Accent and Description: an account of anaphoric epithets

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Definite descriptions, like *the pig* behave differently in prosodically prominent (2) and non-prominent (1) environments. (I hate Jack but . . .)

(1) Mary KISSED the pig. epithet: *the pig* = Jack

(2) Mary kissed the PIG. standard: *the pig* ≠ Jack

In (2) the definite description picks out a uniquely salient pig. In the unaccented environment (1) the definite description *the pig* is an anaphoric epithet. Jackendoff (1972) analyses these epithets as a special class of pronouns due to their prosodic properties and their coreference to some antecedent. In (1) for example the epithet is coreferential with the discourse entity Jack. Jackendoff comments that any analysis that fails to treat them pronominally misses an important generalization. The semantic analysis of anaphoric epithets presented here endeavors to capture Jackendoff's generalization and implement it compositionally. Following Potts (2003) the nominal in an anaphoric epithet, e.g. *pig* in (1), is analyzed as Convetional Implicature (CI) element. The indexed definite article proposed by Elbourne (2005) is incorporated accounting for pronominal behavior. One implication of this synthesis of Elbourne and Potts's proposals is a structural difference between standard and anaphoric definite descriptions. Anaphoric definite descriptions include an argument of the definite article that influences accent placement algorithms.

Umbach (2002) provides a recent analysis of deaccented definite descriptions within Discourse Representation Theory that takes Jackendoff's generalization seriously. Under her approach accented definite descriptions uncontroversially achieve uniqueness through their descriptive content. In contrast de-accented definites behave like pronouns in achieving uniqueness through identification with a previously introduced discourse entity.

Umbach's account analyzes the descriptive content of de-accented definites as a presupposition. Her discussion makes clear however that it is better categorized as a conventional implicature (CI) element (Potts 2003). Potts identifies four defining characteristics of conventional implicatures (p. 9):

1. They are part of the conventional (lexical) meaning of words.
2. They are commitments, and thus give rise to entailments.
3. The commitments are made by *the speaker of the utterance* "by virtue of the meaning of" the words he chooses.
4. They are logically and compositionally independent of what is "*said* (in the favored sense)", i.e., independent of the at-issue entailments.

The most telling evidence for the CI view of the epithetic nominal is its independence from the main proposition of the sentence. In (1) this independence is evident in two ways. First the NP *pig* plays no role in constraining the identity of the referent. In a standard definite description of the form *the pig* the referent must be a pig in either a literal or metaphorical sense. In the de-accented case in (1) neither the literal nor the metaphorical sense must be true of Jack. Reference to Jack is in no way impeded by the knowledge that Jack is human, and thus not a literal pig. Reference is just as unimpeded in a situation where the hearer has a high opinion of Jack, and would reject an assertion that Jack is metaphorical pig. It is understood that the epithetic NP is not an objectively valid characterization of a referent, but is rather valid relative to the speakers opinion. This speaker relativization is as predicted by the third point in the above characterization

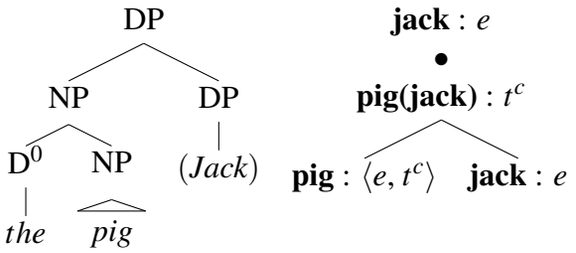
of CIs. If the speaker's opinion of a discourse entity is common knowledge then it can be argued that that opinion can be used to evaluate whether a referent meets the condition provided by an epithetic definite description. But note that reference is just as felicitous in (3) where presumably B's opinion of Jack is news to A.

(3) A: Jack is such a nice boy, aren't you glad he came to visit?
B: Why would I be? I HATE the bastard.

The second, though related, demonstration of independence comes from considering the propositional content of (1). The single sentence conveys two propositions. The main, at-issue, proposition that *Mary kissed Jack* and a secondary proposition that *Jack is a pig*. Notice that the truth value of this secondary proposition has no effect on the truth value of the at-issue proposition. Importantly, the at-issue proposition is not rendered false or undefined when the secondary proposition *Jack is a pig* is judged false. This is unexpected if the descriptive content of the de-accented definite is presupposed, but it is expected if it is a conventional implicature.

