# Same and different: A presuppositional account

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## 1.    Introduction: The Challenge of Internal Readings

Words like *same* and *different* can give rise to external readings, as in (1), or internal readings, as in (2).[1]

(1)    Tom$^0$ read a$^1$ book. Susan$^2$ read a$^3$ different book.          **External Reading**

(2)    Every$^0$ boy read a$^1$ different book.                               **Internal Reading**

For the external reading in (1), the interpretation is straightforward: there are two indexed, book-denoting DP's, and it is asserted that book $u_1$ and book $u_3$ are distinct. The internal reading for (2) is this: for every pair of boys $< x1, x2 >$, $x1$ read a book $y1$ and $x2$ read a book $y2$ and $y1 \neq y2$. This presents a puzzle: the sentence is asserting an inequality between pairs of books, but there is only one book-denoting DP in the sentence. Furthermore, the books asserted to be distinct are those participating in pairs of reading events involving distinct boys.

### Road map

We start by discussing Brasoveanu's (2011) analysis of internal readings of both *different* and *same* (section 2), which posits new mechanisms to account for the puzzle described above. In section 3, we review some contrasts between *different* and *same* observed in Hardt and Mikkelsen (2015). These observations lay the foundation for our proposal, which is developed in section 4. We argue that the mechanisms proposed by Brasoveanu can be dispensed with in favor of standard methods for the interpretation of presuppositions. Section 5 offers further support for this presuppositional account and section 6 concludes.

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[1]We use superscripts to indicate the introduction of a discourse referent, and subscripts to indicate reference to an established discourse referent.

## 2.     Brasoveanu's Solution

Brasoveanu (2011) addresses the challenge posed by internal readings, by proposing three main innovations.

- **Distributive quantification:** Brasoveanu proposes that distributive quantification always "involves selecting pairs of distinct individuals and simultaneously evaluating the nuclear scope relative to each individual" (p. 110). This is argued to be a general feature of distributive quantification, although its effects are unobservable, except for these particular cases.

- **Stack mechanism:** Additionally, a stack mechanism collects pairs of quantified individuals, so that anaphoric reference is possible between them.

- **Offset:**  In this approach discourse referents can be indexed using  *offset* – the difference between the current element and the antecedent

These innovations directly address the challenges posed by internal readings: because distributive quantification always selects pairs, this makes it possible for the internal reading to perform the required comparison of all pairs of individuals in the domain. To see how this is done, we first examine the lexical meanings Brasoveanu posits for *same* and *different*.

### Lexical Meanings

Brasoveanu (2011:111, 157) gives the following meanings for *same* and *different*[2]:

(3)     $\text{same}_n^m \rightsquigarrow \lambda P_{et}.\lambda v_e.P(v); *(\underline{P(u_{m+n})}; [\, \textbf{identical}\{u_{m+n}, u_n\}])$

(4)     $\text{different}_n^m \rightsquigarrow \lambda P_{et}.\lambda v_e.P(v); *(\underline{P(u_{m+n})}; [\, \textbf{disjoint}\{u_{m+n}, u_n\}])$

Both *same* and *different* receive a subscript $n$, coindexed with the local determiner index, and a superscript $m$, which identifies the antecedent, by means of an  *offset*. What this means is that the index of the antecedent is $m+n$. Furthermore, it is presupposed that the property $P$ holds of the antecedent denoted by $u_{m+n}$ (presupposed material is indicated by underlining). The presupposition captures that the antecedent DP must satisfy the same nominal restriction as the containing DP. This is necessary to account for the infelicity of (5). (We will refer to this as the nominal presupposition.)

(5)     Mary recited a poem. #Then Sally recited a different book.

As we see below, the use of offsets is needed for the internal reading, together with the special operator $*$, which also only applies to internal readings, where it indicates a stack-concatenation operator. We begin with the external reading for *different*:

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[2]Here and throughout, we follow Brasoveanu in using typed, linearized DRS representations, similar to Muskens (1995) and much subsequent work.

