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Conceptual reference points, pronouns and conversational structure in Russian

Research into the distribution of full noun phrases versus anaphora in English has demonstrated that usage is dependent upon information status and accessibility of the referents within the discourse framework. Russian, a so-called pro-drop¹ language, offers a third possibility, the use of a zero pronoun. The present study focuses on the distribution of these three categories (a full NP such as a noun, a name, or a noun plus descriptive modifiers, an overt pronoun, or a zero pronoun) in Russian conversation in subject position only. In English it has been demonstrated that a full NP is used to introduce new referents, to “activate” information which the speaker assesses as inactive and, furthermore, a full NP is used at episode boundaries (Fox 1987). In contrast, a pronoun is used if the referent is in consciousness (Chafe 1976, 1994; Dillon 1981) or high in topicality (Givón 1983) and functions in part to create textual cohesion (Foley and Van Valin 1984; Halliday and Hasan 1976; Halliday 1985). Similar claims for Russian are found in Kibrik (1996, 1997).

The question, then, is that of the distribution of zero pronouns in subject position. Nichols (1984) finds that the use of zero anaphora in written narrative can be accounted for in terms of the thematic structure of the text: a new topic or thematic participant is introduced with a full NP and, having been introduced, continues as anaphoric zero, until one of several conditions obtains: a change in topic; due to syntactic requirements (such as inverse predication); or the intervention of narrative boundaries. Kibrik (1996) provides what he considers to be a first approximation at a model which can explain the activation processes involved in the distribution of anaphora in a short story by adding

¹For discussion of the status of Russian pronouns and anaphora within a generative framework, see Franks (1995: 287–332).

numerical values assigned to such factors as distance to the antecedent, the syntactic and semantic roles of the antecedent, animacy, and so on, based on the close analysis of a single short story. In contrast to Nichols' analysis, which finds the anaphoric zero is used for continuation of an ongoing topic, Kibrik finds too few zeroes in his text to provide a sufficient basis for analysis. This leads to an apparent contradiction in terms of the function of zero anaphora in written Russian.

In contrast to the studies of written narratives, an analysis of Russian conversational data² shows two surprising trends: first of all, the use of full NPs is considerably more limited than research on written language would suggest, and the use of pronominal forms, as opposed to anaphoric zeroes, is considerably greater than one would expect (based on Nichols 1984). In order to obtain a more complete picture of the distribution of overt versus zero forms, the present study includes an analysis of the 1st and 2nd person subject markings, which are relatively frequent in the corpus. The distribution of these forms is dependent upon two sets of factors: activation states and discourse structure. We can consider each of these separately.

First, the distribution of the three categories is related to the speaker's evaluation of the accessibility of a referent. Referent status is a kind of "dynamic" conceptualization, to use Langacker's (1998) terminology, dynamic in the sense that conceptualization changes and develops through processing time. A discourse topic provides reference points for the mental access of a set of potential targets; once a topic has been activated, it lends activated reference points for the interlocutors. Activation status is itself dynamic and changes as the discourse progresses.

Perhaps the most complete model for assessing activation states is supplied by Kibrik (1996, 1997). Kibrik identifies a number of criteria, or activation factors, involved in the distribution of full NPs versus overt pronouns. These factors include semantic/discourse categories as well as morphosyntactic ones. Primary are: animacy,

²The analysis here is based on a series of recordings made in Moscow and St. Petersburg in 1992–1995; all tapes were transcribed by native speakers of Russian. The Moscow conversations were collected through a series of interviews with students at Moscow State University. In contrast, the St. Petersburg tapes were recorded in the author's absence, in the teachers' room of the Department of Russian as a Second Language at St. Petersburg University. All recorded speakers are native speakers of Russian, with the exception of the author/interviewer in the case of the Moscow tapes. Example (1) in this paper is from the Moscow study; all other excerpts here were collected in St. Petersburg as described.

protagonisthood (cf. Nichol's literary theme), syntactic role of the NP (subject versus object), semantic role of the NP (actor versus non-actor), linear distance, rhetorical distance, syntactic distance and paragraph distance. The last three require some explanation:

linear distance: as measured by Givón (1983, 1990), linear distance is calculated from an anaphor to an antecedent. Linear distance is a relatively weak indicator, and my own independent studies of Givón's measurements of linear distance show that it is not particularly useful in a language like Russian, which permits zero pronouns and has less rigid word order than English.

rhetorical distance is based on Rhetorical Structure Theory (Mann, Matthiesson & Thompson 1992) which claims that every discourse unit is connected to at least one other unit by a certain "rhetorical relation", such as sequence, cause, result, concession, etc. As a discourse unit is produced, the most important question is to which other unit it adds new content, and which unit it linearly follows is less important. Fox (1987) shows that referents mentioned in the rhetorically preceding unit are the most easily pronominalized.

paragraph distance: has to do with the fact that episodic structure is relevant to the distribution of full NPs versus pronominal forms. Crucially, an episode and/or paragraph boundary is a point at which speakers are likely to use a full NP.

