A Compositional Analysis of Scattered Reciprocals in Brazilian Portuguese
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Overview This presentation investigates reciprocal constructions found in Brazilian Portuguese I call Scattered Reciprocals (SRs). Building on novel data, I develop a compositional analysis of SRs.

Scattered Reciprocals SRs are constructions in which the phrases one and the other are distributed across the sentence. While the other occupies an argument position, one can appear in a wide range of different positions (1). The dependency between one and the reciprocal’s antecedent is locally constrained: it requires c-command and clause-boundedness (2).

(1) Os estudantes vão (um) ter (um) falado (um) com o orientador d-o outro.
the students will one have one spoken one with the supervisor of-the other
‘The student will have spoken with each other’s supervisor.’

(2) Os estudantes vão (um) dizer que a Maria falou (*um) com o orientador d-o outro.
the students will one say that the Maria spoke one with the supervisor of-the other
‘The student will each say that Maria spoke with the other’s supervisor.’

Syntactic Complexity A defining property of SRs, unnoticed by Belletti (1982) on her pioneering work on Italian reciprocals, is that the dependency between one and other is not constrained by locality: (3-4) show that this dependency can cross syntactic islands. This suggests that these two phrases are not linked via syntactic operations such as movement or Agree, given that these are locally constrained. Furthermore, it also rules out analyses of SRs as idioms or collocations.

(3) Eles leram um [o artigo que o outro escreveu].
they read one the paper that the other wrote
‘The students each read the paper the other wrote.’

(4) Eles perguntaram um [o que o outro leu].
they asked one what the other read
‘The students each asked what the other read.’

Number Features on ‘one’ and ‘the other’ The singular number features in both one and the other are semantically interpreted: in (5) we see that the agent of each subvent of the main reciprocal event must be singular; and in (6) that the theme of each such subvent must also be singular. I take this to support an analysis in which both one and other contribute to the truth conditions of sentences with SRs.

(5) Context: There are three friends. This year, whenever it is the birthday of the daughter of one of them, the other two friends will together buy her one car
False Esses amigos vão  (um) comprar um carro (um) para a filha d-o outro.
these friends will one buy a car one to the daughter of-the other
‘These friends will each buy a car to the other’s daughter.’

(6) Context: There are three friends. Each friend will see the other two friends meeting up at the park.
*Esses amigo vão um ver o outro se encontrar no parque.
these friends will one see the other SE meet in-the park
‘These friends will see each other meet up in the park.’

There’s evidence that the singular features of one and the other are also syntactically present: (7) shows that pluralia tantum nouns, such as costa-s ‘back’, cannot be antecedents of SRs.

(7) *As costas d-o João e d-a Maria estão uma encostando n-a outra.
the backs of-the João and of-the Maria are one touching on-the other
‘João and Maria’s backs are touching each other.’

Division of Labor between ‘one’ and ‘the other’ The pieces of SRs seem to individually contribute to the overall meaning of sentences containing them: the other is positioned in the second argument of the relation being reciprocated and introduces a non-identity condition, and one tracks down the scope of distributivity in these sentences. (8) shows that the scope of distributivity is always at least as low as the position of one. Note that floating one is not usually a distributor and cannot appear without the other (9).

(8) a. Eles vão comprar dois presentes um pr-o outro.
they will buy two presents one to-the other
‘They each bought the other person {one, two} presents.’

b. Eles vão um comprar dois presentes pr-o outro.
they will one buy two presents to-the other
‘They each bought the other person two presents.’

(9) (*two > DIST, DIST > two)
the same polyadic quantifier RECIP.

Proposition 1 analyze one as a floating quantifier: one is a quantifier stranded by A-movement of its antecedent (Sportiche 1989). This accounts for both its distribution and the fact that one and its antecedent must be in the same clause. I furthermore take one and the other to have elided (singular) NP restrictors, which accounts for the unacceptability of pluralia tantum nouns as antecedents.

(9) * Os estudantes vão um escrever um artigo.
    the students will one write one article

The interpretation of one and other in SRs are the same as the ones found elsewhere: the former is a predicate of singular entities, and the latter is a relation between non-identical individuals (11a-b). Thus, as in Arregi (2001), distributivity in SRs is not due to either one or the other, but to the independently motivated covert distributivity operator (Link 1987, Schwarzschild 1993). The obligatory presence of this operator in SRs is due to the fact that one and the reciprocal’s antecedent mismatch in number: the sentence would be contradictory if such operator wasn’t there.

(10) [D NP_pl]i ... [ um <NP_SG> [ ti ]]k ... [ the [other pro] <NP_SG> ]

The phrase the other will be taken to be interpreted compositionally, i.e., as a singular definite description. To avoid unwarranted uniqueness presuppositions in sentences in which the SRs antecedent is composed of more than two atomic individuals (in such cases, for each member of such plurality, there will be more than one member not identical to it), the present analysis will be framed within the framework of situation semantics, which, by relativizing descriptions to situations, allows for uniqueness to be weakened. The entry of a situation-semantics-friendly distributive operator is given in (12), and an LF and truth conditions for (1) is given in (13).

(11) a. [[one]] = λx.ι x | x = 1 b. [[other]] = λx.ι x x ≠ y
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(12) [[DIST]] = λx.∃p.∀y[<y x & C(y) → λs.ι [s ▷ s & P(s')(y)]]

(13) a. ∀x[<the.boys(s0) & C(x) → λs.ι [s ▷ s0]]
   & speak-with([boy(x')(s') & x' = 1 & x' = x])(μu[supervisor-of(u)(μy[boy(z)(s') & y ≠ x])])]

Extension to Other Reciprocals

Brazilian Portuguese has another similar construction which also involves the phrases one and the other, shown in (14). There are two key differences between such constructions and the SRs presented above: (i) they do not require an overt sentential antecedent, and (ii) one occupies an argument position.

(14) Um (menino) falou com o orientador d-o outro.
    one boy spoke with the supervisor of-the other
    ‘They/those boys spoke with each other.’ Lit: ‘One (boy) spoke with the other.’

An interesting property of such constructions is that one does not need to e-command other, as shown in (15). To the extent that one might want to give a unified analysis of these two reciprocal constructions, this supports one aspect of the analysis of SRs given above: one is not quantificational - it is only interpreted as a variable. If one was a quantifier, it would have to scope out a relative clause in (15), an environment known to be a scope island.

(15) [O livro que um escreveu] agradou o outro.
    the book that one wrote pleased the other
    ‘The book that A wrote pleased B and the book that B wrote pleased A.’

The present analysis of SRs can be easily extended to these constructions if one assumes that the covert distributive operator also has “referential uses.” An LF and truth conditions for (14) are given in (16).

(16) a. DISTC(pro) λx [[one boy [IDENT x]] speak with [the supervisor of [the [other x] <boy>]]]
   b. ∀x[<g(1) & C(x) → λs.ι [s ▷ s0]]
      & speak-with([boy(x')(s') & x' = 1 & x' = x])(μu[supervisor-of(u)(μy[boy(z)(s') & y ≠ x])])]

Significance

SRs are a kind of reciprocal constructions which are essentially complex. I’ve argued that, not only should they be treated as syntactically complex, but also semantically so. SRs are also not specific to Portuguese: they can also found in at least Italian and Greek. If the above analysis is on the right track, it goes against Dalrymple et al.’s (1998) proposal that reciprocal are universally mapped to the same polyadic quantifier RECIP.