## External Reading

(6)     Tom$^0$ read a$^1$ book. Susan$^2$ read a$^3$ different$_3$ $^{-2}$ book.

(7)     $[u_0, u_1 | u_0 = Tom, book(u_1), read\{u_0, u_1\}];$
        $[u_2, u_3 | u_2 = Susan, book\{u_3\}]; *(\underline{book(u_{3-2})}; [\, \textbf{disjoint}\{u_1, u_3\}]); [read\{u_2, u_3\}]$

Here, the combination of the index 3 and offset $-2$ generates a presupposition that there is a $u_1$ which is a book, and furthermore, that the antecedent $u_1$ is **disjoint** from $u_3$. The same results could be obtained without the use of offsets, with *different* simply receiving a superscript 1, that is, the index of the antecedent. We turn now to the internal reading.

## Internal Reading

(8)     Every$^0$ boy read a$^1$ different$_1^2$ book.

(9)     $\textbf{max}^{u_0}([\, \textbf{atoms-only}\{u_0\}, boy\{u_0\}]);$
        $\textbf{dist}_{u_0}([u_1 | \textbf{atoms-only}\{u_1\}], \textbf{singleton}\{u_1\}, book\{u_1\};$
        $*((\underline{book(u_{1+2})}; [\, \textbf{disjoint}\{u_{1+2}, u_1\}]); [read\{u_0, u_1\}]))$

(Brasoveanu (2011:109), ex. (66))

   The distributive quantification of *every boy* is represented first by introducing the discourse referent $u_0$ with $\textbf{max}^{u_0}$, which denotes the maximal set of boys, and then introducing the operator dist$_{u_0}$, which distributes over this set.[3] Crucially, it distributes over all pairs $< boy1, boy2 >$ of elements of $u_0$. For each pair, two *stacks* are created, where the first stack predicates the nuclear scope of *boy*1, and the second stack predicates it of *boy*2. Each of these predications produces a stack, which is the sequence of individuals resulting from the predication: in this case, each stack consists of a boy and the associated book.
   This pair-wise distribution is designed so that the second element of the pair (*boy*2 in this case) can easily be ignored, in which case distributive quantification works in the normal way, as if it is distributing over individuals, as is done, for example, in standard DRT. But in the case of *different*, the stack associated with the second element is not ignored; rather, it is concatenated with the first stack. This is indicated by the stack concatenation operator $*$ in (9).
   The result of stack concatenation is shown below in (10).

(10)

| $u_0$ | $u_1$ | | $u_0$ | $u_1$ | | $u_0$ | $u_1$ | $u_2$ | $u_3$ |
|---|---|---|---|---|---|---|---|---|---|
| boy1 | book1 | $*$ | boy2 | book2 | $=$ | boy1 | book1 | boy2 | book2 |

The resulting concatenated stack is a sequence of four discourse referents. This now makes it possible for the offset to produce a reference to $u_3$, with the value of *book*2. Note that, for internal readings, the offset in Brasoveneau's system will always be equal to the length of the stack; i.e., the number of discourse referents in the nuclear scope. This is because the internal reading always

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[3]Brasoveanu (2011:127) applies the conditions **atoms-only** and **singleton** in connection with the definition of stacks; this plays no role in the proposal given in this paper.

involves reference between a discourse referent in the first stack and one in the corresponding position in the second stack; thus the offset will be equal to the length of the stack.

## 3.     Same and Parallelism

Hardt and Mikkelsen (2015) point to three types of cases where *same* is ruled out, but *different*, ordinary definite descriptions, and pronouns are acceptable.

(11)     John didn't read *War and Peace* ...                                                     Negated Antecedent

     a.   \*but Susan read the same book.
     b.   but he read a different book.
     c.   but Susan read the book/it.

(12)     John praised *War and Peace* ...                                                     Parallel Antecedent

     a.   \*and Bill read the same book.
     b.   but Bill read a different book.
     c.   and Bill read the book/it.

(13)     John caught a big fish ...                                                     Distinct Antecedent

     a.   \*and he caught the same fish without any equipment.
     b.   and he caught the fish/it without any equipment.