Kibrik is able to make a numerical calculation based on a weighting of each of these factors. In Russian conversation some of these factors, such as protagonisthood, are considerably less relevant than in written narrative prose. Note, however, that there is a high coincidence between grammatical subjecthood and NPS which are high in animacy, topicality, and agency, all factors which Kibrik relates to activation status. Such NPs are more salient, more highly activated, and likely to be pronominalized once they have been activated by a full noun. This conclusion is supported by conversational data as well.

The second major factor in the distribution of full nouns versus pronouns versus zeroes is discourse structure. (This is directly related to Kibrik's notion of paragraph

distance, but paragraphs are not relevant conversational units.) Cognitive processing plays a key role here: discourse boundaries of a variety of sorts act in conjunction with topics as reference points. Hitting a discourse boundary has the effect of hitting a metaphorical reset button, and full NPs are used to activate or reactivate the reference points. In written narratives, episode boundaries and topical units provide salient discourse boundaries, salient in the sense that they provide active reset positions. In conversation the minimal conversation unit is the turn, and turns can be organized into higher two-part turn units or three-part exchanges (Coulthard and Brazil 1992; Sacks, Schegloff and Jefferson 1974). In Russian conversation the turn provides a potentially salient boundary for “reset,” with salience dependent upon a combination of syntactic and structural factors.

In some cases the use of zero pronouns follows our expectations completely, as in example (1):

- (1) 1 vot moi družj'a sdali kvartiru v Moskve, za dollary,
 2 Ø i poselilis' v Abramcevo.
 3 i Ø ezdjat ottuda na rabotu (.)
 4 no tam rabotaet tol'ko mužčina.
 5 devočku Ø pereveli tuda v školu
 6 i Ø zaveli kur.
 7 ja ne znaju,
 8 čem oni ix budut kormit',
 9 ja tak udivilas',
 10 no Ø prišla,
 11 Ø strojat kurjatnik.

- 1 my friends rented out their apartment in Moscow, for dollars,
 2 and Ø moved to Abramcevo
 3 and Ø travel from there to work,
 4 but only the man works there,
 5 Ø transferred the girl to the school there,

- 6 and Ø got some chickens.
 7 I don't know,
 8 what they will feed them,
 9 I was so surprised,
 10 Ø got there,
 11 Ø [were] building a chicken coop.

In general the distribution here follows the pattern predicted by previous studies. A full noun is used in line 1 to introduce a new referent, subject and topic; this subject/topic continues to be referenced with a zero pronoun throughout the excerpt, except in line 8, where the 3rd person pronoun is used. Overt marking here can be explained as due to the intervening subject/topic *ja* 'I' in line 7. (This does not explain the zero pronoun in line 5, after the full noun *mužčina* 'man' in line 6, but note that this is zero quite different. The noun 'man' is in a part-whole relationship with 'my friends' and is, accordingly, activated by 'my friends' in line 1; see Langacker 1990 for a broader discussion of the part-whole relationship.)

In contrast, in example (2) there is a consistent use of overt pronouns in positions where zeroes would be predicted:

- (2) 1 A a vot èta devočka kotoraja sejčas ne xodit
 2 B ona perestala
 3 ona načinala v ètoj gruppe
 4 no ona davno uže ušla iz gruppy (.)
 5 to est' ej
 6 èto dejstvitel'no slabaja
 7 ona byla u kogo-to ešče
 8 no Ø sejčas vot prišla vmeste s Katej.
- 1 A 'and this girl who isn't coming now
 2 B she stopped
 3 she had started in this group

- 4 but she left the group along time ago
5 that is, for her
6 this is a truly weak [student]
7 she was [studying] with someone else
8 but now Ø has come together with Katja.’

In line (1) a new referent is activated by a full NP (which is further modified by the relative clause), and it functions as the topic for the entire excerpt. It is consistently referenced with a 3rd person personal pronoun until line 8, where there is a zero pronoun. There is no change in morphosyntactic relations until line 5, where the dative 3rd singular pronoun *ej* suggests that the speaker began to use some indirect construction, but the clause is incomplete (as the English gloss suggests). In other words, we find here an activated topic in line 1; despite the short linear and rhetorical distance from clause to clause, it is referenced with an overt pronoun; lines 2–4 are striking in this regard. It is precisely in these environments where we would anticipate zero pronouns.

