Sentence-Internal Readings of *Same / Different* as Quantifier-Internal Anaphora *

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1. Deictic / Sentence-External and Sentence-Internal Readings of *Same / Different*

The two goals of this paper are to (*i*) argue based on a cross-linguistic survey that deictic / sentence-external and sentence-internal readings of *same / different* should receive a unified account and (*ii*) outline such an account in a compositional dynamic system that, crucially, uses stacks – not total or partial variable assignments – and formalizes the semantic values of natural language expressions in terms of sets of stacks – not single stacks / variable assignments, as it is usually the case in Tarskian semantics. These two kinds of readings, exemplified in (1), (2) and (3) below, have been known to exist at least since Carlson (1987), but no unified account has been proposed to date; see Barker (2007) and Matushansky (2007) for recent discussions.

(1)   **a.** Mary recited *The Raven*. **b.** Then, Linus recited a different poem.
        (deictic / sentence-external: different from *The Raven*)
(2)   **a.** Mary recited *The Raven*. **b.** Then, every boy recited a different poem.
        (deictic / sentence-external: different from *The Raven*)
(3)   Every boy recited a different poem.
        (sentence-internal: for any two boys *a* and *b*, *a*'s poem is different from *b*'s poem)

The interpretation of *different* in (1b)/(2b) is sentence-external in the sense that it is anaphoric to the discourse referent (dref) introduced by the proper name *The Raven* in the previous sentence (1a)/(2a): in (1)/(2), *different* relates two drefs and requires their values, i.e., the actual entities, to be distinct. The interpretation of *different* in (3) is sentence-internal in the sense that it relates values of only one dref, namely the dref introduced by the narrow-scope indefinite *a poem*.[1] These values, i.e., the recited poems, covary with the values of the dref introduced by the universal quantifier *every boy* – and *different* requires the poems to be distinct relative to distinct boys.

Sentence-internal readings are licensed in English by distributive expressions, as Carlson (1987) observes. In particular, they are licensed by distributive quantifiers, e.g., *every boy* in (3) above, or by distributively interpreted plurals, e.g., *the boys* in (4) below – but not by singular DPs or collectively interpreted plurals, as (5) and (6) below show.

(4)   The boys recited different poems. (Carlson 1987)
(5)   #Mary recited a different poem. (no sentence-internal readings with singulars)
(6)   #The boys gathered around different fires. (no sentence-internal readings with coll. plurals)[2]

We will focus on sentence-external readings and sentence-internal readings under morphologically singular, semantically distributive quantifiers like *every boy*, since these are the readings that are cross-linguistically realized by the same lexical item, as discussed in the following section.

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[1]Sentence (2b) is in fact ambiguous between a sentence-internal and a deictic / sentence-external reading.

[2]The sentence-internal reading is available if *the boys* denotes a set of groups of boys – and each group gathered around a different fire. Such group-level distributivity is basically the same as individual-level distributivity, modulo the fact that it licenses collective predicates like *gather*. This reading will not be discussed in the paper.

The main proposal is that distributive quantification temporarily makes available two drefs within its nuclear scope, the values of which are required by sentence-internal uses of *same / different* to be identical / distinct, much as their deictic uses require the values of two drefs to be identical / distinct.

This analysis is part of a more general project that can be characterized as decomposing quantification: *same* and *different* provide support for the idea that natural language quantification is a composite notion, to be analyzed in terms of discourse reference to dependencies that is multiply constrained by the various components that make up a quantifier.

2. The Cross-Linguistic Correlation Between Internal and External Readings

Cross-linguistically, the morphological realization and the distribution of *same* and *different* are not completely parallel, although they are largely similar. I will ignore this additional complication throughout the paper and focus on *different* and its counterparts in other languages.

The cross-linguistic generalizations about the morphological realization of sentence-internal and sentence-external readings of *different* are the following (see the **Appendix** for the primary data).

