On Speaker Identifiability*

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Abstract. In this paper, I investigate the notion of speaker identifiability, a term that is strongly associated with the pragmatic approach to specificity. Following Haspelmath 1997, I provide evidence from Russian for the linguistic relevance of speaker identifiability. In particular, I discuss two series of existential indefinites, *koe-* items and *-to* items, which are inherently specified as identifiable or not identifiable to the speaker. This specification is shown to be independent of such phenomena as the free-choice effect or narrow scope relative to another operator in the logical form of the sentence. I propose a formal analysis of speaker identifiability formulated within the framework of possible-world semantics. According to this account, an NP is speaker-identifiable if and only if it picks up the same individual in every possible world that is compatible with the speaker's worldview. Speaker identifiability is analyzed as a condition on the relative scope of an existential operator that ranges over individuals and a universal quantifier which quantifies over a set of possible worlds introduced by the context. I also argue that the speaker (non-)identifiability meaning component contributed by the investigated items constitutes a conventional implicature.

1. Introduction

The concept of specificity is often invoked in the linguistic literature. However, the precise definition of the term is unclear. Essentially, specificity has been used as a cover term for a whole range of different semantic and pragmatic notions. It has been provided an analysis in terms of scope (e.g., Karttunen 1976, Dahl 1970), choice functions (e.g., Reinhart 1997, Winter 1997, Kratzer 1998), partitivity (Enç 1991), speaker identifiability (e.g., Groenendijk and Stokhof 1980), and noteworthiness (Ionin 2006). (See also a review of several different ap-

proaches to specificity in Dahl 1999: 671.) Given this state of affairs, it is important to investigate each of these notions separately, determine whether it is indeed linguistically relevant, and if so, provide it with a formal semantic or pragmatic analysis. Of course, it is also important to see whether and how each of these notions can be related to other types of specificity. This approach is taken by Farkas (1994, 2002a), who discusses three types of specificity—scopal, epistemic, and partitive.

The main purpose of this paper is to investigate the notion of speaker identifiability. I will investigate the interpretational properties of certain lexical items in Russian which have been classified by Haspelmath (1997) as sensitive to the speaker's knowledge. I will provide new evidence that these items are indeed inherently sensitive to speaker (non-)identifiability and, crucially, that this sensitivity is independent of such notions as scope and free-choice effect. I will further develop a formal analysis of speaker identifiability, which is formulated as a restriction on the set of possible worlds that represent the speaker's vision of reality. More specifically, speaker identifiability is dependent on the relative scope of an existential quantifier over individuals and the universal quantifier that ranges over the worlds within the set of the speaker's doxastic alternatives, or the speaker's *epistemic* modal base (in the sense of Farkas 1994, 2002b). If the existential quantifier takes wide scope, then the same individual satisfies the sentence in all the worlds that represent the speaker's view of reality. This, in turn, means that the individual is identified by the speaker. In contrast, if the existential operator receives narrow scope, then in different worlds within the speaker's epistemic modal base, different individuals satisfy the sentence. This way, lack of speaker identifiability is represented. Thus, the analysis to be proposed is strongly related to the scopal approach to specificity and allows us to capture the properties shared by speaker identifiability and scope.

In order to avoid confusion, I introduce a distinction between semantic scope (or s-scope) and pragmatic scope (p-scope) of indefinite NPs. Semantic scope is the scope that an NP takes relative to other operators that are present in the logical form of the sentence (e.g., relative to the intensional verb in (3) below). It is on the notion of semantic scope that the scopal approach to specificity is based. In turn, the term pragmatic scope will be used to relate to the scope of the indefinite NP relative to a contextually introduced operator (in our

case, this will be a universal quantifier ranging over possible worlds within the speaker's epistemic modal base).

