

Investigating the enriched meaning of regular and weak definites and indefinites

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Jung, Hyun Cheol. 2017. Investigating the enriched meaning of regular and weak definites and indefinites *SNU Working Papers in English Linguistics and Language* 15, 27-39. Sentences with weak definites typically carry enriched meanings that go beyond literal meanings formed by a straightforward composition of their constituents. Aguilar-Guevara and Schulpen (2011) devised a method to test whether enriched meanings are part of the semantics of weak definite constructions or arise as pragmatic inference. In this paper, their suggestion that enriched meaning could arise from world knowledge associated with nouns is tested by performing an experiment with an abbreviated form of their method. The enriched meaning of sentences containing weak definites, regular definites, and their indefinite counterparts were compared. The results show that enriched meanings of sentences were broadly similar regardless of whether nouns that take a weak definite had a definite or indefinite article. This suggests that enriched meaning of weak definites can be attributed to the nouns themselves, rather than the construction they are a part of. (Seoul National University)

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1. Introduction

Weak Definites are expressions that, in contrast to regular definites, do not refer to uniquely identifiable individuals:

- (1) *Context.* Lola traveled by train from Amsterdam to Nijmegen, but she actually made a transfer halfway.
Sentence. Lola took the train from Amsterdam to Nijmegen.
(Aguilar-Guevara, under review)

Notice here that the weak definite *the train* does not refer to a single train. Sentence (1) can be said to be describing the situation of taking two separate trains. Contrast this with the following:

(2) *Context.* Mark traveled by plane from New York to San Francisco, but he made a transfer halfway.

Sentence. #Mark took the plane from New York to San Francisco.

Here the regular definite *the plane* refers to a single plane, and the sentence cannot be said to be describing the situation at hand.

The difference between regular and weak definites regarding unique reference is reflected in sentences containing elided verb phrases. In sentences with a regular definite in the overt VP, the elided verb phrase is referentially linked to the overt one so that the elided definite must refer to the same entity that the overt definite refers to (Aguilar-Guevara, under review). In the following, Lola and Alice must have gone to the same restaurant/judge/farm:

(3) Lola went to the restaurant / the judge / the farm and Alice did too. (Aguilar-Guevara & Schulpen, 2011)

In contrast, in weak definite sentences the definites can receive a “sloppy” interpretation, that is, the definite of each verb phrase can have a different value (Aguilar-Guevara, under review). In the following, Lola and Alice could have gone to different hospitals/doctors/stores:

(4) Lola went to the hospital / the doctor / the store and Alice did too. (Aguilar-Guevara & Schulpen, 2011)

In addition to non-unique reference, weak definites display a range of other special properties. One of these is the incapacity to keep the weak reading when they are modified. In the following, Lola and Alice must have gone to the same hospital/doctor/store:

- (5) Lola went to the old hospital / the old doctor / the old store and
Alice did too. (Aguilar-Guevara & Schulpen, 2011)

Another property, the focus of this paper, is that sentences with weak definites carry more information than what seems to be conveyed by a straightforward *literal meaning* (LM). This is termed *enriched meaning* (EM).

- (6) Mark went to the supermarket.
LM = Mark went to a supermarket.
EM = Mark went to do grocery shopping.

EMs at first glance could be construed as idiomatic, where a closed set of words and phrases lead to a richer meaning than their literal components to suggest. Unlike idioms, however, the noun's regular meaning contributes to the whole: there is some supermarket involved in (6), whereas for an idiom like *let the cat out of the bag*, there is neither a cat nor a bag involved. Furthermore, unlike idioms, synonymous words in weak definite phrases often can be interchanged while preserving the enriched and non-unique interpretation, as in example (7), where *took the train*, *rode the train* and *caught the train* all allow weak interpretations. In contrast, this is not typically true for idioms, as can be seen in example (8). The idiomatic interpretation of *bit the bullet* is not available for the related verbs *nibbled* and *chewed* (Klein, Gegg-Harrison, Carlson, Tanenhaus, 2013).

- (7) Mark took / rode / caught the train.

- (8) Mary bit / nibbled / chewed the bullet.

In fact, it seems possible that EMs are grounded in the nouns themselves, and the world knowledge that comes with them. This is based on the observation that EMs typically involve the characteristic purpose of use

of the object designated by the weak definite in question (Aguilar-Guevara, under review). They designate musical instruments, communication devices, means of transport, establishments, home spaces, machines, professions, and natural places associated with particular functions.