First, if a language has a lexical item that can have sentence-internal readings under quantifiers like *every/each boy* that are morphologically singular and semantically distributive, then that item can also have sentence-external readings, e.g., the English *different* or the German *anders*. Some languages, e.g., Russian, do not have such lexical items, so they express sentence-internal readings by means of an item like *own* – see the Russian example in (43) below (in the **Appendix**).[3]

Secondly, a language can have a lexical item that allows only for sentence-external readings, e.g., the English *other/another*, the French *autre* or the Russian *drugoe*.

Finally, a language can have a lexical item that can be used with morphologically plural DPs like *the boys* that have a distributive interpretation, but not with morphologically singular and semantically distributive quantifiers. When used with such plural distributive DPs, the item can have sentence-internal readings, e.g., the German *verschieden*.[4]

Thus, cross-linguistically, sentence-internal readings under morphologically singular and semantically distributive quantifiers pattern together with sentence-external readings, but not with sentence-internal readings under morphologically plural and semantically distributive DPs. Moreover, we have the following implicational universal: if a language has a lexical item that can have sentence-internal readings under singular and distributive quantifiers, then that item can also have sentence-external readings. The converse implication, however, does not hold – there are lexical items that can only have sentence-external readings even when they occur under singular and distributive quantifiers.

These generalizations, in particular, the implicational universal we have identified, indicate that we need a semantics for sentence-external and sentence-internal *different* that (*i*) assigns them a common meaning core and, at same time, (*ii*) 'constructs' sentence-internal readings out of this common core plus some additional meaning component(s). Such an account is outlined in the following section.

3. Sentence-Internal Readings as Quantifier-Internal Anaphora
3.1. Sentence-External Readings as Cross-Sentential Anaphora

Deictic / sentence-external readings are just an instance of cross-sentential anaphora, of the same kind as the typical discourse in (7) below. This discourse is straightforwardly analyzed in DRT (Kamp 1981, Kamp & Reyle 1993) / FCS (Heim 1982) / DPL (Groenendijk & Stokhof 1991): the indefinite in sentence (7a) introduces a dref u_0 – symbolized by the superscript on the indefinite article – and this dref is then retrieved by the pronoun in (7b) – symbolized by the subscript on the anaphoric pronoun. Discourse (7) as a whole is represented by the two Discourse Representation Structures (DRSs), a.k.a. (linearized) boxes, in (8).

(7) **a.** A^{u_0} man came in. **b.** He_{u_0} sat down.

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[3]*Own* or similar possessive items can be used to express sentence-internal readings even in languages like English, German, Romanian etc. that have a sentence-internal *different*. I leave for future research an investigation of these items and a comparison between the various ways in which sentence-internal readings can be expressed.

[4]See Beck (2000) for more discussion of German and Laca & Tasmowski (2003) for more discussion of French.

(8) $[u_0 \mid man\{u_0\}, come\_in\{u_0\}]; [sit\_down\{u_0\}]$

DRSs are pairs of the form [**new drefs** | **conditions**], the first member of which consists of the newly introduced drefs, while the second member consists of the conditions that the previously introduced drefs have to satisfy. The first DRS in (8) is contributed by sentence (7a): we introduce a new dref u_0 and require its value to be a man that came in.[5] The second DRS, contributed by sentence (7b), does not introduce any new drefs (the first member of the pair is empty, so we omit it), it just further constrains the previously introduced dref u_0 to store an individual that sat down. The two DRSs are dynamically conjoined, symbolized as ";". Dynamic conjunction ensures that the anaphoric information contributed by the first DRS (i.e., the fact that u_0 stores a man that came in) is available to the second DRS.

The analysis of deictic / sentence-external readings follows the same general format. The proper name *The Raven* in (9a) below introduces a new dref u_1 storing the poem *The Raven*. This dref is subsequently retrieved by the adjective *different* in (9b).

(9) **a.** Mary^{u_0} recited *The Raven*^{u_1}. **b.** Then, every^{u_2} boy recited a^{u_3} different$_{u_1, u_3}$ poem.

The adjective *different* constrains the value of the anaphorically retrieved dref u_1 in two ways.

