

# Acquisition of adjectival degree markers by Dutch- and Russian-speaking children

The richer the faster?

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Prior research shows that morphological richness facilitates acquisition and that paradigm size is more important than uniqueness of form-function pairings (uniformity). The present paper takes a novel approach to uniformity, not restricted to inflectional morphology, and aims to establish whether morphological richness is more important than uniformity when competing forms from different linguistic levels are taken into account. To this end, the paper compares the acquisition of adjectival degree markers in Dutch and Russian. Dutch has scarce adjectival (degree) morphology, but more one-to-one form-function mappings, whereas the Russian system involves rich morphology, but little uniformity. A longitudinal study of spontaneous child speech and a cross-sectional elicitation experiment provide converging evidence that Russian children have more difficulty acquiring degree markers: their acquisition rate is lower and error rate higher. It is concluded that uniformity is more important than morphological richness, when cross-categorical cue competition (beyond inflectional morphology) is taken into account.

**Keywords:** child language, adjectives, degree markers, morphological richness, uniformity

## 1. Introduction

Prior cross-linguistic research on the acquisition of nouns and verbs shows that children benefit from rich morphology in the process of language learning. A number of studies have demonstrated a positive relation between (paradigmatic) morphological richness and the rate of acquisition (e.g. Dressler 2005; Laaha & Gillis 2007; Xanthos et al. 2011). For example, Turkish verbs have a richer paradigm than French verbs; and Turkish-speaking children acquire verbal morphology faster than their French-speaking peers.

One reason for this might be that languages with rich morphological paradigms offer their learners a lot of evidence and channel the child's attention towards morphological distinctions (Dressler 2005). Another reason might be that rich morphology is more informative, since it implies one-to-one form-meaning pairings and in this way helps learners to focus on differences in meaning associated with different forms. For example, the Dutch verb form *lezen* is multifunctional: it can be an infinitive or any of the present-tense plural forms (1st, 2nd or 3rd person). In contrast, the Russian present-tense form *čitajem* 'read' only has one function (1st person plural); and there are separate forms for the infinitive, 2nd and 3rd person plural. Thus a child learning Russian is exposed to more reliable cues and encouraged to attend to different meanings/functions associated with these forms. A child acquiring Dutch will be disadvantaged in this respect and will usually go for the 'second-best solution' and exploit syncretism by choosing a default form (Dressler 2005: 15). One-to-one form-meaning pairings are referred to as 'uniformity' or 'unifunctionality'. Uniformity is a continuum from complete syncretism (when one form is used for all relevant functions in the paradigm) to bi-uniqueness (when one function corresponds to one form only). Most form-meaning pairs will fall somewhere along that continuum.

According to the Competition Model (Bates & MacWhinney 1989), acquisition will be delayed when several forms/cues compete for the same function (non-uniformity) or when one form/cue represents several functions (non-unifunctionality). Hence, not only morphological richness, but also uniformity facilitates acquisition. But what happens if these two factors clash, for example when a language domain is morphologically rich but not uniform, or vice versa?

Research seems to suggest that the size of morphological paradigms is more important than uniformity. As Dressler and colleagues put it: "children do not seem to acquire the inflectional morphology of nouns or verbs of one language more rapidly because it is relatively more transparent, uniform or salient than that of another language" (Dressler et al. 2007: 71). This said, it is important to notice that the impact of uniformity (as opposed to morphological richness) has so far been studied exclusively within the morphological domain. However, sometimes the same meanings can be expressed not only by means of morphology, but also by syntactic and lexical means. Cue competition is not restricted to one level of language (Bates & MacWhinney 1989). If morphological cues compete with lexical/syntactic cues for the same function, there is no uniformity, since one meaning corresponds to several formal expressions. Therefore, in comparing the effects of richness and uniformity, it is important to take a step beyond the strictly morphological approach and look at the variety of linguistic forms associated with a particular function.

