

# A critique of Dayal (2004)

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The behaviour of bare noun phrases in article-less languages presents significant interest, especially for formal semantics, where great importance is attributed to determiners.

One of the uses of such NPs is bare indefinites. One theory attributes the indefinite meaning of these phrases to an ‘A’ type shift of the Partee triangle ([Partee 1986]), which essentially adds an existential quantifier. This is the account presented in [Chierchia 1998], p. 361). Another possible solution is to treat bare NPs as contributing a predicate to a DRS, in the style of [Kamp 1981] or [Heim 1982]. In this case, languages under consideration will simply lack the familiarity and novelty conditions which distinguish definites from indefinites in those languages that do have definiteness marking. Bare NPs are not ambiguous under that kind of theory.

Recently, [Dayal 2004] presented a new account. In her opinion, bare NPs in languages such as Hindi and Russian are ambiguous between a definite reading and a kind reading. Indefinite meanings arise from an ‘existential’ reading of kind terms, similarly to what [Carlson 1977] proposed for bare plurals in English.

In this paper, I am going to argue against Dayal’s idea. As a native speaker of Russian, I will concentrate on her Russian examples.

Section 1 shows that Dayal’s examples with Russian bare singulars are mostly flawed; section 2 provides data on bare plurals that contradicts her theory; finally, in section 3 I argue that the typological generalizations she makes are not likely to hold.

## 1 Russian examples

Some preliminary remarks are in order. Russian word order is quite free with respect to thematic roles, but there is a strong preference for the pre-verbal NP(s) to be the topic of the sentence. The topic NPs are, in the usual circumstances, definite.<sup>1</sup> Thus most of the examples given by Dayal, where the NP in question is the subject and appears sentence-initially, are quite hard to interpret with an indefinite reading. In order to make it possible, I will sometimes force the

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<sup>1</sup>English has a similar tendency. *There*-insertion is used to avoid pre-verbal indefinite subjects. In Russian, indefinite subjects are usually postverbal.

context to make the subject either a contrastive topic (5) or part of a bigger topic (9).

I will list all the Russian examples from Dayal's articles.<sup>2</sup> Dayal's numbering for the examples will be given next to their English translation. Each example will be marked with two judgements: Dayal's and my own. Full acceptability is marked by <sup>+</sup>.

- (1) #/# *Sobaka byla vezde*  
Dog was everywhere  
'The dog/A particular dog (the same one) was everywhere.' (2a, p. 395)
- (2) +/+ *Sobaki byli vezde*  
Dogs were everywhere  
'There were dogs (different ones) everywhere.' (2b)

These sentences demonstrate asymmetry between indefinite readings for singular and plural bare NPs. It shows that plural bare NPs denote kinds.<sup>3</sup> However, this does not tell us anything about the interpretation of singular NPs. In fact, the example is a direct translation from [Carlson 1977], p. 13:

- (3) A dog was everywhere.  
(4) Dogs were everywhere.

The Russian sentences (1, 2) are exactly parallel to (3, 4) and admit the same interpretations (except Russian also has a definite reading, in fact, the preferred one). Using this example to argue that Russian is radically different from English does not make a very strong argument.

Moreover, one can force the NP *sobaka* 'dog' to be a contrastive topic, and the reading where it takes narrow scope with respect to the quantifier becomes available. Suppose we are taking part in an ethnographic expedition where we need to find the villagers' preference for various kinds of domestic animals. In this situation, the following sentence can be felicitously uttered:

- (5) *Koški vstrečalis' daleko ne v každom dome, a vot*  
'Cats were by far not found in every house, but

*sobaka byla vezde.*  
dog was everywhere  
there was a dog everywhere.'

In (5), I took some effort to preserve the exact wording of Dayal's example. If this restriction is relaxed, one can simply choose a universal quantifier which is easier to interpret distributively, and put the subject after the verb:

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<sup>2</sup>Except the uncontroversial ones from from the beginning of chapter 2 demonstrate definite and kind-referring readings for bare NPs. Also, I prefer to use a different transliteration.

<sup>3</sup>Actually, for this one example, sum individuals would be sufficient.

- (6) *V každom dome byla sobaka*  
 in every house was dog  
 ‘There was a dog in every house’

The next example in the article, (7), is used to demonstrate that indefinite bare singular NPs in Russian can only take narrow scope with respect to negation:

- (7) *+/\* Kot ne sidit na stule*  
 Cat not sits on stool  
 ‘There isn’t any cat sitting on the stool.’ (*Only*  $\neg\exists$ ) (21a)

However, as it stands, sentence (7) simply does not have the meaning attributed to it; only definite reading is available. One can express absence of a cat on a chair by using the construction called genitive of negation:

- (8) *Na stule net kota*  
 On chair not-is cat.GEN  
 ‘There is no cat on the chair.’

