Reference in relation to descriptive content: the case of ACC-ing

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ACC-ing: a (non-)referential expression?

(1) Clay/him devouring the apple so quickly surprised me.

ACC-*ing* is a type of verbal gerund in English, with the following properties:

- V-ing takes direct object.
- Subject is in accusative case.
- ➤ ACC-ing allows for negation, perfect and adverbial modification. (Clay/him not having devoured the apple)
- ► ACC-*ing* appears in typical DP positions.

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Ouestion:

Is ACC-ing referential?

ACC-ing: a (non-)referential expression?

ACC-*ing* is usually compared with a similar construction, POSS-*ing*:

(2) Clay's/his devouring the apple so quickly surprised me.

While POSS-ing is a DP and a referential expression, ACC-ing has been analyzed as...

- ▶ a DP structure with a covert D (Abney 1987, Asher 1993);
- indefinite (Portner 1992);
- ▶ lacking DP layer (Pires 2006; Iordăchioaia 2020), and therefore lacks the necessary device to be referential.

Denotation of verbal gerunds

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ACC-*ing* and POSS-*ing* do not denote token events. They are incompatible with predicates of event or duration:

(3) * Clay('s) singing the song took place on Monday/began at 11 o'clock/lasted for an hour.

The denotation of verbal gerunds is some kind of abstract object: fact or possibility (Asher 1993), event kinds (Grimm & McNally 2015), etc. (To account for (3), such event kinds cannot go through Derived Kind Predication.)

ACC-ing as a referential expression: Asher (1993)

Asher (1993): ACC-ing contains a covert D, which leads to the introduction of a discourse referent as "fact" or "possibility".

 $(4) \begin{array}{c} u_{1}, u_{2}, e_{1}, f, e_{2}{'} \\ \hline Clay(u_{1}) \\ f \approx \begin{array}{c} e_{2} \\ \hline win(e_{2}, u_{1}) \\ Hannah(u_{2}) \\ surprise(e_{1}, f, u_{2}) \\ \hline win(e_{2}{'}, u_{1}) \end{array}$

Clay winning surprised Hannah.

Clay winning was impossible.

ACC-ing as indefinite: Portner (1992)

Portner (1992): POSS-ing is definite and ACC-ing indefinite.

- (6) Clay did not imagine Hannah's singing the song. → either Hannah had sung the song, or "Hannah singing the song" is under discussion.
- Clay did not imagine Hannah singing the song. (7)→ Hannah had sung the song.

POSS-ing carries the presupposition that it is factive or under discussion. ACC-ing per se lacks this presupposition, though it can be factive in certain positions/contexts:

Hannah singing the song was a mistake. (8)

ACC-ing as indefinite: Portner (1992)

However, "indefinite" is not a great description:

- ► ACC-ing does not denote token events, and what is "indefinite" for an abstract object is unclear:
- (9) * Clay singing the song took place on Monday.

 → An event of Clay singing the song took place on Monday.
 - ➤ It is also typical of indefinites to introduce new referents to the discourse and not be anaphoric, but this is not the case of ACC-ing:
- (10) Clay sang a song during his presentation. However, him singing the song was a terrible mistake...

ACC-ing as a non-referential expression

Portner's (1992) observation also points to ACC-ing being a non-referential expression.

A non-referential analysis is able to cover NP + V-ing constructions which appear in positions where POSS-ing cannot be used:

- (11) a. With {George/*George's} painting the wall, Clay left quietly.
 - b. George started to paint the wall, his {hands/*hands'} shaking.
 - c. Not {George/*George's} painting the wall!
 - d. We saw {George/*George's} painting the wall.

ACC-ing as a non-referential expression

Huang (2023): Following Farkas & de Swart's (2003) analysis of incorporation, the relations between descriptive content can be handled using thematic arguments, which appear only in the conditions, but not as discourse referents.

$$\begin{array}{c} u_{1}, u_{2}, e_{1}, e_{2} \\ \hline Clay(u_{1}) \\ win(\begin{subarray}{c} \mathbf{Z}, u_{1}) \\ Hannah(u_{2}) \\ remember(e_{1}, u_{2}, \begin{subarray}{c} \mathbf{Z}) \\ win(e_{2}, u_{1}) \end{array}$$

Hannah remembered Clay winning.

Questions

- ► Is ACC-ing referential or non-referential?
 - My assumption is that ACC-ing is non-referential, but either analysis works without a discourse context.
- ► How does ACC-ing behave in the discourse?
 - ► Can ACC-ing refer anaphorically?
 - ► Can ACC-ing be anaphorically referred to?
- ► What does its behaviour in the discourse say about its (non-)referentiality?

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Data collection

200 instances of ACC-ing (in syntactic positions compatible with POSS-ing) were collected from a parsed copy of the BNC corpus, with a previous context of max. 150 words and a subsequent context of 5 sentences.

- Annotation of givenness: referential and lexical giveness (Baumann & Riester 2012) adapted for event descriptions.
- ► Annotation of anaphoric reference to ACC-ing.

ACC-ing: "given" in a factive context

- (13) No wonder that corporate crime is not viewed by many people, including most criminologists, as a pressing, serious social problem. [...] But the absence of public apprehension over corporate crime does not justify it being ignored by criminologists [...]
- He smiled. "I reckon I know how Leonardo da Vinci must have felt." We laughed and he left. [...] Although

 Jeff making me laugh at myself was the beginning of the end of my depression [...]

