

Different Senses of ‘Referential’

Nancy Hedberg, Jeanette Gundel and Kaja Borthen

There exist a range of different notions of referentiality in the literature. Although meaningful and clearly defined in and of themselves, it is not always clear how the various notions differ and how they might be seen as intersecting. The goal of the present chapter is to review these different notions, focusing on application of the Givenness Hierarchy theory of Gundel, Hedberg and Zacharski (1993) to various linguistic phenomena sensitive to referentiality. In particular, we will be concerned with the interaction between the cognitive status ‘referential’, one of six cognitive statuses postulated by the Givenness Hierarchy, and related categories proposed in the literature.

In the next section, we introduce the Givenness Hierarchy. In the following sections, we discuss types of linguistic phenomena that are sensitive to some sense of referentiality.

1. The Givenness Hierarchy

According to the Givenness Hierarchy Theory (Gundel et al. 1993 and subsequent work) nominal expressions encode two kinds of information: descriptive/conceptual information about the speaker’s intended referent/interpretation and procedural information about where in memory a representation of the associated referent can be found in the mind of the addressee, or whether and how to represent it if it is not already in memory, its ‘cognitive status’. The latter is encoded by various determiners/pronouns. The six cognitive statuses assumed to be relevant in this sense across languages are represented in (1), along with the respective English forms which encode these statuses:

(1) THE GIVENNESS HIERARCHY

In focus >	Activated >	Familiar >	Uniquely > Identifiable	Referential >	Type Identifiable
<i>it, she</i> ¹	<i>that, this,</i> <i>SHE, this N</i>	<i>that N</i>	<i>the N</i>	<i>indefinite</i> <i>this N</i>	<i>a N</i>

The way to read this table is that each determiner or pronominal form encodes the cognitive status under which it is placed, as part of its conventional meaning. For instance, whereas in English an unstressed personal pronoun such as *she* can in principle apply to an infinite number of feminine singular entities, the procedural information that the intended referent is in the addressee’s current focus of attention narrows down the set of candidates to a very small number, often just one. The indefinite article *a*, on the other hand, encodes only the status ‘type identifiable’, indicating that the addressee is to associate an interpretation of the type described by the conceptual content of the nominal expression,

¹ The forms *it* and *she* stand for all unstressed personal pronouns here. Although we assume that pronouns are determiners, following the DP hypothesis (Abney 1987), differing only in that pronouns lack an NP complement, we will continue to use the more traditional term ‘pronoun’ for convenience,

One fundamental property of the Givenness Hierarchy is the fact that the statuses are in a unidirectional entailment relation, by definition. Thus, if an entity is in focus of attention, it is necessarily also activated (in short-term/working memory); if it is activated, it is necessarily also familiar (in memory, possibly long-term memory); if it is familiar it is also uniquely identifiable (the addressee is expected to be able to associate a unique representation), and so on. This means that all nominal forms except the ones that explicitly encode the status ‘in focus’ are predicted to be appropriate for more than one cognitive status. The definite article *the*, for instance, signals explicitly that the addressee can associate a unique representation with the referent of the definite article phrase, and the form can thus be used with any one of the four more restrictive cognitive statuses, including ‘in focus’. This is so because if the referent has the cognitive status ‘in focus’, it is necessarily also activated, familiar, uniquely identifiable, referential and type identifiable – which means that the necessary condition for the definite article, ‘uniquely identifiable’, is met. This is why, for example, a phrase headed by the definite article, which is not overtly specified for the status ‘in focus’, can be used in the second sentence of (2), even though the man can be expected to be in focus and an unstressed pronoun (*he*) would have been acceptable as well.

(2) A tall, handsome man came into the restaurant. Suddenly ***the man*** shouted.

The unidirectional entailment relation between statuses on the Givenness Hierarchy predicts that there will be a one-to-many correlation between forms and cognitive statuses; but there are still constraints on individual forms imposed by the minimal status signalled by that form. For instance, if the intended referent of a nominal expression is at most referential, i.e. not uniquely identifiable or higher, the necessary condition on the use of the definite article *the* is not met, and the prediction is that *the* cannot be used felicitously in the given context. Consider the examples in (3).

- (3) a. Yesterday, I went to a pub in Minneapolis, and after a while ***this strange-looking guy*** entered the room.
b. Yesterday, I went to a pub in Minneapolis, and after a while ***the strange-looking guy*** entered the room.

Whereas the indefinite determiner *this*² can be used in (3a) in a case where no strange-looking guy has previously been mentioned or can otherwise be uniquely identified by the addressee, the definite article *the* cannot. These facts follow from the association between forms and statuses in (1) above and the definitions of the cognitive statuses ‘referential’ and ‘uniquely identifiable’ below:

- (4) “UNIQUELY IDENTIFIABLE: The addressee can identify the speaker's intended referent on the basis of the nominal alone.” (Gundel et al. 1993:276)

² The Givenness Hierarchy treats indefinite *this*, which explicitly signals only referentiality in English, and proximal demonstrative determiner *this*, a form which explicitly signals activation, as separate lexical items; but the function of indefinite *this* perhaps reflects its historical origins as a proximal demonstrative determiner.

- (5) “REFERENTIAL: The speaker intends to refer to a particular object or objects. To understand such an expression, the addressee not only needs to access an appropriate type-representation, he must either retrieve an existing representation of the speaker’s intended referent or construct a new representation by the time the sentence has been processed.” (Gundel et al. 1993:276)

The main difference between the statuses ‘uniquely identifiable’ and ‘referential’ is the following: The instruction for a nominal form encoding the status ‘uniquely identifiable’ is for the addressee to associate (retrieve or establish) a unique representation of the referent based on the nominal alone.³ For a form encoding the status ‘referential’, on the other hand, the addressee is only instructed to retrieve or construct a representation of the referent by the time the whole sentence has been processed. Since the description ‘strange-looking guy’ is not sufficient to establish a unique representation in the given context, the prediction is that the definite article is not appropriate here. The indefinite determiner *this*, on the other hand, is predicted to be acceptable, since the addressee will be able to establish a representation of the referent by the time the sentence has been processed, in this case a mental representation of the strange-looking man that entered the pub the day before when the speaker was there.