Hardt and Mikkelsen (2015) propose to capture the infelicity of *same* in (11)–(13) in terms of a parallelism constraint that requires sentences with *same* to have a parallel antecedent eventuality. In contrast *different* doesn't require a parallel antecedent eventuality.

    The meaning they propose for *same* is given in (14):

(14)     $\text{same}^m_{e_n} \rightsquigarrow \lambda P_{et}.\lambda v_e.P(v); *[\ \mathbf{parallel}\{e_{n+m}, e_n\}]$

and their definition of Parallel appears in (15) (see Kehler (2002:49ff), Hardt and Mikkelsen (2015:303-305), and Hardt (2018:section 3.2)):

(15)     Two sentences S1, S2 are Parallel if one can infer $P(a_1, a_2, \ldots)$ from the assertion of $S1$ and $P(b_1, b_2, \ldots)$ from the assertion of $S2$, for a (non-trivial) common $P$ and similar $a_i$ and $b_i$.

To satisfy Parallel the two eventualities must contain similar predicates applied to similar arguments. Two predicates count as similar if they both entail a non-trivial common relation. Arguments count as similar to the extent that similar predicates apply to them. Finally the two eventualities denoted by S1 and S2 must be distinct.

    The infelicity of *same* in (11)–(13) reflects violations of Parallel. We show this for (12) (see Hardt and Mikkelsen (2015:202–303) for analysis of the other two cases):

(16)   [John$^0$ praised War and Peace$^1$]$^2$.
       *And [Bill$^3$ read the$^4$ same$_5^{-3}$ book]$^5$

(17)   $[u_0, u_1, e_2 | u_0 = John, u_1 = war\text{-}and\text{-}peace, \text{praise}\{e_2, u_0, u_1\}]$ ;
       $[u_3, u_4, e_5 | u_3 = Bill, book\{u_4\}, u_4 = u_1, read\{e_5, u_3, u_4\}]; *[\textbf{parallel}\{e_5, e_2\}]$

Here $e_2$ is the antecedent eventuality and $e_5$ is the eventuality introduced by the sentence containing *same*. $e_5$ and $e_2$ are not Parallel, since there is no non-trivial common predicate for *praise* and *read*. Hence *same* is infelicitous in (12)/(16). What we take away from Hardt and Mikkelsen (2015) is that *same* compares eventualities.

## 4.    A Presuppositional Alternative

### 4.1    The proposal

Above we have reviewed the analyses of *same* and *different* due to Brasoveanu (2011) and Hardt and Mikkelsen (2015). In this section we develop an alternative analysis that preserves the empirical coverage of these analyses, while simplifying their analytic apparatus. Key to the analysis is the idea that  *same*'s requirement for a parallel eventuality is a presupposition. More specifically we propose that *same*, in addition to a nominal presupposition, has an eventuality presupposition, as shown in (18). In short, *same* presupposes parallel eventualities and asserts identity between individuals.

(18)   $\text{same}_{m,n} \rightsquigarrow \lambda P_{et}.\lambda v_e.P(v); [e_o| \textbf{parallel}\{e_n, e_o\}]; [u_p | P(u_p)]; [|u_m = u_p]$

We further propose that  *different* can also generate a presupposition about parallel eventualities. More precisely, *different* is lexically ambiguous between having just a nominal presupposition (19) and having both a nominal and an eventuality presupposition (20).

(19)   (DIFFERENT1) $\text{different}_m \rightsquigarrow \lambda P_{et}.\lambda v_e.P(v); [u_p | (P(u_p)]; [|u_m \neq u_p]$

(20)   (DIFFERENT2) $\text{different}_{m,n} \rightsquigarrow \lambda P_{et}.\lambda v_e.P(v); [e_o| \textbf{parallel}\{e_n, e_o\}]; [u_p | P(u_p)]; [|u_m \neq u_p]$

(19) is essentially the lexical meaning assigned to *different* by Brasoveanu (2011:111) and Hardt and Mikkelsen (2015:303). The novelty is (20), in which *m* is the index of the DP containing *different* and *n* is the index of the containing eventuality-denoting phrase. The nominal presupposition requires the antecedent DP to have the same nominal restriction as the containing DP and is shared with (19). The eventuality presupposition, shared with (18), is that there is an eventuality $e_o$ that is Parallel to eventuality $e_n$. This still captures Hardt and Mikkelsen's (2015) observations in (11)–(13), since parallelism is optional for *different*, but obligatory for  *same*.