Again, it is possible to force an indefinite NP to occupy the topic position, and the only resulting reading is the one where the subject takes wide scope over negation:

- (9) *V etoj komnate vse v besporjadke: nemytaja posuda na stole, sdvnutaja mebel’*,  
 ‘Everything in this room is out of order: dirty dishes on the table, displaced furniture,

*kot ne sidit na stule,*  
 cat not sits on chair  
 a cat is not sitting on a chair

*a hodit i žalobno mjaukaet.*  
 but walking around and meowing bitterly.’

Perhaps the least controversial example among those presented in the article is (10):

- (10) *Mne kažetsja čto v komnate myš*  
 Me seems that in room mouse  
 It seems to me that there is some mouse in the room. (*Only seem*  $> \exists$ )

Here preferred reading does in fact correspond to the given translation. However, Dayal herself (in the footnote) admits that the bare NP ‘mouse’ (in the Hindi variant of this example) could refer to a contextually salient mouse. It is not clear what she means by ‘contextually salient’ — if the mouse were salient both for the speaker and the audience, the NP would be definite; if for the

speaker only, then it is hard to distinguish this reading from the (supposedly absent)  $\exists > seem$  one. In the Russian example, I am not sure whether such a ‘contextually salient’ reading is possible in the given example; if it is, it is hard to obtain. But slight variation allows us to make it the preferred one:

(11) *Vase pokazalos’ čto on uvidel v tolpe odnoklassnika*  
 Vasya.DAT seemed that he saw in crowd classmate  
 ‘It seemed to Vasya that he saw a classmate in the crowd.’

(12) *Vase kažetsja čto v stat’je jest’ ošibka*  
 Vasya.DAT seems that in article is error  
 ‘It seems to Vasya that there is an error in the article.’

The next pair of examples is supposed to demonstrate a contrast in acceptability between singular and plural NPs.

(13) #/# *V etoj kletke tigr jest i tigr spit*  
 In this cage tiger is eating eats and tiger is sleeping  
 ‘In this cage a tiger is eating and a tiger is sleeping.’ (26a)

(14) +/? *V etoj kletke tigry jedjat i tigry spjat*  
 In this cage tigers are eating and tigers are sleeping  
 ‘In this cage tigers eat and tigers sleep.’ (26b)

However, according to my judgment, both sentences are unacceptable beyond repair (granted, the second one is slightly better), The reason for this unacceptability is not clear to me,<sup>4</sup> and it is a worthy topic for future investigation. However, it is certainly not true that, as Dayal maintains, two identical non-coreferential bare singular NPs cannot be used in the same sentence (according to her theory, the instantiation set for a kind in a given situation has to be of cardinality one, in order to allow reference to that kind by a bare singular NP):

(15) *Vor u vora dubinku ukral*  
 Thief from thief club stole  
 ‘A thief stole a club from (another) thief.’

Later in the article there is another example from the same series as (13, 14):

(16) +/\* *V etoj kletke tigr spit i v toj kletke tigr jest*  
 In this cage tiger sleeps and in that cage tiger eats

Dayal does not provide translation, so it is hard to know whether the two occurrences of *tigr* ‘tiger’ are supposed to be coreferential. But the sentence as given is ungrammatical for reasons that have nothing to do with bare NPs: the only conjunction which can be used in this environment is *a*, not *i*.<sup>5</sup> Whatever

<sup>4</sup>My current idea is that in Russian, in coordinated sentences (IPs) some rhetorical relation between the conjuncts needs to be inferable, but I am far from sure.

<sup>5</sup>The two sentences in the example have parallel topics in this cage’, ‘in that cage’ and parallel comments ‘sleeps’, ‘eats’. See [Kreidlin, Paducheva 1974].

the point of the example, it clearly shows that Dayal's informants were not native speakers. With *i* replaced by *a* the sentence is indeed fully acceptable, but the preferred interpretation is with definite (coreferential) NPs.

One more group of examples in Dayal's article concerns the potential for bare NPs to introduce discourse referents (supposedly, they cannot). The relevant section of the article only has Hindi examples. However, when the examples are translated to Russian, they all turn out to be grammatical.

- (17) *Zdes' bylo neskol'ko chelovek. V uglu devuška tancevala*  
 Here were several people In corner girl danced  
*s parnem,*  
 with guy

'There were several people here. A girl was dancing with a boy in the corner.'

