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Constituting Context: Null Objects in English Recipes Revisited

Emily Bender

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Constituting Context: Null Objects in English Recipes Revisited
1 Introduction

This paper addresses the problem of null objects in English recipes. In general, English does not allow zero realization of object noun phrases. However, as shown in (1), Sandy prepared the deep-fried tofu and Kim devoured it. This paper addresses the problem of null objects in English recipes.

Emily Bender

Null Objects in English Recipes Revised

Context

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Null Objects in English Recipes Revisited
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1. Introduction

This paper presents a very interesting diachronic study of null objects in English. Culley (1996) VARBRUL analysis of null objects in recipes.

Culley's modern corpus consisted of the direction portions of 50 recipes, 10 from each of five modern cookbooks. Each recipe was a complete recipe portion from one cookbook. Culley coded each noun phrase either as a noun phrase or null. Culley coded the data for the factors shown in Table 1. The dependent variable was the form of the noun phrase, either noun, pronoun or zero. Culley included the referent of the opaque noun phrase in the same table. There were two syntactic factors, the morphological form of the selecting verb, and the grammatical function of the antecedent. Culley included two semantic factors, the number of clauses to last mention. Finally, Culley included the number of clauses in the recipe.

2. Data

This section presents the data to be accounted for by any analysis of null objects in recipes.

Table 1. Factors in Culley's Study

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting verb</td>
<td>Morphological form of the selecting verb</td>
</tr>
<tr>
<td>Antecedent</td>
<td>Grammatical function of the antecedent</td>
</tr>
<tr>
<td>Referent</td>
<td>Semantics of the antecedent</td>
</tr>
<tr>
<td>Number of clauses</td>
<td>Lookback, the number of clauses to last mention.</td>
</tr>
<tr>
<td>Cookbook</td>
<td>Source cookbook indexed by style.</td>
</tr>
</tbody>
</table>

2.1 Null Objects in Recipes

Null objects in recipes.

Null objects in recipes are common in English, according to Culley's (1996) VARBRUL analysis of null objects in recipes.

This section presents the data to be accounted for by any analysis of null objects in recipes.
pronominals, that is, zeros and pronouns together. In fact, when Culy restricted pronouns to bare pronouns and zero as well as the stylistic

2.2 Null Objects Outside Recipes

Although most studies of null objects use recipes as data, null objects also occur in other contexts. Sadock (1974) discusses null objects in product labels (3) and Fitzpatrick et al. (1996) find them in Navy message narratives (4). If they occur in other contexts, Sadock (1974) discusses null objects in product labels.

Although most studies of null objects use recipes as data, null objects also occur in other contexts. Prasad (1974) discusses null objects in product labels.

Table 1: Factor groups in Culy 1996

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Distance to last mention</th>
<th>Reference of the object NP</th>
<th>Referent of the object NP</th>
<th>Indefinite, none of indefinite</th>
<th>Syntactic</th>
<th>Semantics</th>
<th>Discourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>Cookbook code</td>
<td>number of clauses (max 20)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discourse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semantic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Syntactic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Verbal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Pronoun zero</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CONSTITUTING CONTEXT

Group

Factors

Type

form

noun, pronoun, zero

dependent

verb form

imperative, present part

non-verb, pronoun zero

Pronouns
Emily Bender

The CIA (Culinary Institute of America),

"They come from two chefs who both sounded like native speakers of English."

(5) The vinaigrette is just simple.

(2) The vinaigrette is just simple, it is lemon juice with a little bit of salt. When you make a vinaigrette, it's good to add salt and make a bit of an emulsification. You want to make sure you taste your vinaigrette.

(4) We're gonna plate it now. When you plate, make sure that you give the fennel some height.

(7) Okay, we're also gonna add some tomato, the littlegreen husk tomatoes, some cilantro, and a little bit of tomato paste. And season with a little salt.
3.1 Culy 1996

Culy’s answer to the problem of the restricted distribution of null objects is to make use of a separate component of linguistic knowledge. He writes, the user’s manual then specifies what to do with free variables. (Culy 1996: 113) Therefore, if the user’s manual has rules for interpreting free variables in the current context, then the null object is allowed. Otherwise, if there are no rules for free variables, then their use is ungrammatical.

\[
\begin{array}{c}
\text{Verb: mix} \\
\text{Subcategorization:} \\
\text{NP:} \\
\text{SUBJ} & x \\
\text{AGT} & y \end{array}
\]

\[
\begin{array}{c}
\text{NP:} \\
\text{OBJ} & z \\
\text{TH} & w \end{array}
\]

Here, \( x \) and \( y \) are variables in the semantics. If the object is realized overtly, then the variable \( z \) is linked to the semantics of that noun phrase. If it is not realized, then it remains a free variable in the semantics.

\[
\begin{array}{c}
\text{semantics:} \\
\text{mix} (x, y) \\
\text{subject restrictions:} \\
\text{NP:} \\
\text{SUBJ} & x \\
\text{AGT} & y \end{array}
\]

\[
\begin{array}{c}
\text{NP:} \\
\text{OBJ} & z \\
\text{TH} & w \end{array}
\]
Emil Bender

58. Haegeman (1987) provides an account of the multiple grammatical types. She argues that “register variation” is an instance of language-internal parametric variation. That is, that the registers of a language may differ from each other in their parameter settings (where parameters are understood as in Chomsky, 1981).