A case in point is the domain of adjectival degree markers. Degree (i.e. an extent to which an entity possesses a property) can be expressed morphologically (e.g. *larger*), but also lexically (e.g. *gigantic*) and syntactically (e.g. *very large*). Since the same meanings can be expressed by different means, a richer morphological paradigm is not necessarily associated with uniformity. For instance, Russian has a rich inflectional paradigm for expressing degree, but it also has a plethora of competing (derivational, syntactic and lexical) forms for the same meanings. In contrast, the Dutch paradigm is less rich, but more uniform (see Section 2). Therefore, a comparison between Dutch and Russian provides a good test-lab for the hypothesis that paradigm size is more important than uniformity. Since the same degree meanings can be expressed by different means, it is crucial to study the development of degree morphology in tandem with syntactic and lexical means of degree marking to pinpoint the effects of cross-categorical cue competition.

## 2. Degree markers in Dutch and Russian

Table 1 gives an overview of adjectival degree markers in Dutch and Russian. This overview does not strive for completeness, rather it provides examples of the most common types of degree markers (likely to be used by children). Notice that the term 'degree marker' is used with reference to morphological (inflectional and derivational), syntactic and lexical means of expressing a degree of a property (Tribushinina & Gillis 2012).

As evidenced by the overview in Table 1, the Dutch system is relatively transparent. The meanings of maximum, high, moderate, small and equal degree, as well as consequential degree meanings are expressed syntactically, by means of degree adverbs, such as *helemaal leeg* 'completely empty', *heel hoog* 'very high', *best wel eng* 'rather scary'. Comparative and superlative meanings are expressed morphologically. There is only one comparative (e.g. *mooi–mooier* 'pretty–prettier') and one superlative suffix (*groot–grootst* 'big–biggest'). For adjectives ending in *-r*, the comparative suffix is preceded by a transfix *-d-* (e.g. *donker–donkerder* 'dark–darkest'). Like in English, there are a few suppletive forms (e.g. *goed–beter–best* 'good–better–best'). The analytic forms are used with participial adjectives (e.g. *meer verrassend* 'more surprising') and adjectives ending in *-de*, *-isch*, *-sd*, *-sk* and *-st* (e.g. *meest problematisch* 'most problematic'), but can sometimes also be used for emphasis. Additionally, variations in degree can be expressed lexically, by switching to a more extreme term (e.g. *klein* 'small' > *piepklein* 'tiny', *groot* 'big' > *gigantisch* 'gigantic'). The Dutch system is not entirely uniform. For example, there are multiple degree adverbs with synonymous meanings (e.g. moderators *tamelijk*, *nogal*, *redelijk*, *best wel* 'rather, fairly'). Furthermore, the Dutch comparative suffix

**Table 1.** Adjectival degree markers in Dutch and Russian (examples in parentheses)

Function	Dutch	Russian
Maximum degree	Maximizers ( <i>helemaal</i> ‘completely’)	Maximizers ( <i>sovsem</i> ‘completely’)
High degree	Boosters ( <i>heel</i> ‘very’)	Boosters ( <i>očen</i> ‘very’), adjective reduplication, suffixes ( <i>-ušč/-jušč</i> ), prefixes ( <i>pre-</i> )
Higher degree	Comparative: analytic ( <i>meer</i> ‘more’), synthetic ( <i>-er</i> )	Comparative: analytic ( <i>bolee</i> ‘more’), synthetic ( <i>-e, -ee, -ej, -šei</i> )
Highest degree	Superlative: analytic ( <i>meest</i> ‘most’), synthetic ( <i>-est, aller-X-st</i> )	Superlative: analytic ( <i>samyj</i> ‘most’), synthetic (prefix <i>nai-</i> and suffix <i>-ejš/-ajš</i> )
Consequential degree	Consequential adverbs ( <i>te</i> ‘too’, <i>genoeg</i> ‘enough’)	Consequential adverbs (e.g. <i>sliškom</i> ‘too’, <i>dostatočno</i> ‘enough’)
Moderate degree	Moderators ( <i>best wel</i> ‘rather’)	Moderators ( <i>dovol’no</i> ‘rather’), suffixes ( <i>-ovat/-evat-</i> )
Low degree	Diminishers ( <i>een beetje</i> ‘a bit’)	Diminishers ( <i>nemnogo</i> ‘a little’), suffixes ( <i>-en’k/-on’k</i> ), prefixes ( <i>po-</i> )
Lower degree	Analytic comparative with <i>minder</i> ‘less’	Analytic comparative with <i>menee</i> ‘less’
Lowest degree	Analytic superlative with <i>minst</i> ‘least’	Analytic comparative with <i>naimenee</i> ‘least’
Equal degree	Equateive ( <i>zo X als</i> ‘as X as’)	Equateive ( <i>takoj že X kak</i> ‘as X as’)

*-er* is also used for nominal derivation (e.g. *werk-werker* ‘work-worker’). This said, within the adjectival degree domain there is a relatively transparent division of labour between cues of different levels.

