AGREEMENT ATTRACTION IN PERSON IS SYMMETRIC

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I. AGREEMENT ATTRACTION

In comprehension, agreement attraction errors are found in both number and gender domains. Within each domain, the attraction effect is not symmetric: plural attractors cause more errors than singular (Nicol, Forster & Veres, 1997; Pearlmutter, Garnsey & Bock, 1999), and feminine – more than masculine (Tucker et al., 2015; but see Deutsch & Dank, 2011). The asymmetry is believed to stem from feature markedness: the marked value of a class is a more effective attractor than the unmarked.

Some researchers believe that it is the retrieval of a wrong element from memory that causes agreement attraction. But the retrieval interference alone cannot explain the asymmetry if all features are considered equal. Thus the proposed explanation of the agreement attraction effect currently cannot be reconciled with its manifestation.

II. FEATURE HIERARCHY

Linguistic universal:

PERSON > NUMBER > GENDER > CLASS
if a language possesses a feature, then it must have all the ones above it in the hierarchy.

→ Carminati (2005) proposed the Feature Hierarchy Hypothesis: the rank of feature in the linguistic universal corresponds to its "cognitive significance".

⇒ The hypothesis predicts either no agreement attraction in person or a smaller effect size (in comparison to the effects in number and gender) since person ranks the highest in the hierarchy and the mistakes in agreement should be traced at once.

→ Within the person domain, the 1st and the 2nd person are proposed to dominate the 3rd (Silverstein, 1985)

⇒ If there is agreement attraction, the 2nd person should be a stronger attractor than the 3rd.

→ An alternative possibility is that agreement attraction effect in person should be no different from that in number or gender; within the person domain no category value should be a stronger attractor than any other.

III. DESIGN

We conducted a 2×2 experiment in Russian manipulating the PERSON MARKING of the verb (2nd vs 3rd) and the MATCH/MISMATCH in person between the verb and the attractor (note that all conditions are ungrammatical):

(1) a. **2nd person, match/mismatch**

On, kak i ty / ja, zavtra v bassein ne pojd**esh** v takoj xolod.
He, just as **you**-2nd / **I**-1st, tomorrow to the pool not **go-2nd** in such a cold.

b. **3rd person, match/mismatch**

Ty, kak i on / ja, zavtra v bassein ne pojd**et** v takoj xolod.
You, just as **he**-3rd / **I**-1st, tomorrow to the pool not **go-3rd** in such a cold.

"Just as you, he will not go to the pool tomorrow in such a cold weather".

→ self-paced reading study with 59 participants
→ 32 experimental items, 147 fillers; 25% of all sentences were ungrammatical

We expected to find the main effect of match (i.e., the agreement attraction effect – a speedup in the match conditions), the main effect of person (a slowdown at reading the verb in the 2nd person, since its ending is one letter longer), and the interaction between the effects if the 2nd person is a stronger attractor.