The paper is organized as follows. I begin with an introductory discussion of speaker identifiability. Then in section 3 I consider semantic and pragmatic properties of so-called *-to* items and *koe-* items, two series of lexical items in Russian that bear existential meaning. The properties of these items reveal that speaker identifiability is indeed a linguistically relevant notion. In section 4 I propose a formal analysis of speaker identifiability. The section provides an account of the pragmatic properties of *-to* and *koe-* items within the framework of the developed formalism. It is further argued that the (non-)identifiability meaning component contributed by these items constitutes a conventional implicature. Finally, section 5 concludes the discussion.

2. Speaker Identifiability

2.1. The Speaker Identifiability Approach to Specificity: An Introduction

Consider the following example:

(1)   A picture fell off the wall.

Sentences like (1) are sometimes argued to exhibit the specific / non-specific opposition. Under the so-called specific reading, the speaker knows exactly which picture fell off the wall (for instance, Botticelli's *Primavera*) but for some reason chooses not to name it. For example, the name of the picture may be unfamiliar to the hearer, and in this case, saying *a picture* would mean being more informative. However, the speaker is using the NP *a picture* with a particular picture in mind, and with the intention to refer to this particular individual. Under the non-specific reading, the speaker merely knows that (at least) one picture is absent, without being able to identify it, say, because she has just heard the electronic device go off in the gallery signaling an empty frame on the wall. All she knows (or believes) is that the set of pictures that fell off the wall is non-empty. We can say that under the first reading, the indefinite NP is speaker-identifiable, whereas under the second reading it is not.

While the sentence in (1) appears to be indeterminate between the two interpretations, certain languages contain lexical items that mark an NP in which they appear as speaker-identifiable or not speaker-identifiable (Haspelmath 1997). This phenomenon is illustrated in the Russian sentences in (2):

(2) a. **Kto-to**   prišel.
         somebody   came

     b. **Koe-kto**   prišel.
         somebody   came

According to native speakers' intuitions, the speaker of (2a) does not know who the person that arrived is, whereas according to (2b) she can identify the individual. This is due to inherent properties of the lexical items marked in bold, as will be discussed in detail in section 3.

It should be pointed out that the identifiability contrast exhibited by (1) and (2) is different from the kind of scope ambiguity found in sentences such as (3):

(3)   Melinda wants to buy a motorcycle.   (Ioup 1977: 233)

This sentence is semantically ambiguous. According to one reading, it means that there is a particular motorcycle that Melinda wants to buy (4a). Under this interpretation the indefinite NP *a motorcycle* takes (semantic) wide scope relative to the intensional verb *wants*. Alternatively, the sentence can mean roughly that Melinda wants to buy *any* motorcycle. Under this reading, the indefinite NP takes narrow scope (4b).

(4)   a. $\exists x$ (motorcycle (x) ∧ want (Melinda, (^buy (Melinda, x))))

      b. want (Melinda, ^$\exists x$ (motorcycle (x) ∧ (buy (Melinda, x))))

Speaker identifiability clearly differs from the semantic scope illustrated in (3). There is no one-to-one relationship between the two properties. Thus, a semantically wide scope NP can be either speaker-identifiable or not. If the NP *a motorcycle* in (3) receives a wide scope reading relative to the intensional verb, the speaker may be able to identify the motorcycle Melinda wants to buy. In this case, the NP

both takes wide scope and is speaker-identifiable. But alternatively, the speaker may have absolutely no idea (or at least be uncertain) as to which motorcycle Melinda has chosen. Under this scenario, the NP is not speaker-identifiable, although it still takes wide scope relative to *want*.

Despite the seemingly radical contrast between these two properties, the analysis of speaker identifiability that will be proposed in section 4 reveals an important analogy between them. I will propose that speaker-identifiable NPs differ from their non-identifiable counterparts in the scope that they take relative to a universal quantifier that ranges over a set of possible worlds representing the speaker's epistemic state. In other words, speaker identifiability will be analyzed as a condition on scope. Thus, hopefully, the proposed analysis will contribute to our understanding of why the two seemingly distinct properties, identifiability and s-scope, have both been associated with the notion of specificity. Roughly, both properties deal with scope, but they differ in the source of the operator relative to which the scope of the NP is evaluated.

