Pesetsky (2013) proposes that Russian cases are realizations of different syntactic categories. We use this hypothesis to analyze case and number mismatches in Russian noun phrases. As we see in (1), nouns and their adjectives agree in case and number when there is no numeral present, but when there is a paucal numeral (2-4), as in (2), there is a case and number mismatch, and when there is a non-paucal numeral (5+), there is only a case mismatch.

(1) Eti poslednýé krasívye stoly
These.NOM.PL last.NOM.PL beautiful.NOM.PL table.NOM.PL
‘These last beautiful tables’

(2) Eti poslednye dva krasivýx stola
These.NOM.PL last.NOM.PL two.NOM beautiful.GEN.PL table.SG.GEN
‘These last two beautiful tables’

(3) Eti poslednýé p’at’ krasívyx stolov
These.NOM.PL last.NOM.PL five.NOM beautiful.GEN.PL table.PL.GEN
‘These last five beautiful tables’

In Pesetsky’s system, different cases in Russian are realizations of different syntactic categories. Nouns enter the syntax with genitive case, as this is a realization of the N category. Nominative case comes from D; however, when a numeral is present, the numeral absorbs nominative case, blocking it from being passed onto the noun (as in (2) and (3) above). Pesetsky’s system is based on a simple model of the nominal extended projection, with only NP and DP projections; we provide an account that incorporates a modified version of Pesetsky’s system into Borer’s (2005) model of the nominal extended projection, in which plurality and quantifiers are distinct functional heads, in between NP and DP.

‘a/the table’ stol ‘two tables’ dva stola ‘five tables’ p’at’ stolov

Our major contribution is proposing that the D only assigns nominative case as far as the # head. As a result, when there is no numeral present, we see nominative case on the noun, as it moves to this position. However, when there is a numeral present, such movement is blocked since it occupies this head, and the noun (and lower level adjectives) retains its genitive case. The difference between paucals and other numerals, then, is one of category. Paucals are instantiations of the number feature, and therefore merge in the Div head; thus, since the N merges as singular, it has no motivation to become plural, despite its obvious semantic plurality. However, since other numerals are of category #, the noun moves to the Div head, receiving the plural marking found there.

Additionally, we address the status of ordinal numerals. In Russian, they pattern as adjectives, but they merge at a higher point in the extended projection than most other adjectives. They are claimed to have the same status as adjectives like ‘last’ and ‘next’; thus, we claim that ordinals include not only numeral-derived adjectives, but also any adjectives denoting order (see poslednye ‘last’ in the examples above).

This research thus shows that Pesetsky’s account for the case and mismatches in Russian quantified noun phrases can be improved by implementing Borer's model and claiming that the distinct categories of the paucal and higher numerals are responsible for the morphological differences in case and number agreement.
References:
