

Reconsidering agreement

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Habilitationskolloquium, 8. Juli 2003

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The range of the phenomenon

- Defining agreement is difficult
 - ‘a quite intuitive notion which is nonetheless surprisingly difficult to delimit with precision’ (Anderson 1992:103)
- The essential notion is **relational**
 - systematic covariation
 - of grammatical / linguistic forms
 - of feature specifications between two separate elements
- Nevertheless, the attempts to define agreement typically focus on the elements themselves

The range of the phenomenon

□ A typical scenario

- Agreement is interpreted as inherently **asymmetric**
 - The element which determines the agreement is the **trigger**.
 - The element whose form is determined by agreement is the **target**.
- The syntactic environment in which agreement occurs is the **domain** of agreement.
- And when we indicate visible effects of agreement, we are referring to agreement **features**.
 - (gender, person, number)

□ Insufficient insight into the nature of the relations holding between the ‘agreeing’ items (!)

Agreement in Slavic

‘Slavic languages are sufficiently similar and sufficiently different to provide an attractive research laboratory’
(Corbett 1998)

- Established generalisations across the Slavic family
 - Agreement within the noun phrase in **number** and **gender**
(noun → adjective)
 - Finite verbs agree with subjects in **person** and **number**, possibly in **gender**
(subject → verb)
 - Various types of pronoun, including the relative pronoun, agree with their antecedents in **number** and **gender**
(referential expression → pro-form)
- Agreement choices: *by the form* or *by the meaning*?
 - Mismatches between semantic and formal properties
 - Resolution strategies

What gives rise to alternative choices

➤ Individual lexical items

Ona xorošij / xorošaja
she good.M / good.F
She is a good doctor.

vrač.
doctor

➤ Honorifics

Vy rabotaete
you work.2PL
You(polite) work.

Vy priglašeny
you invited.PL
You(polite) are invited.

Vy molčalivaja
you silent.SG.F
You(polite) are silent.

➤ Conjoined phrases

○ Na nej byli
on her were.PL

sinij kostjum i novaja belaja bluzka.
blue suit.SG.M and new white blouse.SG.F

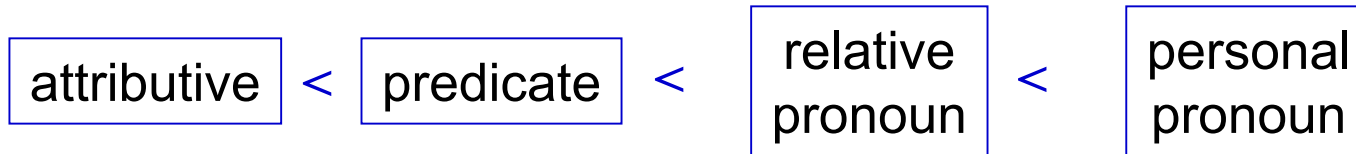
○ Na nej byl
on her was.SG.M

sinij kostjum i novaja belaja bluzka.
blue suit.SG.M and new white blouse.SG.F

She was wearing a blue suit and a new white blouse.

Constraints on agreement patterns

➤ Agreement Hierarchy (Corbett 1979, 1983, 1991)



- For any trigger that permits alternative agreement forms, as we move rightwards along the [Agreement Hierarchy](#), the likelihood of agreement forms with greater semantic justification will increase monotonically (that is, with no intervening decrease).

➤ Predicate Hierarchy (Comrie 1975, Corbett 1998)



- For any trigger that permits alternative agreement forms, as we move rightwards along the [Predicate Hierarchy](#), the likelihood of agreement forms with greater semantic justification will increase monotonically (that is, with no intervening decrease).

Some non-trivial cases

□ Analytical verb forms

Ti si štjala da dojdeš.
you.2SG AUX.2SG AUX.SG.F PRT come.2SG

Bulgarian: You would come (reportedly).

□ Co-dependents

Ona rastët sčastlivym rebënkom.
she.NOM.3SG.F grow.3SG happy.INST.SG.M child.INST.SG.M

Russian: She grows (up) as a happy child.

□ Clitic doubling

Maria ja vidjaxa maskirana.
Mary.SG.F ACC.3SG.F saw.3PL disguised.SG.F

Bulgarian: They saw Mary disguised.

Formal models

(Pollard & Sag 1994)

- “The **derivational** approach to agreement assumes a directional process that either copies or moves bundles of agreement features from a nominal, called the agreement controller, onto something that agrees with it, called the agreement target. On this view the agreement features of the agreement controller are somehow inherent and logically prior to those of the target ...”
- “A **constraint-based** approach to agreement, by contrast, assumes that two element that participate in an agreement relation specify partial information about a single linguistic object. Agreement is simply the systematic covariation in form that arises from the fact that information coming from two sources about a single object must be compatible. ... From the constrained-based perspective, agreement information might appear to ‘flow’ in one direction or another not because agreement is inherently directional in nature, but because agreement information is often underspecified in lexical forms.”

Formal models

Ja budu dovolen / dovol'na.
1SG be.1SG satisfied.SG.M satisfied.SG.F

Russian: I will be satisfied (man / woman talking).

$\left[\begin{array}{l} \text{number: singular} \\ \text{person: 1st} \end{array} \right]$ & $\left[\begin{array}{l} \text{number: singular} \\ \text{gender: feminine} \end{array} \right]$ \rightarrow $\left[\begin{array}{l} \text{number: singular} \\ \text{person: 1st} \\ \text{gender: feminine} \end{array} \right]$

Information-based (constraint-based) approach

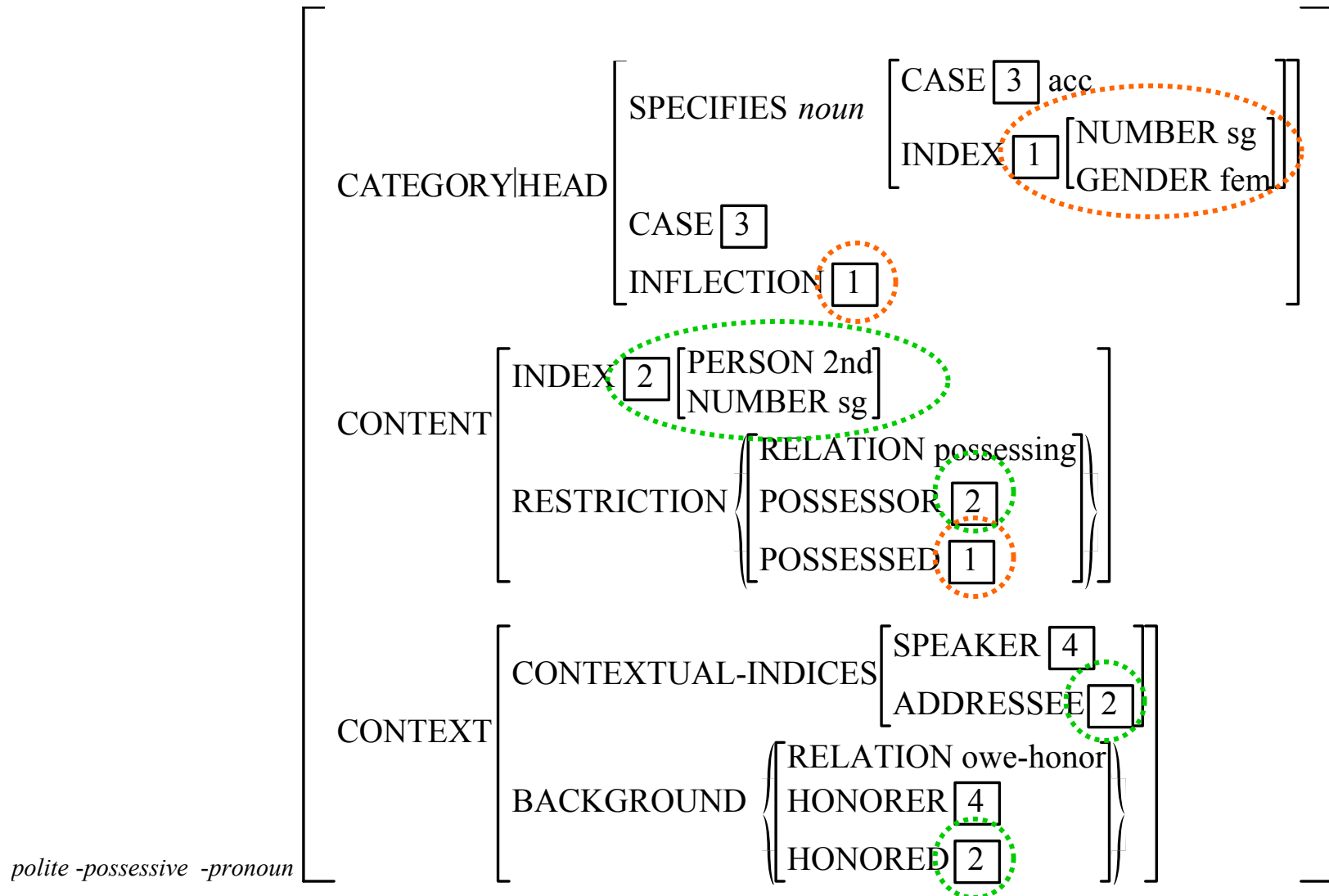
- Two elements participating in an agreement relation specify **partial information** about a **single** linguistic object
- Requirements of **compatibility** of certain lexically specified information result in systematic variation in form