First, it requires u_1 to satisfy the conditions contributed by the nominal phrase following *different* – in this case, it requires u_1 to be a poem. To see this, replace the indefinite *a poem* in (9b) with the indefinite *a different passage of Scripture*: this yields an infelicitous discourse. This requirement is a presupposition, as shown by the standard S-tests for presupposition projection, e.g., the question *Did every boy recite a different passage of Scripture?* is also infelicitous in the context of sentence (9a).

Secondly, *different* requires the value of the anaphorically retrieved dref u_1 to be distinct from the value of the dref contributed by the indefinite article that precedes *different* – in this case, u_3. This requirement is part of the asserted / at-issue content, as the S-tests also show. For example, consider *different* under negation: *Mary recited* The Raven, *as she promised, but Linus didn't recite a different poem, despite what he promised.* In this example, the poem that Linus recited is not distinct from *The Raven*, i.e., the distinctness requirement contributed by *different* is in the scope of negation.

3.2. Sentence-Internal Readings as Quantifier-Internal Anaphora

The main proposal is that the sentence-internal readings of *same* / *different* are parallel to the sentence-external ones in that they also involve anaphora and relate two drefs, requiring their values to be identical (for *same*) or distinct (for *different*). Singular distributive quantifiers like *every*^{u_0} *boy* introduce a distributive operator $\mathbf{dist}_{u_0}$ relative to which the nuclear scope of the quantifier is evaluated, as shown in (10) below. The $\mathbf{dist}_{u_0}$ operator checks in a *distributive, pointwise* manner whether the restrictor set of the quantifier (stored in the dref u_0) satisfies the nuclear scope of the quantification.

(10) Every^{u_0} boy $\mathbf{dist}_{u_0}$(recited a^{u_1} different$^{+2}_{u_0, u_1}$ poem).

(11)

This pointwise, distributive update proceeds as shown in (11) above. We start with no discourse information, represented by the discourse-initial information state $\emptyset$. The quantifier *every boy*^{u_0} introduces a new dref u_0 that stores the restrictor set of the quantifier, i.e., the set of boys. Then, we temporarily introduce two new drefs, each storing one and only one boy in the restrictor set u_0; the two

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[5]Just as in the Montagovian brace convention, I use curly braces in the representation of conditions to indicate that predicates apply to their dref arguments only after an index of evaluation – in this case, a variable assignment of the kind used in DRT / FCS / DPL – is supplied.

boys stored by the two drefs must be distinct. Then, we predicate the nuclear scope of the quantification of each temporary dref and simultaneously make all the necessary updates ('simultaneously' means something like 'simultaneous recursion' here). In particular, we associate each of the two boys under consideration with their corresponding u_1-poems.

The adjective $different^{+2}_{u_0,u_1}$ is anaphoric to the restrictor dref u_0 and is interpreted *in situ*, i.e., within the indefinite $a^{u_1} \ldots poem$: $different^{+2}_{u_0,u_1}$ tests that the two u_0-boys that we are currently considering are distinct and, also, that their corresponding u_1-poems are distinct (*same* would check that the two u_0-boys are distinct and that their corresponding u_1-poems are identical).

The superscript $+2$ on *different* is the one that tells us where to look for the boys and their corresponding poems: the two boys are stored by the drefs u_0 and u_{0+2} (i.e., u_2); their corresponding poems are stored by the drefs u_1 and u_{1+2} (i.e., u_3). This is a consequence of the fact that the $*$ operator in (11) above concatenates 'boy-poem' sequences.

The superscript on sentence-internal *different* is not arbitrary: it reflects how many drefs have been introduced prior to the occurrence of sentence-internal *different*. In our case, the superscript is $+2$ because we have already introduced the two drefs u_0 and u_1.[6]

Finally, we repeat this procedure for any two distinct individuals stored in the restrictor set u_0. When we are done checking all pairs of u_0-individuals, we sum together all the updates thus obtained.