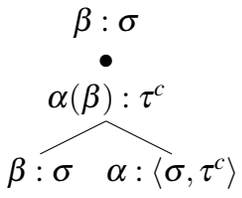
The analysis that Potts provides of anaphoric epithets rests on his foundational assumption that no lexical item contributes both an at-issue and a CI meaning. Since under his analysis the descriptive content of the epithet contributes a CI it cannot provide the referential at-issue meaning. Potts proposes that epithets are appositive modifiers on names with the name contributing the at-issue meaning. When there is no overt name, a free variable takes its place in the syntax. Thus he proposes epithets have the structure in (4) (based on Potts 2003, p. 232).

(4)



(4) shows both a syntactic tree and a semantic parsetree. The parsetree is licensed by Potts's rule of CI function application shown in (5).

(5)



This rule states that a CI functional element can take an at-issue argument and return a pair consisting of the same argument and the saturated CI function. In (4) the CI NP *pig* takes the at-issue entity *jack* as an argument and returns both *jack* and the proposition that he is a pig.

One difficulty with Potts's proposal is the analysis of the definite article as semantically null. This requires a dichotomous definite article. In standard definite descriptions the article takes a property and returns an individual the property is true of, while in anaphoric epithets the article does nothing. It further requires that for anaphoric epithets there is an element that is phonologically contentful but semantically null, the determiner, and an element that is semantically contentful but phonologically null, the free variable.

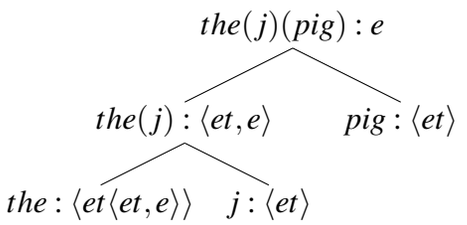
There is some reason to believe that the definite article is not null, and in fact might contribute the anaphoric properties observed in de-accented definite descriptions. Elbourne (2005) proposes a unified semantics for pronouns and the definite article in English to account for donkey anaphora. Based on German data Schwarz (2009) argues for two distinct classes of definites one of which, his "strong definite" has the same anaphoric properties as Elbourne's definite article. Schwarz observes that in German epithets must appear with the strong definite article which lends support to an anaphoric analysis of the definite article in English epithets.

Further support comes from Aoun and Choueiri's analysis of anaphoric epithets in Lebanese Arabic (Aoun and Choueiri 2000). They localize the anaphoric properties of epithets in Lebanese Arabic to a pronominal morpheme adjacent to the definite article. They suggest that *the* serves a similar function in English epithets. Following this suggestion, the present analysis attributes the referential behavior of anaphoric epithets to the definite article. This is implemented by adopting Elbourne's indexed definite article given in (6). This denotation for the definite article can be maintained across both standard and deaccented definite descriptions.

(6) $[\![\textbf{the}]\!] \equiv \lambda f_{\langle e,t\rangle}.\ \lambda g : g \in D_{\langle e,t\rangle}\ \&\ \exists! x(f(x)=1\ \&\ g(x)=1).\ \iota x(f(x)=1\ \&\ g(x)=1)$

In the standard definite descripition in (2) the determiner, type $\langle et\langle et,e\rangle\rangle$, combines with an index of type $\langle e,t\rangle$ and then a nominal of type $\langle e,t\rangle$ to yeild an expression of type e as shown in (7). Presupposing that there is exactly one individual to which the index maps and of which the property is true, the fully composed definite description will return that individual.

(7)



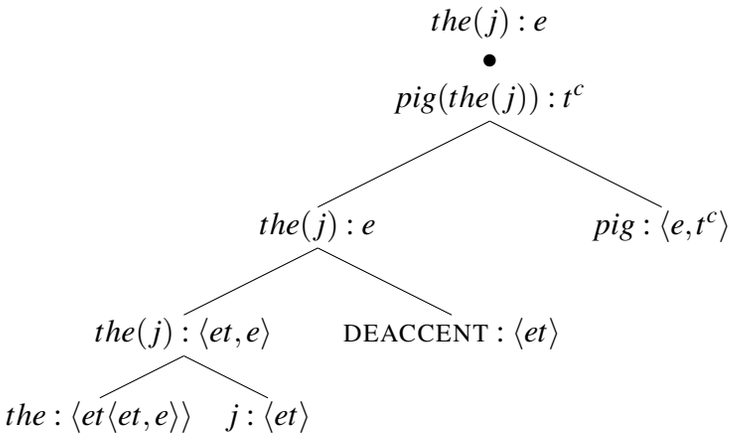
The composition of the de-accented definite description is more complicated. Recall that the descriptive content places no restriction on the identity of the referent. One explanation for this is that the CI NP may not be an argument of the definite article. Note also that the CI proposition expressed in (1), *Jack is a pig*, is predicational. It is unclear how this would fall out from an analysis where *pig* is a semantic argument of *the*.