Syntactically, this is an empty category approach. Haegeman argues that null objects have properties akin to wh-traces and that they are in fact topic-linked traces. On the basis of this, she attributes the difference between recipe English and other English (the presence of null objects) to a difference in the setting of the parameter that is responsible for the differences between topic-prominent and subject-prominent languages. ‘Core’ English is subject-prominent while recipe English is topic-prominent.

4. The Relationship of Context to Register

In this section, I will argue that the two accounts discussed above involve a reification of context. Culy’s user’s manual makes reference to the context in order to determine the grammaticality of a string. This brings the relevant aspects of context into play, even though it is clear that context can only be defined in relation to the grammatical category of a string. The reference to the relevant context in a sentence dictates that the two accounts discussed above involve a reification of context.

However, I do not mean to imply that people do not have knowledge of certain contexts.
In recent years, there has been a move in sociolinguistic research from analyzing language as reflecting social structure to researching how language plays a part in constituting social structure. An important thread of research in this area is the notion of speaker identity and the ways in which language reflects and is shaped by these identities. For example, Eckert (in press) examines how high school students negotiate and display their identities through the use of language. In recent research, Kiesling and Schilling-Estes (1998) identify the various lines of research in this area and the differences between them. See also Cameron (1999).
EMILY BENDEK

Identity of speaker: One in authority, in the case of cookbooks.

Social situation: The giving of instructions, from one in authority.

The authority is that of a good cook. In the case of product packs...

4.2 A Social Value for Null Objects

The result of all these studies is to call into question the relationship between context and register, which was previously taken to be unproblematic. If language plays a role in constructing the context, then an account of the restricted distribution of null objects cannot appeal to context as an independent variable.

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However, as Penelope Eckert points out (p.c.), the three dimensions of social reality discussed here are all interrelated and speakers never do constitutive work in isolation. However, as Penelope Eckert points out (p.c.), the three dimensions of social reality discussed here are all interrelated and speakers never do constitutive work in isolation.
aging, the authors are faceless and the authority, in some cases, becomes that of the disembodied voice of truth.

Situation described: The use or production of the product described is constructed as requiring care—it must be done just so, or something will go wrong.

Alternatively, one may apply Ochs's (1992) theory of direct and indirect indexing. In this case, null objects might be associated only with the practice of giving instructions. The giving of instructions, in turn, would be associated with/constructed with authority and careful action. Note that it's the practice of giving instructions that is associated with authority (and with the null objects) and not simply the issuing of commands or the use of imperatives.

The authority ascribed to the author of a recipe is different from the power of a superior officer in the military, and imperatives can get used when the speaker has no authority in the speaker, his or her own, or in the speaker's audience. In this case, null objects might be associated with knowledge of grammar. Note that this doesn't preclude null objects from also having some other, distinct social value. Just as linguistic elements can be ambiguous in denotative meaning, there is no reason for them not to be ambiguous in social value.

To summarize, the view of the relation between contexts and linguistic forms is that speakers have knowledge of the social effect conventionally associated with individual words and constructions in the grammar and they deploy these linguistic resources in their speech and writing to constitute context and the other dimensions of social reality. This view doesn't rely on context already 'being there'; it also allows for speaker to use their linguistic competencies to generate fine-grained variations in context by combining various linguistic constructions and thus shift social meaning. This view also implies that the social effect conventionally associated with individual words and constructions in the grammar can also be associated with null objects.

The next section shows how this view of register can be incorporated into an analysis of null objects in the context of competence grammar.

5 HPSG analysis

This view of the relationship between context and register articulated in the previous section demands a theory of grammar which can associate social information with words and with syntactic constructions. One theory which can make this association directly is Head-driven Phrase Structure Grammar (HPSG), and in particular recent versions of HPSG which incorporate the social values of sentences. The social values of sentences are assigned directly to the sentences by the HPSG, and the social values of words are assigned directly to the words by the HPSG. The social values of syntactic constructions are assigned directly to the constructions by the HPSG.