The procedural flavor of the above informal description is just an expository device. The formal analysis (provided in Brasoveanu 2008) directly encodes the non-procedural, guiding intuition that sentence-internal readings of *same* / *different* provide a window into the internal structure of distributive quantification: distributivity does not merely involve selecting one individual at a time from the restrictor set and checking that the nuclear scope holds of this individual, but distributivity involves selecting *pairs* of distinct individuals and *simultaneously* evaluating the nuclear scope relative to each individual.

This is why sentence-internal readings are licensed only in the nuclear scope of distributive DPs (as observed in Carlson 1987): the very process of distributively evaluating the nuclear scope temporarily constructs the same kind of contexts that license anaphoric, sentence-external readings.

Summarizing, the analysis is just this: sentence-internal readings are quantifier-internal / distributivity-internal anaphora. That is, we 'construct' the meaning of sentence-internal *different* out of the meaning of sentence-external *different* plus an additional component, visually represented by the superscript on sentence-internal *different*. We therefore capture the implicational universal that the availability of sentence-internal readings implies the availability of sentence-external readings, but not *vice versa*.

4. Independent Motivation for Stacks, Plural Info States and Their Concatenation

This section briefly discusses the formalization of the main features of the analysis and provides independent empirical motivation for them. These features are: (*i*) interpreting expressions relative to *sets* of assignments / sequences of individuals and not single assignments (the assignments are the rows storing boys and poems in (11) above; **dist** operators distribute over such sets); (*ii*) making multiple drefs simultaneously available by *concatenating* assignments / sequences (this is what happens when we 'simultaneously' consider multiple boys and their corresponding poems in the scope **dist** operators); (*iii*) finally, the fact that we distribute over *pairs* of individuals instead of single individuals.

These three features of the analysis are independently motivated by: (*i*) quantificational subordination, the analysis of which also requires a semantics based on sets of assignments and not merely on single assignments (see Brasoveanu 2007); (*ii*) the availability of both dependent and independent anaphora in the scope of distributors like *each*, which Nouwen (2007) accounts for by means of assignment / sequence concatenation; (*iii*) the interpretation of dependent indefinites (e.g., indefinites preceded by the item *cîte* in Romanian or reduplicated indefinites in Hungarian; see Farkas (1997, 2007)), which also require the simultaneous availability of two individuals in the scope of distributive quantifiers.

For reasons of space, I will only discuss the first two features, namely the use of sets of assignments / sequences, a.k.a. plural info states, and the concatenation operation defined over them. For a discussion

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[6]The superscript is basically the length of the sequence of individuals relative to which *different* is interpreted – more precisely, the length of the initial sub-sequence up to and including the dref that is introduced by the indefinite DP that *different* is a part of. I will ignore this here and leave a more systematic theory of anaphora 'indexation' for future research (as Bittner (2007) argues, such a theory can and should be provided in stack-based systems).

of pair-based distributivity (i.e., the availability of two drefs in the scope of distributive quantification) and the fact that it is independently motivated by dependent indefinites, see Brasoveanu (2008), which also provides all the formal details of the present account of *same* and *different*.

The fact that we need to define a concatenation operation over sequences of individuals requires us to formally model such sequences as stacks (following Bittner (2007), Nouwen (2007) and references therein), instead of modeling them in the customary way, i.e., in terms of total or partial variable assignments. The most important difference between total / partial variable assignments and stacks is that we can always introduce new drefs (i.e., new variables) – even if we use a variable / stack position that we previously used – and we never override old drefs (i.e., old variables), that is, we never lose previously introduced anaphoric information – even in the cases in which we reuse variables / stack positions. We always add information to a stack and we do this in an orderly manner, based on the particular position in the stack that the update targets. It is this feature of stack manipulation that enables us to define the notion of stack / sequence concatenation that we need for our **dist** operators.

The length of a stack i, abbreviated $\mathbf{lng}(i)$, is provided by the 'leftmost' position in which the stack stores an individual – to which we need to add 1, because the first position in the stack is the 0-th position. An example of a stack of length 4 (that is, $\mathbf{lng}(i) = 4$) is provided in (12) below. The positions in a stack can be indicated by either natural numbers or drefs (i.e., variables) that have natural numbers as indices. Indices on drefs are essential: they indicate the stack position where the value of the dref is stored.

