Uniqueness in languages with and without articles: Catalan vs Russian

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Abstract

The article compares the interpretation of singular topical nominals in Romance (Catalan) and Slavic (Russian), and its relation to the presence/absence of the article in the overt morphosyntax. The empirical study, presented in this paper, confirmed the theoretical prediction that in Catalan the presence of a definite article conveys uniqueness of the referent, while an indefinite article suggests non-uniqueness. In the absence of articles (in Russian), bare nominals are compatible with both a uniqueness and a non-uniqueness interpretation. The reading of a bare noun phrase is inferred pragmatically, depending on contextual factors and the background knowledge of the interlocutors.

Keywords

noun phrase, articles, definiteness, uniqueness
Unikatowość w językach z i bez rodzajników: kataloński vs rosyjski

Abstrakt

Artykuł porównuje interpretację liczby pojedynczej rzeczownika w języku romańskim (katalońskim) i słowiańskim (rosyjskim) oraz jej związek z obecnością/nieobecnością rodzajnika w morfoskładni. Badania empiryczne przedstawione w niniejszym artykule potwierdziły przewidywania teoretyczne, że w języku katalońskim obecność rodzajnika określonego świadczy o unikatowości desygnatu, podczas gdy rodzajnik nieokreślony sugeruje brak unikatowości. W przypadku braku rodzajników (w języku rosyjskim), rzeczowniki są zgodne zarówno z interpretacją unikatową, jak i nieunikatową. Czytanie bezrodzajnikowej frazy nominalnej jest dokonywana pragmatycznie, w zależności od czynników kontekstowych i ogólnej wiedzy rozmówców.

Słowa kluczowe

fraza nominalna, rodzajniki, określoność, unikatowość

1. Introduction

This article focuses on the way the uniqueness of a referent is encoded/decoded in Catalan (a Romance language with articles) and in Russian (a Slavic language without articles). The uniqueness interpretation that a referent of a nominal gets is generally associated with its definiteness, expressed by a definite article in languages with articles. However, when it comes to languages that do not have articles as a lexical category, the readings that nominals may get are not that clear. And the long-standing debate in linguistics on whether the grammatical category of (in)definiteness exists in these languages is brought about. Considering that about half of languages in the world do not have articles (Longobardi 2001; Dryer 2013a, 2013b, among others), the overt marking of definiteness as
uniqueness-encoding does not seem to be crucial for human linguistic interaction (Lyons 1999). Nonetheless, the distinction between a unique (definite) and a non-unique (indefinite) reference is important for human communication and is, thus, expected to be universally present in language (Cummins 1998; Lyons 1999; Brun 2001, among others).

In relation to the debate on the universality of (in)definiteness, this article compares readings of Russian singular bare nominals that may be interpreted as having a unique referent and overtly definite or indefinite Catalan singular nominals in the same discourse contexts. As illustrated in (1), the Russian sentence (1a) may be translated into Catalan (1b) (and English) in eight different ways, depending on the combination of articles, which shows the complexity and variability of interpretations that bare nominals may have in languages without articles.

(1) Context: We entered the house.

Russian
a. Devočka čitala knigu v kresle.
girl. NOM read. IMP. PST book. ACC in armchair. PREP

Catalan
b. La / una noia llegia el / un llibre a la / una
the. FA. M girl read. IMP. PST the. M A. M book in the. F A. M
butaca.
armchair
‘The/a girl was reading the/a book in the/an armchair.’

The comparison of the two languages suggests that, unlike Catalan NPs preceded by a definite article, Russian bare nominals do not necessarily get a uniqueness interpretation. The main hypothesis is that bare noun phrases in Russian are interpreted as having a unique referent when it is part of the common ground of the interlocutors that a given situation is supposed to contain exactly one referent that satisfies the description expressed by the NP, while in Catalan this kind of interpretation is encoded in grammar by means of an overt
definite article, and the absence of uniqueness is signalled by an overt indefinite article.

Based on an experimental study of the interpretation of NPs in Catalan and Russian, we propose that it is irrelevant to talk about (in)definiteness as a binary grammatical category in the absence of articles in a language such as Russian, even though an NP may be interpreted by the speakers as having a unique or a non-unique reference. Thus, it can be concluded that a definite (unique) interpretation in languages with articles is related to the presence/absence of a definite article, while it has other sources in Russian (related to pragmatic factors). This outcome is in line with the classical proposal of Partee (1987), who associates uniqueness/maximality\(^1\) with the contribution of the definite article itself, and not of an iota operator, as claimed in Chierchia (1998), Dayal (2004) and Coppock and Beaver (2015). It also gives support to the recent proposals by Šimik and Demian (2020) and Seres and Borik (2021) for Russian, who claim that the absence of articles is translated into the absence of a definiteness-related semantics (i.e., a uniqueness interpretation).\(^2\)

This paper is structured as follows. First, in Section 2, we briefly revise the semantic theory of definiteness as uniqueness with respect to languages with articles, discuss an alternative proposal and its outcomes for languages without articles. Then, in Section 3, we review possible sources of uniqueness interpretation regarding languages without articles. In Section 4, we present an experimental study that highlights the interpretative differences of NPs in Catalan and Russian.