The Russian system is quite complex in several respects. In contrast to Dutch, there are several comparative suffixes (see Table 1). Final consonants of the stem often undergo alternation, as in *korotkij* ‘short’ > *koroče* ‘shorter’. Sometimes the stem-final consonant is dropped, as in *nizkij* ‘low’ > *niže* ‘lower’. Analytic superlatives are very common (e.g. *samyj krasivyy* ‘most beautiful’); the use synthetic superlatives (e.g. *naiumnejšij* ‘cleverest’) is limited to a formal register. Syntactically, degree can be expressed by means of degree adverbs as in Dutch (e.g. *očen* ‘very tall’, *sovsem čistyy* ‘completely clean’, *dovol’no umnyj* ‘rather clever’). Lexical substitutions (e.g. *krošečnyj* ‘tiny’, *ogromnyj* ‘tremendous’) are also possible.

In addition to degree adverbs and morphological degrees of comparison, Russian has a wide range of suffixes and prefixes expressing either a high or a low degree of a property. The most frequently used suffixes are *-ovat/-evat-* expressing mitigation, *-ušč/-jušč* denoting a high degree and *-on’k/-en’k-* having a diminutive meaning. For example, *uzen’kij* can be used as a synonym of *očen’ uzkiy* ‘very

thin', *bol'suščij* means 'extremely large', and *bolševatyj* denotes a moderate degree as in 'rather large'. Degree prefixes can be used as an additional intensifying or mitigating device in comparatives and reduplications. The prefix *po-* is commonly used in comparatives and denotes a small difference in degree, as in *pobol'she* 'a bit bigger'. The prefix *pre-* has the opposite meaning and is used as an intensifier of the second element of a reduplicated adjective as in *bol'soj-prebol'soj* 'extremely big'. This example also shows that Russian, unlike Dutch, allows reduplication of not only adverbs (e.g. *očen'-očen' vysokij* 'very, very high'), but also adjectives (e.g. *malen'kij-malen'kij*, lit. small-small 'very small').

In summary, the Dutch system of adjectival degree, although not entirely bi-unique, is much more uniform than the counterpart system in Russian. For example, Dutch only uses boosters to express a high degree of a property, whereas in Russian this function is associated with four different kinds of degree markers (boosters, suffixes, prefixes, reduplication). Hence, the Russian system of adjectival degree markers includes a very rich inflectional morphology, but has very low uniformity. In contrast, the Dutch system includes relatively sparse degree morphology, but is more uniform. If Russian children acquire degree forms faster than their Dutch-speaking peers, that would be a strong case for the hypothesis that morphological richness as such is more important than uniformity (Dressler 2005; Laaha & Gillis 2007). However, if the Russian system is acquired less fast, despite the greater morphological richness, that might be taken as evidence that uniformity is a crucial factor determining the ease of acquisition. This hypothesis will be tested in two studies — a longitudinal corpus study of spontaneous child speech (CS) and a cross-sectional elicitation experiment.

### 3. Study 1: Longitudinal analysis of spontaneous child speech

#### 3.1 Method

##### 3.1.1 *Material*

This study traced the development of degree markers in spontaneous speech of Dutch- and Russian-speaking children between 2 and 3 years of age. The consideration of child-directed speech, though highly important, is beyond the scope of the present paper. The Dutch data were extracted from the Groningen corpus (Bol 1995) in the CHILDES database (MacWhinney 2000). This corpus contains transcripts of spontaneous speech from seven children and their caregivers. For the purposes of comparability with the Russian corpus in terms of sample size, transcripts of five children (one transcript per month) were selected for analysis (see Table 2).