In order to understand the differences in distribution suggested by examples (1) and (2), it is useful to consider the use of these three different forms over the course of an extended segment (or segments) of conversation. Table 1 includes text counts for the use of (nominative) subjects for one side of a 90 minute tape, or approximately 45 minutes of speech. The tape was recorded in the teachers’ lounge at St. Petersburg University. The department secretary operated the tape deck, turning it on when teachers came in for a break, and turning it off when they left. The actual time span covered by the tape is thus difficult to calculate, but it was all recorded during a single day. The result is completely natural conversation (speakers were largely unaware of the microphone), but it is of a very specific kind. What is relevant here is that the interlocutors know each other quite well, at least in the sense that they are colleagues who work together five days a week, and the setting plays an important role in the structure discourse as well. Crucially, there is a high degree of shared knowledge. Certain kinds of information are treated as activated, or more readily accessible or easily activated, than in other conversational settings, where the interlocutors do not share as much information. This aspect of the conversations is relevant to the use of overt pronouns versus zeroes. Even though there

are breaks in the conversation (when teachers go to classes), topics are picked up again and revisited periodically throughout the course of this tape. The most frequent topic of conversation can be roughly categorized as teaching and students: the teachers address other issues, but mostly discuss their experiences in the classroom and with the students and their colleagues.

These counts in Table 1 should be interpreted with caution. Numerical values are attractive because they appear to provide clear and unambiguous data and, as is shown here, actual text counts can provide concrete evidence of distribution patterns. But the numbers skew the reality of the conversation: on any given tape, there are portions which are inaudible. Although the recording on this particular tape was relatively clear, there are portions which are inaudible. Yet there is nothing on the tape itself to indicate that these portions of the conversation were inaudible to the interlocutors at the time of speech. Inaudible material is, naturally, omitted from the counts below, but what this amounts to is that the numbers given are potentially lower than what was in the actual conversation.

The count in Table 1 omits all ambiguous forms and false starts. For example, one pronominal subject is counted in the following string: *ja, ja xotela brosit* 'I, I wanted to quit'. All imperative forms are omitted from the count, including the 1st person plural imperatives, such as *pošli* 'let's go'; *skazem* 'let's say'. In Russian, 1st and 2nd person imperative forms may be found with an overt pronoun under certain pragmatic conditions; in this corpus none of the imperative forms occurs with an overt pronoun.) The subjects of impersonal constructions, such as the 3rd person plural and the 2nd person singular, non-referential, are also omitted from the counts given in Table 1.

It should also be pointed out that it is often very difficult to tell determine where to put the zero pronouns, and the placement of some of them could be questioned. The problem is exacerbated in Russian due to the fact that word order is largely determined by discourse factors, with intonation playing a key role in conversational Russian. For example, in excerpt (3) I have interpreted line 2 as having a zero subject pronoun:

- (3) a Katja bednaja nemka sidit,
 Ø francuzskogo proisxoždenija

‘and Katja the poor German sits [there],
 Ø of French descent’

This interpretation is based on the pause and intonation at the end of line 1, which suggest that line 2 is an independent clause. It could, however, be potentially interpreted as adnominal to *bednaja nemka* ‘poor German’ in line 1; although adnominal NPs normally are adjacent to the NP they modify, such word order variation is not uncommon for colloquial Russian syntax.

Still, with all these caveats, Table 1 gives at least an approximate representation of the distribution of subject NPs in one recording:

Table 1 *Distribution of nouns, overt pronouns, and zero pronouns*

	<i>Non-past</i>		<i>Past</i>	
	singular	plural	singular	plural
<i>1st person</i>				
overt pronoun	88	8	37	12
zero pronoun	11	5	7	0
total tokens	99	13	44	21
<i>2nd person</i>				
overt pronoun	20	8	7	0
zero	18	4	2	2
total tokens	38	12	9	2
<i>3rd person</i>				
full	56	12	15	2
overt pronoun	70	50	39	12
zero	23	12	14	3
total tokens	149	74	68	17

As Table 1 shows, zero pronouns are not especially frequent. This is particularly surprising in the 1st and 2nd person non-past, where verbal morphology makes subject

person and number unambiguous. Thus the pronouns are redundant here. Moreover, the counts in Table 1 suggest an even higher use of 2nd person zeroes than actually occurs. If we look at the actual instances of zero pronouns in the 2nd person non-past, in the singular we find 11 instances of *znaeš* ‘you know’ and 6 of *ponimaeš* ‘you understand’. Note that these are discourse markers and do not have propositional content per se; they are frequently used without an overt pronoun, as in (4)