Another cognitive status distinction that will be important in this paper is ‘type identifiable’. The cognitive status ‘type identifiable’ is defined as follows:

- (6) “TYPE IDENTIFIABLE: The addressee is able to access a representation of the type of object described by the expression.” (Gundel et al. 1993: 276)

All that is signalled by a form that encodes the status ‘type identifiable’ is that the addressee is expected to access or construct a representation of the type of entity described. Due to the unidirectional entailment of statuses on the Givenness Hierarchy, the indefinite article in English, which encodes the status ‘type identifiable’, is predicted to be able to be used for referential entities as well as entities that are at most type identifiable, since anything that is referential is type identifiable.⁴ Whether or not an indefinite expression is interpreted as referential or merely type identifiable will depend on the content of the rest of the clause and other contextual factors

³ Barker (2002) correctly notes that the referent of a definite pronoun cannot be uniquely identified on the basis of the descriptive content of the pronoun, and views this as an objection to the claim that anything in focus is also uniquely identifiable. But note that the definition of ‘uniquely identifiable’ does not require that the referent be identified on the basis of the descriptive content of the pronominal form. Although the distinction between conceptual and procedural information encoded by nominal forms was not made as explicit in Gundel et al. (1993), as it was in later work (e.g. Gundel 2011, and Gundel, Hedberg and Zacharski 2012), the Givenness Hierarchy claim has always been that the unidirectional entailment holds between the cognitive statuses of the mental representations of referents, not between the forms that encode these statuses. Thus, since unstressed definite personal pronouns in English conventionally encode the information that the referent is in focus, this allows the referent to be uniquely identified, as there is frequently no more than one entity in the addressee’s focus of attention.

⁴ This explains why an *a* phrase can be interpreted as either referential or non-referential (or what has sometimes been called ‘specific’ vs. ‘non-specific’). See Section 3 and von Heusinger (this volume) for discussion of ‘specificity’.

that may reveal the likelihood of the speaker intending to refer to a particular entity. The italicized phrases in (7) will most likely be interpreted as merely type identifiable, not referential.

- (7) a. I don't have *a VCR* and neither does my neighbour.
b. Peter is *a doctor*.

In the examples in (7), the speaker most likely intends the addressee to only associate an appropriate type representation of a VCR and a doctor. Thus, as expected, if one substitutes the indefinite determiner *this* for the indefinite article *a* in these cases, the interpretation changes significantly. In (8) below, on the other hand, the indefinite phrases are most likely interpreted as not only type identifiable, but also referential.

- (8) a. When my youngest child was three or so, we were visiting at the house of a **friend of mine** and my friend was babysitting her infant nephew.
b. I want to tell you about *a strange guy I saw today*.

In (8a), it is evident from the fact that the friend is mentioned subsequently that the speaker intended the addressee to establish a representation of the friend. Similarly, in (8b) it follows from the rich description of the referent and the content of the clause that the speaker has a particular individual in mind and intends to continue to talk about him. As expected, these phrases may be substituted by indefinite *this*, which explicitly encodes the status 'referential'.

The correlation between forms and cognitive statuses in (1) makes predictions about acceptable and unacceptable contexts for the various forms. As noted above, a further prediction is that each form is in principle also compatible with all statuses higher than the one it explicitly encodes. However, most forms are used more typically with the status they explicitly encode than with higher ones that entail that status, and the likelihood that a given form will be used for such a higher status depends on more general, pragmatic factors. For instance, the definite article is much more likely than the indefinite article to be used for reference to entities that are uniquely identifiable, and possibly also familiar, activated or in focus (see Gundel, et al. 1993). These facts do not follow from the Givenness Hierarchy itself, but can be given a pragmatic explanation. A form can be used with a higher status than the one it minimally requires if doing so is in accordance with general pragmatic principles. From the point of view of Relevance Theory (Sperber and Wilson 1995, 2004), speakers are expected to use the form that leads to adequate cognitive effects for minimal processing effort. To illustrate how this affects choice of nominal form, consider the examples in (9) below, based on similar examples in Scott (2010), p. 134-135.

- (9) a. John was late for work again. *He* never learns.
b. John was late for work again. *That rascal* never learns.
c. John was late for work again. *The rascal* never learns.
d. John was late for work again. *A rascal* never learns.
e. John was late for work again. *He/that rascal/the rascal/?a rascal doesn't like to get up early*.

In these examples, John is in the focus of attention by the time the first sentence has been processed since he has been referred to in subject position (cf. the coding guidelines of Gundel et

al. 2006), which means that the speaker can use an unaccented personal pronoun to refer to him the second time, as in (9a). Doing so requires no extra processing effort since a pronoun explicitly signals that its referent is in focus, and John is likely to be the only male entity that is in focus at the point when the pronoun is encountered. In (9b), ‘that rascal’ is also acceptable in this context in reference to John, as anything that is in focus is also familiar (in memory). The reason why the determiner *that*, which signals the weaker (entailed) cognitive states ‘familiar’ is equally acceptable here, according to a relevance-theoretic view, is that the description ‘that rascal’ gives rise to important information about the speaker’s attitude towards John’s repeated tardiness, and thus has additional cognitive effects compared to the pronoun (cf, Scott 2010, p. 134-135). Thus, the extra processing effort expended in having to interpret a less informative form with respect to cognitive status, is paid back in terms of extra cognitive effects arising from the descriptive content of the phrase. Similar reasoning applies in (9c) and (9d), which only instruct the addressee to explicitly assign a unique or appropriate type representation respectively, since the addressee could easily infer, by the Principle of Relevance (Sperber and Wilson 1996:158) that the speaker intends to convey the information that she thinks John is the/a rascal. This is a highly accessible assumption, which also adds additional cognitive effects without undue processing effort since someone who is repeatedly late for work may reasonably be called a rascal. In (9e), by contrast, while it is possible to infer that John is a rascal because he doesn’t like to get up early, it takes more effort to do so and it is also more difficult to achieve positive cognitive effects by relating this to the fact that John was late for work again.

In the remainder of the paper, we discuss how the sense of ‘referential’ on the Givenness Hierarchy subsumes and goes beyond various senses of the notion of ‘referential’ that have been discussed in the semantics and pragmatics literature. For example, since all definite phrases are predicted to be used referentially on the Givenness Hierarchy, the Givenness Hierarchy sense of referentiality subsumes uses that have been termed ‘attributive’ as well as those that have been termed ‘referential’ by Donnellan (1966).

2. Referentiality and Definiteness

The Givenness Hierarchy takes a uniqueness rather than a familiarity view of the semantics/pragmatics of definite phrases (see also Birner & Ward 1994 and Abbott 2004 and this volume, *inter alia*). More specifically, definite nominals are defined in terms of the hierarchy as those whose referents have the cognitive status ‘uniquely identifiable’ or higher, in the sense that the addressee is expected to associate a unique representation of the referent on the basis of the phrase itself, either because he already has a unique representation of it in memory or because he is able to construct a new unique representation, possibly by way of a bridging inference to a recently activated referent (Clark and Haviland 1977).⁵ The fact that the referent of a definite article phrase in English and many other languages is often also familiar follows from the fact that familiarity implies uniqueness, but it is not a defining property of the definite article.

⁵ A nominal phrase resulting from a bridging inference is also known as an ‘associative anaphor’ (Hawkins 1978), an ‘inferrable’ (Prince 1981), or an ‘indirect anaphor’ (Erku and Gundel 1987). The process of constructing a new representation by way of a bridging inference is also possible for referential indefinites, as in (i):

(i) Jane has a new car. She already broke *a window*.

Most non-pronominal definite phrases are marked by the definite article in English, but definite pronouns, possessor-marked phrases⁶, proper names, demonstrative phrases, and generics are also definite in this sense, and obtain a similar semantics/pragmatics.⁷ The referents of the italicized phrases in (10), which are all definite, thus all have at least the status ‘uniquely identifiable’, and therefore also ‘referential’.⁸

- (10) a. I have to go walk *the dog*. *He* hasn’t been out all day.
b. *My mother* is coming to visit this weekend,
c. *John* won’t be coming to the party tonight.
d. *Dogs* are mammals.
e. *That car* is old, but *the engine* is new.

3. Overt Markers of Referentiality

As noted above, on the Givenness Hierarchy, the status ‘uniquely identifiable’ entails the status ‘referential’; so all definite references are predicted to be referential. This follows from the definitions of the two statuses. If the addressee can associate a unique representation with the referent of the nominal (uniquely identifiable), at the point after it is processed, then she can associate a unique representation with the referent by the time the whole sentence has been processed (referential). On the other hand, nominal phrases that are not definite can be either referential or non-referential. In the case of referential indefinites, the speaker has a particular entity ‘in mind’, and expects the addressee to associate a unique representation with that entity by the time she is finished processing the sentence. Data from a variety of languages show that referentiality can be grammatically marked even when the language lacks a means of marking definiteness, i.e. unique identifiability. Thus, there are a number of languages that don’t have a definite article, but do explicitly encode referentiality, often called ‘specificity’ in the literature (see Karttunen 1969, 1976 and von Heusinger, this volume).⁹

⁶ By ‘possessor-marked phrases’ we include only those where the possessor is definite. See Abbott (2010, p. 212).

⁷ The reason why proper names, possessives and generics are often not marked with a definite article is no doubt related to the fact that they are typically definite in the sense that we have defined here, and a definite article is thus redundant. But many languages, e.g. German for proper names, Norwegian for possessives, and French and Arabic for generics, do mark these forms with a definite article or suffix, either obligatorily or optionally.

⁸ As noted in footnote 3, associating a unique representation does not mean that the descriptive/conceptual content of the phrase must uniquely apply to the referent or that the nominal has to contain any descriptive/conceptual information at all. All that is necessary for the intended referent of a form to be uniquely identifiable is that the addressee is able to associate a unique mental representation of the referent. In the case of definite pronouns, for example, the addressee is able to do this by associating a unique representation that is already in focus.

⁹ It should be noted that not all authors agree that definiteness entails specificity, as they consider attributive noun phrases in Donnellan’s (1966) sense as definite, but not specific (See Partee 1972, von Heusinger 2002 and this volume, Hedberg et al 2009, and section 4 below).

3.1. Differential object marking. In some languages, a system of ‘differential object marking’ (Aissen 2003, von Stechow 2002) includes a way of marking a referential object. For example, in Turkish, referential objects, whether uniquely identifiable or not, are marked with the accusative case marker; and in Persian, referential objects are marked with the particle RA. Hedberg, Görgülü and Mameni (2009) present the examples in (11) and (12) that illustrate this. The (a) sentences show that definite phrases are marked with these forms. The (b) and (c) sentences show that indefinite phrases that are so marked are interpreted referentially.

(11) Turkish:

- a. Bugün *avukat-ı* gör-üyor-um.
today lawyer-ACC see-PROG-1SG
‘I am seeing the lawyer today.’
- b. Bugün *bir avukat-ı* gör-üyor-um.
today one lawyer-ACC see-PROG-1SG
‘I am seeing a (particular) lawyer today.’
- c. Bugün *bir avukat* gör-üyor-um.
Today one lawyer see-PROG-1SG
‘I am seeing a lawyer today (some lawyer or other).’

(12) Persian:

- a. Emruz *vakil-o* mi-bin-am.
today lawyer-RA DUR-see-1SG
‘I am seeing the lawyer today.’
- b. Emruz *ye vakil-(i)-o¹⁰* mi-bin-am.
today a/one lawyer-I-RA DUR-see-1SG
‘I am seeing a (particular) lawyer today.’
- c. Emruz *ye vakil* mi-bin-am.
today a/one lawyer DUR-see-1SG
‘I am seeing a lawyer today (some lawyer or other).’