- (9) Musical Instruments: Mark played **the oboe** and Mary did too.
- Communication Devices: Mark listened to **the radio** and Mary did too.
- Means of Transport: Mark took **the train** and Mary did too.
- Establishments: Mark had money in **the bank** and Mary did too.
- Home Spaces: Mark ran to **the bathroom** and Mary did too.
- Machines: Mark ran on **the treadmill** and Mary did too.
- Professions: Mark called **the doctor** and Mary did too.
- Natural Places: Mark went to **the beach** and Mary did too.

EMs are always linked to these purposes of use. For example, the EM of *Mark went to the supermarket* is that Mark went to buy some groceries, and the purpose of supermarkets is to sell groceries. Hence, it is possible to say that EMs are grounded in the lexical semantics of nouns.

That EMs may be the property of nouns, rather than the weak definite construction, follows from the intuition that EMs do not seem to be limited to weak definites. For example, it is possible that for the regular definite *the restaurant* to have an EM, much like the weak definite *the supermarket* in (6):

- (10) Mark went to the restaurant.
- LM: Mark went to the restaurant.
- EM: Mark went to have a meal.

It also seems possible for *indefinite* constructions with regular (11) and weak (12) definites to have EMs:

(11) Mark went to a supermarket.

LM: Mark went to a supermarket.

EM: Mark went to do grocery shopping.

(12) Mark went to the restaurant.

LM: Mark went to the restaurant.

EM: Mark went to have a meal.

The similarities and differences between EMs of regular and weak definites, as well as those of indefinite constructions with regular and weak nouns, is investigated in this paper. More specifically, the claim that nouns themselves give rise to EMs independently of definite and indefinite constructions is investigated.

2. Previous Study

In “Understanding the Meaning Enrichment of Weak Definites”, Aguilar-Guevara and Schulpen devised a method to test whether EMs are part of the semantics of weak definite constructions or arise as pragmatic inference. In short, it was a method of testing the relative “strength” of EMs of weak definites and regular definites, while accounting for the modification effect exemplified in (5), where weak definites do not keep their non-uniqueness when they are modified. To paraphrase, sentences like the following were constructed:

(13) The tall mailman went to the hospital. The tall mailman went to the restaurant. The tall mailman went to the new hospital. The tall mailman went to the new restaurant.

Given these sentences, participants were asked why an agent (the mailman) went to a location (the hospital, the restaurant). Because both the agent and the location are associated with typical activities which conflict with each other, one had to override the other. Participants could give either *agent reason interpretations* (ARIs) or *location reason interpretations* (LRIs)—that is, ARI: *the mailman went to the hospital to deliver letters*, or LRI: *the mailman went to the hospital to receive medical attention*.

Crucially, Aguilar-Guevara and Schulpen tested the effect of modification. In comparing the effect of modification on weak definites and regular definites, it was possible to see whether EMs are dependent on the weak definite construction (i.e. are part of its semantics), or if they arise independently of the construction they are in (i.e. are a pragmatic inference). If EMs are semantic rather than pragmatic meanings, an interactional effect between type of definite and modification was predicted to be seen, with modification blocking EMs more strongly on weak definites than on regular definites. Their results were as follows:

Table 1. Observations per type of definite corresponding to LRI and to ARI (Aguilar-Guevara & Schulpen, 2011)

Type of definite		Type of interpretation		
		ARI	LRI	total
regular definite	non-modified	93 (54.4%)	78 (45.6%)	171
	modified	116 (67.1%)	57 (32.9%)	173
	total	209 (60.8%)	135 (39.2%)	344
weak definite	non-modified	38 (21.7%)	137 (78.3%)	175
	modified	53 (31.5%)	115 (68.5%)	168
	total	91 (26.5%)	252 (73.5%)	343

Looking at the proportion of ARIs and LRIs in the “totals” for regular definites and weak definites, for regular definites there was a tendency

towards ARIs and for weak definites towards LRIs. The results showed that EMs of weak definites are stronger than those of regular definites, and consequently, one could conclude that weak definite *constructions* impart “stronger” EMs than regular definite *constructions*.