Formal models

- Main concerns of the HPSG analysis:
 - A theory of **what kinds of objects** are affected (identified) by agreement processes
 - An account of partial lexical entries (i.e. of their **partial specifications**)
 - A general theory of the **constraints** that establish the token identity of the relevant agreeing structures
- Splitting the agreement information (Pollard & Sag 1994)
 - Token identity of referential indices
 - Inflection
 - Pragmatic consistency of contextual background assumptions
- A sample lexical entry ...

Encoding of agreement features

Ja kupila **Vašu** knigu. (Russian: I bought your book.)



Subtle shift of perspective

□ Research on agreement

- Long-standing tradition, especially in Slavic linguistics
- Complexity of agreement systems provides good reasons for concentrating on the covariation sources
- The relational aspect is only implicit and generally underrepresented

□ Needed: **linguistically motivated level of abstraction**

- In the attempts to define agreement
- In accommodating non-trivial instances of covariation
- In formalising the typology of agreement phenomena

How the 'agreeing' items are related

□ Directionality

➤ **Asymmetric** co-variation

- trigger-target configuration
- compatibility: *monotonic* vs. *non-monotonic* (resolved or partial)

➤ **Balanced** (distributed) co-variation

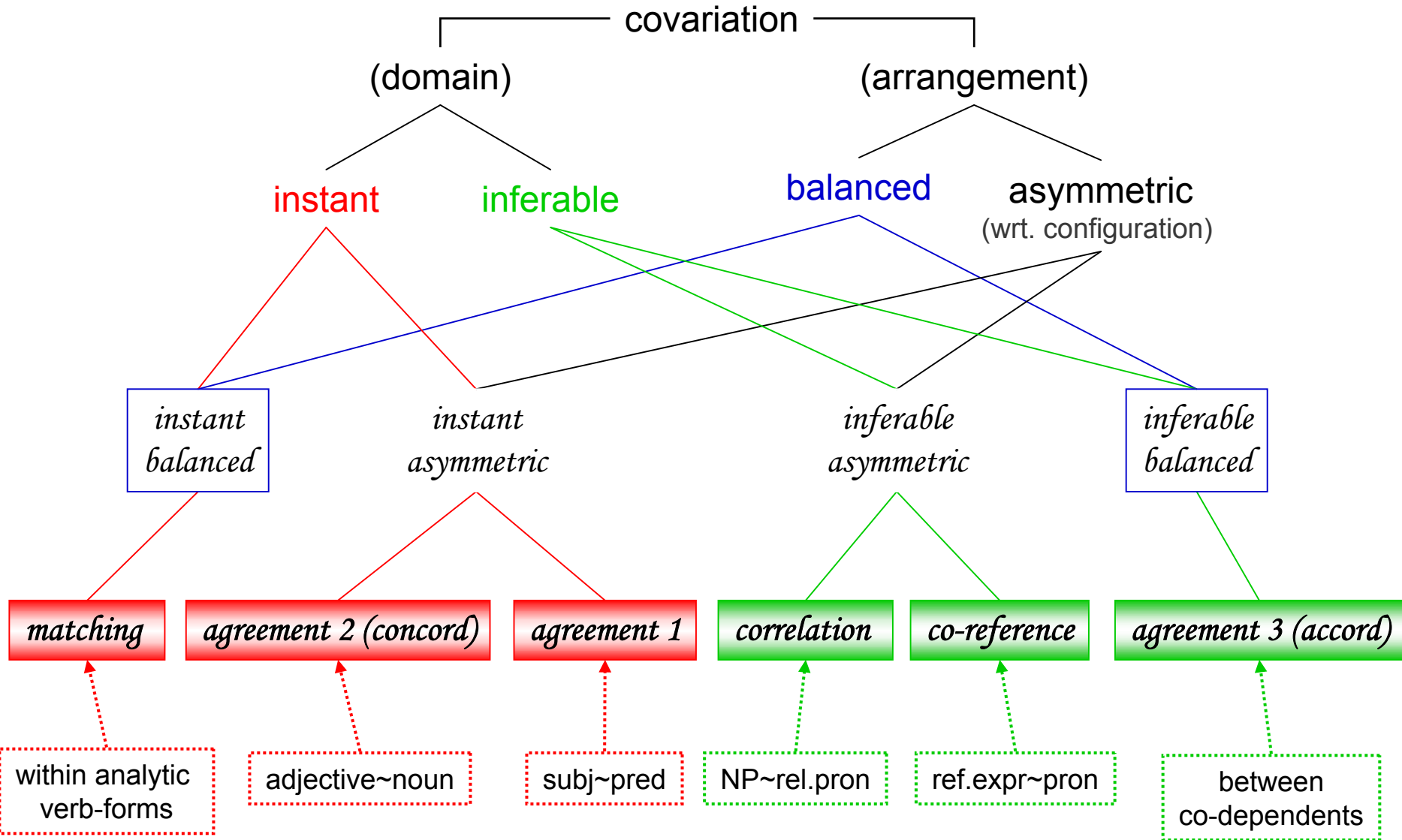
- cannot be formulated in directional terms
- 'agreeing' items are interpretable as co-targets of an external trigger