## 4.2    Resolving Presuppositions

Following Van der Sandt (1992), we assume that presuppositions are DRS structures that must either be

1.   BOUND: Find accessible antecedent $x$ for presupposed discourse referent $y$ – conditions on $x$ must be compatible with those on $y$. Replace all occurrences of $y$ with $x$, OR

2.   ACCOMMODATED: Find accessible antecedent DRS $K_t$ for presupposed DRS $K_s$. Merge DRS $K_s$ with $K_t$, at position of antecedent.

We show below that external readings of *same* and *different* only involve their presuppositions being bound, whereas internal readings also involves presupposition accommodation.

**External Reading of *different***    (21) shows an external reading of *different* and involves DIFFERENT1 with a nominal presupposition.[4]

(21)    [Tom[0] read a[1] book][2]. [Susan[3] read a[4] different[4] book][5].

The associated DRS is given in (22).

(22)    $[u_0, u_1, e_2, u_3, u_4, e_5 | tom(u_0), book(u_1), read(e_2, u_0, u_1), susan(u_3), book(u_4), read(e_5, u_3, u_4)];$
$\underline{[u_6 | book(u_6)]}; [|u_6 \neq u_4]$

The presupposition is that there is a discourse referent $u_6$ which is a book. That presupposition is resolved by binding $u_6$ to $u_1$ (i.e. the book Susan read), which results in (23).

(23)    $[u_0, u_1, e_2, u_3, u_4, e_5 |$
$tom(u_0), book(u_1), read(e_2, u_0, u_1), susan(u_3), book(u_4), read(e_5, u_3, u_4), u_1 \neq u_4]$

This final DRS captures the truth conditions of (21), namely that the book read by Tom ($u_1$) and the book read by Susan ($u_4$) are distinct.

**Internal Reading of *different***    (24) involves an internal reading for *different*.

(24)    Every[0] boy [read a[1] different[1,2] book][2].

This reading is generated by DIFFERENT2, which carries an eventuality presupposition, alongside the nominal presupposition (see (20)). The initial DRS is as in (25).

(25)    $[[u_0 | boy(u_0)] < every > [u_1, e_2 | book(u_1), read(e_2, u_0, u_1)];$
$[e_3, u_4, u_5 | boy(u_4), book(u_5), read(e_3, u_4, u_5)]; \underline{[u_6 | book(u_6)]};$
$[|u_1 \neq u_6]]$

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[4]In principle, a derivation with DIFFERENT2 is also possible here, giving rise to the same external reading. However, see a discussion in 5.2 for a suggestion that the external reading with DIFFERENT2 might be blocked.

The first step of presupposition resolution is to BIND $u_6$ to $u_5$. This yields (26).

(26)  $[[u_0|boy(u_0)] < every > [u_1,e_2|book(u_1),read(e_2,u_0,u_1)];$
$[e_3,u_4,u_5|boy(u_4),book(u_5),read(e_3,u_4,u_5)];[|u_1 \neq u_5]]$

Next, the eventuality presupposition, $e_3$, is ACCOMMODATED. Following Van der Sandt (1992), we move the presupposition from the nuclear scope of the quantifier to the restrictor. The result is shown in (27).[5]

(27)  $[[u_0,e_3,u_4,u_5|boy(u_0),boy(u_4),u_0 \neq u_4,book(u_5),read(e_3,u_4,u_5)] < every >$
$[u_1,e_2|book(u_1),read(e_2,u_0,u_1),u_1 \neq u_5]]$

This analysis gives the desired truth conditions: for every pair of boys $u_0$ and $u_4$ and book $u_5$ such that $u_4$ read $u_5$ , there is a book $u_1$ that $u_0$ read, and the two books, $u_1$ and $u_5$, are not identical.