*ješče odna devuška razgovarivala s dvumja ženščinami.*  
 more one girl talked to two women  
 another girl was talking to two women.' (30a)

- (18) *Mnogo let nazad zdes' žila ženščina. Ona byla hrabraja.*  
 Many years ago here lived woman She was brave  
 'Many years ago a woman lived here. She was brave.' (30b)

- (19) *V komnate sidela devuška. Pered nej stojala ženščina*  
 In room sat girl Before her stood woman  
 'There was a girl sitting in the room. A woman stood before her.' (30c)

One more piece of evidence concerning discourse referents and uniqueness presuppositions is the sentence meaning 'A woman is bringing the mail'. Dayal claims that bare nominal can be used either when there is a uniqueness presupposition (making the NP definite) or when the NP 'woman' is focused. Indeed, in the Russian translation (20), *ženščina* has to bear sentential focus:

- (20) *Počtu prinosit ženščina*  
 Mail.ACC brings woman.NOM  
 A woman is bringing the mail.

However, it is just a piece of world knowledge that the main occupation of women is not bringing mail, and that in most cases the addressee does not care about the sex of his postperson. Thus it is hard to imagine a situation where 'A woman is bringing the mail' would be uttered without contrastive focus on 'woman'. The following sentence is perfectly OK and does not carry any uniqueness presuppositions about the postman:

- (21) *Počtaljon prinosit počtu*  
 Postman brings mail  
 'A postman is bringing the mail.'

Finally, in the example (22), Dayal herself admits the existence of a plausible reading where different thieves entered the house:

- (22) #/+ *Včera, između 3-mja i 5-ju, každyj raz kogda*  
 Yesterday between 3 and 5 every time when  
*vor zahodil v dom, policija arestovyvala ego*  
 thief entered in house police arrested him  
 ‘Yesterday between 3 and 5 every time the thief/a thief (same one)  
 entered the house, the police arrested him’ (footnote 37, ia)

However, she writes, once given a context where no alternatives to thieves are available, the speakers get the contrast (with the plural *vory* ‘thieves’). Here the only way I can interpret Dayal is that she was forcing a context where there is only one thief — but then, indeed, the only conceivable reading is the implausible one. The contrast that Dayal seems to be testing is one that involves kind reference, both in the singular and the plural case. However in Russian plural *vory* need not involve any reference to kinds — Russian bare plurals can have true indefinite readings.

In short, the Russian examples Dayal provides as support for her theory are not convincing.

## 2 Bare plurals

Having established that bare singular NPs in Russian have a true indefinite reading, we turn to bare plurals. I intend to show that they also have an indefinite reading. To argue my point, I will borrow tests that [Carlson 1977] uses for arguing that English bare plurals are not indefinites.

- Opacity-inducing predicates.

- (23) *Ivan hočet pozvat’ v gosti milicionerov*  
 I. wants call in guests policemen

‘Ivan wants to invite policemen/sm policemen/the policemen.’

(This is a translation for Dayal’s Hebrew example (i) in footnote 56, p. 446, attributed to Doron.) This sentence has an opaque (*de re*) reading, where Ivan wants to invite some people without knowing that they are policemen. (These policemen also need not be known to the audience; thus the NP *milicionery* is not necessarily definite.)

- (24) *Ivan ne zametil pjátna na polu*  
 I. not notice spots on floor

‘Ivan didn’t notice sm spots/the spots on the floor.’ (Cf. Carlson’s (18), p. 11.)

In this case we do not even have a narrow scope interpretation, since that would require genitive of negation.

- (25) *Professory razoslali po stat'je na desjat' konferencij*  
 professors sent DISTR paper to ten conferences  
*(i vsjudu poluchili otkaz).*  
 (and got rejected everywhere.)  
 The/some professors sent an article to ten conferences (and got  
 rejected everywhere).

In this kind of examples, it is rather hard to obtain the relevant reading, that is, with an indefinite bare plural, but it is nevertheless available. Bare indefinite NPs seem to have a preference for narrow scope, but it is just a preference, not a rule strictly enforced by the grammar.

At the same time, bare plurals in Russian do have a kind reading, which can be easily shown by (now well-worn) (2), repeated here as (26):

- (26) *Sobaki byli vezde*  
 Dogs were everywhere  
 ‘There were dogs (different ones) everywhere.’

In short, bare NPs in Russian seem to behave more like those in Hebrew (on Dayal’s analysis) than like those in Hindi. This is incompatible with the version of the type-shift hierarchy proposed by Dayal.

### 3 Typology

Dayal (as well as [Chierchia 1998]) aims to establish a typology of kind reference depending on how languages encode (in)definiteness and number. Let us concentrate on number systems for the moment. Dayal considers two possible language types: those that have obligatory number marking (including singular and plural forms) — exemplified by English, Italian, Hindi, Russian and Hebrew, and those that have no grammatical number marking, exemplified by Chinese. However the typology of number systems is richer than that (I use [Corbett 2000] as my source).