□ Domain

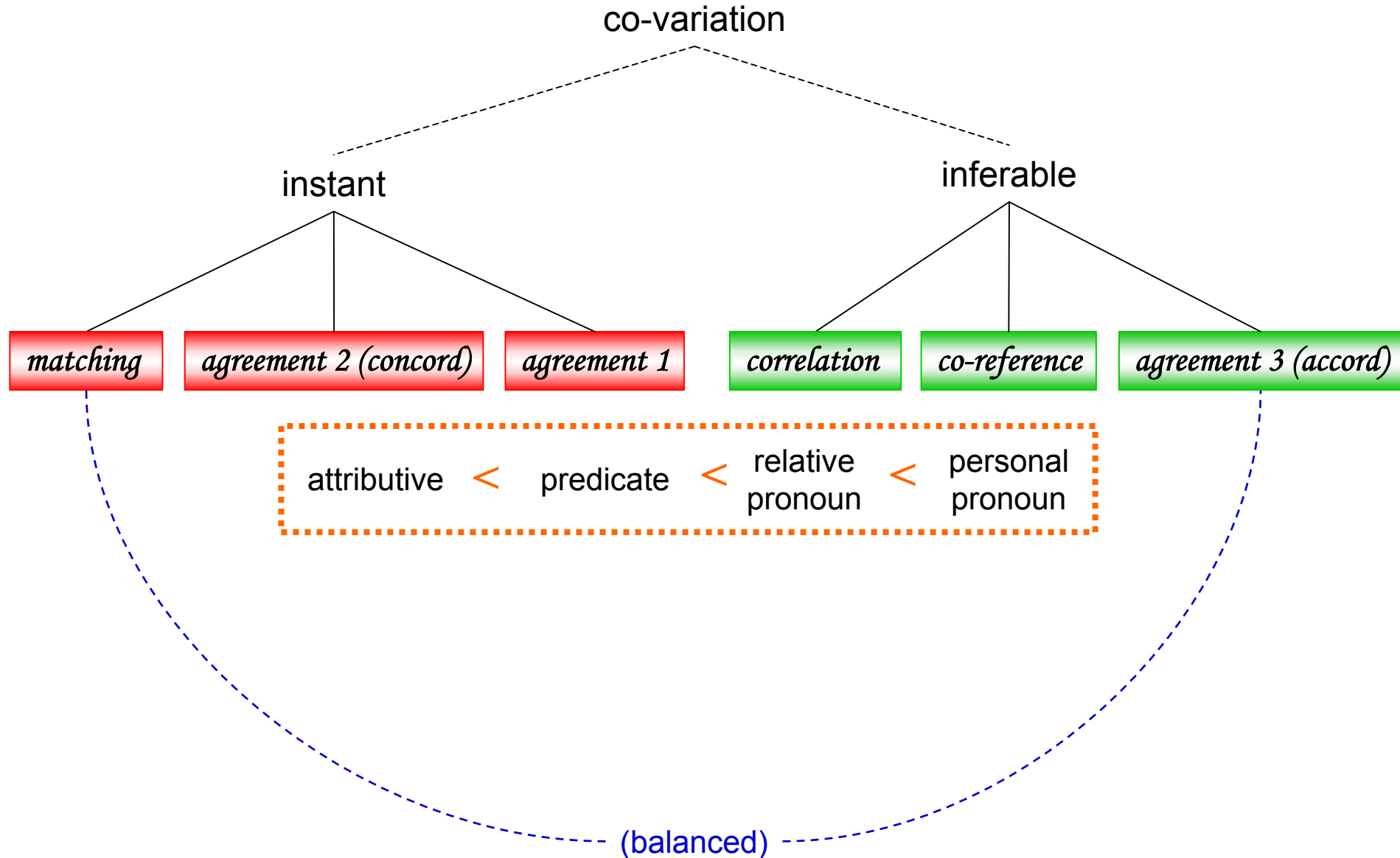
➤ **Instant** covariation (in immediate domains)

➤ **Inferable** covariation (in non-immediate domains)

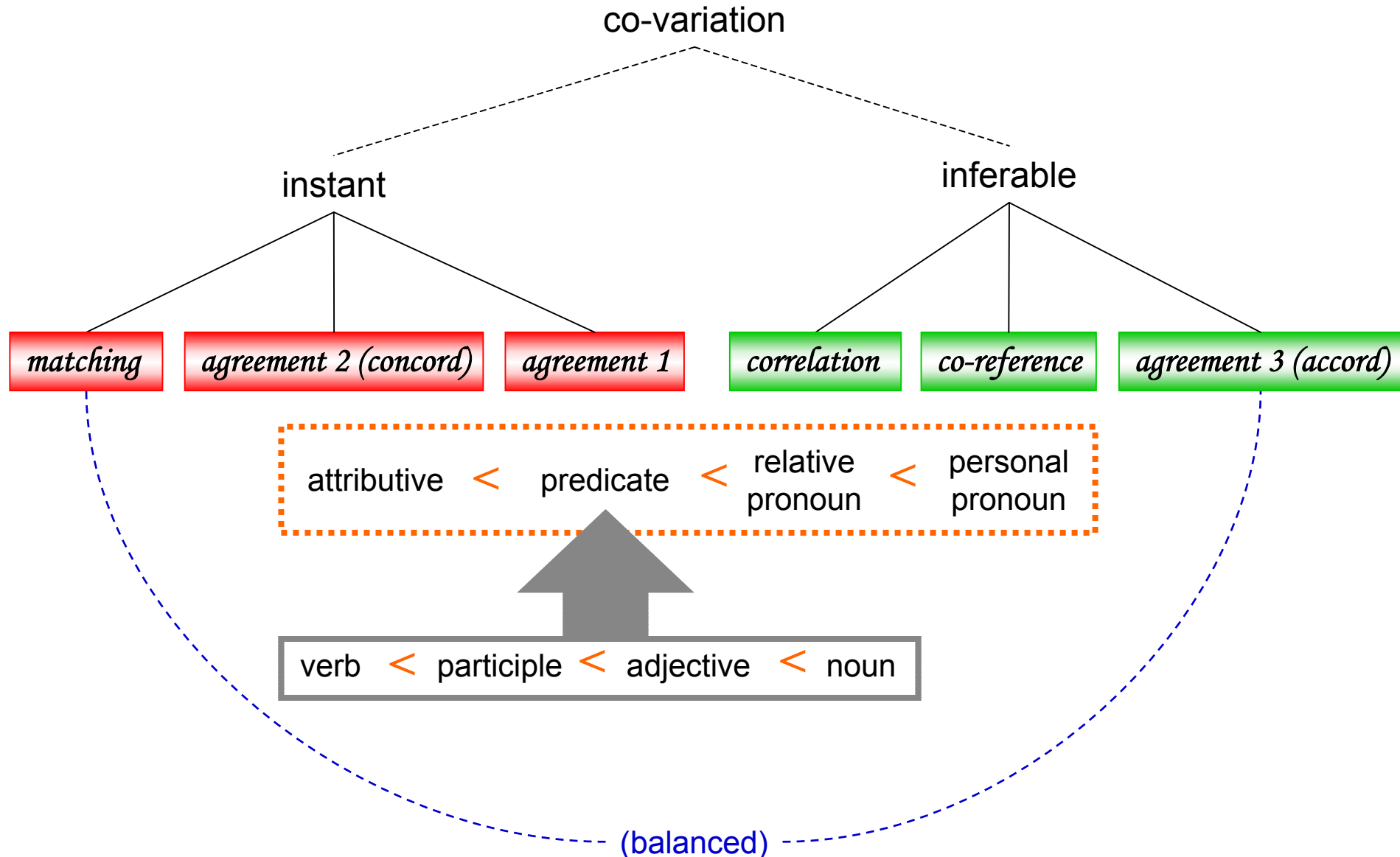
An ontology of covariation relations



Accommodating the Agreement Hierarchy



... and the Predicate Hierarchy



ex.1 (Russian)

Ona
she.NOM.3SG.F

rastët
grow.3SG

sčastlivym
happy.INST.SG.M

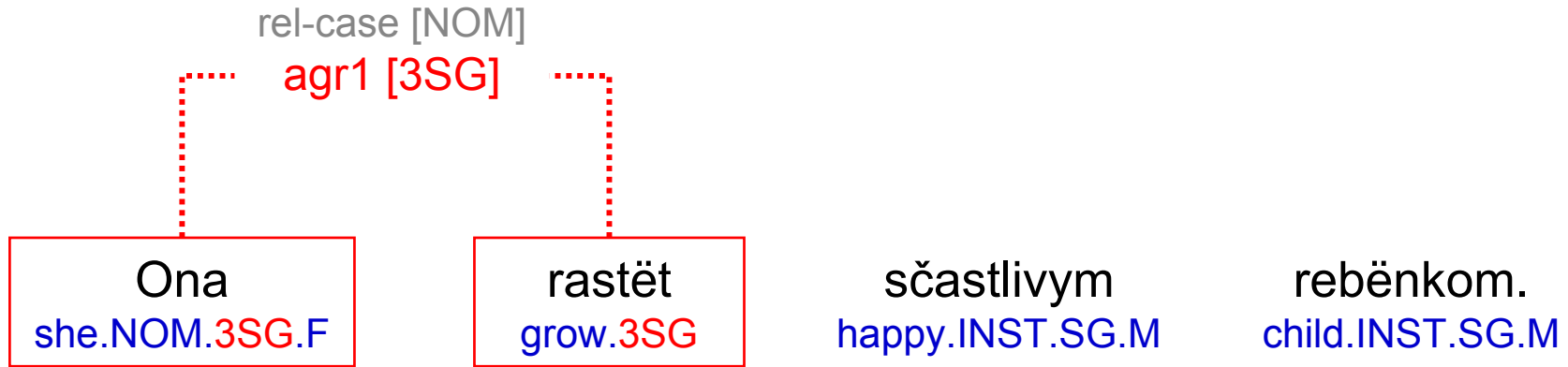
rebënkom.
child.INST.SG.M

“She grows (up) as a happy child.”