**Internal reading of *same***    We derive the internal reading of *same* (28) in the same fashion. The only difference is that the nuclear scope asserts identity of the read books, rather than non-identity.

(28)  Every[0] boy [read the[1] same[1,2] book][2]

The initial DRS is given in (29).

(29)  $[[u_0|boy(u_0)] < every > [u_1,e_2|book(u_1),read(e_2,u_0,u_1)];$
$[e_3,u_4,u_5|boy(u_4),book(u_5),read(e_3,u_4,u_5)];[u_6|book(u_6)];$
$[|u_1 = u_6]]$

First, we bind $u_6$ to $u_5$, resulting in (30).

(30)  $[[u_0|boy(u_0)] < every > [u_1,e_2|book(u_1),read(e_2,u_0,u_1)];$
$[e_3,u_4,u_5|boy(u_4),book(u_5),read(e_3,u_4,u_5)];[|u_1 = u_5]]$

Next we accommodate $e_3$ by moving it to the restrictor.

(31)  $[[u_0,e_3,u_4,u_5|boy(u_0),boy(u_4),u_0 \neq u_4,book(u_5),read(e_3,u_4,u_5)] < every >$
$[u_1,e_2|book(u_1),read(e_2,u_0,u_1),u_1 = u_5]]$

This gives the correct truth conditions: for every pair of boys $u_0$ and $u_4$ and book $u_5$ such that $u_4$ read $u_5$ , there is a book $u_1$ that $u_0$ read, and the two books, $u_1$ and $u_5$, are identical.

**External reading of *same***    Finally, we turn to the external reading of *same*

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[5]Other alternatives for resolving the eventuality presupposition are conceivable: it could be accommodated at different DRS-levels. Binding of the presupposition is also an alternative; in this case this would mean binding the $e_3$ presupposition to the eventuality $e_2$. While we are not aware of discussion of the resolution of such eventuality presuppositions, in this case we imagine replacements of the corresponding discourse referents: $e_2$ for $e_3$, $u_0$ for $u_4$ and $u_1$ for $u_5$. This would lead to the contradictory condition, $u_1 \neq u_1$.

(32)     [Tom$^0$ read a$^1$ book]$^2$. [Susan$^3$ read the$^4$ same$_{4,5}$ book]$^5$.

Here the eventuality presupposition is bound, rather than being accommodated.

(33)     $[u_0,u_1,e_2|Tom(u_0),book(u_1),read(e_2,u_0,u_1)]$;
         $[u_3,u_4,e_5|Susan(u_3),book(u_4),read(e_5,u_3,u_4),]$;
         $\underline{[u_6,u_7,e_8|person(u_6),book(u_7),read(e_8,u_6,u_7)]}; \underline{[u_9|book(u_9)]}; [|u_9 = u_4]]$

Bind $u_9$ to $u_1$

(34)     $[u_0,u_1,e_2|Tom(u_0),book(u_1),read(e_2,u_0,u_1)]$;
         $[u_3,u_4,e_5|Susan(u_3),book(u_4),read(e_5,u_3,u_4),]$;
         $\underline{[u_6,u_7,e_8|person(u_6),book(u_7),read(e_8,u_6,u_7)]}$;
         $[|u_1 = u_4]]$

Bind $e_8$ to $e_2$

(35)     $[u_0,u_1,e_2|Tom(u_0),book(u_1),read(e_2,u_0,u_1)]$;
         $[u_3,u_4,e_5|Susan(u_3),book(u_4),read(e_5,u_3,u_4),]$;
         $[|u_1 = u_4]]$

Above we have shown how our analysis derives internal and external readings for *different* and *same*. Our presuppositional analysis yields the same results as Brasoveanu's (2011) analysis, but relies on a standard notion of distributivity, together with general mechanisms for presupposition binding and accommodation.