Table 2. The corpora

Child	Language	Sex	Age range	N recordings	N adjective tokens in CS
Abel	Dutch	m	2;0–3;0	13	379
Daan	Dutch	m	2;0–3;0	13	490
Josse	Dutch	m	2;0–3;0	13	436
Matthijs	Dutch	m	2;0–3;0	13	392
Tomas	Dutch	m	2;0–3;1	12	368
Filipp	Russian	m	1;8–2;8	13	882
Liza	Russian	f	1;8–3;0	17	586
Roma	Russian	m	1;10–2;11	10	144
Vanja	Russian	m	1;9–3;0	14	1147
Vitja	Russian	m	2;0–3;0	13	390

The Russian data come from two corpora — the Filipp corpus (Voeikova 2011) and the Gagarina corpus (Gagarina 2008). The children were recorded monthly for about an hour in a home setting. Since less data were available for the Russian children due to missing datapoints, a few transcripts before 2;0 were also used. An overview of the data is given in Table 2.

### 3.1.2 Procedure

Each adjective token was coded as either ‘bare’ (no degree marking) or ‘degree-marked’. The degree-marked forms were further coded according to the type of degree marker (comparative, superlative, suffix, prefix, adjective reduplication, degree adverb). If an adjective form contained more than one degree marker, both were coded. For example, the Russian form *poton’she* ‘a bit thinner’ was coded as containing a prefix (*po-*) and a comparative form (*ton’she*). Percentages of bare and degree-marked forms were calculated per month.

## 3.2 Results

Tables 3 and 4 present the percentages of degree-marked forms in the Dutch and Russian CS respectively. For convenience, mean percentages by trimester are provided.

As shown in Table 3, three of the Dutch children already use degree markers at the very beginning of the investigated period. By age 2;6, the Dutch children on average mark about 8% of the adjectives for degree. The Russian-speaking children reach that level only a few months later (see Figure 1 for mean frequencies over all participants). By age 3, over 15% of the Dutch adjectives in CS bear

**Table 3.** Mean percentages of degree-marked adjectives in the Dutch corpus

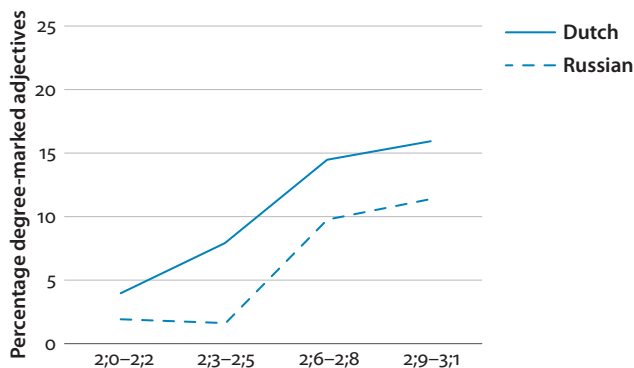
Age range	Abel	Daan	Josse	Matthijs	Tomas
2;0–2;2	12.2	0	0	5.9	2.0
2;3–2;5	12.0	2.3	9.3	12.7	3.3
2;6–2;8	12.0	23.2	18.3	3.8	15.0
2;9–3;1	13.4	7.2	19.0	19.7	20.2

**Table 4.** Mean percentages of degree-marked adjectives in the Russian corpus

Age range	Filipp	Liza	Roma	Vanja	Vitja
1;8–1;11	10.0	7.1	0	0	no data
2;0–2;2	2.3	6.5	0	0.9	0
2;3–2;5	0.9	2.7	0	1.2	3.0
2;6–2;8	6.2	22.0	6.2	3.7	10.6
2;9–3;0	–	24.2	11.9	9.1	0.5

degree markers (range: 7%–20%). The Russian children lag behind with the mean frequency of 11% in the last trimester (range: 0.5%–24%). Among the Russian children, Liza's speech is exceptional in the relatively high proportion of degree markers. Liza, a second-born child of a language acquisition researcher, is an early talker who achieves various language milestones very early (Eliseeva 2008).