- (4) nu, odna komnata v kvartire, znaeš, kak-to ja ne priglašaju nikogo
 ‘well, there’s one room in the apartment, [you] know, so I don’t invite anyone
 over’

The same is true in the 2nd person plural, for all 4 instances of the non-past without an overt subject. If we omit *all* instances of these discourse markers from the tally, the overall numbers change significantly, with a total of 18 instances of the 2nd person (singular); 17 of these have overt pronominal subject, and only 1 has a pronominal zero. In the 1st person, of a total of 177 tokens, including past and non-past verb forms, singular and plural, only 13% have zero pronouns. And only slightly more (14%) have a zero pronoun in the non-past, where overt subject marking is morphologically redundant.

With 3rd person subject, overt and zero pronouns alike have an anaphoric function differing from 1st and 2nd persons, which signal discourse roles. In the 3rd person we find a higher percentage of zero pronouns than in the 1st and 2nd persons, but also a relatively high percentage of full nouns. Percentages for the 3rd person are given in Table 2:

Table 2 *3rd person subjects*

<i>3rd person</i>	<i>Non-past</i>		<i>Past</i>	
	singular	plural	singular	plural
Total tokens	149	74	68	17
full NP	38%	16%	22%	12%
overt pronoun	47%	68%	57%	71%
zero	15%	16%	21%	17%

Despite the slightly higher use of zero pronouns in the 3rd person here, it is not the case that all overt pronouns can be accounted for in terms of our earlier predictions. That is, many of the overt pronouns occur precisely where one would anticipate a zero: to mark an ongoing topic where there has been no change in syntactic relations, no episode boundaries, etc., just as seen in example (2).

One framework which can account for some of the distribution is the *Reference Point Model* (van Hoek 1995). This model, developed with the framework of cognitive grammar, has been shown to have an advantage in explaining for English nominal coreference, in that it is able to account for distributions previously defined in terms of different sets of principles: syntactic constraints versus discourse-level structural constraints. van Hoek applies the model primarily at the sentential level, and only briefly touches on its applicability to cross-sentential patterns, which are explored more fully here.

A crucial part of van Hoek's model is *conceptual reference points*. Reference points are understood as local-level topics; these are elements which serve as the context within which the speaker or addressee conceptualizes other elements. The analysis rests on the notion that a conceptualizer makes mental contact with an entity against the background provided by other elements in the conception. These elements are linked to the reference point conceptually; the *dominion* of a reference point consists of the

elements that are conceptually located relative to the reference point (van Hoek 1995: 313). Conceptual reference points are defined in detail as follows:

Conceptual Reference Points:

- a. A nominal R tends to be construed as a reference point in relation to a nominal N to the extent that R is more prominent than N, as determined by profiling and figure/ground alignment.
- b. A nominal N tends to be construed as belonging to the dominion of a reference point R to the extent that N is conceptually connected with R. Connectivity is determined primarily by interconnecting relations dependent on both R and N (e.g. process relations in which R and N are complements).
- c. A nominal R tends to be construed as a reference point in relation to a nominal N if R precedes N in the linear string. This is a relatively weak factor as compared with conceptual connectivity; its effects are most noticeable when R and N are only weakly interconnected. (van Hoek 1995: 320)

The importance of (a) is seen in the hierarchy of grammatical relations: Subject > direct object > Oblique (Keenan & Comrie 1977, Bresnan 1982, Perlmutter & Postal 1983, Croft 1991) which is characterized in Cognitive Grammar in terms of prominence. Crucially, the subject—as figure within the clause—is the reference point with the rest of the clause in its dominion. Note that this is directly applicable to van Hoek’s analysis of pronominal relations within a single clause, and it is also necessary for the extension of the framework to discourse levels.

As point (b) of the model states, the extent of a reference point’s dominion is determined by semantic connectivity between the reference point and other nominals, in part by the interaction of semantic/conceptual connectivity and linear word order. It is also determined by the presence/absence of unit or episode boundaries (Fox 1987; van Hoek 1992). Connectivity is determined by the relations in which nominals participate. It is est construed as being on a continuum—nominals are strongly interconnected when they participat in an explicit interconnecting relation, such as a complement chain. They

are more weakly interconnected when they co-occur within a single linguistic unit of some kind, such as a sentence or a (conceptual) paragraph.