ex.1 (Russian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation



“She grows (up) as a happy child.”

ex.1 (Russian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation

Ona
she.NOM.3SG.F

rastët
grow.3SG

sčastlivym
happy.INST.SG.M

rebënkom.
child.INST.SG.M

con-case [INST]

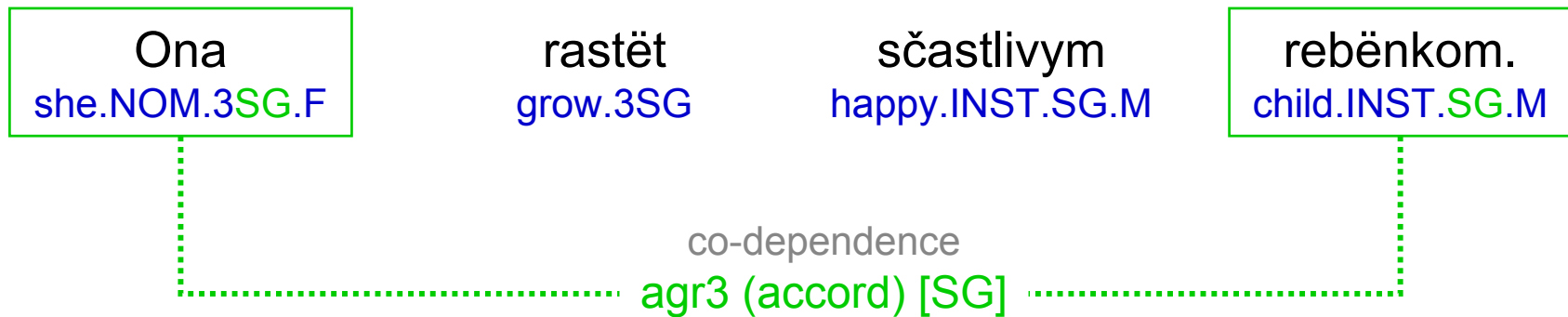
agr2 (concord) [SG.M]

“She grows (up) as a happy child.”

ex.1 (Russian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation

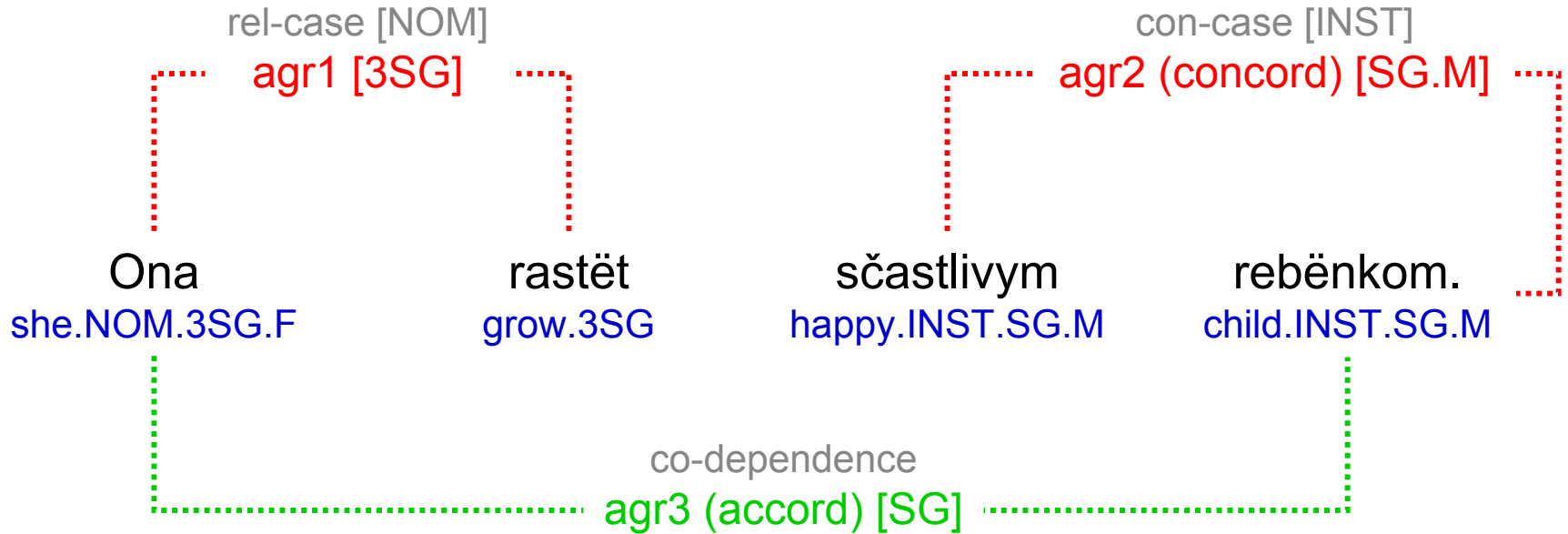


“She grows (up) as a happy child.”

ex.1 (Russian)

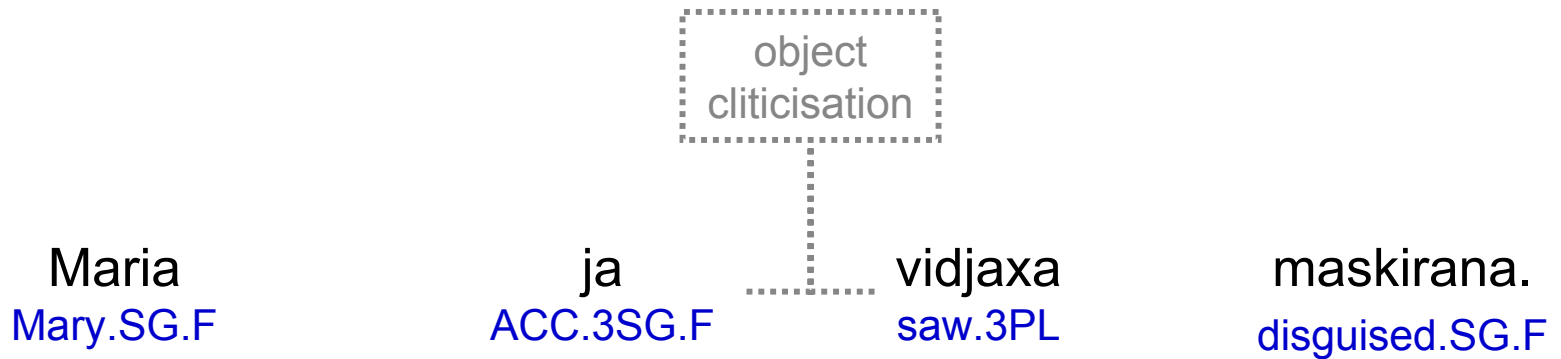
agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation



“She grows (up) as a happy child.”

ex.2 (Bulgarian)

