

**When the noun agrees with the adjective:  
Coordination and feature distributivity in Russian**

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Agreement is usually understood as a kind of covariance of a formal property of one element with a semantic or formal property of another element (Steele 1978: 610; Corbett 2006: 4). This implies an asymmetrical relation between the controller and the target: the target merely reflects the features of the controller. It thus seems very natural to see adjective agreement in number in Russian as a very straightforward case of agreement: normally, the adjective just formally repeats the features that are inherent to the noun.

This asymmetrical view of adjective agreement, however, is challenged by the behaviour of coordinate adjectives in examples like (1).

- (1) Кроме зеленого флага, в список обязательного для кондуктора снаряжения входили также **красный и белый флаги**.

In (1), each of the adjectives in the coordinate phrase is singular, but the head noun is plural. Thus, the number of the adjectives is not dependent on the number of the noun, but, inversely it is the singular number of each of the adjectives that entails an “exactly two” interpretation, something which does not follow by itself from the plural feature on the head noun.

There is another similar case in Russian where the coordination of adjectives entails a plural interpretation of the whole noun phrase and the presence of plural agreement on the verb (2).

- (2) Если в ноябре такое сокращение суток произвести дважды, то в декабре **старый и новый стиль будут уравнены** без каких-либо затруднений юридического характера.  
[неизвестный. Новый стиль (1910.04.09) // «Новое время», 1910]

In (2), unlike (1), both the adjectives and the noun are singular, yet the noun phrase still refers to exactly two individuals, and the verb agrees with the noun phrase in the plural. In this case, the noun phrase behaves as expected from the canonical view of agreement; however, it is the verb that behaves exceptionally, showing “semantic” agreement.

Both of these patterns have been observed and described in Kodzasov (1987), but an explicit theoretical analysis of these data has, to the best of our knowledge, never been proposed.

We propose an account in terms of Lexical Functional Grammar (LFG). Our analysis relies on two central notions. The first is the distinction between **CONCORD** and **INDEX** agreement features (Wechsler and Zlatić 2003). In general, **CONCORD** features cover agreement within the noun phrase while **INDEX** features cover agreement at clause level. One of the areas where this distinction comes up are gender mismatches between adjective and verb agreement with nouns of the so-called “common gender” in Russian (Iomdin 1980; Spencer 2002: 291).

Thus, in (2), the verb agrees with **INDEX**, which is resolved to **PL** by the adjective coordination construction, while **NP-internal** agreement is handled by **CONCORD**, whose value is **SG**.

The second notion is the distinction between **distributive** and **non-distributive** features (Dalrymple & Kaplan 2000). In LFG, coordinate structures are formalized as sets at **f-structure**; when the grammar checks a feature value for a set, two different types of resolution may apply. If the feature is distributive, the required value must be present for each of the set members. If the feature is non-distributive, it is taken to be a property of the set as a whole, independent of the value the feature has in each of the set members.

Typically, **CONCORD** is analyzed as a distributive feature while **INDEX** is treated as a non-distributive feature (King & Dalrymple 2004), and this accounts for most of the data. However, mismatches within the noun phrase, as in (1), require us to assume that **CONCORD** may, in certain cases, also be non-

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distributive. In fact, the contrast between (1) and (2) is easily explained if we assume that CONCORD is non-distributive (and resolved as plural) in (1) but is distributive (and thus forced to be the same for all conjuncts) in (2). Thus, feature distributivity must be treated as construction-specific in order to account for the behaviour of coordinate adjectives.

This idea is supported by the data from other languages exhibiting similar patterns. The data of Italian deserve particular attention. In Italian<sup>1</sup>, both patterns (1) and (2) are attested, however, they are distributed according to the position of the adjective:

- (4) alzare **le bandiere rossa e bianca** contemporaneamente per indicare il goal  
 ‘raise **the (pl.) red(sg.) and white (sg.) flags (pl.)** simultaneously to indicate the goal’  
[http://volturnosc.altervista.org/blog/?page\\_id=31](http://volturnosc.altervista.org/blog/?page_id=31)  
 (postnominal, pattern as (1) )
- (5) la Sangritana ha messo a disposizione dei bus-navetta per collegare **la vecchia e nuova stazione**  
 ‘the Sangritana (railway) has launched shuttle buses to connect **the (sg.) old (sg.) and new (sg.) station (sg.)**’ ([http://www.trail.abruzzo.it/scheda\\_interventi.php?id\\_interventi=55](http://www.trail.abruzzo.it/scheda_interventi.php?id_interventi=55))  
 (prenominal, pattern as (2) )

Thus, in Italian, unlike Russian, the distributive and non-distributive behaviour of CONCORD is not in free variation, but is distributed according to the linear position of the adjective.

Importantly, for this analysis to work, we have to assume that number features on adjectives are not just formal covariants of nominal number features, but get their own semantic interpretation; otherwise, it would be impossible to explain where the “exactly two” meaning in (1) and (4) comes from. Thus, *rossa* in (4) may be assigned the meaning  $[\lambda x.(\forall a.a \in x \rightarrow \text{red}(a)) \wedge |x| = 1]$ , i.e. it denotes a set of red objects which consists of one element. This analysis demonstrates how the modular and lexicalist architecture of LFG allows us to model a complex interplay of semantic and syntactic factors without committing to a purely “constructionist” or “lexical-semantic” stance.

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