3.2. Referential determiners. In other languages, referentiality is marked on any noun phrase, whether subject, object, or even some other grammatical relation. Salish languages are a case in point, where apparent referentiality marking is distributed across different syntactic argument types. The following examples are taken from a text published in Beaumont (1985) of a story in Sechelt, a Salish language of British Columbia.¹¹

¹⁰ Note that *ye* ‘a/one’ and –I are both optional, but one of the two morphemes is necessary if the –RA marked NP is to be interpreted as indefinite. Some analysts (e.g. Sadrai 2014) thus view –RA as a definiteness marker because –RA used without *ye* or –I indicates that the referent is uniquely identifiable.

¹¹ This story was reglossed by Kaoru Kiyosawa, Simon Fraser University.

- (13) t'í ʔálsam-nú-mut ʔe *te* *sét'álin* *sísiya*.
 aux catch.on-NC-REFL OBL ART stick.out small.tree
 'She managed to hang on to a small tree protruding from the bank.'
- (14) a. t'í ʔ'um s-cú-s ʔ'eq *te* *míman stúmish*.
 aux then NOM-go-3SG.POSS out ART child man
 'Then the young man went out.'
- b. t'í cú ʔémíwet ʔe *te* ʔélewim-s.
 aux go get.home OBL ART home-3SG.POSS
 'He went home to his place.'

Example (13) shows the introduction, for the first time in the story, of a tree (at most referential, i.e. not yet uniquely identifiable), using the masculine article *te*. Example (14a) shows the same article used for the tenth reference to the main character of the story, a young man (familiar), and (14b) shows the same article used for the first reference to the man's home (uniquely identifiable).

Analysis of the text reveals that the relevant set of articles can be used for referents that are in focus, activated, familiar, uniquely identifiable or at most referential, as would be predicted by the Givenness Hierarchy, since all these statuses imply the status 'referential'. There is no definite article in the language. Matthewson (1998) and Gillon (2006) offer detailed discussion of the semantics of determiners in the Salish languages Lillooet and Squamish, respectively. Their discussion suggests that these languages contain determiners that mark referentiality in the Givenness Hierarchy sense. Thus, for example, 'assertion-of-existence' determiner phrases in Lillooet and 'deictic' determiners in Squamish are reported to introduce new referents but obligatorily take widest scope with respect to negation and modals.¹²

3.3. Indefinite proximal demonstrative forms. As noted in section 1, in some languages, a form identical to the proximal demonstrative is used for referential indefinites. For example, the form *this* in casual, spoken English encodes the status 'referential' according to Gundel, et al. (1993). According to authors such as Maclaran (1982, p. 90), use of indefinite *this* "draws attention to the fact that the speaker has a particular referent in mind, about which further information may be given." This is shown in Maclaran's examples below:

- (15) a. He put *a/**this 31-cent stamp*** on the envelope, and only realized later that it was worth a fortune.
 b. He put *a/**this 31-cent stamp*** on the envelope, so he must want it to go airmail.

Use of indefinite *this* is more natural in (15a) where the speaker continues to talk about the 31-cent stamp, than in (15b), where there is no further mention of the stamp. However, noteworthiness and likelihood of subsequent mention cannot be part of the definition of the status 'referential'; if it were, we would make false predictions about perfectly felicitous, if less

¹² However, Lyon (2013, 2015) shows that while Okanagan Salish determiner *iʔ* phrases can introduce new referents as well as co-refer to established referents, they also can occur in non-specific contexts and within the scope of negation and modals.

frequent, uses of both indefinite *this* and uses of other forms (such as the definite article) that entail the status ‘referential’.

To sum up, indefinite *this* in English is often used when it is relevant to call attention to the referent of this form for some reason, e.g. the referent is noteworthy and likely to be talked about further. When those conditions hold, the attention of the addressee is drawn to the representation of the referent and referentiality is highlighted.

Other languages may also have referential *this*.¹³ For example, Spanish has an indefinite use of the proximal demonstrative determiner in syntactic contexts that are obligatorily presentational.

(16) Spanish:

- a. Ya *este tío a mi lado*, y ...
go this guy to my side and
‘There’s this guy next door to me, and ...’

- b. Hay *el tío este*, y ...
there.is the guy this, and ...
‘There’s this guy, and....’

Consultants suggest that this usage is a stereotypical way to start off a joke. It is clear from the syntactic context that these phrases are introducing a referent that is brand new to the discourse, and the proximal marking functions as an affective demonstrative, connoting nuances of vividness and emotional engagement on the part of the speaker, just like the features identified by Lakoff (1974) as characteristic of indefinite *this* in English.

To conclude this section, referentiality in the Givenness Hierarchy sense can be overtly marked grammatically. We gave three types of cases from a variety of languages that mark this sense of referentiality directly. All definites are referential in this sense, but not everything that is referential is also definite (i.e. uniquely identifiable by the time the nominal form alone is processed). In the next section, we turn to examples that have been described and labeled as non-referential in some of the philosophical and linguistic literature, but which would be considered referential within the Givenness Hierarchy framework.

4. The Referential-Attributive Distinction

As noted above, the status ‘uniquely identifiable’ unilaterally entails the status ‘referential’ on the Givenness Hierarchy. This means that all definite phrases are referential by definition, so there can be no ‘non-referential’ definites. This sense of ‘referentiality’ is distinct from the sense of ‘referentiality’ discussed by Donnellan (1966). Following that tradition, Partee (1972) and von Heusinger (2002) posit a dichotomy between ‘specificity’/‘referentiality’ and definiteness. For them, phrases that would be treated as type-identifiable but not referential in the Givenness Hierarchy theory are cases of non-specific (or ‘non-referential’) indefinites, and phrases whose referents are uniquely identifiable in the Givenness Hierarchy theory but which Donnellan would call ‘attributive’ are cases of non-specific (or non-referential) definites. The entailment

¹³ von Heusinger (this volume) provides discussion of indefinite *this* expressions, including discussion of indefinite *this* in other languages, e.g., German.

relation that the Givenness Hierarchy theory posits between unique identifiability/definiteness and referentiality/specificity is thus challenged on the Partee/von Heusinger account. Let us look more closely at Donnellan's original distinction.