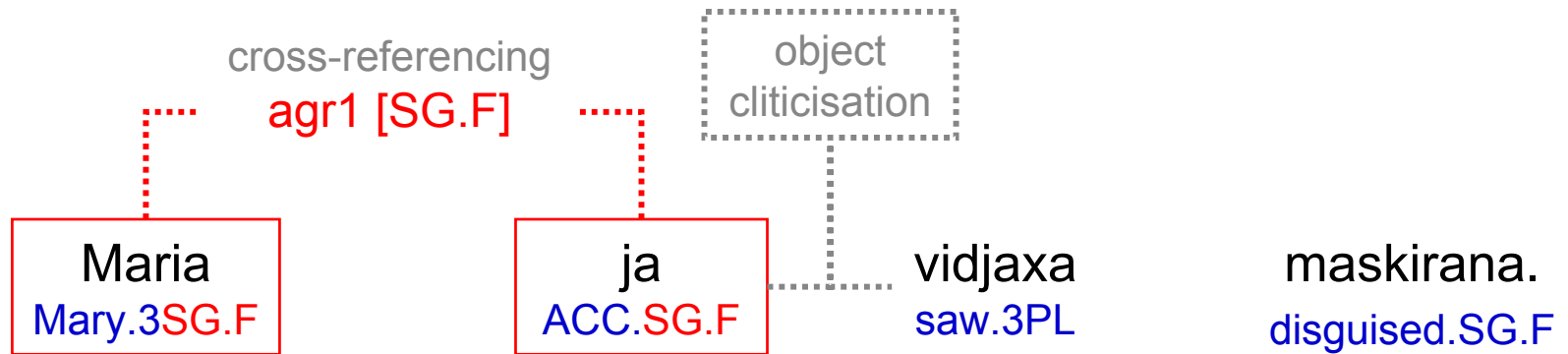


“They saw Mary disguised.”

ex.2 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation

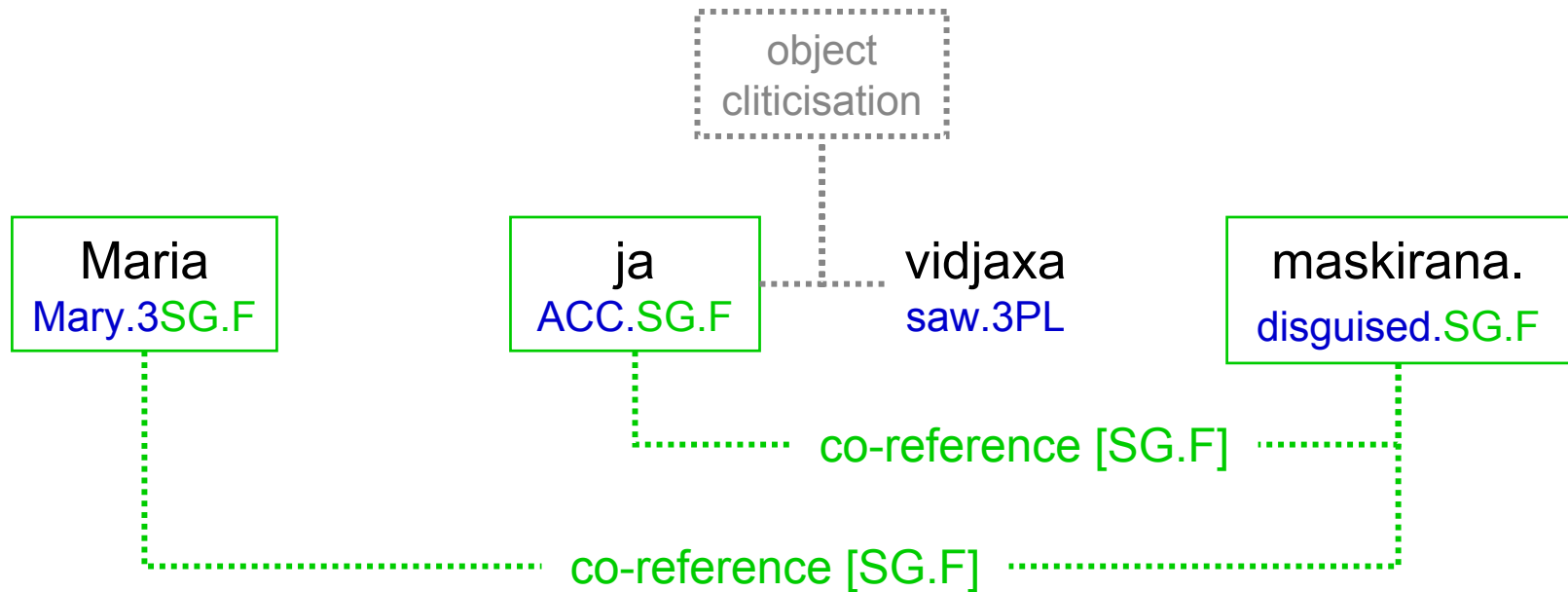


“They saw Mary disguised.”

ex.2 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation

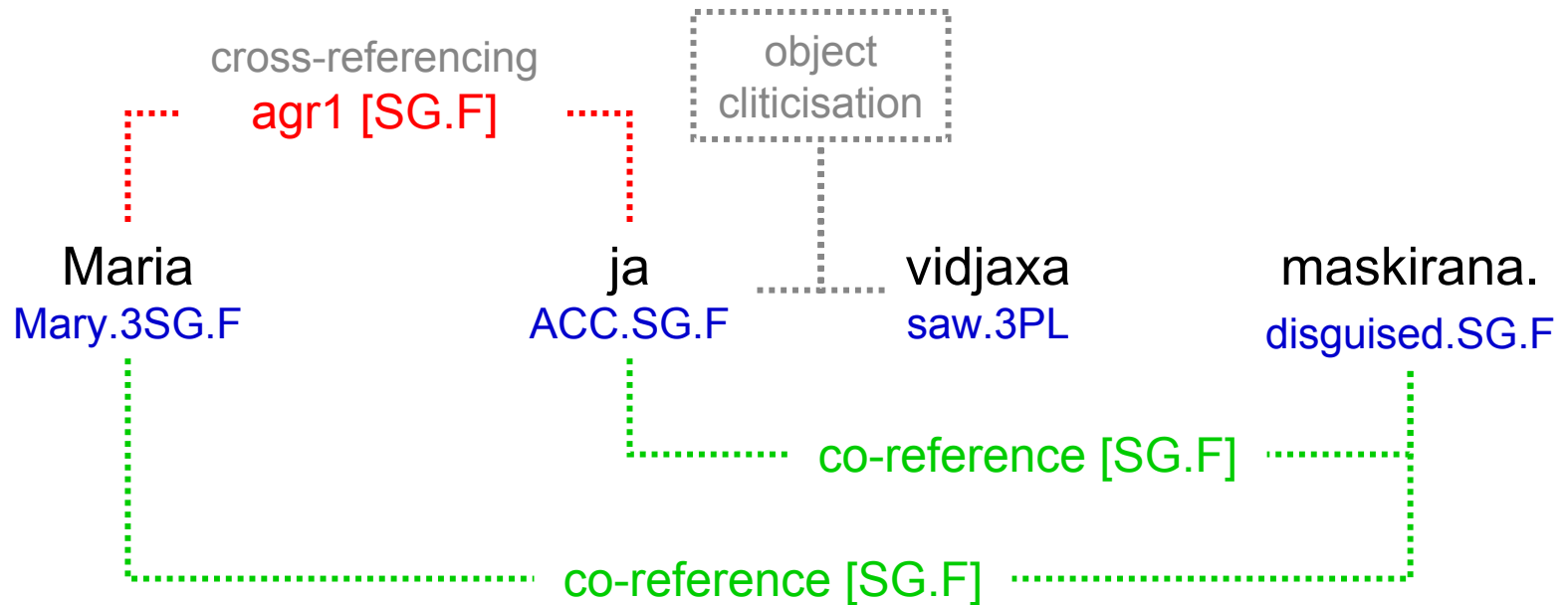


“They saw Mary disguised.”

ex.2 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation



“They saw Mary disguised.”