\(^1\) For plural nominals uniqueness is reformulated as maximality, which is conceived as a reference to a maximal individual in the domain (Sharvy 1980; Link 1983). This maximal individual is picked out by the definite article in languages with articles.

\(^2\) This claim goes against Dayal (2004, 2011, 2017) who posits that Russian bare nominals are interpreted either as definites or as generics.
2. **Theoretical background**

There has been considerable research, both in linguistics and in philosophy, regarding definite and indefinite descriptions in natural language (Frege 1892; Russell 1905; Christopherson 1939; Strawson 1950; Hawkins 1978, among others).³ It is important to emphasize that this research has been mainly focused on languages with overt articles; however, the theory of descriptions could have been very different if it had been elaborated based on a language without articles (Ludlow and Segal 2004; Dayal 2017, among others).

A standard view on definiteness in formal semantics is based on the so-called theory of uniqueness (Russell 1905; Strawson 1950; Chierchia 1998; Dayal 2004, among others). Uniqueness is understood as the existence in the extension of an NP of exactly one referent that satisfies the descriptive content of this NP in a given context.⁴ A uniqueness interpretation means that the nominal is construed is the narrowest possible domain.

It is crucial to notice that in order to single out the referent of an NP the participants of communication need to rely on common knowledge (Hawkins 1978). This knowledge may arise from the previous mention of the referent (familiarity) (Heim 1982), but also from a more general shared knowledge of the participants of communication regarding the situation and the world (identifiability) (Lyons 1999).

The property of being unique is standardly considered to be a presupposition, associated with a definite description (Heim 1991; von Fintel 2004; Elbourne 2005, 2013).⁵ Thus, if we compare the sentences in (2), it is clear that (2a) is about

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³ For an overview of different approaches to descriptions the reader is referred to Ludlow (2018).

⁴ Therefore, uniqueness of a referent entails its existence. The discussion of the presupposition of existence, associated with definite descriptions, is out of the scope of this paper.

⁵ Notice that for Russell (1905) the uniqueness component of a definite description is understood as an entailment.
a contextually unique book that both the interlocuters are aware of, while (2b) may have more than one possible referent.

(2) Catalan
   a. *He llegit el llibre.*
      AUX.1SG read the.M book
      'I have read the book.'
   b. *He llegit un llibre.*
      AUX.1SG read a.M book
      'I have read a book.'

In formal semantics, the definite article denotes a function from predicates (the denotation of a common noun, type \(<e,t>\)) to individuals (type \(e\)), which corresponds to the type-shifting iota operator (Partee 1987). The meaning of the definite article can be formally represented as follows (Heim 2011: 998, 4):

\[
[[\text{the}]] = \lambda P: \exists x \forall y [P(y) \leftrightarrow x = y]. \iota x. P(x),
\]

where \(\iota x\) abbreviates ‘the unique x such that’

In this approach, the uniqueness of the referent of a definite description follows from the meaning of the article itself, and, thus, would not be expected to be present in languages without articles.\(^6\) The uniqueness component of the meaning associated with the presence of a definite article in Catalan has been tested in the empirical study, presented in Section 4. Russian bare nominals, on the contrary, do not necessarily get interpreted as unique in the same contexts, as was illustrated in (1).

Articles, belonging to a wider category of determiners, are considered to express a domain restriction over their NP (von Fintel 1994; Gillon 2006, among many others). The unique-

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\(^6\) Chierchia (1998), Dayal (2004), i.a., propose a different approach, suggesting that type-shifting principles are universal, and, thus, the iota operator should be present in languages without articles, even though it is not lexicalised. However, there is no solid empirical evidence for postulating an iota operator in languages without articles.
ness reading, encoded by the definite article, represents the narrowest domain restriction: there is only one referent satisfying the description under the given circumstances, and that is the strongest statement to which the speaker can commit (following Grice’s (1975) maxim of quantity). Otherwise, the speaker would have used a less strong expression with a wider domain, e.g., an indefinite description.

However, there is an alternative approach to descriptions, which rejects the uniqueness claim associated with definite descriptions, postulating that the only relevant distinction between NPs preceded by a definite or an indefinite article is pragmatic (Ludlow 2018). From this perspective, overt articles can be even considered redundant as the discourse context should be sufficient to determine whether an NP is definite or not (Hawkins 2004). The claim of the absence of a semantic difference between definite and indefinite descriptions may seem too radical for languages with articles but could be valid for languages which do not express a definite/indefinite distinction (at least in the overt morphosyntax).