This notion of connectivity can be applied to discourse: the stronger the sense of connectivity, the more likely we are to find zero pronouns. At a discourse level, a strong sense of connectivity obtains in clause chains. These can be of several types:

(1) conjoined clauses, with *overt* conjunctions, has a relatively strong sense of connectivity. This predicts that zero pronouns would be very likely in conjoined clauses, as in fact the case in Russian. In our sample study, we find that this is true, as illustrated in line 10, example (2).

(2) chains with “minimal” clauses, i. e., clauses consisting solely of one-place predicates and no other linguistic material (no adjuncts, adverbials, etc.). An example is (5):

(5) ja idu, smotrju
‘I go, Ø look’

These chains of “minimal” clauses also show a strong sense of connectivity and pro-drop is likely, in particular after the first clause in the chain.

(3) clauses with conjunction reduction (Kibrik 1996). These exhibit a less strong sense of connectivity and while zero pronouns are possible, they are not preferred.

In all cases, linear order is significant. The subject of the first clause in the chain is most likely to be an overt nominal. In subsequent clauses, the preferred marking is a zero pronoun for both types 1 and 2, unless something else intervenes. And in all cases, topicality is involved, but only indirectly. Topicality is involved because of the strong tendency for topic to be grammatical subject, which in turn stems directly from point A of the Conceptual Reference Model. Linear order is further relevant because once a reference point has been activated, it continues to be activated until there is either a conceptual break, such as the introduction of a new topic, or there is some discontinuity

in the flow of the discourse. In written narratives, episode boundaries represent a discontinuity.

The Russian data suggest the salience of two kinds of boundaries in conversation. One type of discontinuity in the discourse flow is a turn change, and the other is the beginning of a new topical unit. When new topical units begin, a new referent is often introduced, or a referent which is assessed by the interlocutor as inactive is activated. In these cases, a full noun phrase is used to activate the referent.

There is a strong tendency for topical unit to coincide with turn boundaries. In these cases, a full noun is used, as predicted. When the turn change does not coincide with the boundary of a new topical unit, an overt pronominal subject is used. There appears to be a strong tendency to use an overt pronoun across turn boundaries, even when the topic continues across these boundaries. This is, however, a tendency, and not an absolute. In those cases where a zero subject pronoun is used, it is useful to again invoke the notion of connectivity. Here we find that the zero is more likely where there is strong connectivity across turn boundaries, in particular, when the turn units themselves form a “tight” clausal chain:

- (6) A on byl v vostorge.
 B nu Ø normal’nyj čelovek
 A ‘He was in ecstasy.
 B Well, Ø a normal person’

Even in cases like this of strong connectivity, both syntactically and semantically, we are more likely to find overt pronouns:

- (7) A ona voobšče umnica, samaja samaja ljubimaja naša studentka
 B da, ona xorošaja
 A ona vseгда nas podderžit,
 Ø čto-to skažet,
 Ø ne daet nam=
 B =da, da

- A 'she's just very smart, our most most favorite student
 B yes, Ø good
 A she will always support us
 Ø will say something,
 Ø does not let us=
 B yes, yes'

Examples (6) and (7) provide an interesting contrastive set. In both cases, the topic of conversation is a 3rd party *on* 'he' in (6) and *ona* 'she' in (7); the dominion of these topics extends over the turns cited here as determined by semantic connectivity. Yet we see a zero pronoun in the second line of (6) and an overt one in (7). Structurally, in both instances we have subjects in adjacent clauses. The zero pronoun as in (6), across a turn boundary, is less frequent than the overt pronoun as in example (7). The latter illustrates the more prevalent pattern in the corpus, with zero pronouns used turn-internally, especially in places of strong connectivity, as given here. This underscores the significance of the unit boundary in determining the extent of a dominion, and turn boundaries are as significant in conversation as are episode and paragraph boundaries in written narrative.

Conclusion

This study began with an apparent contradiction in terms of the function of zero pronouns in written Russian, where Nichols (1984) finds their consistent use in marking uninterrupted topic, while Kibrik (1997) finds insufficient use to describe the distribution. In conversation, the overall use of full nouns is greater than either of these studies would predict, while the use of zero pronouns is less than Nichols (1984) would anticipate. Furthermore, the use of zero pronouns is lower in the 1st and 2nd person non-past, where they are redundant. The Conceptual Reference Model is introduced to account for the distribution of all three types of possible subject marking: full nouns, overt pronouns and zero pronouns. Within this model, subjects function as conceptual reference points; the linguistic marking of these (as full nouns, overt pronouns, or zero pronouns) is in large

part determined by semantic connectivity and structural connectivity. Relevant structural factors includes both clause structure and turn-taking structure.

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