



Experimental investigations of weak definite and weak indefinite noun phrases



Natalie M. Klein *, Whitney M. Gegg-Harrison, Greg N. Carlson, Michael K. Tanenhaus

Department of Brain and Cognitive Sciences, University of Rochester, United States
Department of Linguistics, University of Rochester, United States

ARTICLE INFO

Article history:

Received 7 January 2012

Received in revised form 27 January 2013

Accepted 15 March 2013

Available online 15 May 2013

Keywords:

Psycholinguistics

Experimental pragmatics

Weak definites

Weak reference

Semantics

ABSTRACT

Definite noun phrases typically refer to entities that are uniquely identifiable in the speaker and addressee's common ground. Some definite noun phrases (e.g. *the hospital in Mary had to go the hospital and John did too*) seem to violate this uniqueness constraint. We report six experiments that were motivated by the hypothesis that these "weak definite" interpretations arise in "incorporated" constructions. Experiments 1–3 compared nouns that seem to allow for a weak definite interpretation (e.g. *hospital, bank, bus, radio*) with those that do not (e.g. *farm, concert, car, book*). Experiments 1 and 2 used an instruction-following task and picture-judgment task, respectively, to demonstrate that a weak definite need not uniquely refer. In Experiment 3 participants imagined scenarios described by sentences such as *The Federal Express driver had to go to the hospital/farm*. Scenarios following weak definite noun phrases were more likely to include conventional activities associated with the object, whereas following regular nouns, participants were more likely to imagine scenarios that included typical activities associated with the subject; similar effects were observed with weak *indefinites*. Experiment 4 found that object-related activities were reduced when the same subject and object were used with a verb that does not license weak definite interpretations. In Experiment 5, a science fiction story introduced an artificial lexicon for novel concepts. Novel nouns that shared conceptual properties with English weak definite nouns were more likely to allow weak reference in a judgment task. Experiment 6 demonstrated that familiarity for definite articles and anti-familiarity for indefinite articles applies to the activity associated with the noun, consistent with predictions made by the incorporation analysis.

© 2013 Elsevier B.V. All rights reserved.

1. Weak definite noun phrases

Definite reference has played a central role both in formal models of discourse and reference (e.g. Abbott, 2008; Gundel, Hedberg, & Zacharski, 1993; Heim, 1982; Roberts, 2003) and in psychological models of reference generation and comprehension (e.g. Clark & Marshall, 1978; Clark & Marshall, 1981). Definite reference has also provided an important testing ground for understanding how speakers

and listeners generate and interpret referring expressions in real-time language processing (Brown-Schmidt & Tanenhaus, 2008; Chambers, Tanenhaus, Eberhard, Filip, & Carlson, 2002; Eberhard et al., 1995; Fukumura, Harley, van Gompel, & Pickering, 2011; Gorman, Gegg-Harrison, Marsh, & Tanenhaus, in press; Heller, Gorman, & Tanenhaus, 2012; Wu & Keysar, 2007).

To a first approximation, the referent of a definite noun phrase is assumed to be uniquely describable in the relevant referential domain of the discourse; for our purposes this domain can be construed as the common ground of the speaker and listener (Clark & Marshall, 1981; Stalnaker, 1979). For example, in the presence of two (or more)

* Corresponding author at: Department of Brain and Cognitive Sciences, University of Rochester, United States.

E-mail address: nklein@bcs.rochester.edu (N.M. Klein).

remote controls, a speaker cannot felicitously ask her addressee to *grab the remote*, unless one of them has been established as the uniquely identifiable referent, e.g. by a concurrent deictic gesture or by prior reference. While more developed notions such as “informational uniqueness” (Kadmon, 1990; Roberts, 2003) are ultimately required to fully characterize the contribution of definiteness in semantics, for the purposes of this paper the intuitive notion of unique identifiability will be sufficient.¹

There are, however, some common definite noun phrases, such as *the hospital* in (1) below, that seem to violate these uniqueness constraints (Barker, 2005; Birner & Ward, 1994; Carlson & Sussman, 2005; Carlson, Sussman, Klein, & Tanenhaus, 2006). Following Poesio (1994), we will refer to these as *weak definite noun phrases*, or *weak definites*.

Consider the following dialogue:

- (1) Sarah: Where did they take the hurricane victims?
 Otto: To an arena/to the arena/to the hospital.
 Sarah: Which one?
 Otto: I don't know.