IV. RESULTS
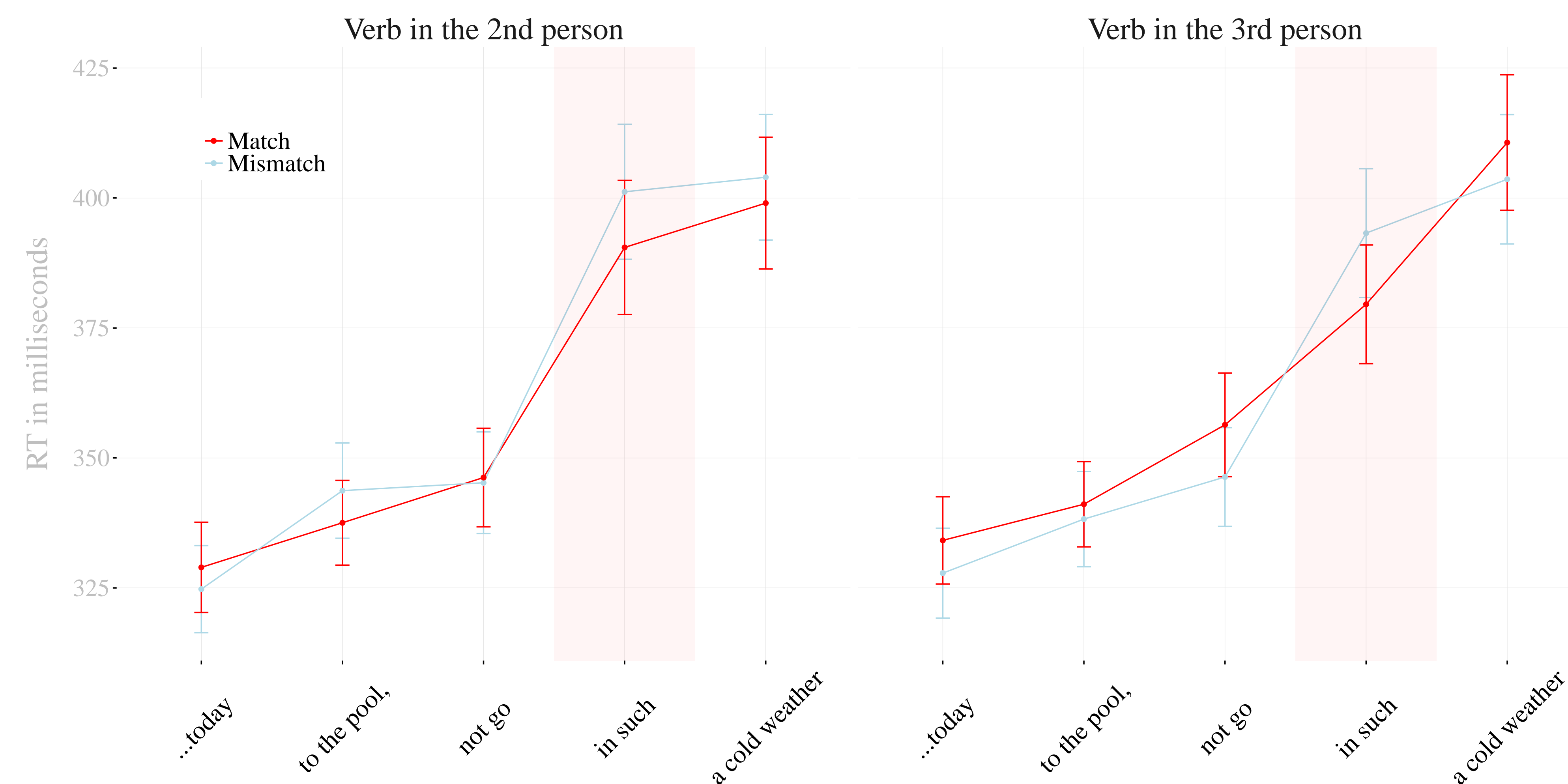
We found only a main effect of match in the region following the verb ($\hat{\beta}$=-.015, SE=.007, t=-2.27): it was read faster when the attractor matched the person marking on the verb. There was no interaction between the main efects of match and person, so the strong prediction of the Feature Hierarchy Hypothesis (no agreement attraction effects in person) was not borne out: the agreement attraction is present, albeit the effect size is small (∼10 ms).