Among the degree markers used by the Dutch children are comparatives (relative frequencies ranging on average from 0.1% of all adjectives in Daan's speech to 2.2% in Matthijs' speech) and degree adverbs (relative frequencies ranging on average from 1.8% in Daan's speech to 3.0% in Josse's speech). Superlatives are almost non-existent in the speech of 2-year-olds; only Matthijs and Daan use a few superlative forms (2.2% and 4.3%, respectively), both in the last recording. Boosters are the most frequent degree adverbs for all the children in the Dutch sample; 4%

**Figure 1.** Mean frequencies of degree-marked forms in the Dutch and Russian CS

to 8% of all adjectives in the corpus are modified by boosters. Diminishers and maximizers are relatively infrequent; their relative frequencies are below 2% for all the children except Abel who uses quite some diminishers (5.1% of his adjectives take diminishers).

In contrast to the Dutch corpus, the Russian CS at this age barely features any comparatives. Only Filipp and Vitja have a few comparative forms, in one session each. The most frequently used degree markers in the Russian corpus are suffixes (relative frequencies ranging from 0.2% of all adjectives in Vitja's speech to 7.2% in Liza's speech) and degree adverbs (relative frequencies ranging from 0.8% of all adjectives in Roma's speech to 5.3% in Liza's speech). No superlatives were attested in the Russian CS. Only two children used a few degree-marking prefixes (Vitja 0.1% and Filipp 0.3% of all adjective tokens).

### 3.3 Discussion

The emergence and development of degree markers in the longitudinal corpora suggests that Russian children do not benefit from the rich adjectival morphology in the acquisition of degree markers. On the contrary, the development of adjectival degree markers in their speech appears to be less fast than in the speech of their peers acquiring Dutch. However, these results must be taken as indicative only. First, the number of children per language is too low to allow statistical comparisons and generalisations, especially given the large individual differences within each language sample. Second, as shown by the present results, the frequency of degree markers in spontaneous speech is quite low. Overall, adjectives are infrequent in CS and parental input (about 3% of word tokens are adjectives), and adjectives marked for degree are even less frequent (Tribushinina & Gillis 2012). Third, adjectives emerge in CS around age 2 and gradually grow in frequency between 2 and 3 years of age. The proportion of degree-marked forms in CS keeps growing until at least age 6 (Tribushinina & Gillis 2012). So the proportion of degree markers is likely to be higher in the speech of older children. However, no Russian corpora are available beyond that age. To address these methodological problems, I conducted a second study, eliciting degree markers from a large number of children acquiring Dutch and Russian. Since the proportion of degree markers in the speech of 2-year-olds proved very low, children in the age range of 3 to 6 years were selected for participation in Study 2.

## 4. Study 2: Elicitation experiment

### 4.1 Method

#### 4.1.1 Participants

Participants were 160 children (80 Dutch, 80 Russian). The children were divided into six age groups (see Table 5). The children came primarily from middle-class families and had no history of language disorders. The Dutch participants were recruited through daycares and primary schools in the Amsterdam area. The Russian participants were recruited from kindergartens in Kemerovo, a city in Western Siberia.

**Table 5.** Subject information: language, mean (M) age in months and sex

	3-year-olds		4-year-olds		5-year-olds		6-year-olds	
	M (SD)	Sex	M (SD)	Sex	M (SD)	Sex	M (SD)	Sex
DU	40 (3.8)	10f/10m	55 (2.9)	8f/12m	66 (3.2)	12f/8m	78 (2.8)	8f/12m
RU	42 (3.9)	6f/14m	55 (4.2)	10f/10m	67 (3.1)	5f/15m	77 (2.8)	8f/12m

#### 4.1.2 Materials

The procedure developed by Tribushinina & Dubinkina (2012) for older children was adopted and adjusted for the purposes of this study. The test materials were two sets of coloured computer-generated images incrementally increasing or decreasing in size (see Figure 2). The pictures were presented on a 15-inch computer screen. For half of the trials the target adjective was ‘small’, for the other half ‘big’. These two adjectives were selected because they are prototypically gradable and belong to the most frequent adjectives in early CS (Tribushinina et al. 2014). This was to ensure that even the youngest participants would be able to cope with the task.