I am indebted to Mary Rose for pointing this out.
The details of the construction that licenses the non-branching VP are given in (12).

\[ \text{(12)} \]

\[ \text{(11)} \]

The analysis I propose is of the semantic account type. In particular, it involves a non-branching rule that discharges one noun phrase complement requirements by means of a detaching argument.

HPSG views grammar as a system of signs. Signs are primitives of form and function, and meaning is encoded in structure. These signs (phonological and syntactic) are associated with meaning (semantics and pragmatics). These signs are modeled with feature structures. These structures are encoded in feature structures.

Two others are Construction Grammar (Kay and Fillmore 1999) and Word Grammar (Hudson 1990).
In this rule, the feature $\text{SYNSEM}$ represents information about the mother node. (More precisely, the information to the right of the string $\text{SYNSEM}$ is the value of this feature. It is this value which represents information about the mother node of the feature.) This information is broken down into three parts: context information about the current situation, information about the speaker, and information about the situation described. These will be encoded in new feature called social context inside the rule. This information can be encoded in a new feature called social context. The rule then states that the first element of the daughter's complements list should be specified as a pro $\text{SYNSEM}$. (The complements list is empty.) Then with the rest of the daughter's original complement requirements, the mother's complement requirements are the same as the rest of the daughter's original complement requirements. Therefore the possibility of null objects appears to be more restricted with verbs than with prepositions (examples from Massam and Roberge 1989:136):

(14) a. Take the lemon juice and chopped parsley. Then sprinkle scallops with immediately.

b. Cover cookies immediately.

However, the possibility of null objects appears to be more restricted with verbs than with prepositions (examples from Massam and Roberge 1989:136):

(15) a. Take foil.* Cover cookies with immediately.

b. Mix the lemon juice and chopped parsley. Then sprinkle scallops with immediately.

(13) Do not play in or around...
Culy's first objection is that semantic accounts fail to capture the similarities between null objects and overt pronouns. The reason for this is that null objects would have to have been introduced by the verb, while overt pronouns are the verb's own signs.

On my analysis, then, null objects are introduced by a construction, which would have the same problem except that they are represented via a special synsem type, the pro synsem. The parallelism between null objects and overt pronoun objects can be represented in terms of synsem types. (15) gives a partial depiction of the type pro synsem. Two of the dimensions these synsem types are classified on are their canonicity and whether or not they are pronominal. Non-canonical synsem types are those whose positions do not correspond to any phrase structure position. Thus the pro synsem, which never corresponds to any phrase structure position, has a pro synsem type.

Culy's second objection is that semantic accounts fail to capture the similarities in general that are supposed to exceed register information in...
Culy also objected that creating special entries for verbs to introduce the null object constituted an unnecessary, unmotivated, and unwieldy increase in the size of the lexicon. By using a construction instead, this analysis entails no increase in the size of the lexicon.

As a second set of tests of syntactic adequacy, there are the properties that Haegeman (1987) used to identify the empty category he posited as a wh-trace. First, there is the fact that it's syntactically active, i.e., can control the unexpressed subject of an adjunct of an infinitival complement:

- A. Bake until golden brown.
- B. Allow to cool.

Here, the null object (of bake or allow) is controlling the unexpressed subject whose position on the argument structure list of the matrix verb is specified.

Second, Haegeman’s account predicts that null objects should license pronominal gaps, as in (18) (1987:244):

10. Dry with a clean towel before you deep-fry.

On my analysis, this sentence would involve two separate instances of the null object construction, one for each verb. This predicts the existence of sentences like the authentically incorrect (19):

11. I think this example is considerably improved if the verb in the adjunct is non-finite, as in before deep-frying.

Haegeman also tried to show that null objects obey island constraints, but the purported island violations only degrade the null object examples to ?, while parallel wh-movement examples are rated *(Haegeman 1987:240–241):

(i) a.? Boil eggs for the salad while you roast.
    b.* What did you boil eggs while you roasted?

Thus it would appear that the marginal status of (ia) requires a different explanation.
6 Conclusion

In this paper I have advocated two things: first, a view of the phenomenon called register in which register helps to constitute context rather than simply reflecting it; and second, a view of grammar where social information is incorporated along with traditional grammatical information.

In this concluding section I would like to ask whether the first conclusion entails these second. To put it differently, could either of the other views of grammar be made to accommodate the view of context and register advocated here? However, there is some reason to believe that might become unwieldy. In the case of null object, Culy was able to elegantly avoid replicating the grammatical information. Operations, Culy was able to elegantly avoid replicating the grammatical information. However, in the case of null object, Culy was able to elegantly avoid replicating the grammatical information. In this case, it seems preferable to move the social information into the grammar.

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References

Cameron, Deborah. 1990. Demystifying sociolinguistics: Why language does not