V. THE ATTRACTION EFFECT
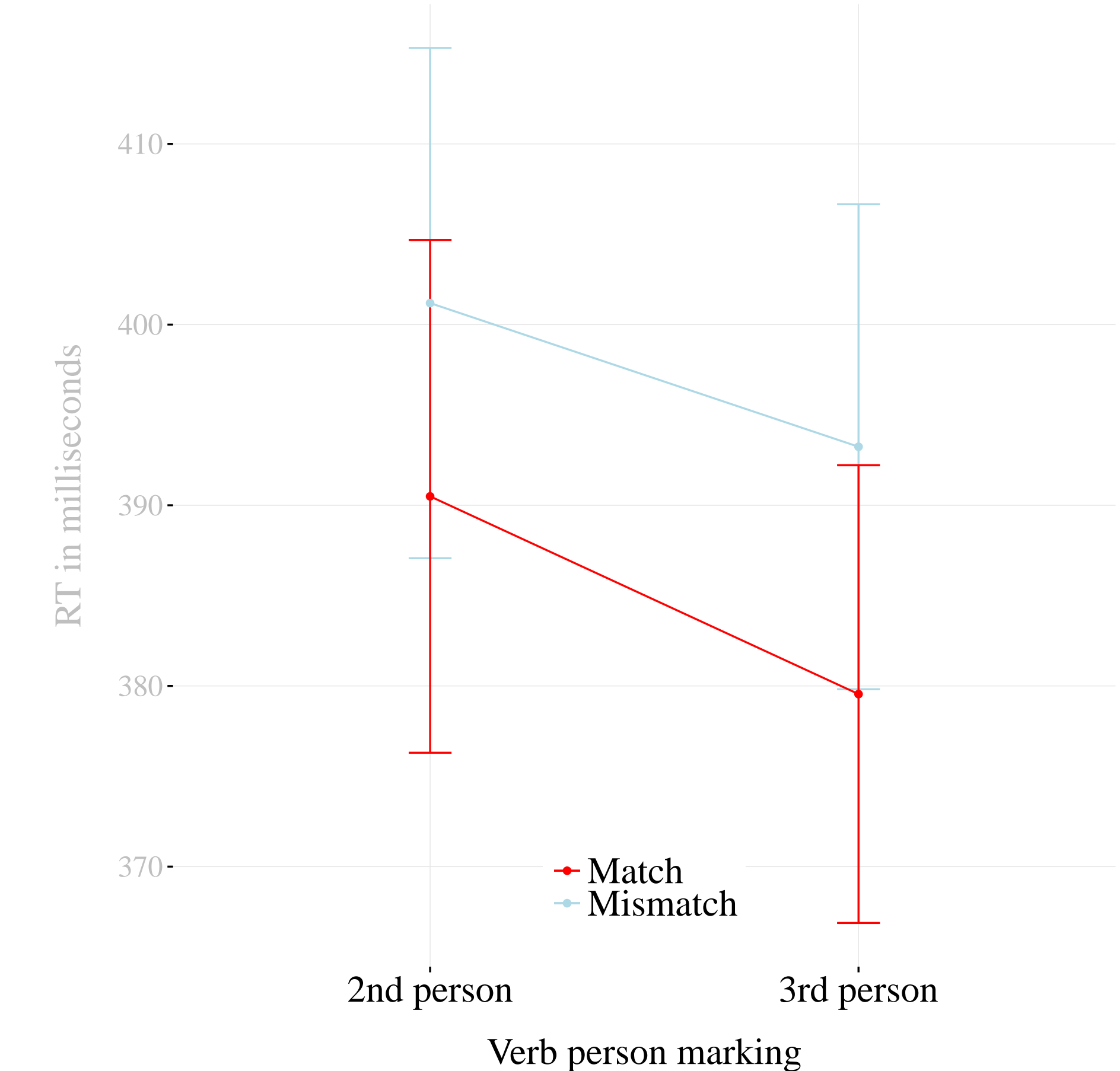
VI. DISCUSSION

→ Despite the highest cognitive significance rank, the person category is not immune to agreement attraction. We still need to test whether the effect size is smaller in person than in number or gender.
→ Within the person domain, the proposed difference in cogntive significance does not influence agreement attraction effect size.
⇒ So far our results do not support the Feature Hierarchy Hypothesis
⇒ Why should agreement attraction be symmetric in person and asymmetric in other domains? We suggest that marked attractors may affect agreement more than the unmarked only in certain syntactic configurations (see Häussler, 2012). In that case number and gender should exhibit symmetric attraction pattern in a syntactic framework similar to the presented one.

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