Otto's answer, *I don't know*, is felicitous in response to Sarah's question when the antecedent of *one* is introduced by an indefinite article, as in *an arena*. It is not felicitous when the antecedent is introduced by the definite article *the arena*; in this case Otto's use of a definite noun phrase suggests that he is referring to a particular arena that has already been established as a part of the interlocutors' common ground. However, the same answer, *I don't know*, which seems an odd response following a typical definite like *the arena*, is natural when the antecedent is instead *the hospital*. The intuition is that despite having the form of a definite noun phrase, *the hospital* need not introduce or refer to a uniquely identifiable referent, though, of course, this standard referential reading may also be available.

In this paper, we use judgment data from behavioral experiments to explore some of the properties of weak definite noun phrases. We assume that weak definites arise as a result of an incorporated construction in which e.g. “hospital” occurs as part, and which is interpreted as an event of being in, or coming to be in one (i.e. hospital) for purposes of receiving medical care—the canonical purpose of a hospital stay. We examine four questions that arise from this incorporation framework:

1. Does behavioral evidence confirm the intuition that weak definite noun phrases do not uniquely refer, and if so, do the same nouns exhibit similar properties when paired with indefinite articles?
2. As suggested by the incorporation framework, does a weak definite noun phrase evoke an event (e.g. hospital-visiting, bus-riding, radio-listening), and if so, is that also the case for the same noun phrase with an indefinite article?

3. Are there conceptual factors that play a role in promoting weak definite interpretations?
4. What, if anything, does the definite article contribute to the interpretation of a weakly referential noun phrase?

1.1. Weak definites: additional properties and a possible analysis

Examples of similar definite noun phrases that do not uniquely refer have been identified in a wide variety of languages other than English, including Germanic, Romance, and Celtic languages, and certainly more broadly than that, including possibly in spoken languages such as Korean and Russian and at least one signed language, the Brazilian Sign Language, Libras (Machado de Sá, Lourenço de Souza, & Cunha Lima, 2013), that have no definite articles (Lee, 2012). In English, weak definite readings appear to be restricted to specific nouns. For example in (2a) below, although *radio* allows a weak interpretation in a definite noun phrase, this is not necessarily true of related nouns like *record* in example (2b):

- (2) a. Benedict listened to the radio, and Tracy did too.
 b. Benedict listened to the record, and Tracy did too.

Example (2a) allows a weak interpretation in which Benedict and Tracy listened to different radios, but (2b) does not. While it seems plausible for Tracy to have listened to a different copy of the same record (i.e. a different token of the same album), it is not consistent with the sentence for Tracy to have listened to a record with different content; if Benedict had been listening to some recording of *Blood on the Tracks*, Tracy could not have been listening to *Modern Times*.

Although weak definite interpretations in English are lexically restricted, the noun is not the sole determinant of a weak interpretation. Restrictive modification, as with the adjective in (3), typically forces a regular definite interpretation:

- (3) Benedict listened to the new radio and Tracy did too.

Modifying *radio* with *new* emphasizes one property of a referent, which sets this radio apart from other possible radios. Thus the modified phrase supports only a typical definite interpretation. Weak definites are further restricted by the need to co-occur with, or be “governed by,” certain other lexical items, such as verbs and prepositions. For example, *look at the radio* or *park near the hospital* do not have weak readings despite the fact that the noun (*radio*, *hospital*) under other circumstances allows a weak reading.

The lexical restrictions and co-occurrence sensitivity of weak definite noun phrases raises the possibility that they are idioms, where a closed set of words and phrases lead to a richer meaning than their literal components would suggest. While we take “idioms” to be a part of a gradient class of collocations (Nunberg, Sag, & Wasow, 1994; see also Goldberg, 1995), weak definites do not share all the characteristics of those collocations most commonly referred to as idiomatic. Like idioms, the particular identity of the noun is critical to accessing the enriched meaning. Unlike idioms, however, the noun's regular meaning contributes to the whole: there is some hospital involved in (1) and some

¹ For example, if someone asks, “Is this the train to Newcastle?”, the purpose in asking is to find out which train in the context satisfies the description; obviously the speaker is unable to “identify” the train despite the use of the definite description.

Download English Version:

<https://daneshyari.com/en/article/926712>

Download Persian Version:

<https://daneshyari.com/article/926712>

[Daneshyari.com](https://daneshyari.com)