2.2. Speaker Identifiability in the Linguistic Literature

The notion of being identifiable to the speaker or known to the speaker is often mentioned in the literature on specificity (Groenendijk and Stokhof 1980, Farkas 1994, 2002a, Ioup 1977, among others). Ioup (1977), who analyzes specificity as a purely semantic concept, proposes an independent distributive / referential distinction, which is based on the speaker's intentions and is analogous to the property referred to in the present paper as speaker identifiability. Haspelmath (1997) lists indefinite pronoun series in a number of languages that are specified as known or unknown to the speaker. Some of these items will be discussed extensively in the following sections; the phenomenon has been illustrated in (2) above.

Fodor and Sag (1982) claim that indefinite NPs such as *a picture* in (1) are semantically ambiguous. The ambiguity is between a quantificational and a referential reading, the latter being involved when the speaker intends to refer to a particular individual. Fodor and Sag propose distinct logical forms for the two types of readings illustrated above for (1). A quantificational indefinite is analyzed as introducing an existential operator, whereas a referential indefinite is

treated as a special type of an indexical phrase, whose reference depends not only on its descriptive content but also on the context in which the sentence is uttered. Under this approach, (1) will be analyzed as ambiguous, in contrast to each of the sentences in (2). The contrast will result from the fact that the indefinite determiner *a* in English allows for both a referential and a quantificational reading (and is thus ambiguous between a_r and a_q), whereas the items *koe-kto* and *kto-to* (both of which can be translated as 'someone') do not.

Fodor and Sag's analysis accounts successfully for the existence of lexical items that are inherently specified as speaker-identifiable, such as *koe-kto* in (2) above. Such items mark the NP as unambiguously ref-erential, making it semantically similar to proper names and definite pronouns. However, the existence of those items that are inherently marked as non-identifiable seems to remain unaccounted for under this approach.[1] Even if we assume that such items are unambiguously quantificational, it is not quite clear why they are inherently specified as NOT speaker-identifiable. After all, a quantificational reading is not supposed to contribute any information about the speaker's knowl-edge state. Even a wide scope quantificational indefinite that receives wide s-scope should remain indeterminate with respect to the speaker's ability to identify an individual who makes the sentence true. Further, I believe, following Groenendijk and Stokhof (1980) and Farkas (1994, 2002a), among others, that the contrast in speaker identi-fiability is pragmatic, rather than semantic, in nature. This issue will be addressed again in section 4.

Farkas (1994, 2002a) refers to speaker identifiability as an instance of epistemic specificity, i.e., specificity that has to do with an individ-ual's knowledge. Farkas proposes a direction for analyzing this type of specificity. Under the proposed approach, epistemically specific NPs are treated as rigid designators within a set of worlds that represents the speaker's beliefs ("the speaker's epistemic modal base" in Farkas 1994, and "the speaker's context set" in Farkas 2002a). In other words, the referent of such an NP is fixed relative to this set of worlds. The analysis that will be proposed in this paper and applied to *-to* and *koe-* items is quite close in spirit to Farkas's proposal and can therefore be viewed as a development of her approach. Speaker identifiability will

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[1] The existence of such items, illustrated in (2), has been demonstrated by Haspelmath (1997) and will be discussed in detail in section 3.

be defined as a restriction on the speaker's epistemic base. However, the proposed analysis differs from Farkas's approach in an important way, since it analyzes speaker identifiability as a constraint on scope, thereby reducing speaker identifiability to a special type of scopal specificity.

2.3. Against Speaker Identifiability as a Linguistic Concept

Instead of treating speaker identifiability as a linguistically relevant concept, one could claim that whether or not the referent of an NP is identifiable to the speaker is an extra-linguistic factor which does not contribute to the interpretation of a sentence. Under this view, identifiability is treated as a vague concept that has to do with knowledge of the world, with people's minds and intentions, but does not constitute a part of the message that an utterance encodes.