According to Donnellan (1966, p. 285), the definite description subject of 'Smith's murderer is insane,' has two distinct uses.¹⁴ On the 'attributive' use, the speaker states that Smith's murderer – whoever turns out to fit that description – is insane. On the 'referential' use, the speaker states about a particular person (e.g. Jones) – that he is insane and uses the description 'Smith's murderer' because he assumes that this will enable the hearer to "pick out" Jones as the person that he is talking about. Gundel et al. (1993) point out that the cognitive status 'uniquely identifiable' covers both these cases, since the addressee can associate a unique representation in both cases, namely the person who the speaker describes as Smith's murderer, regardless of whether the speaker, or anyone else, knows who it is.¹⁵

Birner (1991, 2013) argues that Donnellan's distinction is not linguistically relevant because both referentially and attributively used definite descriptions in Donnellan's sense denote discourse referents, either in the sense of Webber (1979, 1986), where discourse referents are mental 'coat hooks' on which descriptions are hung, or in Kronfeld's (1981, 1986) sense where a discourse referent is a set of descriptions believed to denote a unique object. Birner argues that the closer the individuating set of properties expressed in a definite description comes to containing all the information that enables the entity to be distinguished from all others, the more referential as opposed to attributive the description intuitively seems to be. Both types of description are referential when viewed in a mentalist way, and both can be anaphorically coreferenced with pronouns.

As mentioned above, Partee (1972) and von Heusinger (2002), suggest that the specificity distinction, originally defined for indefinite phrases, should be amalgamated with Donnellan's referential-attributive distinction for definite phrases. On this view, both non-specific indefinites

¹⁴ The same would hold for 'the murderer of Smith is insane.'

¹⁵ We would give a similar analysis to at least some '*de dicto*' utterances containing definite phrases, such as the example in (i), modeled on an example by Quine (1956), where the speaker is not trying to say that Ralph believes a contradiction.

- (i) Ralph believes that *the man in the brown hat* is a spy, but does not believe that *the man at the beach* is a spy.

The speaker presents both descriptions as uniquely identifiable in that each description determines a unique representation for the addressee, and each description is referential in the sense that the speaker intends the hearer to access a representation of the referent by the time the sentence has been processed. The two representations are individuated by different properties. Perhaps the speaker uses two different descriptions even if she knows (and maybe wants to convey) that they have the same referent because she wants to indicate that Ralph doesn't realize that the descriptions pick out the same man. For more thorough discussion of the *de dicto-de re* distinction, see Keshet and Schwarz (this volume).

and Donnellan’s definite attributive phrases would be classified as ‘non-specific’/‘non-referential’. However, in opposition to this move, we wish to point out that languages such as Turkish and Persian that mark ‘specificity’/‘referentiality’ on direct objects (as discussed above in section 3) obligatorily mark Donnellan-attributive phrases as specific/referential. Thus, Hedberg, et al. (2009) give the examples in (17) and (18) of superlative and ordinal object phrases in Turkish and Persian.

- (17) a. Turkish (Görgülü 2009):
Okutman *bul-abil-diği en zor alıştırma-yı* ver-di.
instructor find-MOD-NMN most hard exercise-ACC give-PAST
‘The instructor assigned the most difficult exercise he could find.’
- b. Persian:
Ostad *saxt-tarin tamrin-(i)-(ro) ke tun-est*
instructor difficult-SUP exercise-I-RA REL can-PAST-3SG
peyda kon-e daad.
find do-3SG give:PAST-3SG
‘The instructor assigned the most difficult exercise he could find.’
- (18) a. Turkish (Görgülü 2009):
Cem *ilk gör-düğü araba-yı* beğen-di.
John first see-NMN car-ACC like-PAST
‘John liked the first car that he saw.’
- b. Persian:
Jân *avval-in mâshin-(i)-ro ke did* kosh-esh umad.
John first-DEF car-I-RA that saw good-3SG came
‘John liked the first car that he saw.’

The object phrases in these sentences are obligatorily marked with ACC and –RA, respectively, but can easily be used attributively (as well as referentially) in Donnellan’s sense. The Givenness Hierarchy sense of ‘referential’ correctly accounts for this data. These phrases would have to be inherently interpreted as uniquely identifiable because there can be only one most difficult exercise or first car seen. Since they are uniquely identifiable, they are referential in the Givenness Hierarchy sense – and crucially they are morphologically marked as such.

Indeed, we suggest that any referring form, including indefinite *this*, can be used in ways that seem just as ‘non-referential’ as Donnellan-attributive definite phrases. See, for example, the discourse in (19), where all of the italicized phrases would be classified as ‘referential’ in the Givenness Hierarchy sense.

- (19) There’s *this rapist* running around. No one knows who *he* is. *The rapist* has struck twice within the last week and everyone is terrified. The police need to be doing everything they can to catch *that rapist* soon.

Finally, it should be noted that the conclusion that Donnellan’s original distinction is never marked linguistically in any language is challenged in Borthen (2003, 2007). Borthen

reports that Norwegian, which does have a definite article, allows for superlatives and ordinals to be expressed with or without the definite article, as shown in (20) below. The claim that such phrases are inherently uniquely identifiable is supported by the fact that the adjective is morphologically marked as definite, regardless of whether or not the definite article is present. What is relevant here is that Borthen reports that phrases of this type without the definite article, as in (20b), can only be used attributively – not referentially in Donnellan’s original sense.

