

Sameness, Ellipsis and Anaphora

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Abstract. We compare explicit assertions of sameness with analogous elliptical and anaphoric expressions, and find striking differences in their interpretation. We account for those differences with a two part proposal: first, we propose that *same* is additive, similar to *too*. Second, *same* must take scope over a containing event-denoting expression. We give evidence that the scope-taking of *same* is subject to standard island constraints, and we also show that *same* always compares two event-denoting clauses that differ in a relevant property.

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1 Introduction

It is a truism that elliptical and anaphoric expressions are in some sense interpreted the same as the antecedent. For example, one widely cited work on ellipsis and anaphora poses as its central question: “Under what circumstances can bits of a syntactic structure be said to be the same as or different from other bits of a syntactic structure?” (Fiengo and May (1994)[p xi]). In this paper we examine expressions involving explicit assertions of sameness (*do the same* and *the same* N), and we find that they differ in surprising ways from analogous elliptical and anaphoric expressions (VP ellipsis, *do it/that/so* and pronouns).

We observe that *same* always compares a described event with an antecedent event. The two events must be distinct, and the antecedent event description must be true in context. Our analysis is that *same* is additive and furthermore must take scope over a containing event-denoting expression. We show that this scope-taking is subject to standard island constraints on syntactic movement. We then examine differences between *same* and the additive particle *too*, and suggest that these differences have to do with the fact that *same* must compare events, and thus is subject to constraints on how events are individuated. We end with a brief discussion of related work on so-called “internal” readings of *same*.

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2 Hardt, Mikkelsen and Orsnes

2 Same vs. Ellipsis and Anaphora

We begin with example (1);

- (1) I feel it's important to vote in favor (although I don't have a vote).
I appeal to my colleagues to do so/it/that/*the same, for the good of European citizens.

Here, *do the same* is infelicitous, while the related forms (*do so/it/that*) are felicitous. Intuitively, *do the same* is ruled out because the antecedent voting event did not actually occur. If the example is modified so that the antecedent event did occur, *do the same* is acceptable.

- (2) I voted in favor. I appeal to my colleagues to do the same, for the good of European citizens.

Example (3) illustrates another case where *do the same* is ruled out where related forms are all acceptable.

- (3) John caught a big fish, and he did VPE/so/it/that/*the same without any fishing equipment⁴.

Here, it seems that what rules out *do the same* is the very fact that it is referring to the same event; if the example is modified so that there are two different events, *do the same* is fine.

- (4) John caught a big fish last week, and he did the same yesterday without any fishing equipment.

So, far we have seen that *do the same* describes an event that must differ from the antecedent event description, and second, the antecedent event description must be true in context.

We follow Carlson (1987) in claiming that *same* requires an event-based account. It is perhaps not surprising that *the same* is naturally described in terms of events when appearing as the object of *do*, since it must describe an event (in this case, an action) in such cases. However in our view *same* always requires reference to events. To show this, we turn now to cases where *same* appears in ordinary NP's like *the same book*, as in the following examples (Irene Heim, p.c.):

- (5) I read *War and Peace* on my last vacation, and I hope that you will read {it/the same book} (next year).
(6) I never got around to reading *War and Peace*, but I hope that you will read {it/*the same book} (next year).

⁴ In this example VPE (VP ellipsis) is acceptable, in addition to the other VP anaphora forms. VPE is not acceptable for example (1), presumably because of specific constraints on VPE when introduced by *to* in embedded clauses. See Johnson (2001); Lobeck (1995) for discussion.

This contrast is very similar to the one observed between (1) and (2) – unless the antecedent event, *reading War and Peace*, actually happened, *the same book* is infelicitous, while the pronoun is acceptable. Example (7) affirms the contrast observed in (3): unlike a pronoun, *same* does not allow the antecedent event to be the same as the current event.

- (7) I read *War and Peace* on my last vacation, and I read {it/*the same book} in a single sitting.

Here, *the same book* is infelicitous, except perhaps on the reading where one has read *War and Peace* on two separate occasions.

These last two contrasts show that, even when *same* occurs in an ordinary, individual-denoting NP, it involves comparison of events.⁵ We conclude that *same* places two constraints on the event being described: first, the described event must be distinct from the antecedent event, and second, the antecedent event description must be true in context.

3 Same is Additive

In our view, the above observations suggest that *same* is additive, similar to *too*. This is supported by the following variants of (1) and (2) involving *too*:

- (8) I feel it's important to vote in favor (although I don't have a vote).
I appeal to my colleagues to do so/it/that *too, for the good of European citizens.
- (9) I voted in favor. I appeal to my colleagues to do so/it/that too, for the good of European citizens.