(12)

0	1	2	3
α	β	γ	δ

or, equivalently:

u_0	u_1	u_2	u_3
α	β	γ	δ

(13)

Plural Info State I	u_0	u_1	u_2	...
i_1	α_1	β_1	γ_1	...
i_2	α_2	β_2	γ_2	...
i_3	α_3	β_3	γ_3	...
...	...	...	...	...

or, equivalently:

u_0	u_1	u_2	...
α_1	β_1	γ_1	...
α_2	β_2	γ_2	...
α_3	β_3	γ_3	...
...	...	...	...

Just as in Dynamic Plural Logic (van den Berg 1996), information states $I, J, \ldots$ are modeled as *sets* of stacks $i_1, i_2, i_3, \ldots$, represented as matrices with stacks / sequences as rows – see (13) above. Plural info states enable us to encode discourse reference to both quantifier domains and quantificational dependencies. The quantifier domains are the sets of objects that are stored in the columns of the matrix, e.g., the dref u_0 stores the set of individuals $\{\alpha_1, \alpha_2, \alpha_3, \ldots\}$ relative to the plural info state I in (13) because u_0 is assigned an individual by each stack / row in the info state I. The quantificational dependencies are encoded in the rows of the matrix, e.g., the individual assigned to the dref u_0 by each stack / row i_1, i_2 etc. in I is correlated with the individual assigned to the dref u_1 by the same stack.

Stacks and plural info states can be concatenated, e.g., concatenating two stacks of length 2 yields a stack of length 4 and concatenating two info states of length 2 yields an info state of length 4:

(14)

u_0	u_1
boy_1	$poem_1$

$*$

u_0	u_1
boy_2	$poem_2$

$=$

u_0	u_1	u_2	u_3
boy_1	$poem_1$	boy_2	$poem_2$

(15)

u_0	u_1
boy_2	$poem_2$

$*$

u_0	u_1
boy_1	$poem_1$
boy_2	$poem_2$
boy_3	$poem_3$

$=$

u_0	u_1	u_2	u_3
boy_2	$poem_2$	boy_1	$poem_1$
boy_2	$poem_2$	boy_2	$poem_2$
boy_2	$poem_2$	boy_3	$poem_3$

Brasoveanu (2007) independently argues that we need a semantics based on plural info states to account for quantificational subordination. Consider the example of quantificational subordination in (16) below (from Karttunen 1976). One of the interpretations of discourse (16) is that Harvey courts a different woman at every convention and, at each convention, the woman courted by Harvey at that convention comes with him to the banquet of the convention. The singular pronoun she_{u_0} and the adverb $always_{u_1}$ in sentence (16b) elaborate on the quantificational dependency between conventions and women introduced in sentence (16a).

(16) **a.** Harvey courts a^{u_0} woman at every^{u_1} convention. **b.** She$_{u_0}$ always$_{u_1}$ comes to the banquet with him. [**c.** The$_{u_0}$ woman is usually$_{u_1}$ also very pretty.]

Plural info states enable us to give a semantics for sentence (16a) that, as a result of the very process of interpreting sentence (16a), (*i*) introduces two quantifier domains (the conventions and the women) and a quantificational dependency between them (the 'being courted by Harvey' relation), (*ii*) stores the
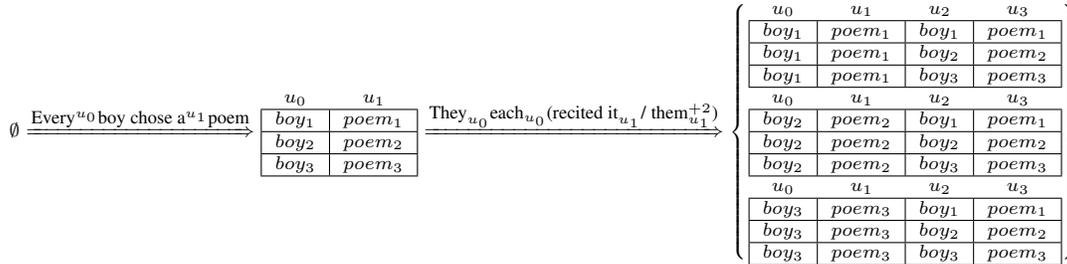
quantifier domains and quantificational dependency in a plural info state and, finally, (*iii*) passes on this info state to sentence (16b), which further elaborates on it. Thus, we need plural info states not only for the quantifier-internal dynamics that licenses sentence-internal readings of *same / different*, but also for the quantifier-external dynamics involved in quantificational subordination.