**Figure 2.** Example of a test stimulus

### 4.1.3 Procedure

The children were tested individually in a quiet room at their nursery or school. The child was seated in front of the computer and the investigator next to the child. On the descending trials (as in Figure 1), the child first saw a picture of an umbrella in the leftmost part of the screen. An investigator said: 'Look, this umbrella is big (Dutch: *groot*, Russian: *bol'soj*)'. Then a smaller umbrella appeared next to the first one and the investigator asked: 'And this one?'. This question was repeated for each subsequent umbrella. The pictures appeared on the screen one by one. On the ascending trials the procedure was similar, but this time the trial started with the smallest picture and the object was called *klein* (Dutch) or *malen'kij* (Russian) by the investigator. The subsequent objects incrementally increased in size. Both sets consisted of five objects, so that every child had eight opportunities to produce a degree-marked form. The order of presentation was counterbalanced among participants. The responses were audio-recorded and transcribed.

### 4.1.4 Coding

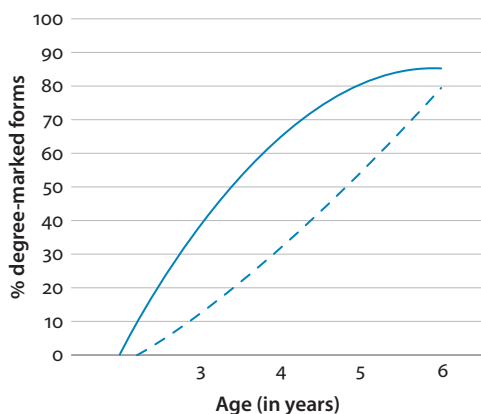
Each response was coded as either degree-marked or not. A response was coded as degree-marked if it contained any kind of degree marker(s). For all degree-marked forms, a category of each degree-marker was also coded. The following categories were used for both languages: comparative, superlative, degree adverb and lexical switch (e.g. to 'gigantic' or 'tiny'). The following additional categories were used for Russian: adjective reduplication, prefixation and suffixation.

## 4.2 Results

The developing proportions of adjectives marked for degree are plotted by language in Figure 3. The quadratic fit of the Dutch data from 3 to 6 years ( $R^2=0.95$ ) shows that there is an increase in the proportion of degree-marked adjectives between ages 3 and 5, with a plateau afterwards. The quadratic fit of the Russian data reveals that the Russian children do not reach a plateau by age 6, their growth curve keeps rising ( $R^2=0.99$ ).

A Univariate ANOVA with age and language as between-subjects variables revealed a significant main effect of age,  $F(3, 152)=49.7$ ,  $p<0.001$ ,  $\eta_p^2=0.5$ . As evidenced by Figure 3, children produced more degree-marked forms with age. There was also a significant main effect of language,  $F(1, 152)=37.3$ ,  $p<0.001$ ,  $\eta_p^2=0.2$ . The Dutch participants on average produced more degree marked forms ( $M=5.39$ ,  $SD=2.6$ ) than the Russian participants ( $M=3.54$ ,  $SD=2.8$ ). The age by language interaction was not significant ( $p=0.06$ ).

The inventories of degree expressions used by Dutch and Russian children are summarised in Table 6. Younger children in Dutch relied predominantly on



**Figure 3.** Percentage of degree-marked forms in the Dutch (solid line) and Russian (dotted line) groups

degree adverbs for expressing degree. However, the proportion of comparatives grew with age; at the same time the frequency of degree adverbs decreased. Three-year-olds also used lexical switches, but older children did not do that. The proportion of superlatives was stable across the age groups.

The Russian data reveal a different pattern. Although the Russian-speaking children lagged behind their Dutch peers in the frequency of degree-marked adjectives, they used a whole spectrum of degree markers from the earliest ages studied. Three-year-olds used comparatives, superlatives, reduplication and prefixation, and 4-year-olds employed all kinds of degree markers available in Russian.

Table 7 presents cumulative frequencies of errors by language and error type. The error rate in the Russian dataset was significantly higher than in the Dutch sample,  $\chi^2(1) = 27.1, p < 0.001$ . The Dutch-speaking children only made semantic errors, whereas about half of the errors in the Russian sample were morphological in nature.