Too patterns with *same* here, generating infelicity unless the antecedent event description is true in context. It is well known that *too* is “additive”, in that it adds to the current context a clause that is closely related to an antecedent clause, but differing in some way. A recent characterization can be found in Singh (2008)[p 5] (see also Riester and Kamp (2010); Krifka (1999)):

- (10) Let $\phi \text{ too}_i$ be an LF, with *too* co-indexed with LF ψ_i . Then $c + \phi \text{ too}_i$ is defined iff:

(a) $[[\psi]] \neq [[\phi]]$, (b) $[[\psi]] \in [[\phi]]^F$, (c) $c + \psi = c$ (i.e. ψ is true in c)

- (a) ensures that the antecedent is distinct from the phrase occurring with *too*
(b) identifies an “appropriately contrasting antecedent”
(c) ensures that the antecedent is true in context

⁵ Note that we follow (Maienborn (2011)) in understanding the term “event” to cover processes and states as well as events in a narrow sense.

4 Hardt, Mikkelsen and Orsnes

We propose that *same* gives rise to the same conditions (a) - (c); furthermore, ϕ is always an event-denoting expression containing *same*. We state the conditions imposed by *same* as follows:

- (11) Let $\text{same}_i \phi$ be an LF, with *same* co-indexed with LF ψ_i . Then $c + \text{same}_i \phi$ is defined iff:

(a) $[[\psi]] \neq [[\phi]]$, (b) $[[\psi]] \in [[\phi]]^F$, (c) $c + \psi = c$ (i.e. ψ is true in c)

Returning to examples (1) and (2), we have

- (12) [my colleagues do the same (= vote in favor)]_{VP}

We assume that *do the same* is interpreted as *vote in favor*. With *same* adjoined to the containing VP, we have:

- (13) [same [my colleagues vote in favor]]_{VP}

Assuming there is focus on “colleagues”, for (2):

$[[\phi]] = \text{my COLLEAGUES vote in favor}$; $[[\phi]]^F = x \text{ vote in favor}$; $[[\psi]] = \text{I vote in favor}$

- (a) $[[\psi]] \neq [[\phi]]$ (ok)
 (b) $[[\psi]] \in [[\phi]]^F$ (ok)
 (c) $c + \psi = c$ (ψ true in current context) (ok)

For example (2), conditions (a) - (c) are all satisfied and the example is thus acceptable. For example (1), condition (c) is not satisfied – there is not an appropriately contrasting antecedent ψ that is true in context.

Example (3) is ruled out by condition (a):

- (14) [john did the same (= caught big fish)]_{VP}
 [same [john caught big fish]]

$\phi = \text{JOHN caught big fish}$; $[[\phi]]^F = x \text{ caught big fish}$; $\psi = \text{john caught big fish}$

- a) $[[\psi]] \neq [[\phi]]$ (false)
 b) $[[\psi]] \in [[\phi]]^F$ (ok)
 c) $c + \psi = c$ (ok)

We turn now to the contrast in (5) and (6), repeated here:

- (15) I read *War and Peace* on my last vacation, and I hope that you will read {it/the same book} (next year).
 (16) I never got around to reading *War and Peace*, but I hope that you will read {it/*the same book} (next year).

For both (5) and (16), we have $\phi = \text{YOU read War and Peace}$; $[[\phi]]^F = x$ read War and Peace; $\psi = \text{I read War and Peace}$

- a) $[[\psi]] \neq [[\phi]]$ (ok)
- b) $[[\psi]] \in [[\phi]]^F$ (ok)

For (5) the antecedent *I read War and Peace* is true in context (condition c), but not for (6), accounting for the difference in acceptability. The account of (7) is completely parallel to that of (3). Note that this depends on *same* taking scope over an event-denoting constituent that contains the NP in which it appears. We turn now to this issue.

4 Scope

The most obvious difference between *same* and *too* stems from the fact that *too* is an adverb that can be overtly adjoined to a variety of constituents, including clauses. *same* is an adjective that moves covertly to take scope over a clausal element. Here we show that this covert movement is subject to island constraints. The example in (17) is a case in point.

- (17) John knows why Mary killed a fish.
 Harry knows why she did so/it/that, too.
 *Harry knows why she did the same thing.⁶

The *why* clause is an island for movement being a *wh*-clause, thus *same* cannot take scope over the matrix clause; instead it takes scope over [she did the same thing]. This leads to a violation of our condition (a), distinctness. This problem does not arise with *too*, since it is adjoined to the matrix clause. Here the contrast between *John* and *Harry* satisfies distinctness.