The example of cross-sentential anaphora to quantifier domains in (17) below (based on Nouwen 2007) provides similarly independent motivation for the use of stacks and stack-concatenation operations. In sentence (17b), we can refer back to the narrow-scope indefinite a^{u_1} *poem* with the singular pronoun it_{u_1}, in which case (17b) says that each boy recited the poem he chose (that is, we elaborate on the quantificational dependency between boys and poems introduced in sentence (17a)) – or with the plural pronoun $them_{u_1}$, in which case (17b) says that each boy recited all the poems under consideration.

(17)   **a.** Every^{u_0} boy chose a^{u_1} poem. **b.** Then, they$_{u_0}$ each$_{u_0}$ recited it$_{u_1}$ / them$_{u_1}$.

Thus, in the scope of the distributor each$_{u_0}$ in (17b), we need to have access to both the dependency between boys and poems and the entire set of poems introduced in sentence (17a). Nouwen (2007) proposes to give a semantics for *each$_{u_0}$* in terms of stack concatenation to account for the availability of both distributive / dependent and collective / independent anaphora in its scope.

The update contributed by sentence (17a), schematically represented below, relates an input and an output plural info state. As before, the discourse-initial input state $\emptyset$ stores no anaphoric information. The output state is a set of stacks that stores all the boys in its first column and their corresponding poems in the second column (the boy-poem dependency is stored stack-wise). The update contributed by sentence (17b) and, in particular, by the distributor *each$_{u_0}$*, further updates this output info state. First, we temporarily introduce each boy, one at a time, and his corresponding poem and concatenate this stack with the entire input stack. Then, we check that the update in the scope of *each$_{u_0}$* holds relative to the resulting stacks of length 4, which can now license both distributive / dependent anaphora (i.e., the singular pronoun) and collective / independent anaphora (i.e., the plural pronoun).

$$\emptyset \xrightarrow{\text{Every}^{u_0}\text{ boy chose a}^{u_1}\text{ poem}}
\begin{array}{|c|c|}
u_0 & u_1 \\
boy_1 & poem_1 \\
boy_2 & poem_2 \\
boy_3 & poem_3 \\
\end{array}
\xrightarrow{\text{They}_{u_0}\text{ each}_{u_0}(\text{recited it}_{u_1}/\text{them}^{+2}_{u_1})}$$

u_0	u_1	u_2	u_3
boy_1	$poem_1$	boy_1	$poem_1$
boy_1	$poem_1$	boy_2	$poem_2$
boy_1	$poem_1$	boy_3	$poem_3$
u_0	u_1	u_2	u_3
boy_2	$poem_2$	boy_1	$poem_1$
boy_2	$poem_2$	boy_2	$poem_2$
boy_2	$poem_2$	boy_3	$poem_3$
u_0	u_1	u_2	u_3
boy_3	$poem_3$	boy_1	$poem_1$
boy_3	$poem_3$	boy_2	$poem_2$
boy_3	$poem_3$	boy_3	$poem_3$

The plural pronoun $them^{+2}_{u_1}$ is marked as independent / collective by its superscript $+2$. This superscript indicates that the pronoun retrieves not the single u_1-poem currently under consideration, but all the poems, which are stored two positions to the right of u_1, i.e., by the dref $u_{1+2} = u_3$. Just as in the case of sentence-internal *different*, the superscript on the pronoun is not arbitrary: it depends on how many drefs have been previously introduced. In our case, the superscript is $+2$ because we introduced the two drefs u_0 and u_1 prior to the occurrence of the pronoun $them$.

