

In favor of derivationally early mass/count distinction

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1 Introduction. There is an ongoing debate in the literature regarding the derivational stage at which the mass-count distinction emerges. The classical approach treats it as present in the lexicon (Chomsky 1965; Quirk et al. 1972), which naturally follows from standard lexicalist assumptions, see e.g. Aronoff 2007. On the other hand, in a large body of literature, starting from Sharvy (1978) it has also been argued that all nominal stems are born underspecified for the mass-count value and, by default, receive a mass interpretation. On such approaches, the mass-count distinction is introduced in syntax by a dedicated functional head (see, e.g., Borer 2005; Bale and Barner 2009; de Belder 2011; Mathieu 2012; Wiltschko 2012; Acquaviva 2019; Dali & Mathieu 2021.) Among approaches of this type, there is disagreement regarding the level at which count meaning can be created: for instance, Borer (2005) proposes a DivP projection immediately above the NP (1a); for Bale and Barner (2009), the nominal is specified as count or mass by a n^0 -like functional head (1b); and Wiltschko (2012) argues that the functional head responsible for countability, which she calls “nominal inner aspect”, is situated below the highest n^0 head (1c).

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| (1) | a. | [_{DP} D [_{NumP} Num [_{DivP} Div [_{NP}]]]] | Borer (2005) |
| | b. | [_{nP} n[±c] √] | Bale and Barner (2009: 234) |
| | c. | [_{DP} D [_{NumP} Num [_{nP} n [_{AspP} Asp [_{nP}] ...]] | Wiltschko (2012: 158) |

In this paper, we argue that the mass-count distinction is present at least as low in the tree as at the nP level. To do so, we observe that some derivationalal suffixes in Russian are sensitive to the mass-count distinction and to the related concept of a natural unit (NU). We demonstrate that these suffixes occupy the position not higher than that of n^0 .

2 Data. We consider three noun-forming derivational suffixes in Russian with quantificational, mass/count-related meaning: the collective *-jo* (*vor* ‘thief’ → *vor’-jo* ‘thieves (collective, pejorative)’; √*bel-* ‘white’ → *bel’-jo* ‘laundry (collective)’); the singulative *-in-* (*-in₁*) (*žemčug* ‘pearl’ → *žemčuž-in-a* ‘a pearl’); and the massifier *-in-* (*-in₂*) (*kon* ‘horse’ → *kon-in-a* ‘horsemeat’).

These suffixes determine the countability of the resulting noun, **and** impose countability-related restrictions on the stem they combine with, as summarized in Table 1. The notation “*-COUNT” means “cannot combine with stems denoting mass entities, but can do so with stems denoting countable entities, or concepts for which mass/count distinction is irrelevant”.

Table 1.

SUFFIX	INPUT	OUTPUT
<i>-jo</i>	*-COUNT <i>vor</i> ‘thief’	-COUNT <i>vor’-jo</i> ‘thieves (collective)’
<i>-in₁</i>	-COUNT <i>gorox</i> ‘pea’	+COUNT <i>goroš-in-a</i> ‘a pea’
<i>-in₂</i>	*-COUNT <i>svin’-ja</i> ‘pig’	-COUNT <i>svin-in-a</i> ‘pork’

To illustrate, the singulative suffix *-in₁* only combines with stems denoting a mass substance consisting of natural minimal units, and forms a countable noun meaning the natural unit of the respective aggregate, e.g. *ris-in-a* ‘rice grain’ for *ris* ‘rice’ or *goroš-in-a* ‘a pea’ for *gorox* ‘pea’, but cannot combine with other mass-denoting stems that do not refer to aggregates, e.g. **vod-in-a* with the intended meaning ‘a drop of water’.

Thus, not only the mother node but also the sister node of these suffixes is specified as mass or count. What is the nature of these nodes and their position in the structure?

b.	-jo:	<i>šmot-k-a</i>	→	<i>šmot'-jo</i> /* <i>šmot-č-jo</i>
		cloth-NMZ-AGR		cloth- JO
		‘cloth item’		‘clothes’

Stacking of the suffixes of this type is impossible, unlike the situation in the closely related Ukrainian as described in Wągiel & Shlikhutka (2023).

Third, the suffixes under discussion determine the gender and declension class of the resulting noun, which is a property of n^0 (Kramer 2015, a.o.). Specifically, both varieties of *-in* produce feminine, Declension II nouns (in the notation of Timberlake 2004); and *-jo* produces neuter, Declension I nouns.