## 4.3     A Constraint on Accommodation

In the derivation of internal readings, see (27) and (31) above, the accommodation of the eventuality presupposition is accompanied by a restriction that $u_0 \neq u_4$. (Brasoveanu (2011:110) posits the same restriction; see also Beck (2000:123).) This rules out consideration of pairs of boys where the members of the pair are identical. Without this condition, (27) would incorrectly be falsified if any boy only read a single book. To see this consider the internal reading of *different* (*Every boy read a different book.*) in a scenario with three boys: *boy*1 read *War and Peace*, *boy*2 read *The Color Purple*, and *boy*3 read *Milkman*. The sentence is true in this scenario, since, for any pair of boys, the books read by each boy are distinct. The DRS in (27) expresses this as follows – for any instantiation of $u_0$ and $u_4$ such that $u_4$ read some book $u_5$, there is a book $u_1$ that $u_0$ read that is not equal to $u_5$. In our scenario, this will indeed hold for any relevant instantiations of $u_4$ and $u_0$ where their values are selected from boys 1-3. However, if we allowed both $u_4$ and $u_0$ to be instantiated by *boy*1, the nuclear scope would not hold. There is a book $u_1$ that *boy*1 read, but there is no other book $u_5$ that *boy*1 read that is not equal to $u_1$. Hence we need to restrict comparison to books read by different boys. We would like to suggest that this restriction follows from a general constraint on presupposition accommodation.

As described above in section 4.2, accommodation involves merging discourse referents from

presupposition DRS $K_s$, with those of the antecedent or target DRS $K_t$ (Van der Sandt (1992):358)). We propose that there is a general distinctness requirement on accommodation.

(36)     Distinctness requirement on accommodation:
         for each $x \in U(K_s)$ and $y \in U(K_t)$, $x \neq y$.

The motivation for this requirement is a follows: If there *were* a presupposed discourse referent $x$ and an antecedent discourse referent $y$ where we would not want to impose the distinctness condition, we could have bound $x$ to $y$ instead. We only want to accommodate when we can't bind, hence the distinctness condition on accommodation.

    We propose the distinctness requirement as a general constraint on the accommodation of presuppositions, and in future work we intend to explore its general implications. We note here that the proposed requirement has implications for presupposition accommodation with respect to *same*: in example (28), for the internal reading, we include the effects of the distinctness requirement, with $u_0 \neq u_4$. That is, just as with the internal reading for *different*, we don't allow consideration of a pair of boys, $< u_0, u_4 >$, where $u_0$ and $u_4$ are instantiated as the same boy. As explained above, without this requirement, we would quite clearly get the wrong truth conditions for *different*. For *same* it is less obvious that the disjointness requirement is needed; however, we suggest that the requirement also is needed for *same*, but that this can only be observed in certain scenarios. In particular, we draw attention to a scenario in which all three boys read *War and Peace*, but *boy*1 also read *The Milkman*. We suggest that (28) is true in this scenario, although, as Keenan (1992) noted nearly 30 years ago, the empirical status of such examples is in need of clarification. Here we merely point out that, if indeed (28) can be interpreted as true in this scenario, the distinctness requirement can ensure this. In the absence of that requirement, we have the following representation for (28):

(37)     $[[u_0, e_3, u_4, u_5 | boy(u_0), boy(u_4), book(u_5), read(e_3, u_4, u_5)] < every >$
         $[u_1, e_2 | book(u_1), read(e_2, u_0, u_1), u_1 = u_5]]$

It is clear that this representation is falsified by our scenario, since we allow both $u_0$ and $u_4$ to be instantiated as boy 1, and there is a $u_5$, *War and Peace*, read by $u_4$ and a $u_1$, *The Milkman*, read by $u_0$, where $u_1$ is not equal to $u_5$.

## 5.     Reflections

### 5.1     Presuppositions: the Analogy with *Too*

The novelty of our account is the proposal that the parallelism requirement associated with *same* and, optionally, with *different* is a presupposition, rather than asserted content. We have shown that this proposal allows for a simple account of both external and internal readings of *same* and *different*. The analysis also explains the contrasts between *same* and *different* documented in Hardt and Mikkelsen (2015).

    In this section we consider independent evidence for the assumption that *same* is presuppositional. The evidence comes from the interplay between *same* and *too*. The focus particle *too* is generally described as presuppositional, generating a presupposition of a proposition that is parallel to the proposition denoted by the phrase which it syntactically modifies (Krifka 1999:111,

Eckardt and Fränkel 2012:1801, Tonhauser et al. 2013:100, Sæbø 2004:201–202, Heim 1992:189, Singh 2008:5, Winterstein 2011:322, Hardt et al. 2012:343).

(38)     [φ too] presupposes ψ parallel to φ

An equally common observation is that *too* is sometimes obligatory; compare (39a) to (39b):

(39)     Bill read *The Color Purple*.

    a.  #Harvey read the book.
    b.  Harvey read the book too.
    c.  Harvey read the same book.

Singh (2008) & Eckardt and Fränkel (2012) argue that the obligatoriness of *too* follows from Heim's (1991) Maximize Presupposition!, which requires language users to make their utterances presuppose as much as possible. In (39) *too*'s presupposition of a parallel proposition is met by virtue of the antecedent clause *Bill read The Color Purple*. Thus Maximize Presupposition! favors (39b) over (39a), which lacks an eventuality presupposition.

    What has, to the best of our knowledge, not been observed before is that *same* also repairs the infelicity of (39a) as shown in (39c). This follows straightforwardly if *same* carries a presupposition of a parallel eventuality. There is no competition between *too* and *same*, since they carry the same presupposition.

## 5.2     Two *Different*'s

Our proposal is that there are two *different*'s: DIFFERENT1 for external readings and DIFFERENT2 for internal. In support of this, we note that Danish uses different lexical items for the internal and external readings.

(40)     Alle børnene    læste *andre/forskellige    bøger.
      all   children.DEF read  different1/different2 books.
      *All the children read different books.*        **Internal Reading**

(41)     Susan læste The Color Purple. Hanne læste en anden/*forskellig    bog.
      Susan read  The Color Purple  Hanne read  a   different1/different2 book
      *Susan read The Color Purple. Hanne read a different book.*    **External Reading**

The internal reading in (40) requires *forskellig*, while the external reading in (41) requires *anden*. This suggests that *forskellig* might correspond to our DIFFERENT2, while *anden* corresponds to our DIFFERENT1.

    Numerous authors have suggested two *different's*: Moltmann (1992:441) notes a similar contrast for German "Anderer is used for . . . for the deictic use, . . . [while] Verschieden is used for the internal reading"; see also Beck (2000). Similar observations are made by (Charnavel 2015:163-

172) for Armenian, Bengali, Dutch, Hebrew, Italian, and Russian. In contrast, there is only one word for *same* in these languages, as well as in Danish. Charnavel also cites languages that do have multiple words for *same*, but these do not appear to track the distinction between internal and external readings. Rather, Charnavel argues that the two words for *same* express a type/token distinction. On the other hand, Sun (2018) argues that that the Mandarin distinction between *tong* and *xiangtong* is not type vs. token identity, but rather, identity vs. maximal similarity. The generalization seems to be that lexical distinctions in sameness do not line up with internal vs. external reading, while the lexical distinctions with difference do seem to line up with this distinction.

It is tempting to connect these cross-linguistic generalizations to our account, in which there are two *different*'s for the internal and external readings, and one *same* for both readings. However, there are at least two complications: first, the uses of the two lexical items for *different* do not always line up perfectly with the internal-external distinction (Beck (2000), Dotlačil (2010), Brasoveanu (2011)). For instance, with respect to our examples (40) and (41) above, there is nothing in our account which rules out the external reading for DIFFERENT2, as long as parallelism is respected. One solution would be that the external reading with DIFFERENT2 is blocked by the possibility of a external reading with the simpler DIFFERENT1. Secondly, the external/internal distinction is not fine-grained enough; number matters as does the distributivity of the licensor. More specifically, Dotlačil (2010) and other authors note that singular different does not give rise to an internal reading in the context of non-distributive plurals, as in (42):

(42)    Samuel and Jeremy read *a different book/different books.