Evidence against this view comes from the fact that there exist lexical items with existential meaning that are inherently sensitive to speaker identifiability, such as in (2). The next section is devoted to a detailed discussion of such items, whose existence constitutes evidence that speaker identifiability is indeed linguistically relevant. Crucially, I will argue that the (non-)identifiability meaning component they contribute arises independently from such properties as s-scope and the free-choice effect. This is an important point. When a given item appears to be inherently specified as (not) speaker-identifiable, it is necessary to show that this property does not constitute a mere by-product of additional semantic characteristics of this item. Below, it is argued that certain items are sensitive to speaker identifiability per se, rather than some other notion that interacts with speaker identifiability. Thus, contrary to the claim made in Ioup 1977, this pragmatic property is lexically encoded. This, in turn, suggests that speaker identifiability is not an extra-linguistic factor but rather a property to which natural language is sensitive.

3. Lexical Encoding of (the Absence of) Speaker Identifiability

It appears that a number of languages exhibit existential lexical items that inherently encode the property of speaker identifiability or its absence. These languages include Finnish, Lithuanian, and Kannada (cf. Haspelmath 1997). Below I concentrate on Russian facts. In section 3.1,

I discuss -*to* items; section 3.2 is devoted to *koe-* items. Finally, section 3.3 is devoted to a brief discussion of free-choice items. The goal of this section is to argue that the sensitivity of -*to* items to speaker identifiability does not constitute a by-product of the free-choice effect.

3.1. -*to* Items

I now turn to a discussion of -*to* items, a series of lexical items with existential meaning in Russian. As I hope to demonstrate below, this group of items is especially interesting since it provides evidence that the property of speaker identifiability is linguistically relevant independently of s-scope and free-choice effect.

Morphologically, -*to* items consist of a *wh*-word with the suffix -*to* attached to it. Some of these items are listed in Table 1:

Table 1. -*to* Items

kto-to	who + *to*	someone
čto-to	what + *to*	something
kakoj-to	which + *to*	some
gde-to	where + *to*	somewhere
kak-to	how + *to*	somehow

Dahl (1970) claims that these items are restricted to wide scope readings. He analyzes -*to* items as inherently specific, as he assumes an approach according to which specificity is identical to (semantic) scope. Ioup (1977) and Haspelmath (1997) also claim that these items are obligatorily specific. Pereltsvaig (2000) notes briefly that these items can only have a wide scope interpretation. (It is s-scope that Dahl and Pereltsvaig relate to.) Below, I will consider the semantic and pragmatic properties of -*to* items and their behavior with respect to s-scope and speaker identifiability.

3.1.1. -*to* Items and Semantic Scope

Indeed, NPs that contain the word *kakoj-to*, which can be roughly translated as 'some', tend to allow for only wide s-scope readings.

(5) a. Dima ne   zametil kakogo-to studenta.
      Dima NEG   noticed some   student

      'There is a student that Dima didn't notice.'

   b. Maša   dolžna pogovorit' s   kakim-to   studentom.
      Masha   must   talk   with   some   student

      'Masha must talk to some student.'

   c. Tri   učitelja   vyzvali   kakogo-to studenta.
      three teachers called   some   student

      'Three teachers sent for some student.'

   d. Vse   učitelija vyzvali   kakogo-to studenta.
      all   teachers   called   some   student

      'All the teachers sent for some student.'

In all the sentences (5a–d) the phrases that contain a *-to* item obligatorily receive a wide s-scope interpretation. Thus, (5a) can only mean that there was a student that Dima failed to notice, and not that Dima noticed no student at all. The example in (5b) means that there exists a student that Masha must talk to, not that Masha must talk to any student. Analogously, in (5c-d) the phrases that contain the word *kakogo-to* receive a wide scope interpretation relative to the quantifiers *tri* 'three' and *vse* 'all'.