ex.3 (Bulgarian)

Ti
you.2SG

si
AUX.2SG

štjala
AUX.SG.F

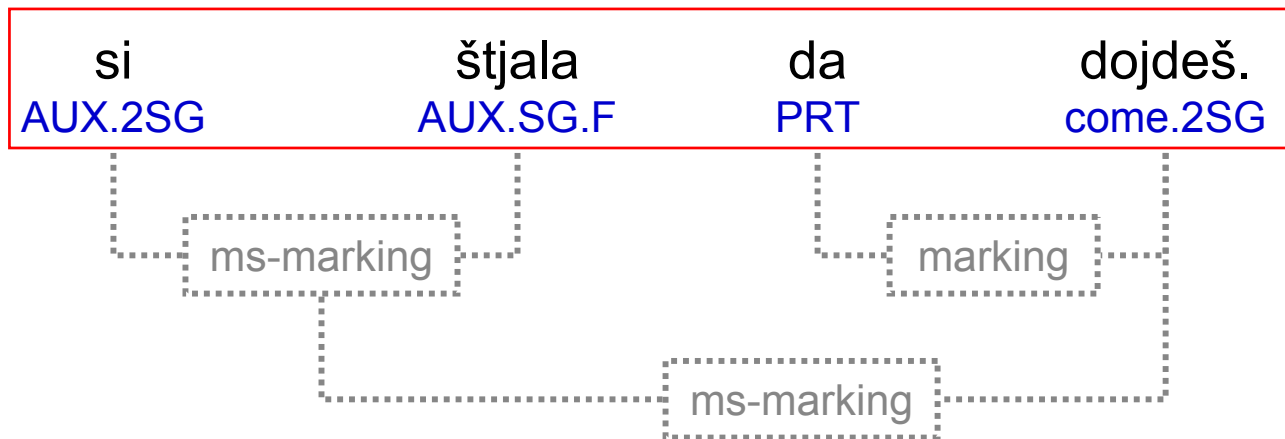
da
PRT

dojdeš.
come.2SG

“You would come (reportedly).”

ex.3 (Bulgarian)

Ti
you.2SG

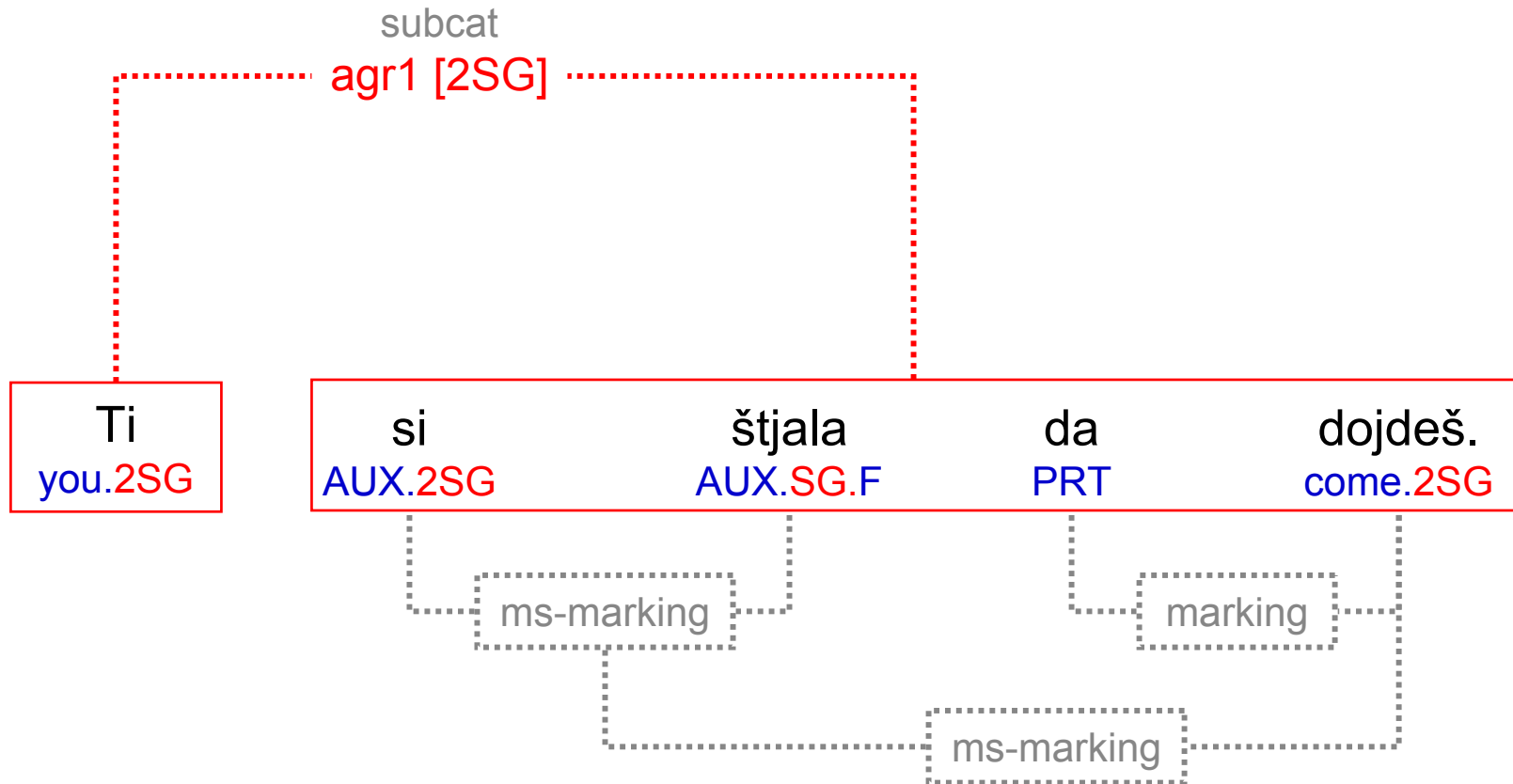


“You would come (reportedly).”

