, the two accounts may be overlapping in important ways. A closer look at how the exophoric IX works would be crucial in further investigating the meaning of IX in ASL.

4 Definiteness Spectrum

This paper has shown that across various languages, the exophoric reference is distinguished from the anaphoric reference: phonologically with stress in English and German, and morphosyntactically in Korean, Romanian and ASL. A summary of the way in which languages distinguish the unique, familiar, and exophoric readings of definites is shown in the table below.

(51) Definiteness spectrum

Semantics	**[uniqueness]**	**[familiarity]**	**[exophoric]**
English	*the* [unique, anaphoric]		*that* [anaphoric, deictic]
German	the_{W} [unique]	the_{S} [anaphoric]	demonstratives [deictic]
Korean	bare	*ku*	*ce*
Romanian	bare, def	short dem	long dem
ASL	bare	IX_{locus}	IX_{ref}

What does the exophoric definite denote? I suggest that the intuition behind the semantic analysis of English *that* in works like Roberts 2002 and Wolter 2006 can be applied, but only for exophoric *that*, and not the anaphoric *that*. The exophoric *that* is accompanied with demonstrations, and it has the ability to pick out referents in zoom-in and zoom-out contexts. These are the properties that Roberts and Wolter focus on, not the anaphoric use. In order to account for the anaphoric use, Roberts has to extend her analysis of *that* to include pointing to a linguistic antecedent. It might be more straightforward to simply keep the analysis as is and apply it only for the exophoric *that* and other exophoric morphemes across languages. Then, the anaphoric *that* can simply be analyzed as a noun-containing version of pronouns or a more emphatic strong article.

While I do not present a full semantic analysis in this paper, two important implications result from the typological survey. The first is that we can organize different readings of definites as a continuous spectrum. As the table above shows, languages divide up the spectrum in different ways, but we can make clear predictions about the patterns of syncretism we might find in a language. Specifically, languages are predicted to only show syncretism over adjacent categories. For instance, we would not expect a language to have syncretism of unique and exophoric definites, excluding anaphoric definites.

The second implication is concerned with the choice between analyzing something as a lexical ambiguity and as having a underdetermined semantics. In Robert's (2002) work, the semantics proposed for *that* is underdetermined to account for both exophoric and anaphoric readings of *that*. For this to work, Roberts has to extend the notion of 'pointing' to include metaphoric pointing to a linguistic antecedent and add that if a linguistic antecedent is pointed to, the demonstrative description does not refer to the demonstrated entity but the referent of the demonstrated entity. While this could seem superfluous, especially given that her analysis of pronouns is more fitting for the anaphoric *that*, English alone does not suggest any reason to give a pronoun meaning to *that* in addition to the exophoric meaning. With cross-linguistic data showing that languages clearly divide these two uses, however, it becomes more reasonable to consider this option.

5 Conclusion

In conclusion, I have shown that a closer look at English and cross-linguistic data suggest that it is not so obvious that exophoric reference is identical to anaphoric reference or derived from the same semantics. Pointing blocks anaphoric readings, and languages distinguish the two kinds of reference morphosyntactically. While this paper focuses on providing data, a full semantic analysis of the exophoric reference is currently being investigated.

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