**Table 6.** Percentages of degree markers (relative to cumulative frequencies of all degree markers) by language and age group (NR = not relevant)

	Dutch				Russian			
	3	4	5	6	3	4	5	6
Comparative	48.6	60.0	65.1	80.7	52.9	41.4	54.3	57.5
Superlative	5.7	1.8	7.6	4.8	5.9	1.7	11.0	12.3
Degree adverb	38.6	36.4	27.3	13.7	0	27.5	14.2	13.0
Reduplication	NR	NR	NR	NR	5.9	5.2	4.7	4.1
Prefixation	NR	NR	NR	NR	35.3	5.2	8.7	10.3
Suffixation	NR	NR	NR	NR	0	10.3	0.8	1.4
Lexical switch	7.1	1.8	0	0	0	8.6	6.3	1.4

**Table 7.** Frequencies of errors (absolute numbers)

Error type	Dutch	Russian
Comparative formation	0	20
Superlative formation	0	2
Inappropriate degree adverb	7	22
Semantic substitutions	4	7
<b>Total</b>	<b>11 (1.7%)</b>	<b>51 (8.0%)</b>

### 4.3 Discussion

The results of the cross-sectional experiment confirm the findings from the longitudinal study. Russian-speaking children have more difficulty acquiring degree markers, as evidenced by higher error rates and slower acquisition. The Russian participants in this study seemed to catch up with their Dutch-speaking peers, but only by age 6. This said, from the earliest ages studied the Russian children used a whole range of degree markers available in their language, and the proportional distributions of different markers did not change with age. The Dutch-speaking children showed a clear development from (over-)reliance on syntactic degree markers (adverbial modifiers) to increasing use of morphological degree markers (comparatives and superlatives).

## 5. Discussion and conclusion

This study set out to test the hypothesis that morphological richness facilitates acquisition, irrespective of degree of uniformity by comparing the production of adjectival degree markers by Dutch- and Russian-speaking children. Unlike the previous studies, this paper looked at uniformity beyond the morphological domain, as cues from different levels of language can also compete for the same function. The Russian system of adjectival degree has rich degree morphology, but is not uniform in the sense that the same degree can be expressed by several different (inflectional, derivational, lexico-syntactic) means. In contrast, the Dutch system is less morphologically rich, but more uniform: one degree meaning usually maps onto one form only, either morphological (comparatives, superlatives) or syntactic (degree adverbs).

The results from the two studies reported here provide converging evidence that Russian-speaking children lag behind their Dutch-speaking peers in the acquisition of degree markers. The frequency of degree markers in both spontane-

ous and elicited CS in Russian is lower than in Dutch. Russian children also make more errors than their Dutch counterparts.

These results are compatible with the Competition Model (Bates & MacWhinney 1989), which posits that acquisition will be delayed if there is a competition of cues for the same function (non-uniformity). Crucially, for the Competition Model it does not matter if the cues represent the same or different levels of language. In the case of the Russian system of adjectival degree, we observe massive competition of multiple cues for the same function. This explains why Russian-speaking children are delayed in their acquisition of adjectival degree markers compared to their peers acquiring Dutch.

Hence, a broader approach to uniformity (not restricted to inflectional morphology) provides new insights into the relation between uniformity and morphological richness. Studies operationalising uniformity as a phenomenon restricted to (inflectional) morphology show that morphological richness rather than transparency and uniformity determines the acquisition pace (Dressler 2005; Laaha & Gillis 2007; Xanthos et al. 2011). In contrast, an onomasiological approach pursued in this paper has revealed that uniformity may play a more important role than morphological richness when uniformity is defined more broadly.

Another possible explanation for the differences between the present results and earlier findings (in the nominal and verbal domain) might be that adjectival degree marking is less central to language use compared to noun declension and verb conjugation. It is virtually impossible to communicate without using nouns and verbs, but there is less vital necessity to use degree forms.

A limitation of this study is that it only looked at adjectives in child speech, without considering the caregiver input. An alternative explanation of the results might be that Russian-speaking caregivers use degree-marked adjectives less often than Dutch-speaking parents. It is well-known that parents adjust the complexity of their speech when talking to young children and that parents speaking a morphologically rich language do not necessarily use the whole paradigm available in adult language (Xanthos et al. 2011). To further investigate this possibility future research should relate the acquisition of degree markers to patterns of their use in child-directed speech.

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