Compare this with the example in (18): where *same* appears in an untensed VP:

- (18) John asked Mary to catch a fish.
 Harry asked her to VPE/do so/do it/do that, too.
 Harry asked her to do the same thing.

We find (18) completely acceptable with *same*. This parallels the contrast found with *wh*-movement:

- (19) *What does John know why Mary caught?
 What did John ask Mary to catch?
 What did John say Mary caught?

⁶ Some of our examples have *do the same* while others have *do the same thing*. We treat them as being interpretively equivalent, and have nothing to say about what bears on the choice between them.

6 Hardt, Mikkelsen and Orsnes

The *wh*-clause is a barrier to movement, so movement out of the *wh*-clause is impossible. This explains why (17) is bad with *same*. However, (19) shows that movement is possible out of an untensed clause and out of a finite clause embedded under the bridge-verb *say*. This explains why (18) is acceptable with *same* and also why the example in (20) is acceptable with *same*.

- (20) John said Mary caught a fish.
 Harry said she did VPE/so/it/that, too.
 Harry said she did the same thing.

Similar contrasts are found with other well-known island constraints:

Complex NP constraint:

- (21) Peter rejected the claim that Mary had caught a fish.
 Harry rejected the claim that she did VPE/so/it/that too.
 *Harry rejected the claim that she did the same.

Sentential Subject constraint:

- (22) That Mary caught a fish bothers Harry.
 That she did VPE/so/it/that bothers Frank, too.
 *That she did the same bothers Frank.

Adjunct constraint:

- (23) Mary laughs when she catches a fish
 Harry laughs when she does VPE/so/it/that, too.
 *Harry laughs when she does the same thing.

In all of these examples with island environments we find that *same* is impossible or highly degraded. As an adjective *same* moves covertly to take scope over *Mary had caught a fish* or *Mary catches a fish*. But *same* cannot move out of the island. In all cases we find a violation of our principle (a): distinctness. The two compared events are not distinct. *too*, being an adverb that can adjoin to any clause, is less restricted in its scope. Thus, with *too* we can have a contrast in the referents of the matrix subjects, ensuring that the two compared events are sufficiently distinct.

5 Individuation

We have seen that *same* sometimes differs from *too* for a structural reason: since *same* must move to take scope over the material to be compared, it is subject to island constraints. Here we observe other cases where *same* differs from *too*: but in these cases we argue that the difference is semantic – we argue that *same* must compare events that differ in a relevant property, while *too* is more flexible.

- (24) Harry should vote, and
 he will VPE/do so/do it/do that, too.
 *he will do the same.

Here *too* is acceptable because it compares two propositions that differ in modality (*should* vs *will*). Modality, however, is not a property of events, so that it is not available as a basis for comparison with *same*. Tense on the other hand is a property of events, which explains the acceptability of *same* in the following example:

- (25) Harry voted last year, and
 he will next year, too.
 he will do the same next year.

More generally, we expect the contrast requirement of *same* to track the Davidsonian conception of events in (26); from Maienborn (2011).

- (26) Events are particular spatiotemporal entities with functionally integrated participants.

Only elements that individuate events (event type, participants, time and location) can satisfy the contrast requirement of *same*. For both *same* and *too* the contrast requirement is satisfied by the element expressing new or contrastive information, i.e. a focussed element. As a clause-level adjunct, *too* does not place any restrictions on what elements of that clause may be focussed. In contrast, *same* occurs as part of an anaphoric VP or NP, making certain constituents unavailable for focussing and contrast. This is illustrated by (27):

- (27) I encourage all my colleagues to go to the meeting.
 I encourage them to VOTE, too.
 *I encourage them to do the same.

Here, *too* contrasts the VP's *go to the meeting* and *vote*. *Same* cannot do that here – it cannot contrast the VP that it appears within. Similarly, in (28), *too* contrasts the NP's *early meeting* and *late meeting*. But it is not possible for *same* to contrast the NP it appears within.

- (28) I encourage all my colleagues to boycott the EARLY meeting.
 I encourage them to boycott the LATE meeting, too.
 *I encourage them to boycott the same LATE meeting.

In general, then, the contrasted element cannot appear in the same constituent as *same*. One interesting variation involves *orphans* (Culicover and Jackendoff (2005)[p 285-6]), as illustrated by (29).

- (29) I encourage all my colleagues to boycott the EARLY meeting.
 I encourage them to do the same with the LATE meeting.

In Mikkelsen et al. (2011), it is argued that the NP *the LATE meeting* functions semantically as an argument to the VP, although it appears syntactically as an adjunct to VP. Being outside the VP anaphor, it can be focussed and being adjoined to VP, *same* can scope over it, explaining the felicity of (29).