While numerous authors have suggested two *different's*, previous authors have not made a distinction based on presuppositions, as we are proposing. It would be interesting to explore this further, to see whether the other distinctions made previously might be related to the current proposal. This will have to be relegated to future work.

## 5.3    Related work

Above we have focused on Brasoveanu's (2011) solution to the puzzle of internal readings of *same* and *different* and shown that a presuppositional approach allows for a simpler analysis, while maintaining the same empirical coverage. Before concluding we will briefly consider other recent analyses of *same* and *different*; for a review of earlier analyses (including Heim (1985), Dowty (1985), and Carlson (1987)) see Barker (2007:408–410) and Hardt and Mikkelsen (2015:295–299).

A key aspect of our proposal is that *same* and *different* generate eventuality-presuppositions. In this way, it is similar to the accounts of Carlson (1987) and Moltmann (1992), where the antecedent of *same* and *different* is an event. In our account a quantificational expression is required to license the internal reading. So-called dependent indefinites also require a quantificational licensor and Kuhn (2017) assimilates internal uses of *same* and *different* to these indefinites (see also Henderson (2014:49–50)).

Barker and Bumford (2013) point out that Brasoveanu's "analysis forces *different* to associate with whichever distributive operator takes narrowest scope". They show that this is not always correct, because of examples with multiple distributive operators, like (43).

(43)     Every boy gave every girl a different book.

Barker and Bumford (2013) argue that (43) has the following two readings, and that only the local reading is derived by Brasoveanu's approach:

- **Local:** For every boy $x$, for every pair of girls $y$ and $z$, $x$ gave a book $b_1$ to $y$ and $b_2$ to $z$ and $b_1 \neq b_2$

- **Non-local:** For every pair of boys $x$ and $y$ there is a pair of books $b_1$ and $b_2$, such that $b_1 \neq b_2$ and $x$ gave $b_1$ to every girl and $y$ gave $b_2$ to every girl.

Barker and Bumford (2013) describe an extension of Brasoveanu's account to allow for the ambiguity in cases like (43). In our account, there is no requirement that *different* associates with the local distributive operator. In general, presuppositions can be accommodated at different DRS-levels, and the eventuality presupposition generated by *different* should be no different in this regard. Thus we would expect our account to successfully handle examples with multiple distributive operators; however, we leave the details of this to future work.

Finally, Charnavel (2015) proposes that *same* and *different* are relational adjectives complemented by a, possibly null, DP or comparative clause. Internal readings arise from a reciprocal interpretation of a null DP standard. External readings arise from anaphoric or deictic interpretion of a null DP standard. This analysis is attractive in that it unifies internal, external and comparative (*This house is {the same}/{a different} color from that house.*) uses of *same* and *different*.

Some of these accounts cover empirical ground beyond that of our current proposal. However, it is not clear how any of them would capture the facts about event parallelism (section 3) that motivate the present proposal.

## 6.     Conclusions

In his initial study of internal readings, Carlson (1987:532) notes that "the sentence in some way or other provides its own context". In this paper we propose that this is done through accommodation, which is, after all, a general mechanism by which an expression can provide a context which is otherwise lacking. We have shown how internal and external readings for *same* and *different* reflect standard mechanisms of presupposition binding and accommodation. External readings involve only binding; internal readings involve binding and accommodation. Furthermore, internal readings involve a parallel eventuality presupposition, in addition to a nominal presupposition. That parallel eventuality presupposition is shared with the focus particle *too*, explaining the alternation between *same* and *too*. Our analysis relies on there being two lexical entries for *different*: one involving just a nominal presupposition and one involving both a nominal presupposition and a parallel eventuality presupposition. In support of this ambiguity, we note that some languages lexicalize external and internal *different* differently. Finally, we have suggested a general constraint on presupposition accommodation which favors binding when possible.

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