In fact, however, a close examination reveals that *-to* items do not always take wide s-scope in a sentence. Despite this tendency, which has been demonstrated above, NPs containing the word *kakoj-to* can in some cases get narrow s-scope interpretations:

(6) Petja každyj raz   naxodit kakoe-to opravdanie.
    Petja every   time   finds   some   excuse

    'Petja always finds some excuse.'

According to the salient reading of (6), Petja every time finds a *different* excuse. The *-to* item receives a narrow scope reading relative to the adverbial *každyj raz* 'every time'. This results from the fact that the wide s-scope reading of the object, according to which the excuse is always the same, is essentially unavailable for pragmatic reasons. In addition, the quantifier *každyj* 'every, each' tends to trigger a distributive interpretation, with the universal quantifier it contributes taking

wide s-scope. There is thus a conflict between the scopal preferences of *každyj* and those of *kakoe-to*, and in this sentence the former "wins". Thus, (6) reveals that a narrow s-scope interpretation of a *-to* item is possible.

Still, a wide scope reading relative to the adverbial *každyj raz* becomes available for *kakoj-to* as soon as it becomes pragmatically plausible. Thus, in (7), in which both s-scope patterns are possible as far as pragmatics is concerned, *kakoj-to* may receive the wide-scope interpretation, even though the sentence contains the same quantificational expressions as (6) and has essentially the same syntactic structure:

(7) Petja každyj raz provožaet kakuju-to ženščinu.
    Petja every time escorts some woman

    'Petja always escorts some woman.'

Example (7) has a reading according to which Petja always escorts the some woman, and this reading even seems to be the salient one. The alternative interpretation, according to which the woman changes with the situation, is possible as well.

Providing a detailed account of the s-scopal behavior of *-to* items is beyond the purposes of this paper. At this stage, a descriptive generalization is sufficient, according to which these items tend to receive wide s-scope readings but in some instances may take narrow s-scope as well.[2]

3.1.2. *-to* Items and Speaker Identifiability

There is, however, a property that unifies all the uses of *-to* items independently of their s-scope options. In particular, these items are obligatorily *not* speaker-identifiable. Even in those environments in which they obligatorily take wide s-scope, the referent of an NP that contains such an item must not be identified by the speaker. This property of *-to* items is referred to, for instance, by Haspelmath (1997), who classifies them as unknown to the speaker, and by Padučeva (1985/2010). It

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[2] In fact, some *-to* items (such as *kto-to* 'someone' or *čto-to* 'something') get a narrow s-scope interpretation even more easily than NPs containing the word *kakoj-to* 'some'; see Yanovich 2005 for examples. For the purposes of this discussion, I focus on the more restrictive *kakoj-to* word.

should be emphasized that for these authors, this property is independent of specificity. Thus, Haspelmath classifies *-to* items as unknown to the speaker and, at the same time, specific. Padučeva states that they have a referential status (*konkretno-referentnyj status*). The non-identifiability requirement of *-to* items is also reported in Vsevolodova 2006 and Kuero-Xervil'ja and Kuero-Xervil'ja 2006, among others.

Leaving aside the question of specificity at this point, let us focus on the absence of speaker identifiability. For instance, the NP *kakogo-to studenta* (some student) in (8a) cannot be interpreted within the scope of negation, and the sentence means that there is a student such that Dima did not notice him. Still, the speaker does not know who that student was; otherwise, the use of *kakogo-to* would be inappropriate. Similarly, according to (8b), Masha has already decided who exactly she wants to marry. Due to the semantic properties of the *-to* item, the sentence cannot mean that Masha wants to marry *any* Swede. This narrow s-scope, co-varying interpretation is unavailable.[3,4] But the speaker does not know whom she has chosen. The referent of the NP *kakogo-to šveda* 'some Swede' is not speaker-identifiable.