The modified figures suggest however that an interaction effect between type of definite and modification, with modification having a stronger blocking effect on weak definite EMs than on regular definite EMs, did not occur. With this result Aguilar-Guevara and Schulpen concluded that it was unclear whether EMs are part of the semantics of the weak definite construction (Aguilar-Guevara & Schulpen, 2011). They raised the possibility that EMs arise due to pragmatic effects, that is, lexically triggered world knowledge associations. They also raised the possibility that the strength of EMs is due to the nouns themselves rather than the weak/regular definite distinction. It could be that weak definite nouns trigger world knowledge associations that are more robust than those associated with the nouns occurring in regular definite constructions (Aguilar-Guevara & Schulpen, 2011).

3. Current Study

The aim of this paper is to test whether EMs rise independently of the definite construction by repeating parts of the previous study by Aguilar-Guevara and Schulpen (2011) with indefinite constructions as well as definite constructions. The choice to use indefinite constructions is motivated by the need to isolate regular and weak nouns from the definite constructions, and to see the interactional effect of nouns and articles.

It can be predicted that, if EMs are a property of nouns, preference for LRI and ARI in weak definite and regular definite constructions will be similar to the preference in weak indefinite and regular indefinite constructions. However, if EMs are part of the construction itself and the interactional effect of noun and definite article use, there should be a

clear preference for ARI in indefinite constructions, as the EMs would be “weaker” without the definite article that constitutes a part of their meaning.

3.1. Experiment

Inspired by the previous experiment of Aguilar-Guevara and Schulpen, this study tested the interpretation of sentences describing an agent going to a location, which was expressed by a weak or regular definite, a modified counterpart of either of these, and the indefinite counterparts of the non-modified and modified definite sentences. Both the agent and the location are associated with typical activities which conflict with each other, so that one must override the other.

3.2. Participants

A total of 5 native Korean speakers who have lived in primarily English-speaking countries for 7 to 15 years and 8 native English speakers participated in the experiment. The participants had an age range of 18 to 23. The 5 native Korean speakers, all of whom were living in the United States at the time of the experiment, all went to middle school, high school and university in the United States, and used English as their primary language of communication for 9 months out of the year. Among the native English speakers, 7 were born in the United States and 1 was born in the United Kingdom.

3.3. Materials

A total of 40 sentences of the type *the* [typical activity agent] *went to the/a/an* [typical activity location NP] was constructed. Each sentence contained one of 5 agent definites and one of 5 weak definites, 5 regular definites, and their modified versions for a total of 20 sentences, as well

as the same sentences with only differences being the indefinite article, for another 20 sentences.

The weak definites used, *the dentist, the hospital, the museum, the bike repair shop, and the supermarket*, and the regular definites used, *the estate, the restaurant, the castle, the lake, and the monument*, were all empirically identified as such by Schulpen by testing for the possibility of “sloppy readings” in VP-ellipsis constructions, as demonstrated by example (3) and (4) above. Like in the experiment by Aguilar-Guevara and Schulpen (2011), the agent definites appeared modified in every sentence to counterbalance a possible saliency effect of the location noun modifiers.

3.4. Method

Test takers took a Google Forms survey with the 40 constructed sentences, which were ordered randomly for every test taker. The test takers were asked to imagine the scene that the sentence described and write down in short answer form “why did he/she do that?” The answers were then found to be either agent reason interpretations or location reason interpretations, according to a list of stereotypical activities associated with the agents and the locations as identified by Schulpen (2011) (see table 2 and 3). Interpretations that could not be identified as ARIs or LRIs were discarded.

Table 2. Typical activities associated with agent nouns.

Agent	Prototypical Activity
Newspaper delivery guy	To deliver newspapers
Fire fighter	To fight fires
Journalist	To report on something
Mailman	To deliver mail
Delivery guy	To deliver packages

Table 3. Typical activities associated with weak definite location nouns (left column) and regular definite location nouns (right column).

Item	Prototypical Activity	Item	Prototypical Activity
Dentist	For dental care	Estate	To do sightseeing
Hospital	For medical help	Restaurant	To have dinner
Museum	As a cultural outing	Castle	To do sightseeing
Bike Repair Shop	To get a bike fixed	Lake	For lake fun
Supermarket	To buy groceries	Monument	To do sightseeing

4. Results

Table 4. Interpretation per type of definite or indefinite corresponding to LRI and ARI.