ex.3 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation

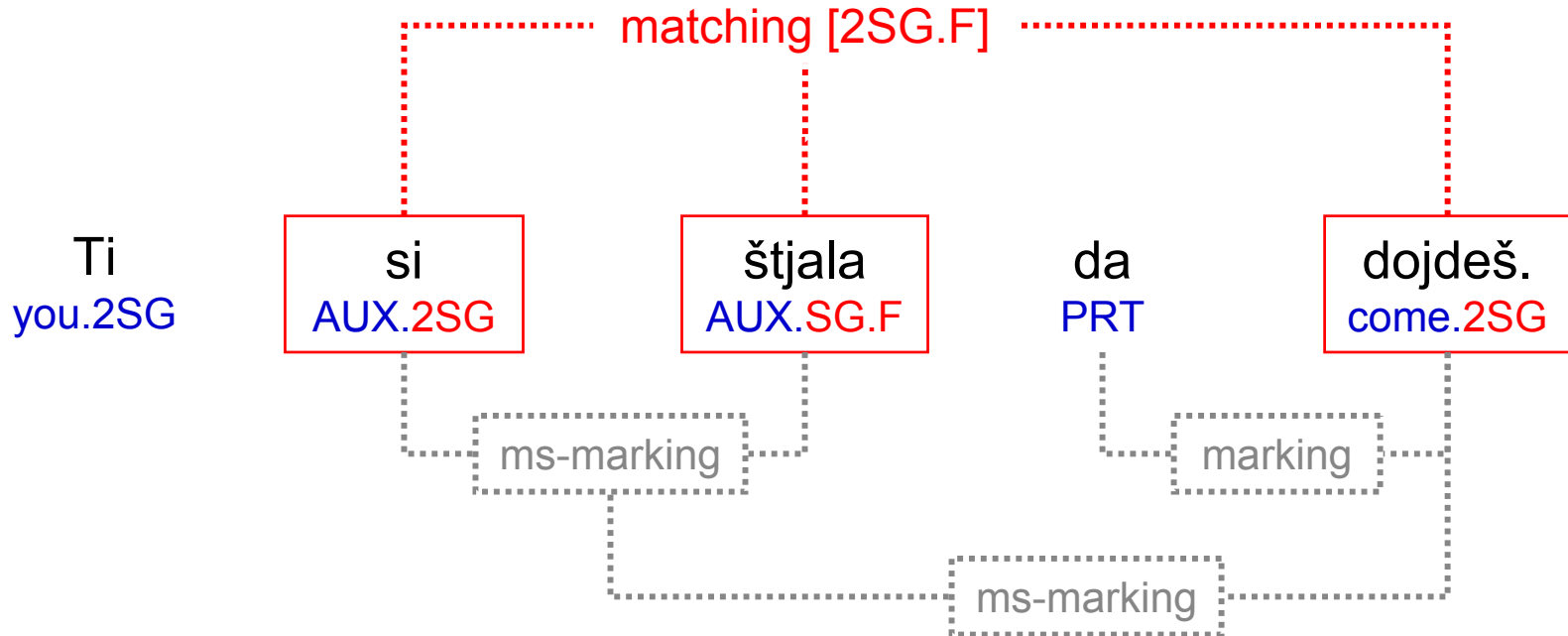


“You would come (reportedly).”

ex.3 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation

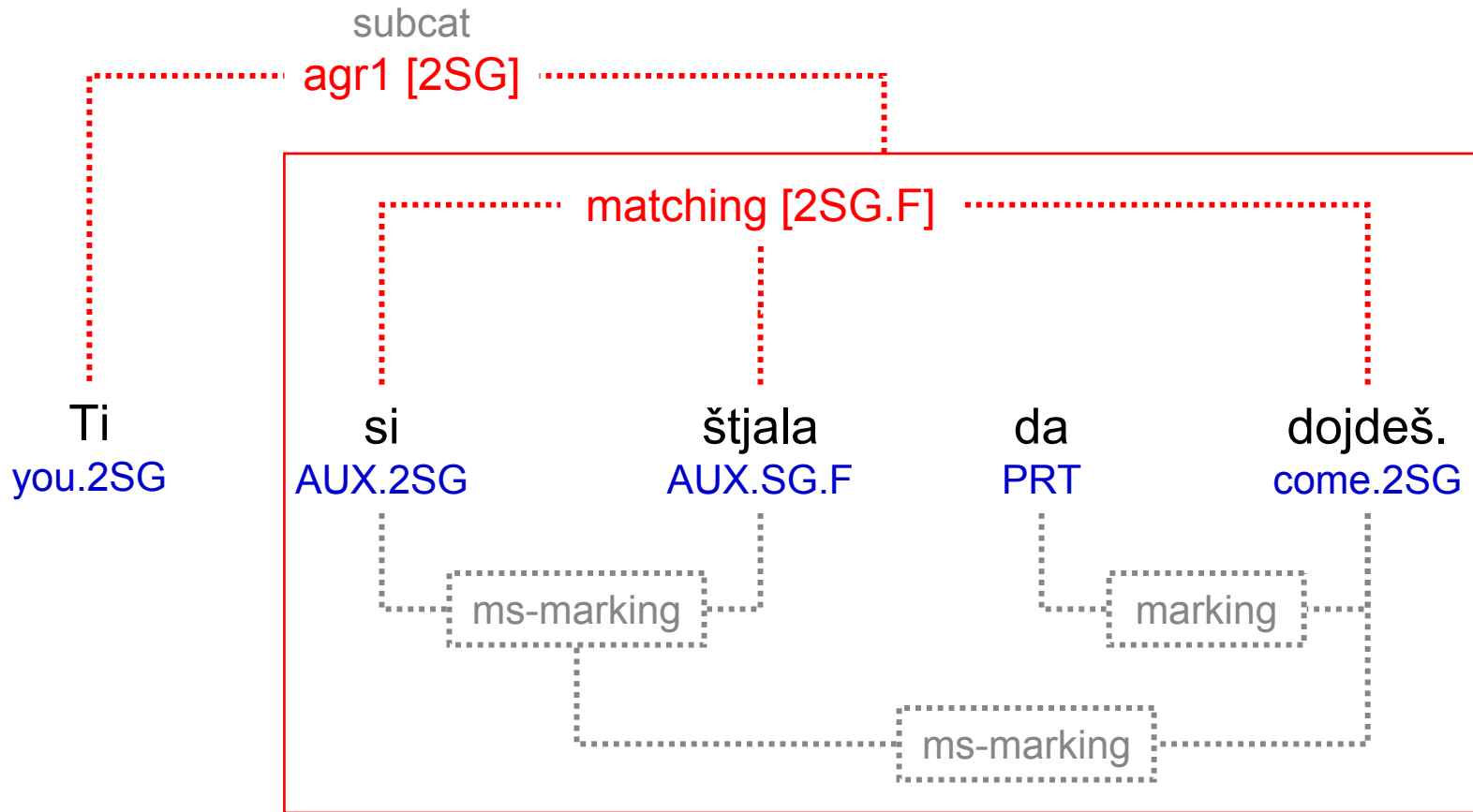


“You would come (reportedly).”

ex.3 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation



“You would come (reportedly).”

ex.4 (Bulgarian)

Vliza
comes.3SG

studentyt,
student.3SG.M

za
about

kogoto
whom.SG.M

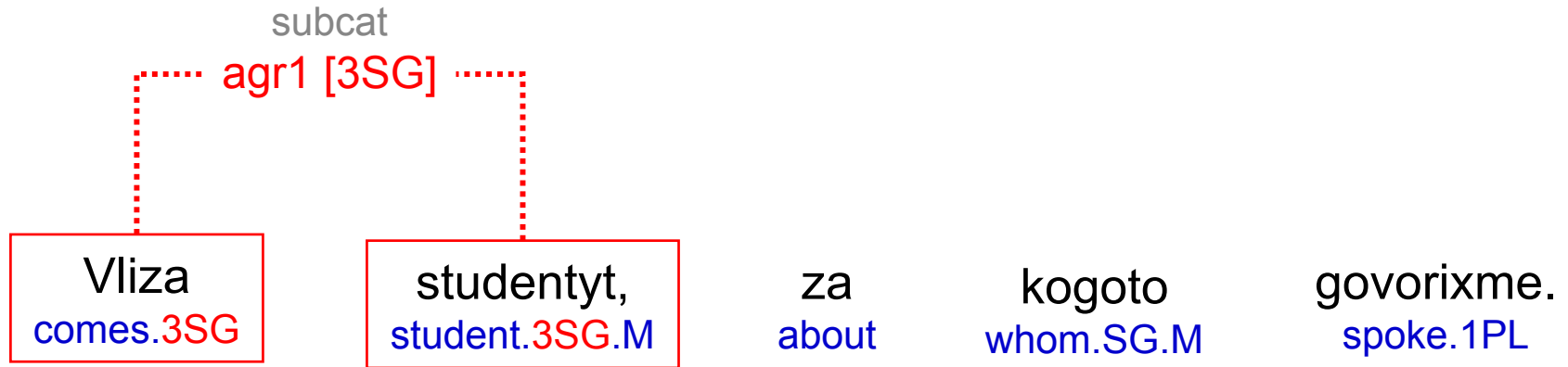
govorixme.
spoke.1PL

“The student whom we talked about comes in.”

ex.4 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation



“The student whom we talked about comes in.”