Dual, trial and other paucal numbers are unlikely to be used with kind-referring NPs, so they probably have no bearing on the typology of kind reference. Interaction of number systems with the animacy hierarchy may present more interest for our purposes, but so far I do not see anything that would be obviously significant. However, [Corbett 2000] also discusses what he calls general number — forms where ‘the meaning of a noun can be expressed without reference to number.’ General number is apparently very rarely expressed as a special form; to illustrate the phenomenon, Corbett uses a Cushitic language Bayso where general number coexists with singular, paucal and plural (p. 11–12). In Fouta Jalon dialect of Fula general number is restricted to a part of the noun inventory (p. 12). The examples provided for general number are generic sentences (p. 12 of [Corbett 2000], with reference to [Koval’ 1979]. pp. 11, 12, 22):

(27) *ko biini tun waawi marde beere*  
 PARTICLE bottle only can preserve beer  
 ‘only a bottle/bottles can preserve beer’

(28) *nyaari peday*  
 cat(s) scratch  
 ‘a cat scratches/cats scratch’

(For ‘bottle’ the singular form is *biinii-ri*, plural *biinii-ji*; for ‘cat’ singular is *nyarii-ru*, plural *nyarii-ji*.)

Much less exotic is the situation where, in Corbett’s terms, general number form coincides with the singular (usually number marking in such forms is zero). This situation can also be described as having optional plural marking. Japanese, Turkish, Amharic, Even, many languages in West Africa and South America are claimed to have this type of number system.

Corbett provides the following examples from Even ([Corbett 2000], p. 15; original source is [Benzing 1955], p. 50):

(29) *zawod-la bəj gurgəwci-n*  
 factory-LOC man work-3.SG  
 ‘in the factory, a man works/men work’

(30) *tala asi gurgəwci-n*  
 here woman work-3.SG  
 ‘here a woman works/women work’

Indonesian seems to be a language of this type. [Chung 2000], citing [Sneddon 1996], claims that it never uses plural for kind reference.

[Nemoto 2005] shows that in Japanese plural NPs cannot be used for kind reference either:

(31) *nihonzin-wa mongoloid-da*  
 Japanese-TOP mongoloid-COP  
 ‘Japanese are mongoloids’

(32) \* *nihonzin-tati-wa mongoloid-da*  
 Japanese-PL-TOP mongoloid-COP  
 ‘Japanese are mongoloids’

(33) *dare-ga computer-o hatumeisita no*  
 who-NOM computer-ACC invented Q  
 ‘Who invented computers?’

(34) \* *dare-ga computer-tati-o hatumeisita no*  
 who-NOM computer-PL-ACC invented Q  
 ‘Who invented computers?’

In Korean, nonhuman plural NPs cannot refer to kinds:

- (35) *koray-nun phoyuryu-i-ta*  
 whale-TOP mammal-COP  
 ‘Whales are mammals’
- (36) \* *koray-tul-nun phoyuryu-i-ta*  
 whale-PL-TOP mammal-COP  
 ‘Whales are mammals’
- (37) *nwu-ka computer-lul mandel-ess-ni*  
 who-NOM computer-ACC made-Q  
 ‘Who invented computers?’
- (38) \* *nwu-ka computer-tul-lul mandel-ess-ni*  
 who-NOM computer-PL-ACC made-Q  
 ‘Who invented computers?’

Given Dayal’s claim that kinds are ‘conceptually plural’ (p. 407), it would be natural to expect plural marking in kind-referring contexts, but this is not what we see here.

Dayal also predicts (p. 447) that no language exists where bare plurals have more restricted existential readings than bare singulars. Again, languages with optional plural marking appear to be just such ‘Hindis in reverse’. To avoid this conclusion, one has to claim that unmarked forms in these languages really don’t carry number information, and, possibly, that plural marking works differently in these languages than in languages where it is obligatory (this is what [Nemoto 2005] claims for Korean and Japanese, in order to adapt Chierchia’s theory to her data).

## 4 Conclusions

We have seen that Dayal’s variant of Blocking Principle for type shifts is violated by Russian. We have also tried to show that the typological framework exemplified by Chierchia’s and Dayal’s classification of NP denotations with respect to definiteness and number marking is too narrow to account for the whole range of existing number systems.

Among the questions we have encountered but left unanswered are: the precise restrictions on coordination for sentences with identical NPs in Russian; interaction of kind reference with general number and animacy hierarchy.

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