6 Related Work

Several authors have proposed that *same* can move to take scope over a clause. Heim (1985) briefly considers *same* and *different*, and argues that they can move to take clausal scope, much as she argues for comparative morphemes (see also Alrenga (2007) on comparative uses of *same*). Carlson (1987) also argues that *same* and *different* can take clausal scope, and furthermore argues that *same* and *different* always compare events. Carlson distinguishes between “internal” and “external” readings. In the current paper, we have dealt exclusively with external readings, that is, readings where there are two separate clauses to be compared. An internal reading arises in a clause that “provides its own context”, as Carlson puts it [p 532]. An example of this is (30), discussed by Barker (2007):

(30) Anna and Bill read the same book.

The internal reading of (30) is described by Barker as follows: (30) is true “just in case there exists some book x – any book x – such that Anna read x and Bill read x ” (Barker (2007)[p 2]). The internal reading in (30) relies on the existence of the conjoined NP *Anna and Bill*, which can be interpreted distributively. More generally, Barker argues that *same* must raise in the derivation of internal readings, and that movement is “parasitic” on the presence of another quantificational element (in the case of (30), a conjoined NP).

Both Carlson and Barker focus their attention on internal readings. In the current paper, we have restricted our attention to “external readings”, in which the interpretation of *same* relies on an antecedent in prior discourse, and we have focused on differences with corresponding anaphoric and elliptical forms. Alrenga (2009) performs a similar comparison, arguing that for pronouns, the anaphoric link is *stipulated*, while for *same*-NP’s it is *asserted*. This is based on three differences observed: first, *same*-NP’s can appear with *almost*, second, they can appear in existential *there*-sentences, and third, they often carry certain existential implications. Both the observations and the proposed account of them are quite different from those of the current paper, and we will have to leave to future work the task of integrating these two perspectives.

Barker considers external readings briefly, but does not attempt to extend his account to them – in fact, he argues against doing this (Barker (2007)[p 6-9]). Similarly, in this paper we have not attempted to extend our account of external readings to apply to internal readings. However, in this section we make some observations about the relation between the two readings.

First, the internal readings are subject to the same island effects we have observed for external readings. This is observed by Carlson (1987)[p 534]: “the licensing NP must appear within the same ‘scope domain’ as the dependent expression”. For example, in (17) above, *same* could not take scope over the matrix clause, making the external reading of *same* infelicitous. In (31), below, the same effect can be observed with an internal reading:

(31) *John and Harry know why Mary killed the same fish.

Similar effects can be seen with internal versions of all of the island effects we have observed for external readings.

We also observed for external readings that the two events must differ in a particular event-property. Thus example (24) shows that a contrast between modals is not felicitous, since modality is not a property of events. The same is true of internal readings, as shown by the following contrast:

- (32) *Harry necessarily reads the same book.
 Harry usually reads the same book.

While we won't attempt any specific analysis of such internal readings, we suggest that the contrast in (32) is similar to that observed between (24) and (25). *same* compares events in terms of a distinction in properties, thus quantification over times (*usually*) can license an internal reading, while a modal quantification (*necessarily*) cannot.

Finally we have this observation: while Barker correctly observes that the internal reading of *same* requires a quantificational element that can function as a “trigger” for that reading, his notion of “parasitic” scope suggests that the movement of *same* is only possible when such a trigger is present. Discussing an example involving the quantificational element *everyone*, Barker notes, “The reason I call this parasitic scope is that the scope target for *same* does not even exist until everyone has taken scope.” (Barker (2007)[p 21]) Our account of external readings casts doubt on this suggestion, since we have proposed that *same* moves in a similar way for external readings, in the absence of any such trigger.

7 Conclusions

Much of the literature on elliptical and anaphoric expressions rests on a notion of sameness: in some sense the elliptical or anaphoric expression is to be understood as the same as the antecedent. One might naturally expect, therefore, that explicit assertions of sameness would be interpretively indistinguishable from analogous elliptical or anaphoric expressions. In this paper we have seen that this is emphatically not the case; unlike their anaphoric and elliptical analogues, explicit sameness expressions require a comparison of two event-denoting expressions. The truth of the antecedent event-denoting clause is presupposed, and there is a requirement that the two events differ in a relevant property.

As far as we know, these facts have not been previously observed – however, we suspect that our account of these facts can be fruitfully related to a body of work accounting for so-called internal readings with *same* and related terms. While we have not attempted to extend our account to such internal readings, we have pointed out several points of commonality that we plan to explore in subsequent work.

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