Type	ARI	LRI	Total
Regular Definite Non-modified	34 (53.1%)	30 (46.9%)	64
Regular Definite Modified	41 (66.1%)	21 (33.9%)	62
Total	75 (59.5%)	51 (40.5%)	126
Regular Noun with Indefinite Non-modified	37 (57.8%)	27 (42.2%)	64
Regular Noun with Indefinite Modified	25 (39.7%)	38 (60.3%)	63
Total	62 (48.8%)	65 (51.2%)	127
Weak Definite Non-Modified	9 (15%)	51 (85%)	60
Weak Definite Modified	36 (55.4%)	29 (44.6%)	65
Total	45 (36%)	80 (64%)	125
Weak Noun with Indefinite Non-modified	11 (17.2%)	53 (82.8%)	64
Weak Noun with Indefinite Modified	14 (22.9%)	47 (77.1%)	61
Total	25 (20%)	100 (80%)	125

Participants chose LRIs more often in weak definite constructions than in regular definite constructions. This was expected given the relative

strength of EMs in weak definite constructions that had been found in the previous study by Aguilar-Guevara and Schulpen.

In terms of modification, the effect of modification was present more strongly in weak definite constructions than in regular definite constructions. For non-modified weak definites, LRIs were heavily preferred at 85 percent compared to ARIs at 15 percent. This contrasts with the modified weak definites, where ARIs were the preferred reading, at 55.4 percent compared to LRIs at 44.6 percent. This is not in line with the results of the previous experimenters, who did not find a significant modification effect.

For indefinite constructions, the participants chose the LRI more often in weak definite constructions than in regular indefinite constructions. Generally speaking, the proportions of ARI and LRI are similar for the definite constructions and the indefinite constructions.

In terms of modification, the effect of modification was present more strongly in regular indefinite constructions than in weak indefinite constructions. For weak indefinite constructions, the proportion of ARIs and LRIs stayed similar regardless of the presence of modification. In contrast, modification seems to have affected regular indefinite constructions. Whereas there was no noticeable difference between the proportion of ARIs and LRIs in modified and non-modified regular definite constructions, there was a modification effect in regular indefinite constructions. For non-modified regular indefinites, the proportion of ARIs and LRIs was 57.8 percent and 42.2 percent, respectively. For modified regular indefinites it was 39.7 percent and 60.3 percent, respectively.

5. Discussion and Conclusion

This experiment was based on the previous work of Aguilar-Guevara and Schulpen on the nature of EMs. In an experiment procedurally similar to

the one presented here, it was found that EMs lead to a greater preference for LRIs in weak definite sentences than in regular definite sentences. However, in their findings, it was not the case that modification significantly blocked the location reason interpretation of weak definite sentences. This led Aguilar-Guevara and Schulpen to the conclusion that their case for EMs as a part of the semantics of the weak definite *construction* was unsubstantiated. They therefore looked forward to experimentation which could shed light on EMs arising from the world knowledge associated with nouns. In the current research then, an abbreviated form of their experiment with the addition of indefinite constructions was then performed, to the effect of unlinking nouns and the definite articles.

It was predicted that if EMs are properties of nouns, the proportions of ARI and LRI would be similar for the definite and indefinite constructions, given that the nouns were the same. This was indeed found to be the case. Weak location nouns were found to have stronger EMs than regular location nouns regardless of whether they were in weak or regular constructions. This suggests that nouns themselves play an import role in giving weak definites their strong EMs.

However, it should also be noted that the impetus for treating EMs as the property of nouns was the finding of Aguilar-Guevara and Schulpen that modification did not block the EM of weak definites. It had been previously found that modification blocked the non-uniqueness interpretation of weak definites (Schulpen, 2011). It was therefore assumed that, if EMs were semantic property of the construction itself, the modification would also block the EM of weak definites. That the EM was blocked would be seen in the way that for modified weak definites, the proportions of ARIs would be higher than for non-modified weak definites. This is precisely what was found in the present experiment. It is unclear what caused this disparity, although differences in experimental procedure could have played a part.

Another finding of this experiment was that modification affected regular indefinites such that modification strengthened the EM of a regular location noun, although modification did not affect regular definites as such. This could mean that, at least for regular indefinite location nouns, modification in fact draws attention to the stereotypical use of the location. This result should be investigated further, but, the effect of modification is outside the immediate scope of this paper, as the focus is on the nouns themselves.

The result of this experiment thus seems to suggest it is possible to attribute EMs to the semantics of the weak definite construction, as well as attributing them to the nouns themselves.

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