The hypothesis that is sustained in this work is that in languages without articles there is no binary grammatical category of (in)definiteness. In fact, there is one logical element (a bare nominal) which may give rise to interpretations similar to the ones of definite and indefinite descriptions in languages with articles. The interpretation of this element depends on the discourse context and on the common ground of the interlocutors, i.e., the interpretation is achieved through pragmatic mechanisms.

In languages without articles, this element, expressed by a bare nominal with an e type denotation, may be derived by means of a choice function, as proposed in Seres and Borik (2021).

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7 See Szabó (2000) and Ludlow and Segal (2004) for details; this idea was also considered in Heim (1982).

8 See Leiss (2007) who explains the morphological underspecification of nominals in languages without articles by cognitive economy.
According to Reinhart (1997) and Winter (1997), choice functions that map any non-empty set onto an element of that set.\(^9\) Thus, it is a function of type \(<<e, t>, e>\), which applies to the property (of type \(<e, t>\)) and yields an individual (of type \(e\)) that has this property; this type-shift is assumed to be covert in Russian.\(^10\) The crucial advantage of the semantic derivation of argumental NPs in Russian by means of a choice function (not an iota operator as in languages with articles) is that it does not imply any uniqueness or familiarity of the referent, which are components of meaning usually associated with definiteness.

Indeed, Russian bare NPs may show properties that indefinite nominals have in languages with articles, for instance, they may take different scopes; may be used in opacity contexts; may be used in existential sentences; may introduce discourse referents; two identical non-coreferential NPs may be used in the same sentence.\(^11\) At the same time, a definite (unique) interpretation of a bare nominal is not excluded either. In the following section, we review some of the factors that influence the rise of the uniqueness interpretation on a bare nominal in Russian.

### 3. Uniqueness in languages without articles

To start with, it is important to notice that the classical theory of definiteness as uniqueness was elaborated for languages with articles, as presented in the previous section, may still be

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\(^9\) As the set is non-empty, the existence claim holds for nominals derived by means of a choice function.

\(^10\) Choice functions were first proposed to represent the semantics of indefinite NPs in languages with articles in Reinhart (1997), Winter (1997) and Krazter (1998). See also proposals by Yanovich 2005, Geist 2008, Šimik 2021 for indefinites in Slavic languages and Borik and Espinal (2020) for a choice-function analysis of definite kinds in Russian.

\(^11\) See Serés (2020) for examples and details regarding these properties of bare NPs in Russian.
applicable to languages without articles if one supposes that uniqueness is still expressed, but just with different formal means (Abraham et al. 2007). Indeed, there is a general assumption in the linguistic literature on Slavic languages (Galkina Fedoruk 1963; Fursenko 1970; Pospelov 1970; Nesset 1999, among many others) that, although some languages do not have a lexical category to express (in)definiteness, this grammatical category is present in the language and there may be different means to express it. That is, that definiteness does not only depend on the discourse context.

Moreover, it is clear that a certain contrast between a definite and an indefinite interpretation is available for speakers of Russian, which is reflected in the way bare NPs are translated into languages with articles, as shown in (5a,b).

(5) Russian
   a. Sobaka zdes’.
      dog.NOM here
      ‘The dog is here.’
   b. Zdes’ sobaka.
      here dog.NOM
      ‘A dog is here.’

In Russian, there are several formal ways of conveying interpretations similar to definite or indefinite ones in languages with articles. They include lexical means (determiners, quantifiers, demonstratives), morphological (alternations of the verbal aspect and the case of nominals), prosodic (deaccentuation of ‘discourse old’ given information) and syntactic (linear word order alternations, as illustrated in (5a,b) (Seres et al. 2019). Nevertheless, as Borik et al. (2020) posit, none of these means is strong enough to be considered the trigger of a uniqueness reading, comparable to languages which have articles as a lexical class. There is no single grammatical means that could be equivalent to the definite article (corresponding to the iota operator) in Russian in all possible cases.
All in all, a uniqueness or non-uniqueness interpretation of bare nominals in Russian depends on pragmatic factors, related to the background knowledge of the participants and the discourse context, but not any linguistic means. A bare NP is interpreted as unique if it is in the common ground that there is exactly one referent satisfying this description in the situation of communication. There are factors that enhance the possibility for a bare nominal to be interpreted as unique.

First and foremost, it is the ‘ontological’ uniqueness of the referent, which holds for entities like solnce ‘the sun’, zemlja ‘the earth’, etc. (Serés and Borik 2021). It is particularly easy for the interlocutors to agree on the uniqueness of the referent if they share the relevant background knowledge, i.e., it is not the bare nominal that conveys uniqueness but the speakers’ knowledge about the referent. For instance, in (6), luna is interpreted as ‘the moon’, not ‘a moon’, since the moon is the Earth’s unique natural satellite, and the interlocutors are most probably aware of that. However, in a narrative about other planets which have more than one natural satellite the bare nominal in question may have a non-unique interpretation.

![Example](image)

Another factor that appears to contribute to an agreement on the uniqueness of the referent rather straightforwardly is D-linking (discourse-linking) of the nominal. This phenomenon was introduced by Pesetsky (1987) to describe constituents anchored to another one in the preceding discourse or in extralinguistic context. According to Dyakonova (2009: 73), a constituent is D-linked if (i) it has been explicitly mentioned in the previous discourse (direct anaphora), as illustrated in (7), (ii) it is situationally given by being physically present at the moment of communication (situational definiteness), as illustrated in (8a, b), or (iii) it can be easily inferred from the context...
by being in the set relation with some other entity or event figuring in the preceding discourse (associative anaphora/bridging), as illustrated in (9).

(7) _Nedavno_ u menya pojavilsja ščenok. Malyš ešče ne not.long.ago at me appeared puppy little.one yet not _umeet lajat’ no uže znaet svoë imja._ can bark but already knows own name

‘Not long ago I got a puppy. The little one cannot bark yet but knows its own name.’

(8) a. _Context:_ at a table

_Peredaj mne sol’, požalujsta!_ pass me salt please

‘Pass me the salt, please.’

b. _Context:_ after a game.

_Kto pobeditel’?_ who winner

‘Who is the winner?’

(9) _V novom ofise ja sela za komp’juter._ Monitor _był_ in new office I sat.down at computer monitor _was

_starymi tusklym._ old and dim

‘In the new office I sat down at a computer. The monitor was old and dim.’

In (7), the unique reference of _malyš_ ‘the little one’ is established from the immediately preceding context through anaphoric anchoring to _ščenok_ ‘puppy’, introduced in the previous sentence. In (8a), the immediate situation restricts the domain, thus, the listener understands that the referent of _sol’_ ‘salt’ is the one present in the situation. In (8b), it is the general knowledge that a game would normally have one winner that establishes uniqueness of _pobeditel’_ ‘winner’; however, it cannot be excluded that there was no winner, or the game ended in a draw and there were two winners. In (9), _monitor_ ‘monitor’
would get a unique reference as ‘the monitor of the computer in the new office’ considering that a computer would typically have one monitor, but it cannot be excluded that there is more than one. Following Seres and Borik (2021), who postulate the absence of uniqueness for bare nominals in Russian, it can be suggested that, in (10), the appearance of a second referent in the following context would cancel the uniqueness implicature (that rises from the general knowledge of the participants of the communication) but would not cause unacceptability, as a bare nominal does not trigger uniqueness effects (the narrowest domain restriction) and is compatible with the whole range of domain restrictions.

(10)  

\[ V \text{ novom ofise ja sela za komp'yuter. Monitor byl in new office I sat.down at computer monitor was starym i tusklym. Drugoi monitor, priètom, byl old and dim second monitor at this was supersovremennym, ja ne znaladaze, kak ego vkluchen'. super modern I not knew even how it turn.on } \]

‘In the new office I sat down at a computer. The monitor was old and dim. The other monitor, at the same time, was super modern, I did not even know how to turn it on.’

The prediction that Seres and Borik (2021) make is that in languages with articles, the definite description, equivalent to the bare nominal *monitor* ‘monitor’, would trigger the construal of the narrowest possible domain, being the strongest statement that the speaker can commit to. The appearance of a second referent in that case would cause unacceptability, which can be accounted for as a violation of a presupposition of uniqueness (if one considers uniqueness to be a presupposition contributed by the definite article). See example (11) in Catalan, which is equivalent to (10) in Russian.\(^{12}\)

\(^{12}\) The (un)acceptability of sentences, such as the ones in (10) and (11) is yet to be tested experimentally.
In the next section, we present empirical evidence regarding the presence/absence of uniqueness interpretation in bare NPs in Russian and non-bare NPs in Catalan. The experimental study that we carried out focused on the interpretation of nominals in contexts similar to the one presented in (9), i.e., Catalan and Russian NPs were tested in the contexts that could potentially, but not obligatorily, contain a unique referent.

4. Experimental study

The main goal of the experimental study was to compare the interpretation of NPs in the same contexts in Catalan and Russian, and to see whether these nominals convey uniqueness. Following from the previous theoretical discussion, we will show that definite NPs in Catalan are interpreted as having a unique referent, while indefinite NPs may have more than one possible referent, that is, they do not convey uniqueness. As for bare nominals in Russian, they are compatible with both, a uniqueness and a non-uniqueness interpretation, and some contexts may favour the interpretation of the referent as unique, based on the world view and the common ground of the participant of communication.

There has not been much of experimental work with respect to the interpretation of bare NPs in Slavic vs. languages belonging to other groups, with a notable exception of Šimik and Demian (2020) who compare interpretations of singular and plural nominals in topic position in Russian and German. The main outcome of their work is that the perceived definite-
ness (uniqueness) of Russian singular bare nominals may be overridden, while it is not possible for definite nominals in German. Our experimental study aims at confirming these findings and providing more empirical cross-linguistic data based on a contrastive study between Russian and Catalan.

4.1. Experimental design

Our experimental study consisted of three surveys. In Survey 1, the interpretation of Catalan definite NPs, in Survey 2, the interpretation of Catalan indefinite NPs, and in Survey 3, the interpretation of Russian bare NPs was tested in the same contexts.

Based on the literature, our prediction for Survey 1 was that with an overt definite article the nominal is interpreted as unique, regardless of the context. As for Survey 2, it was predicted that the presence of an indefinite article would be signalling non-uniqueness for the speakers. That is, the statements claiming the uniqueness of the referent, expressed by an indefinite description, were expected to be rated rather low.

The main prediction for Survey 3 was that a bare nominal may have either a uniqueness or a non-uniqueness interpretation and some contexts may favour one of the two interpretations, according to how speakers imagine a typical situation involving this referent to be. Thus, the results of the latter survey were expected to present more variability throughout the contexts and among the participants, as compared to the results of Survey 1 and Survey 2.

4.2. Participants

A total of 228 Catalan (96 for Survey 1 and 132 for Survey 2) and 100 Russian native speakers participated in the experimental study performed online using Alchemer software. Demographic information was collected from a sociolinguistic questionnaire administered right before the study that in-
quired about the participants’ age, sex and level of studies, the place where participants were born and currently live, as well as how much they use their native language in their daily life. The sociolinguistic information, however, did not show any significant effect on the results.

4.3. Test items

The test items were initially taken from the Russian Web Corpus (ruTenTen) on SketchEngine and were slightly altered (shortened) to be more uniform. Each test item contains a brief preceding context, describing a situation and a following sentence with a preverbal non-anaphoric bare singular nominal, which is expected to be present in a given situation and whose uniqueness may be inferred from the situation. That is, the NPs are novel in the (narrow) discourse, but presumably are not novel in the common ground, being topics.

It is crucial to point out that the NPs in the experimental study are in leftmost/preverbal position, which is considered to be the topic position for Russian (Geist 2010; Jasinskaja 2014, among others). According to the classical view, bare NPs as topics obligatorily receive a definite interpretation in articleless Slavic languages (Geist 2010). However, this view is challenged in Seres et al. (2019) and Borik et al. (2020), who provide experimental evidence that topicality indeed strongly increases the probability for a bare nominal to receive an interpretation comparable to a definite one (for languages with articles), but it is not always a sufficient condition. Moreover, as for topical NPs, their perceived ‘definiteness’ may be due to the givenness/familiarity, not necessarily uniqueness, of a referent.13

The contexts that were used for the study describe situations that do not necessarily involve a unique referent but could also be perfectly compatible with there being only one

13 Notice that topicality strongly favours a definite interpretation cross-linguistically (Reinhart 1981, Erteschik-Shir 2007, i.a.)
referent. Here is an example of an item taken from the corpus (we use a bare nominal in the English translation in order to reflect the Russian original):

(12) *Èto byl samyj populjarnyj blog v gruppe, no čislo podpisčikov stalo rezko sokraščt'sja, kogda blog stal platnym. Avtor prodal ego za 10 tysjač euro.*
That was the most popular blog in the group, but the number of subscribers started decreasing sharply when the blog became paid. Author sold it for 10 thousand euros.'

The contexts and the NPs, whose interpretations were tested in the experiment, were as follows: *popular blog – author; local shopping centre – guard; school trip – teacher; butchery – butcher; office – manager; private company – programmer; ambulance – nurse.*

The items were translated into Catalan to create two surveys: with nominals preceded by a definite article (Survey 1) and with nominals preceded by an indefinite article (Survey 2).

4.4. Procedure

Participants were asked to read a short description of a situation (context) and a sentence containing a singular definite NP (Survey 1 for Catalan), an indefinite NP (Survey 2 for Catalan) and a bare nominal (Survey 3 for Russian) in subject position. After that, the participants had to mark on the scale (from “no” to “yes”) whether they agreed or disagreed with the statement, regarding the uniqueness of the referent in the given context (as shown in Figures 1, 2 and 3 for the three surveys, respectively). The statement to be evaluated was highlighted in bold type. There were seven contexts (as mentioned above) which were presented twice, combined either with a critical statement or a filler statement. That is, the participants had to evaluate 14 statements, which were randomized.

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14 Fillers were not taken into consideration for the analysis of the results.
4.5. Example items

Figures 1, 2 and 3 show what the experimental items looked like in each survey. The English translation is provided after each figure in (13), (14) and (15), respectively.

(13) ‘Last night, a commercial center in the neighbourhood was burgled. The thieves didn’t have any problem to enter and take all the money. The security guard was watching TV and didn’t hear anything. I understand that it was the only security guard who was inside the commercial center.’

(14) ‘Almost immediately, the ambulance arrived at the place of the events. A nurse asked for something to stop the bleeding: a tie or a scarf. I understand that she was the only nurse at the place of the events.’
Figure 3
Example item of Survey 3 (Russian)

(15) ‘In front of my eyes, a young and beautiful bull was killed. Butcher pointed the knife at his neck and hit. The bull collapsed belly down. Only one butcher took part in the slaughter of the animal.’

4.6. Results

Figure 4 presents the results of Surveys 1, 2 and 3. In Survey 1, the speakers of Catalan give very high acceptability to the interpretation of the nominal preceded by a definite article as unique ($M = 88.80$, $SD = 24.55$); in all cases, the acceptability is higher than 81%, thus, a strong tendency to interpret a definite NP as unique can be seen.

As can be seen for Survey 2, the rating of statements claiming the uniqueness of the referent is, indeed, very low, as compared to Survey 1 ($M = 25.12$, $SD = 39.03$). The only outlier is the context with the butcher where the acceptability of a uniqueness reading is relatively high (63.39%), this might be due to an experimental error or the influence of a context (the way participants imagined a typical butchery: whether there is normally only one butcher working or not) or to some other factor linguistic or extra-linguistic factor that we failed to detect. Nonetheless, the preference for the uniqueness interpretation is significantly lower than the one with an overt definite article in Survey 1 (88.57%).

Finally, as shown for Survey 3, the preference for a uniqueness reading for bare nominals in Russian varies signifi-
cantly: from 91.75 % to 46.86 % ($M = 71.89$, $SD = 38.10$); a clear preference for a uniqueness interpretation is found in the first four contexts (popular blog – author; local shopping centre – guard; school trip – teacher, butchery – butcher): more than 70 %, while the other three contexts (office – manager; private company – programmer; ambulance – nurse) do not show any clear preference: 46–65 %.

![Figure 4](image)

Uniqueness interpretations in surveys 1, 2 and 3

A beta mixed-effects model was run with the value interpretation as the dependent variable. To fulfill the requirements of a model based on a beta regression, the response values were first divided by 100 (to obtain a 0-1 distribution), and then the two ends were replaced by very close values (0.0000001 for 0, and 0.9999999 for 1). The Survey was set as the fixed factor, and a random intercept was defined for both Subject and Item.

A significant effect was found for Survey, $\chi^2(2) = 504.194$, $p < .001$, indicating that Catalan definite structures were significantly perceived as conveying more uniqueness than both Catalan indefinite structures ($Cohen’s d = 6.270$, $p < .001$) and Russian bare structures ($d = 1.821$, $p < .001$). Among the latter, the Russian structures were also seen as conveying more
uniqueness than the Catalan indefinite structures ($d = 4.449$, $p < .001$).

4.7. Discussion

Despite the limited number of contexts (only seven) used for this experimental study, the results of the comparison of the interpretations attributed to definite and indefinite nominals in Catalan vs. bare nominals in Russian are compatible with the theoretical claims exposed in Sections 2 and 3 of this paper. That is, the presence of an overt definite article can be related to the uniqueness construal of a nominals. As predicted, the referent is predominantly (higher than 81 %) interpreted as unique if there is an overt definite article in Survey 1, while with an overt indefinite article in Survey 2 prefer a non-unique interpretation: between 7.17 % and 34.43 %.

The results of Survey 1 and Survey 2 confirm the main hypothesis that speakers of Catalan as a language with articles rely on the overt article when it comes to interpreting a referent of an NP as unique or non-unique. The results of the interpretation of Russian bare nominals are not as straightforward and uniform (which is also an expected result).

As predicted, the uniqueness interpretation attributed to bare nominals in Survey 3 varies significantly, not being lower than 46.86 % for any context (with a mean of 71.89 %), which may be related to the topic position of the bare nominals under study. That is, the bare nominal is construed as given, and, possibly, contextually unique, as otherwise, the speaker would have mentioned other referents. It is clear though that the interpretation of bare nominal as unique or non-unique indeed depends on the context, i.e., a bare nominal itself does not encode uniqueness in Russian (and possibly, in other languages without articles).

As can be seen from Figure 4, certain contexts favour the uniqueness interpretation, while in other the referent of the bare nominal may be construed as either unique or non-
unique. This difference may be explained if discourse participants’ beliefs about this situation are taken into consideration. Uniqueness interpretation arises when it is part of the common ground (in terms of Stalnaker 2002) of the participants of the linguistic interaction that there is only one unique referent in each situation, that is, if they imagine that a blog typically has one author, there is one guard in a local shopping centre, there one teacher that accompanies a group of secondary school students, etc. As for the contexts where the referents got a lower uniqueness rating, there is no agreement on whether there is one or more than one referent, e.g., there may be more than one nurse in an ambulance or more than one programmer in a private company. In other words, the interpretation reflects how discourse participants imagine a prototypical situation.

5. Conclusions

All in all, we conclude that uniqueness in languages with articles (such as Catalan) and languages without articles (such as Russian) is encoded differently. The uniqueness of a referent is related to grammatical definiteness, that is, the presence of a definite article in Catalan. On the contrary, in Russian it is not relevant to postulate (in)definiteness as a binary grammatical category, related to a uniqueness or a non-uniqueness interpretation of a bare nominal. In languages without articles, there is a single logical element which may give rise to interpretations similar to the ones of definite and indefinite descriptions in languages with articles (conceived in this article in terms of uniqueness or its absence). Uniqueness (which can be viewed as a presupposition) is encoded semantically (by a definite article) in languages with articles (Catalan), while in languages without articles (Russian) its appearance is conditioned

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15 Notice that author is a relational noun. It is interpreted as unique in accordance with Grice’s (1975) maxim of quantity. The hearer infers that it is the stronger statement the speaker can commit to.
pragmatically, thus, speakers’ interpretation of one and the same bare nominal may vary. The pragmatic presupposition of uniqueness arises on bare NPs when it is part of the common ground that the situation contains no more than one entity being referred to.

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Appendix

Full list of Catalan and Russian experimental items with English translation

Each experimental item contains an introductory context, a critical statement (i), and a filler statement (ii).

Catalan (Survey 1 and 2)

1. Gairebé immediatament, l’ambulància va arribar al lloc dels esdeveniments. La/una infermera va demanar que li donessin alguna cosa per aturar l’hemorràgia: una corbata o una bufanda. (i) Entenc que era l’única infermera que hi havia al lloc dels esdeveniments. (ii) Entenc que la infermera va arribar amb l’ambulància.

‘Almost immediately, the ambulance arrived at the place of the events. The/a nurse asked for something to stop the bleeding: a tie or a scarf. (i) I understand that she was the only nurse at the place of the events. (ii) I understand that the nurse came in the ambulance.’

2. En aquesta empresa privada, els deutes salarials van començar a augmentar i els treballadors van començar a anar-se’n. La/una informàtica se’n va anar fa un any i mig. El director general li devia 47.000 euros. (i) Entenc que era l’única informàtica que treballava a l’empresa. (ii) Entenc que la informàtica se’n va anar perquè el director general li devia diners.

‘In this private company the salary debts started to grow, and the workers started to leave. The/a programmer left a year and a half ago. The CEO owed her 47,000 euros. (i) I understand that she was the only programmer working at the company. (ii) I understand that the programmer left because the CEO owed her money.’

3. Anit van robar en un centre comercial del nostre veïnat. Els lladres no van tenir problemes per entrar i recollir tots els diners.
El/un guàrdia de seguretat estava mirant la televisió i no va sentir res.
(i) Entenc que era l’únic guàrdia de seguretat que hi havia dins del centre comercial.
(ii) Entenc que el guàrdia de seguretat no estava treballant.

‘Last night, a commercial center in the neighbourhood was burgled. The thieves didn’t have any problem to enter and take all the money. The/a security guard was watching TV and didn’t hear anything. (i) I understand that he was the only security guard who was in the commercial center. (ii) I understand that the security guard was not working.’

4. Era el blog més popular de la banda, però el nombre de subscriptors va començar a disminuir dramàticament quan va deixar de ser gratuït. L'/un autor d'aquest blog l'ha venut per deu mil euros.
(i) Entenc que era l’únic autor d’aquest blog.
(ii) Entenc que era un dels blogs més populars.

‘That was the most popular blog in the group, but the number of subscribers started decreasing sharply when the blog became paid. The/an author sold it for 10 thousand euros. (i) I understand that it was the only author of the blog. (ii) I understand that it was one of the most popular blogs.’

(i) Entenc que era l’única professora que acompanyava els estudiants.
(ii) Entenc que aquesta persona sempre viatjava amb el mateix tren de rodalies.