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[3] Example (8b) is based on the English sentence "Mary wants to marry a Swede", discussed in Quine 1960 and in many subsequent papers on indefinite NPs. Unlike the famous English example, (8b) (as well as (i) below) is not ambiguous.

[4] The latter interpretation is the only possible one if the *-to* item is substituted by an item that contains the suffix *-nibud'*:

(i) Maša   xočet   [vyjti zamuž]   za   kakogo-nibud'   šveda.
     Masha   wants   marry$_{INF}$ for   some   Swede

     'Masha wants to marry some Swede.'

Because *-nibud'* items obligatorily receive narrow s-scope (Yanovich 2005), example (i) means roughly that Masha is interested in a husband who has the property of being a Swede, but has not made up her mind regarding a particular candidate. Pereltsvaig (2008) analyzes them as dependent indefinites in the sense of Farkas (2002b). Pereltsvaig points out that indefinites that contain this suffix "introduce a dependent variable, that is a variable the values assigned to which co-vary with those assigned to another variable" (370). For instance, in (i), Swedes whom Masha marries co-vary with possible worlds introduced by the intensional verb. For a more detailed discussion of *-nibud'* items, see Hapelmath 1997, Yanovich 2005, Pereltsvaig 2008, Padučeva 1985/ 2010, and references therein. See also Dahl 1999 for a discussion of several differences between *-to* and *-nibud'* items.

(8) a. Dima   ne   zametil kakogo-to   studenta.
         Dima   NEG   noticed some   student

         'There is a student that Dima didn't notice.'

     b. Maša   xočet   vyjti zamuž   za   kakogo-to   šveda.
         Masha wants   marry$_{INF}$ for   some   Swede

         'Masha wants to marry some Swede.'

The claim that *-to* items inherently lack speaker identifiability is supported by the infelicity of (9):

(9) #Ja vyšla zamuž   za   kakogo-to   šveda.
      I   married$_F$ for   some   Swede

     'I have married some Swede.'

My informants consider this sentence strange and even funny. Example (9) means that the speaker has married a Swede but at the same time—by virtue of the properties of the word *kakoj-to* 'some'—has no idea who that Swede is. Since such a situation is rather unlikely, the sentence sounds strange. It is possible to come up with a context in which it would be judged as acceptable, however. For instance, it could be uttered if the speaker got married with a bandage over her eyes, without knowing who the groom was, but heard his voice and concluded that he was a Swede on the basis of his pronunciation.

Example (10) differs from (9) in that it contains a third-person rather than first-person subject. As a result, it becomes completely natural for the referent of the indefinite NP not to be identifiable to the speaker. This leads to perfect acceptability of the sentence.[5]

(10) Maša   vyšla zamuž   za   kakogo-to   šveda.
     Masha   married$_F$ for   some   Swede

     'Masha has married some Swede.'

In addition, the fact that *-to* items are inherently not speaker-identifiable is revealed in the infelicity of (11):

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[5] See Padučeva 1985/2010: 211 for a discussion of an analogous contrast in compatibility with a *-to* item between a first person and third person subject.

(11) #Ja xorošo znaju kakogo-to šveda.
    I well know some Swede

'I know some Swede well.'

The use of the *-to* item ensures that the referent of the object NP is not speaker-identifiable, a factor that is incompatible with the assertion that the speaker knows the individual well.

Finally, consider (12):

(12) a. Dima uvidel kakoe-to kol'co.
      Dima saw some ring

'Dima saw some ring.'

b. ?Dima uvidel kakoe-to zolotoe kol'co s brilliantom.
    Dima saw some golden ring with diamond

'Dima saw some golden ring with a diamond.'

c. #Dima uvidel kakoe-to zolotoe kol'co s brilliantom,
    Dima saw some golden ring with diamond

kotoroe Petja podaril Lene na den' roždenija.
which Petja presented Lena$_{DAT}$ on day birth$_{GEN}$

#'Dima saw some golden ring with a diamond that Petja had given Lena as a birthday present.'