In standard predications an entity is taken as the argument of a property. As a parallel case I propose that the CI property denoting noun phrase *pig* takes the indexed determiner as an argument. But with things as they stand composition cannot proceed due to a type mismatch. The NP *pig* is type $\langle e,t^c\rangle$ and as such requires an argument of type e. But the partially composed determiner/index complex is of type $\langle et,e\rangle$. I propose that the second argument of the definite article is saturated by an element which I call DEACCENT shown in (8).

(8) $[\![\textbf{DEACCENT}]\!] \equiv \lambda x[x=x]$

DEACCENT takes any individual and returns True. It saturates the second argument of the determiner without imposing any further constraints on the identity of the referent (cf. the void descriptions proposed by Leu 2005). This yields an expression of type e which can combine with the nominal via Potts (2003)'s rule of CI function application in(5). The output is a pair of an individual and a CI proposition (type t^c) concerning that individual. Composition is shown in (9).

(9)



This analysis readily extends to the Lebanese Arabic data reported in Aoun and Choueiri (2000). They observe that only when the demonstrative morpheme *hal-* is present can epithets behave as resumptive elements (10). Resumption is unavailable with the determiner *l-* (11).

(10) ʃəft **l-bənt** yalli btiftikro ʔənno **ha-l-habiile** ma rafi tərbafi s-sabaʔ
saw.1S the-girl that think.2P that this-the-idiot neg. fut. win.3SF the-race
'I saw the girl that you think that this idiot will not win the race.'

(11) *ʃəft **l-bənt** yalli btiftikro ʔənno **l-habiile** ma rafi tərbafi s-sabaʔ
saw.1S the-girl that think.2P that the-idiot neg. fut. win.3SF the-race
'I saw the girl that you think that this idiot will not win the race.'

Analyzing *hal-* as an indexed determiner yields the same composition. *Hal-* first combines with an index which determines reference, and then with DEACCENT yeilding an entity. That entity is taken as the argument of the epithetic NP *habiile* (idiot) to return the pair consisting of the entity and the proposition that that entity is an idiot. Presumably *l-* differs from *hal-* in lacking an index.

The analysis presented is a synthesis of the proposals of Potts (2003) and Elbourne (2005). Elbourne's indexed definite article is maintained across both standard and epithetic definite descriptions. In epithets the second argument of the determiner is saturated by the element DEACCENT. The saturated determiner is then taken as the argument of the CI property denoting NP.

DEACCENT appears to influence accent placement algorithms. One possible explanation is that DEACCENT actually does place some restrictions on its referent's information status. Future work will investigate the relationship between anaphoric definite descriptions and information status marking cross-linguistically.

References: Aoun, J., and L. Choueiri. 2000. Epithets. *Natural Language and Linguistic Theory* 18:139. (http://www.springerlink.com/content/wn08t01648616v55/) **Elbourne, P. 2005**. *Situations and individuals*. Cambridge, MA: MIT Press. **Leu, T. 2005**. Donkey pronouns: Void descriptions? In *Proceedings of NELS 35*, volume 2, 379-390. GLSA Publications. (http://pantheon.cis.yale.edu/ tl329/my_papers/leu05-donkey) **Potts, C. 2003**. The logic of conventional implicatures. Doctoral Dissertation, University of California, Santa Cruz. (http://www.stanford.edu/ cgpotts/dissertation/potts-dissertation-1up.pdf) **Schwarz, F. 2009**. Two types of definites in natural language. Doctoral Dissertation, University of Massachusetts, Amherst. (http://florianschwarz.net/FSDiss/FS-Diss_gradschoolformat.pdf) **Umbach, C. 2002**. (De)accenting denite descriptions. *Theoretical Linguistics* 27:251280. (http://www.cogsci.uni-osnabrueck.de/%7Ecumbach/papers/DeaccentingDD.pdf)