‘I used to travel by commuter train. Once I saw a school trip. They were secondary school students. Some of them were playing cards, others were smoking and swearing while the/a teacher was reading a newspaper. (i) I understand that she was the only teacher who ac-
companied the students. (ii) I understand that the person was travelling by commuter train.’

   (i) Entenc que era l’únic carnisser que va matar el toro.
   (ii) Entenc que era l’únic toro que van matar aquell dia.

‘In front of my eyes a young and beautiful bull was killed. The/a butcher pointed the knife at his neck and hit. The bull collapsed belly down. (i) I understand that he was the only butcher who killed the bull. (ii) I understand that it was the only bull killed on that day.’

7. La gent de l’oficina no té complexos, en absolut, cap complex. La/una responsable treu les pinces de la seva butxaca durant la reunió i comença a arrencar-se els pèls de la barbeta.
   (i) Entenc que era l’única responsable que treballava a l’oficina.
   (ii) Entenc que a l’oficina hi treballava molta gent.

‘The people at the office don’t have complexes, not one. The/a manager takes tweezers out of her pocket during the meeting and starts pulling out hairs from her chin. (i) I understand that she was the only manager working at the office. (ii) I understand that a lot of people worked at the office.’

Russian (Survey 3)

1. Почти сразу к месту происшествия приехала бригада скорой помощи. Медсестра обратилась к окружающим с просьбой дать ей что-нибудь, чтобы остановить кровь.
   (i) Это была единственная медсестра в бригаде скорой помощи.
   (ii) Медсестра приехала вместе с бригадой скорой помощи.

‘Almost immediately, the ambulance arrived at the place of the events. Nurse asked people around her for something to stop the bleeding. (i) That was the only nurse in the ambulance crew. (ii) The nurse arrived with the ambulance crew.’
2. В этой довольно крупной частной компании начали расти долги по зарплате, стали увольняться сотрудники. Программист ушёл полгода назад, долг директора составил 47000 рублей. (i) Это был единственный программист в компании. (ii) Программист ушёл, потому что директор был должен ему денег.

‘In this rather big private company the salary debts started to grow, and the workers started to leave. Programmer left a year and a half ago. The CEO owed him 47,000 roubles. (i) That was the only programmer working at the company. (ii) The programmer left because the CEO owed him money.’

3. Вчера вечером в нашем районе ограбили магазин. Грабители без особого труда взломали дверь и собрали все наличные. Охранник смотрел телевизор и ничего не слышал. (i) В магазине не было других охранников. (ii) Охранник не работал в этот день.

‘Last night, a shop in the neighbourhood was burgled. The thieves didn’t have any problem to enter and take all the cash. Security guard was watching TV and didn’t hear anything. (i) There were no other security guards in the shop. (ii) The security guard was not working on that day.’

4. Это был самый популярный блог в группе, но число подписчиков стало резко сокращаться, когда блог стал платным. Автор продаёт его за 10 тысяч евро. (i) У блога был один единственный автор. (ii) Это был очень популярный блог.

‘That was the most popular blog in the group, but the number of subscribers started decreasing sharply when the blog became paid. Author sold it for 10 thousand euros. (i) The blog had only one author. (ii) It was a very popular blog.’

5. Я часто ездила в электричке. Один раз наблюдала, как учительница едет на экскурсию со старшеклассниками – одни играют в карты, другие курят и матерятся в тамбуре, а она просто читает газету.
(i) С группой школьников ехала одна учительница.
(ii) Эти старшеклассники часто ездили в электричке.

‘I used to travel by commuter train. Once I saw how teacher was on a school trip with secondary school students - some of them were playing cards, others were smoking and swearing while she was just reading a newspaper. (i) She was the only teacher who accompanied the students. (ii) The school students regularly travelled by commuter train.’

6. На моих глазах убили молодого и красивого быка. Мясник занёс кинжал над его шеей и ударил. Бык как подкошенный упал на брюхо.
(i) В убийстве животного принимал участие один мясник.
(ii) В тот день убили только одного быка.

‘In front of my eyes a young and beautiful bull was killed. Butcher pointed the knife at his neck and hit. The bull collapsed belly down. (i) Only butcher took part in the killing of the bull. (ii) Only one bull was killed on that day.’

7. В офисе народ совсем, абсолютно без комплексов. Начальница достаёт из кармана щипчики во время собрания и начинает выщипывать волосы на подбородке.
(i) В этом офисе одна единственная начальница.
(ii) В офисе работало много людей.

‘The people at the office don’t have complexes, not one. Manager takes tweezers out of her pocket during the meeting and starts pulling out hairs from her chin. (i) There is only one manager at the office. (ii) A lot of people worked at the office.'
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