4 Implications for the mass-count distinction. Our findings imply that, in Russian, the countability of a noun is determined by a n^0 head rather than by a higher Div^0 head, and, moreover, a grammatically relevant feature corresponding to this distinction is borne by roots.

Indeed, we have seen that the suffixes *-jo*, *-in₁* and *-in₂* impose countness or masshood requirements both on their sisters and the resulting nouns. On the other hand, these suffixes spell out n^0 , so the countability/masshood of respective nouns is established lower than the putative position of Div^0 (1a).

On the other hand, we have shown that the suffixes under discussion c-select for roots and are sensitive to the masshood/countability properties of the concept denoted by the root. Moreover, one of the suffixes under discussion, *-in₁* is sensitive to an even finer property – that of denoting a mass substance consisting of natural minimal units. This implies that these properties of the root are not purely conceptual (pace Borer 2005; Wiltschko 2012; a.o.) – they are relevant for the grammar, determining which morphemes can, and which cannot, combine.

The conclusion that, in Russian, the masshood/countability properties of the concept denoted by a root are relevant for grammar is reinforced by the following observation. Some roots need an overt suffix to become a mass noun, and no overt suffix to become a count noun (e.g. *kon-in-a* ‘horsemeat’ vs. *kon* ‘horse’), whereas others need an overt suffix to create a count noun, and no overt suffix to become a mass noun (*gorox* ‘pea’ vs *goroš-in-a* ‘a pea’).

An alternative explanation in the spirit of Bale & Barner (2009) would be to assume that (at least some) roots can only occur together with a null n^0 that bears a countability feature. However, given that the suffixes discussed in this paper are incompatible with other overt n^0 s, positing a family of null n^0 s that would be compatible with these suffixes appears stipulative.

5 Conclusion. We have shown that, in Russian, masshood/countability is determined low in the structure and is grammatically relevant already at the root level. This raises questions, first, as to whether DivP is projected in Russian nouns, and, second, as to how (un)common are the Russian facts cross-linguistically. We leave these questions for further research.

References

- Acquaviva, P. 2019. Categorization as noun construction: Gender, number, and entity types. In: Mathieu, É., M. Dali, & G. Zareikar (eds), *Gender and Noun Classification*, 41-63. Oxford: OUP.
- Aronoff, M. 2007. In the beginning was the word. *Language*, 83(4), 803-830.
- Bale, A. & Barner, D. 2009. The Interpretation of Functional Heads: Using Comparatives to Explore the Mass/Count Distinction. *Journal of Semantics* 26: 217–252.
- Borer, H. 2005. *In name only*. New York: Oxford University Press.
- Chomsky, N. 1965. *Aspects of the Theory of Syntax*. Cambridge, MA: MIT Press.
- Dali, M. and É. Mathieu (2021). The semantics of distributed number. In T. Tibor Kiss, F. J. Pelletier, and H. Husić (Eds.), *Things and Stuff: The Semantics of the Count-Mass Distinction*, pp. 261–278. Cambridge: Cambridge University Press.
- de Belder, M. 2011. A morphosyntactic decomposition of countability. *The Journal of Comparative Germanic Linguistics* 14(3): 173–202.
- Embick, D. 2021. The Motivation for Roots in Distributed Morphology. *Annual Review of Linguistics* 7:69–88.
- Geist, L.; Kagan, O. and Erschler, D. (in press). Mass-count distinction and the Russian singulative suffix -in. *Journal of Slavic Linguistics*.
- Kramer, R. 2015. *The morphosyntax of gender*. Oxford: Oxford University Press.
- Marantz, A. 2013. Locality domains for contextual allomorphy across the interfaces. In *Distributed Morphology Today: Morphemes for Morris Halle*, ed. O. Matushansky, A. Marantz, pp. 95–116. Cambridge, MA: MIT Press.
- Mathieu, É. 2012. Flavors of division. *Linguistic Inquiry* 43: 650–679.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. 1972. *A grammar of contemporary English*. New York: Seminar Press.
- Sharvy, R. 1978. Maybe English Has no Count Nouns : Notes on Chinese Semantics. *Studies in Language*, 2(3): 345-365.
- Timberlake, A. 2004. *A Reference Grammar of Russian*. Cambridge, U.K: Cambridge University Press.
- Wągiel, M. & Shlikhutka, N. 2023. Clustering and declustering things: The meaning of collective and singulative derivational morphology in Ukrainian. Presentation at Leipzig University. bit.ly/leipzig2023-mw-ns
- Wiltschko, M. 2012. Decomposing the mass/count distinction: Evidence from languages that lack it. In Massam, D. (ed.) *Count and mass across languages*, 120-146. Oxford: OUP.