(20) Norwegian:

- a. *Den beste skiløperen* får en premie.
the best-DEF skier-DEF gets an award
'The best skier will get an award.'
- b. *Beste skiløper* får en premie.
best-DEF skier gets an award
'Whoever turns out to be the best skier will get an award.'

Whereas the subject phrase in (20a) (with a definite article as well as a definite suffix on the adjective and noun) can have both an attributive use (to talk about the best skier, whoever it turns out to be) and a referential use in Donnellan’s sense (to talk about a particular best skier, e.g. Kjell), the subject phrase in (20b) (with no definite article, and a definite suffix on the adjective but not the noun) can only be used attributively. Thus, if the speaker knows who the specific referent is, and intends to refer to that referent, the claim is that she may utter only (20a), not (20b).¹⁶

The facts in (17)-(20) show that superlatives and ordinals are not always specified for unique identifiability by a definite article, but they are still interpreted as uniquely identifiable (and therefore also referential and type identifiable, in the Givenness Hierarchy sense) due to the uniquely-identifying conceptual content inherently expressed by the description. Borthen (2003) posits a [-REF] feature for examples like (20b) to account for the intuition that they can only be used attributively in Donnellan’s sense. However, we wish to emphasize here that such phrases *are* referential in the Givenness Hierarchy sense. A possible pragmatic explanation for the attributive intuition may emerge from the fact that in Norwegian, there is an alternative, (20a), that is explicitly and redundantly marked for definiteness with a definite article (and definite suffix on the noun). This situation could give rise to a contrasting interpretation for the shorter (also marked definite) (20b) that focuses on the descriptive/conceptual content itself (the type identifiable aspect of the phrase). This does not require that the speaker know anything about the individual described other than the fact that he or she satisfies the description. More data would be needed to decide between these two accounts—specifically, data indicating whether the attributive reading of sentences like (20b) can be suspended in certain contexts, and also whether the facts are similar for phrases that are not superlatives.

¹⁶ The use of bare superlatives in Norwegian, though frequent, is not fully productive. These phrases can only occur as arguments of certain predicates (see Borthen 2007). The same holds for the bare nominals presented in (24) below.

5. Bare nominal phrases

English allows bare nominals without a determiner) for mass nouns, for generic and indefinite plurals, and for some singular predicative uses, as illustrated in (21). The bare nominal in (21a-c) could be referential in the Givenness-Hierarchy sense since the speaker would be expecting the hearer to construct a representation of the particular portion of wine or group of bees, or to access an existing representation of the cat natural kind. However, the bare nominal in (21d) would not be referential in the Givenness-Hierarchy sense since the speaker would most likely be using the nominal only to evoke the role of chair rather than a specific referent.

- (21) a. There is *wine* in the refrigerator.
b. *Cats* make good pets.
c. The garden was swarming with *bees*.
d. Mary was elected *chair*.

In many languages, bare nominals are even more widespread and can be used for a range of different cognitive statuses. For example, the interpretation of bare nominal phrases in Mandarin and Japanese can have any cognitive status, whether non-referential or referential. Examples are shown in (22) and (23),¹⁷ where the relevant bare nominals are in boldface.

(22) Mandarin:

- a. At most Type-identifiable (not Referential)

Shang jie qu mai *jiu*.
mount street go buy wine
'[He] went out to buy some wine.'

- b. Referential

Ta feichang xiang dedao yi-zhi hong-de jinyu,
he very want get one-CLS red-PRT goldfish
'He very much wanted to get a red goldfish.'

danshi hong-de jinyu cang zai *shitou* houmian
but red-PRT goldfish hide in rock behind
'But the red goldfish was hiding behind a rock.'

(23) Japanese:

- a. Referential

ichiban hajime ni detekita bamen ga
first beginning at appeared scene SM

ano ee mannaka hen ni *kuroi neko* ga ugoiteite
well eh center about at black cat SM be.moving
'The scene that first appeared has a black cat moving in the center'.

¹⁷ The data here was collected for a study by Fuller and Gundel (1987). Speakers viewed a silent film called 'The Golden Fish' and, immediately after viewing the film, described it to another native speaker of their language.

- b. Familiar and In Focus (and therefore Referential)

kingyo to *kotori* ga uta o utattari
goldfish and bird SM song OM sing

sorekara *kingyo* ga kurukuru mawattari
and.then goldfish SM round.and.round turn

‘The goldfish and the bird sing songs. And the goldfish turns round and round.’

Since Mandarin and Japanese don’t have definite or fully productive indefinite articles, it is perhaps to be expected that bare nominals will have a wide distribution across statuses. Indeed, Gundel et al. (1993) showed in their corpus study that interpretations of bare nominals in these languages can have any status on the Givenness Hierarchy.

However, in some languages that have both definite and indefinite articles, singular bare nominals occur in contexts where they are reportedly not used with higher cognitive statuses than ‘type identifiable.’ For example, Borthen (2003, p. 26) considers the Norwegian data in (24).

(24) Norwegian:

a. Jeg ønsker meg *en svart sykkel*.
I want REFL a black bike
‘I want a black bike.’

b. Jeg ønsker meg *svart sykkel*.
I want REFL black bike
‘I want a black bike.’

Borthen reports that whereas the speaker can use the indefinite phrase in (24a) referentially to express the desire for a particular black bike, she cannot do the same with (24b)—this utterance can only mean that she wants something that fits the description ‘black bike’.

Spanish also contrasts singular bare nominals with indefinite article phrases. The examples in (25) show that an indefinite article is required if the phrase is used referentially. Whereas the expression with an indefinite article in (25a) can naturally achieve a referential interpretation, the speakers we consulted rejected a referential interpretation of (25b) without the indefinite article. However, when the interpretation is non-referential, an indefinite article is optional and the singular nominal can appear either with an article (25c) or without (25d).

(25) Spanish:

a. María quiere comprar *un coche*. Lo encontró en Craigslist.
Maria want.3SG to.buy a car it found.3SG on Craigslist.
‘Maria wants to buy a car. She found it on Craigslist.’

b. #María quiere comprar *coche*. Lo encontró en Craigslist.
Maria want.3SG to.buy car it found.3SG on Craigslist.
‘Maria wants to buy a car. She found it on Craigslist.’

c. María quiere comprar-se *un coche*. Pero todavía no ha encontrado uno que le

Maria want.3SG to.buy-REFL a car. but still not has found one that her
guste.

pleases

‘Maria wants to buy a car. However, so far, she hasn't found one that she likes.’

- d. María quiere comprar *coche*. Pero todavía no ha encontrado uno que le guste.
Maria wants.3SG to.buy car but still not has found one that her pleases
‘Maria wants to buy a car. However, so far, she hasn't found one that she likes’.

A similar situation arises in Turkish and Persian. As we saw earlier in (11)-(12), Turkish and Persian don't have definite articles but do have indefinite articles, or at least use numeral ‘one’ determiners in most contexts where an indefinite article occurs in English. Hedberg, et al. (2009) (footnote 2) report that direct objects can occur bare in both Turkish and Persian. In such cases, the nominal receives an interpretation that is reportedly not only obligatorily non-referential but is also number neutral. Thus, with the Turkish and Persian sentences in (26) and (27), it is possible (but not necessary) that the speaker is seeing more than one lawyer. Öztürk (2005) analyzes such noun phrases in Turkish as quasi-incorporated into the verb.

- (26) Turkish:
Bugün *avukat* gör-üyor-um
today lawyer see-PROG-1SG
‘I am lawyer-seeing today.’

- (27) Persian:
Emruz *vakil* mi-bin-am
today lawyer DUR-see-1SG
‘I am lawyer-seeing today.’

Gundel et al. (1993) proposed that bare nominals in Mandarin and Japanese contain a zero determiner that encodes the status ‘type identifiable.’ However, because they contain no overt determiners and because we wish to remain neutral on the issue of the syntactic structure of bare nominals in different languages, we now suggest that bare nominals are unspecified for cognitive status. Thus, in languages that permit them syntactically, they can in principle be used for referents/interpretations with any cognitive status.

We suggest that the cognitive statuses which the use of bare nominals can signal depends upon the inventory of determiner forms in the language. If there is neither a definite article nor a very fully productive indefinite article, as in Mandarin and Japanese, bare nominals have complete freedom of occurrence. However, if the language contains a fully or quite strongly productive indefinite article, as is the case with Norwegian, Spanish, Turkish and Persian, bare singulars are restricted to non-referential interpretations. Finally, if the language has a definite but not an indefinite article, as is the case for Moroccan Arabic, bare singulars can have a

referential or non-referential indefinite interpretation, as shown in (28), but cannot be interpreted as definite.¹⁸

(28) Moroccan Arabic:

- a. shrit *tumubil* lyoum
 buy.PERF.1S car today
 ‘I bought a car today.’
- b. bghit neshri *tumubil*, walakin ma qdit
 want.PERF.1S buy.IMPERF.1S car but NEG able/can
- sh nlqa whda lli ta3jabni
 NEG find.IMPERF.1S one that like.IMPERF.1S
 ‘I want to buy a car, but I can’t find one that I like.’

Whether such non-referential or non uniquely-identifiable interpretations are absolute or pragmatically derived through implicature is a topic that we leave for future research.

References

- Abbott, Barbara. 2004. Definiteness and indefiniteness. In Laurence R. Horn and Gregory Ward, eds. *Handbook of Pragmatics*. Oxford: Blackwell. 122-149.
- Abbott, Barbara. 2010. *Reference*. Oxford: Oxford University Press,
- Aissen, Judith. 2003. Differential object marking: Iconicity vs. Economy. *Natural Language and Linguistic Theory* 21. 435-448.
- Barker, Chris. 2002. Possessive weak definites. In Kim, Ji-Yung, Yury A. Lander and Barbara H. Partee (eds.). *Possessives and Beyond: Semantics and Syntax*. University of Massachusetts Working Papers in Linguistics 29. Amherst: Massachusetts: GLSA. 89-113.
- Beaumont, Ronald C. 1985. *She shashishalhem, the Sechelt language: Language, stories and sayings of the Sechelt Indian people of British Columbia*. Penticton, British Columbia: Theytus Books.
- Birner, Betty J. 1991. Discourse entities and the referential/attributive distinction. *Paper presented at the Annual Meeting of the Linguistic Society of America*, Chicago.
- Birner, Betty J. and Gregory Ward. 1994. Uniqueness, familiarity and the definite article in English. *Proceedings of the Twentieth Annual Meeting of the Berkeley Linguistics Society*. 93-102.
- Birner, Betty J. 2013. *Introduction to Pragmatics*. Wiley-Blackwell.
- Borthen, Kaja. 2003. *Norwegian Bare Singulars*. PhD dissertation, Norwegian University of Science and Technology.
- Borthen, Kaja. 2007. The distribution and interpretation of Norwegian ‘bare superlatives’. *Working papers Isk 4*. Department of Languages and Communication Studies, Norwegian University of Science and Technology. 91-100.

¹⁸ Dechaine and Tremblay (2011) posit a similar distinction between ‘pragmatically conditioned overt D’, exemplified in the Bantu language Shona, and ‘paradigmatically conditioned covert D’, exemplified in English, Italian and Hebrew.