The cross-sentential availability of multiple drefs in (17) is made possible by the fact that the distributor *each* temporarily introduces new drefs by selecting a subset of stacks from a particular plural info state and concatenating this subset of stacks with another set of stacks. It is the same stack-concatenation technique that we use to define the quantifier-internal distributive operator needed for our account of *same* and *different*.

5. Extensions: Distributing over Times and Events

To conclude, I will only mention that the same kind of distributivity operators can be used to license sentence-internal readings of *same / different* in the scope of distributively-interpreted pluralities of time intervals or events, exemplified by *Linus read different poems every day* and *Linus wrote and read the same poem*: we are able to distribute over a set of times or a set of events stored in a plural info state in much the same way as we distribute over a set of individuals.

Appendix. Three Uses of *Different*, Cross-Linguistically

Bulgarian:

(18) *Meri izrecitira* Garvanăt. *Sled tova, vsjako momče izrecitira (po) (edno) različno/drugo*
Mary recited *Raven.the*. After that, every boy recited (DIST) (one) different
stihotvorenie.
poem.

'Mary recited *The Raven*. Then, every boy recited a different poem.'

(19) *Vsjako momče izrecitira (edno) različno stihotvorenie.*
Every boy recited (one) different poem

'Every boy recited a different poem.'[7]

(20) *Momčetata izrecitiraha različni stihotvorenija.*
Boys.the recited different.pl poems

'The boys recited different poems.'[8]

French (see also Laca & Tasmowski (2003)):

(21) *Marie a récité* Le Corbeau. *Puis, chaque garçon a récité un autre poème / un*
Maria HAS recited *The Raven*. Then, every boy HAS recited an other poem / a
poème différent.
poem different.

'Mary recited *The Raven*. Then, every boy recited a different poem.'

(22) *Chaque garçon a récité un poème différent.*
Every boy HAS recited a poem different

'Every boy recited a different poem.'

(23) *Les garçons ont récité des poèmes différents.*
The.pl boys HAVE recited DE.pl poems different.pl

'The boys recited different poems.'

German (see also Beck (2000)):

(24) *Maria sagte* Der Rabe *auf. Dann sagte jeder Junge ein anderes Gedicht auf.*
Maria said *The Raven* PART. Then said every boy an other poem PART.

'Mary recited *The Raven*. Then, every boy recited a different poem.'

(25) *Jeder Junge sagte ein anderes Gedicht auf.*
Every boy said an other poem PART

'Every boy recited a different poem.'[9]

(26) *Die Jungen sagten verschiedene Gedichte auf.*
The boys said different poems PART

'The boys recited different poems.'[10]

Greek:

(27) *I Maria apingile* To Koraki. *Meta kathe aghori / ta aghoria apingil-e/an ena*
The Mary recited *The Raven*. Then every boy / the boys recited-3sg/pl one
dhiaforetiko piima.
different poem.

'Mary recited *The Raven*. Then, every boy / the boys recited a different poem.'

(28) *Kathe aghori apingile apo ena dhiaforetiko piima.*
Every boy recited DIST(lit.:from) one different poem

'Every boy recited a different poem.'

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[7]This is also possible: *Vsjako momče izrecitira po edno različno stihotvorenie* (Every boy recited DIST one different poem).

[8]This is also possible: *Momčetata izrecitiraha po edno različno stihotvorenie* (Boys.the recited DIST one different poem).

[9]This is also possible: *Jeder Junge sagte ein eigenes Gedicht auf* (Every boy said an own poem PART).

[10]This is also possible: *Die Jungen sagten unterschiedliche Gedichte auf.* (The boys said different poems PART).

(29) *Ta   aghoria apingilan dhiaforetika piimata.*
The boys   recited.pl different.pl poems
'The boys recited different poems.'