ex.4 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation

Vliza
comes.3SG

studentyt,
student.3SG.M

za
about

kogoto
whom.SG.M

govorixme.
spoke.1PL

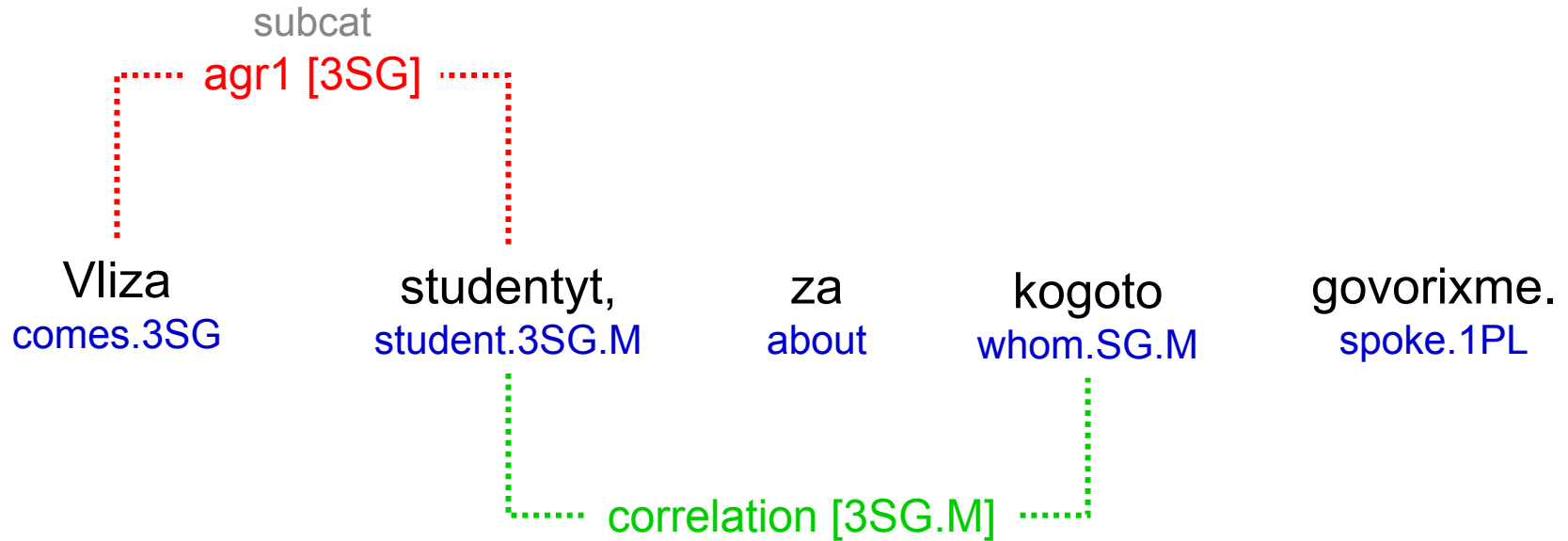
correlation [3SG.M]

“The student whom we talked about comes in.”

ex.4 (Bulgarian)

agreement 1
agreement 2 (concord)
matching

co-reference
agreement 3 (accord)
correlation



“The student whom we talked about comes in.”

Non-monotonic asymmetric covariation

□ Strategy A (resolution)

- In establishing covariation, conjoined noun phrases are treated as a semantically justified syntactic unit with a **resolved** index.

□ Strategy B

- One of the conjuncts is favoured as decisive in establishing covariation, mainly on **alignment** grounds.

The two strategies exemplified: Czech

Tento { den i stát } jsou v našem
this.SG { day.SG and state.SG } are.PL in our

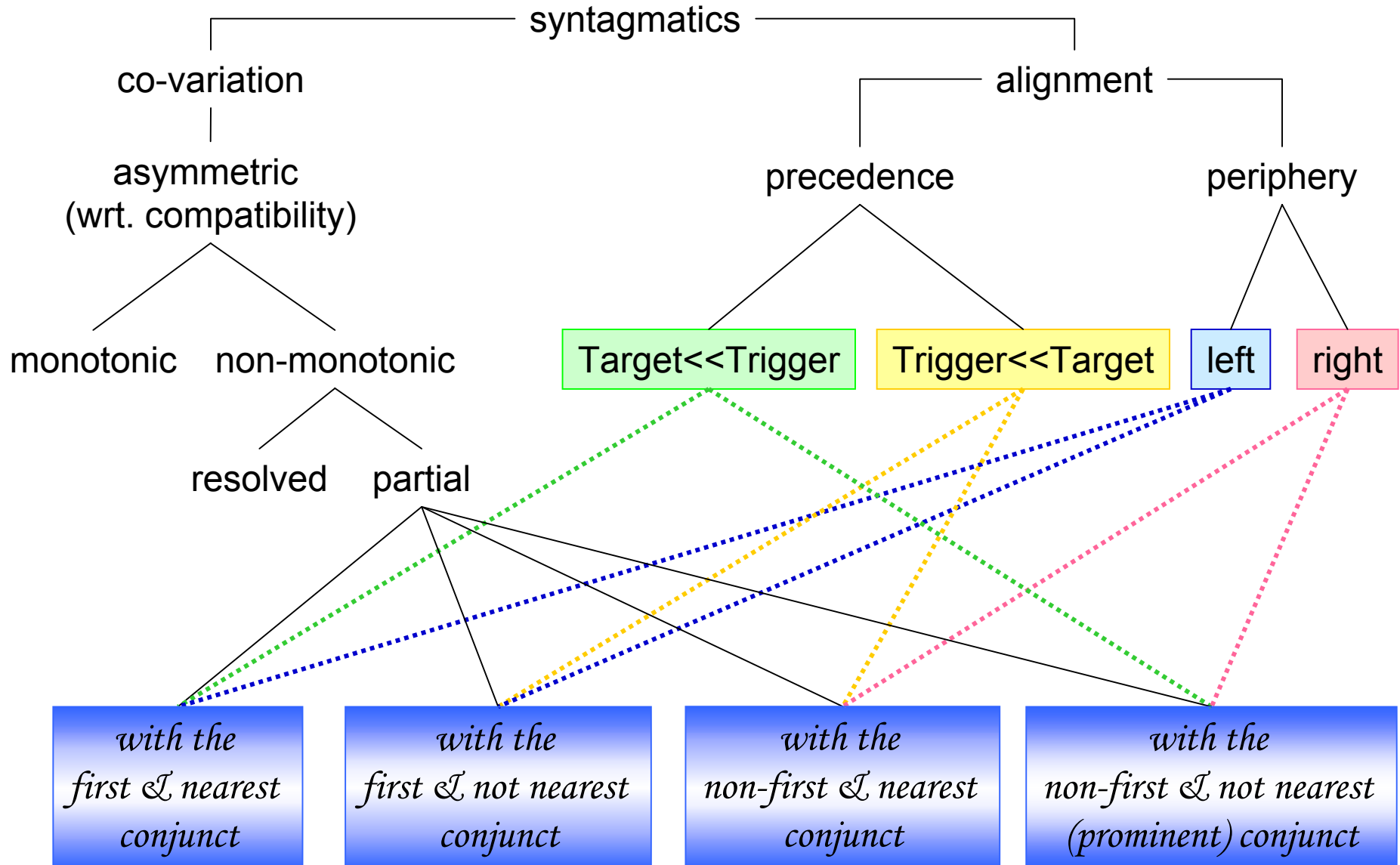
podvědomí opředeny mnoha mýty o české
unconsciousness wrapped.PL many myths about Czech

jedinečnosti.

uniqueness

“This day and this state are surrounded in our unconsciousness by many myths about Czech uniqueness.” (Lidové noviny, č.250/251, 1998)

„Partial agreement“ with coordination



Conclusion

- Syntagmatic regularities in morphosyntax reveal basic relations between properties of linguistic objects.
 - Along with government and juxtaposition, co-variation belongs to what Schmidt and Lehfeldt (1995) regard as morphological signalling of direct syntactic relations
- The outlined approach focuses on the relational aspect
 - It allows us to specify more precisely the nature of the observable covariation phenomena as well as to properly sub-classify them.
 - The space of possible relationships is derived from a small number of distinctions, employing the power of multidimensional inheritance networks for a systematic and concise description
 - The resulting ontology of systematic relations is open enough to accommodate typologically diverse phenomena.

A broader ontological context