ACC-ing: "given" in a non-factive context

- (15) "Has it ever been, in your memory, postponed or cancelled, or do they just carry on regardless?" "I don't remember it being postponed". [...]"
- (16) Some people think that holding the wing down or putting a tyre on the wing will stop the glider blowing over. [...] Having one wing down may result in a light glider being blown over if [...]
- (17) But, although it was something to tell the others at school, secretly I thought he was important enough already. All my life I have suffered because of Father being important.

ACC-ing does not refer anaphorically.

- ► ACC-*ing* does not have to introduce new information.
- ► ACC-ing does not denote event tokens, so it is not co-referential to events in factive contexts.
- ACC-ing has rich descriptive content. Since intensional objects, such as facts, depend on their description, it is likely that a restatement of a fact is different from its antecedent.
- ► ACC-*ing* being supported by the previous context shows discourse coherence.
- ► "Nonpronominal verb phrases, unlike noun phrases, are arguably never anaphoric." (Grimm & McNally 2013)

ACC-ing as antecedent

ACC-ing can be the antecedent of it, this and that:

- (18) Although Jeff making me laugh at myself was the beginning of the end of my depression, it wasn't enough to persuade me to stay.
- (19) When I heard about IV [in vitro fertilization] coming in I thought this was a great thing!
- (20) It didn't prevent it being a huge public success. Part of that was undoubtedly due to Ken.
 that = the huge public success? it not preventing it being a huge public success?

ACC-ing as antecedent in Asher (1993)

(21) Hannah remembered Clay winning. It wasn't surprising.

```
\begin{array}{c} u_1, u_2, e_1, f, e_2{'}, \ \ f{'} \\ \hline Clay(u_1) \\ f \approx \begin{array}{c} e_2 \\ \hline win(e_2, u_1) \\ \\ Hannah(u_2) \\ \\ remember(e_1, u_2, f) \\ \hline win(e_2{'}, u_1) \\ \hline f{'} = f \\ \hline \neg surprising(f{'}) \\ \end{array}
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ACC-ing as antecedent in Asher (1993)

(22) Hannah remembered Clay winning. It took place at noon.

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u_{1}, u_{2}, e_{1}, f, e_{2}', e_{2}''
Clay(u_{1})
f \approx \frac{e_{2}}{win(e_{2}, u_{1})}
Hannah(u_{2})
remember(e_{1}, u_{2}, f)
win(e_{2}', u_{1})
e_{2}'' = e_{2}'
take-place-at-noon(e_{2}'')
```

The use of ACC-ing as antecedent poses a problem for the non-referential analysis. The same problem is found in common noun anaphora and VP anaphora, where a non-referential expression licenses anaphoric pronouns:

- (23) Clay does not have a cat, although they are his favorite animals/but George has one.
- (24) Can George build a house for us? That he can.

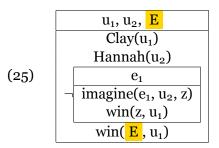
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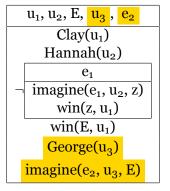
A solution for ACC-*ing* is based on Mueller-Reichau's (2013) proposal, which introduces kind referents into DRT:

➤ NP hypothesis (DRT-version): An NP (DP) always introduces some reference marker into the discourse – either one standing for an object or one standing for a kind.

▶ VP hypothesis (DRT-version): a VP always introduces an event kind referent into the discourse.



Hannah did not imagine Clay winning.



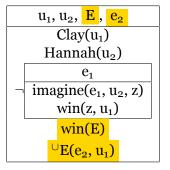
Hannah did not imagine Clay winning, but George imagined that.

Event kind referent in VP ellipsis

Multiple event kind referents may be introduced:

- (26) Hannah did not imagine Clay winning, but George did.
- (27) Hannah did not imagine Clay winning, but Clay did.

Event kind referent in VP ellipsis

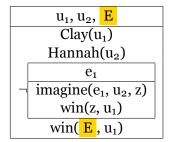


Hannah did not imagine Clay winning, but Clay did.

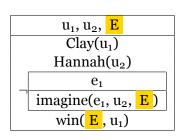
Can ACC-*ing* and POSS-*ing* still be distinguished?

POSS-ing denotes an event kind, while ACC-ing merely introduces a kind referent.

ACC-ing:



POSS-ing:



Hannah did not imagine Clay winning.

Hannah did not imagine Clay's winning.

Comparison with POSS-ing

200 annotated intances of ACC-ing and POSS-ing from BNC:

	ACC-ing	POSS-ing
	"non-referential"	"referential"
Factive	86	129
Given	93	103
Anaphor	13	6

- Factive: a corresponding event token is implied or presupposed.
- Given: the event described is not brand new
- Anaphor: licenses anaphoric it, this, that or lexical NPs

What is referentiality?

▶ Here: presupposition; associated with certain syntactic structures (DP/CP) (Sheehan & Hinzen 2011); referentiality does not correlate directly with factivity or givenness (De Cuba & Ürogdi 2010); ability to introduce discourse referents.

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- ➤ We cannot rule out the possibility of ACC-ing being occasionally referential: Referentiality has been argued to be contributed by covert operator/structures (De Cuba & Ürogdi 2010; Kastner 2015)
- Speaker's intention: "meant by the speaker to have reference in some universe of discourse" (Givón 1984). Future research: How does context affect speakers' choice between POSS-ing and ACC-ing?

Conclusion

ACC-ing: referential or not?

- ► Though ACC-ing can serve as antecedent of pronouns in the discourse, it can still be maintained that ACC-ing is non-referential.
- Like in the case of common noun anaphora, VPs can also introduce event kind referents into the discourse, regardless of the denotation of such VPs *per se*.

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