Hebrew:

(30) *meri diklema   et   ha-orev.   ve-az   kol   yeled diklem   šir*
Mary recited.3.sg.fem Acc DEF-raven. and-then every boy   recited-3.sg.masc poem
axer.
not-the-same.
'Mary recited *The Raven*. Then, every boy recited a different poem.'

(31) *kol   yeled diklem   šir   axer*
every boy   recited-3.sg.masc poem not-the-same
'Every boy recited a different poem.'

(32) *ha-y(e)ladim diklemu   širim šonim*
DET-boys   recited-3.pl poems different
'The boys recited different poems.'

Hindi:

(33) *Mary-ne   The Raven   recite kii.   phir har   laRke-ne ek alag   kavita   recite*
Mary-Erg *The.Raven*.fem recite do.pfv.fem. then every boy-Erg a   different poem.fem recite
kii.
do.pfv.fem.
'Mary recited *The Raven*. Then, every boy recited a different poem.'

(34) *har   laRke-ne ek alag   kavita   recite kii*
every boy-Erg a   different poem.fem recite do.pfv.fem
'Every boy recited a different poem.'

(35) *aRkoN-ne alag   alag   kavitaaeN recite kiiN*
boys-Erg different different poems.fem recite do.pfv.fem.pl
'The boys recited different poems.'

Hungarian:

(36) *Mari el-szavalta A Hollo-t.   Aztan minden fiu   el-szavalt   egy mas   verset.*
Mari away-recite *The Raven*-Acc. Then every boy away-recite an other poem.Acc.
'Mary recited *The Raven*. Then, every boy recited a different poem.'

(37) *Minden fiu   mas-mas   verset   szavalt el.*
Every boy other-other poem.Acc recite   away
'Every boy recited a different poem.'

(38) *A   fiuk mas-mas   verseket   szavaltak el.*
The boys other-other poem.pl.Acc recite   away
'The boys recited different poems.'

Romanian:

(39) *Maria a   recitat Corbul. Apoi, fiecare băiat a   recitat un alt   poem.*
Mary HAS recited *Raven.the*. Then, every boy   HAS recited a   different poem.
'Mary recited *The Raven*. Then, every boy recited a different poem.'

(40) *Fiecare băiat a   recitat cîte un alt   poem.*
Every boy   HAS recited CÎTE a   different poem.
'Every boy recited a different poem.'

(41) *Băieţii   au   recitat poeme diferite.*
Boys.the HAVE recited poems different.pl
'The boys recited different poems.'

Russian (see also Matushansky (2007)):

(42) *Mary pro-chita-la   Voron. Potom   kazhdyj mal'chik pro-chita-l   drugoe*
Mary pfv-read-pst.3s.fem *Raven*. Afterwards every   boy   pfv-read-pst.3s different
stixotvorenie.
poem.
'Mary recited *The Raven*. Then, every boy recited a different poem.'

(43) *Kazhdyj mal'chik pro-chita-l   svoje   stixotvorenie.*
Every   boy   pfv-read-pst.3s own   poem

'Every boy recited a different poem.'[11]

(44) *Mal'chiki pro-chita-li   raznye   stixotvorenija.*
Boys   pfv-read-pst.3pl different   poems

'The boys recited different poems.'

Spanish:

(45) *María recitó   El Cuervo. Después de eso, cada chico recitó   un poema distinto*
Mary   recite.pst.3s *The Raven*. After   DE that, each boy   recite.pst.3s a   poem   distinct
/ *diferente.*
/ different.

'Mary recited *The Raven*. Then, every boy recited a different poem.'

(46) *Cada chico recitó   un poema distinto   / diferente.*
Each boy   recite.pst.3s a   poem   distinct.masc.sg / different.masc.pl

'Every boy recited a different poem.'

(47) *Los chicos recitaron poemas distintos   / diferentes*
The boys   recited   poems   distinct.masc.pl / different.masc.pl

'The boys recited different poems.'

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[11]This is also possible: *Kazhdyj mal'chik prochital po stixotvoreniju* (every boy read DIST poem.Dat).