- Clark, Herbert H. and S. E. Haviland. 1977. Comprehension and the given-new contract. In R. O. Freedle (eds.). *Discourse Production and Comprehension*. Erlbaum. 1-40.
- Dechaine, Rose-Marie and Mireille Tremblay. 2011. Deriving nominal reference. Paper presented at the Western Conference on Linguistics (WECOL).
<http://www.fresnostate.edu/artshum/linguistics/wecolproceedings.html>
- Donnellan, Keith. 1966. Reference and definite descriptions. *Philosophical Review* 75. 281-304.
- Erku, Feride and Jeanette K. Gundel. 1987. The pragmatics of indirect anaphors. In Verschueren, J. and M. Bertuccelli (eds.). *The Pragmatic Perspective: Selected Papers from the 1985 International Pragmatics Conference*. Amsterdam: John Benjamins. 533-545.
- Fuller, Judith and Jeanette K. Gundel. 1987. Topic prominence in inter-language. *Language Learning* 37. 1-17.
- Gillon, Carrie. 2006. *The Semantics of Determiners: Domain Restriction in Skwxwúmesh*. PhD Dissertation. University of British Columbia.
- Görgülü, Emrah. 2009. On definiteness and specificity in Turkish. In Shibagaki, R. and R. Vermeulen (eds.) *MIT Working Papers in Linguistics* 58. Proceedings of the 5th Workshop on Formal Altaic Linguistics. Cambridge, MA: MIT.
- Gundel, Jeanette, Nancy Hedberg and Ron Zacharski. 1993. Cognitive status and the form of referring expressions in discourse. *Language* 69. 274-307.
- Gundel, Jeanette K., Nancy Hedberg, Ron Zacharski, Ann Mulkern, Tonya Custis, Bonnie Swierzbins, Amel Khalfoui, Linda Humnick, Bryan Gordon, Mamadou Bassene, and Shana Watters. 2006. Coding Protocol for Statuses on the Givenness Hierarchy.
http://www.sfu.ca/~hedberg/Coding_for_Cognitive_Status.pdf.
- Gundel, Jeanette K. 2011. Child language, Theory of Mind, and the role of procedural markers in identifying referents of nominal expressions. In Escandell-Vidal, V., M. Leonetti and A. Ahern (eds.) *Procedural Meaning: Problems and Perspectives*. Emerald Group Publishing, 205-234.
- Gundel, Jeanette K., Nancy Hedberg and Ron Zacharski. 2012. Underspecification of cognitive status in reference production: Some empirical predictions. *Topics in Cognitive Science (TopiCS)* 4(2). 249-268.
- Hawkins, John A. 1978. *Definiteness and Indefiniteness: A Study in Reference and Grammaticality Prediction*. London: Croom Helm.
- Hedberg, Nancy, Emrah Görgülü and Morgan Mameni. 2009. On definiteness and specificity in Turkish and Persian. *Proceedings of the 2009 Annual Conference of the Canadian Linguistic Association*. <http://homes.chass.utoronto.ca/~cdla-acl/actes2009/actes2009.html>.
- von Heusinger, Klaus. 2002. Specificity and definites in sentence and discourse structure. *Journal of Semantics* 19. 245-276.
- von Heusinger, Klaus. This volume.
- Karttunen, Lauri. 1968. What do referential indices refer to? Paper presented at the Linguistics Colloquium, University of California, Los Angeles, April 26, 1968.
- Karttunen. 1976. Discourse referents, in J.D. McCawley (ed.), *Syntax and Semantics, Vol. 7: Notes from the Linguistic Underground*. New York: Academic Press. 365-385.
- Keshet, Ezra and Florian Schwarz. De re/De dicto. This volume.
- Kronfeld, A. 1986. Donnellan's distinction and a computational model of reference. *Proceedings of the 24th Meeting of the Association for Computational Linguistics*. 186-191.
- Kronfeld, A. 1981. *The Referential/Attributive Distinction and the Conceptual/Descriptive Approach to the Problem of Reference*. PhD dissertation. University of California, Berkeley.

- Lakoff, Robin. 1974. Remarks on this and that, in M. LeGaly, R. Fox, and A. Bruck (eds.), *Papers from the Tenth Regional Meeting of the Chicago Linguistics Society*. Chicago: Chicago Linguistics Society. 345-356.
- Lyon, John. 2013. *Predication and Equation in Okanagan Salish: The syntax and semantics of determiner phrases*. PhD dissertation. University of British Columbia.
- Lyon, John. 2015. Okanagan determiner phrases and domain restriction. *International Journal of American Linguistics* 81(2). 187-219.
- Matthewson, Lisa. 1998. *Determiner Systems and Quantificational Strategies: Evidence from Salish*. The Hague: Holland Academic Graphics.
- Maclaran, Rose. 1982. *The Semantics and Pragmatics of the English Demonstratives*. PhD Dissertation. Cornell University.
- Öztürk, Balkız. 2005. *Case, Referentiality and Phrase Structure*. Amsterdam: John Benjamins.
- Partee, Barbara. 1972. Opacity, coreference and pronouns, in Donald Davidson and Gilbert Harman (eds.), *Semantics of Natural Language*. Dordrecht: Reidel. 415-441.
- Prince, Ellen F. 1981. On the inferencing of indefinite-*this* NPs, in Aravind Joshi, Bonnie Webber and Ivan Sag (eds.), *Elements of Discourse Understanding*. Cambridge: Cambridge University Press. 231-250.
- Quine, W. V. 1956. Quantifiers and propositional attitudes. *The Journal of Philosophy* 53(5). 177-187.
- Sadrai, Mahmoud. 2014. *Cognitive Status and RA-marked Referents of Nominal Expressions in Persian Discourse*. PhD Dissertation. University of Minnesota.
- Scott, Kate J. 2010. *The relevance of referring expressions: the case of diary drop in English*. PhD dissertation. University College London.
- Sperber, Dan and Deidre Wilson. 1995. *Relevance: Communication and Cognition*, Second edition. Oxford: Blackwell.
- Webber, Bonnie L. 1979. *A Formal Approach to Discourse Anaphora*. Garland Publishing.
- Webber, Bonnie L. 1986. So what can we talk about now? In B. J. Grosz, K.S. Jones and B. L. Webber (eds.), *Readings in Natural Language Processing*. Morgan Kaufmann. 395-414.
- Wilson, Deidre and Dan Sperber. 2004. Relevance Theory. In Laurence R. Horn and Gregory Ward (eds.), *The Handbook of Pragmatics*. Oxford: Blackwell. 607-632.