The more modifiers that are added to an NP, the more likely it is to be identifiable to the speaker. As a result, the object NP in (12c) is perceived as speaker-identifiable, which in turn rules out the use of a *-to* item in this phrase.

The unacceptability of (9) and (11), as well as the contrast in (12), supports the claim that *-to* items are inherently not speaker-identifiable.

Such sentences as (13) below, however, may seem to constitute evidence against this claim:

(13) Včera ja vstretila kakuju-to ženščinu.
    yesterday I met some woman

'I met some woman yesterday.'

If the speaker has met the woman in question, then the woman must be at least in some sense identifiable to her. Still, it should be emphasized that a *-to* item is used in this sentence precisely in order to reveal the speaker's lack of information concerning the woman. Although the speaker has seen this woman, she does not really know who that woman is, or at least did not know that at the time of the meeting. The speaker is likely not to know her name and, in general, does not have enough information. What counts as "enough" is context-dependent. In some cases, knowing a person's name or how the person looks is sufficient. In others, knowledge of additional details is required.[6] As a result, the appropriateness of using a *-to* item is also context-dependent. This fact considered, a *-to* item does consistently signal the lack of speaker identifiability, most probably at the speech time, but possibly at least at the event time. Thus, (13), in fact, supports the claim that *-to* items are not speaker-identifiable.

It should also be pointed out that *-to* items normally signal lack of identifiability to the speaker, rather than to any contextually salient individual. For instance, (14) below is indeterminate as to whether Masha recognized the man that she saw, but it does inform the hearer that the speaker cannot identify the man. Analogously, in (8b) above, lack of identifiability is relative to the speaker and not relative to the subject.

(14) Maša   uvidela kakogo-to čeloveka.
     Masha   saw   some   man

     'Masha saw some man.'

However, as pointed out by Padučeva, if a *-to* item appears in a clause embedded under a verb of saying or a verb of judgment (e.g., *skazat'* 'say', *sčitat'* 'consider'), lack of identifiability may also be anchored to the matrix subject. For instance, in (15) below lack of knowledge may be either relative to the speaker or relative to Ivan:

(15) Ivan   skazal, čto   prišla   kakaja-to ženščina.
     Ivan   said   that arrived   some   woman

     'Ivan said that some woman had arrived.'

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[6] See also the discussion of types of lack of knowledge in Padučeva 1985/2010: 211.

Note that the sentence involves reported speech and that in a certain respect, Ivan too is treated as a speaker.

In most environments, however, lack of identifiability is anchored to the speaker of the sentence, even in embedded clauses (cf. (8b) above).

Therefore *-to* items are very important: they demonstrate that the notion of speaker identifiability is indeed linguistically relevant and, crucially, that it is relevant independently of the notion of s-scope. Thus, in many cases, *-to* items obligatorily take wide s-scope, which in turn is in principle perfectly compatible with speaker identifiability. Still, the latter property is systematically absent.

3.2. *Koe-* Items

Importantly, *-to* items do not constitute the only indefinite existential items that are sensitive specifically to speaker identifiability. According to Haspelmath (1997), Russian also contains words that are inherently specified as speaker-identifiable. These are the *koe-* items, a series of lexical items with existential meaning which consist of the morpheme *koe-* followed by a *wh*-word. Some of these items are listed in Table 2.

Table 2. *Koe-* Items

koe-kto	koe + who	someone
koe-čto	koe + what	something
koe-kakoj	koe + which	some, a certain
koe-gde	koe + where	somewhere

It should be pointed out that *koe-* items are generally found in informal speech; in addition, in some cases their usage seems to be restricted for reasons of phonological complexity. Thus, these items appear to be subject to constraints that are irrelevant for our current purposes.

As discussed by Bronnikov (2006), *koe-* items have two different uses, proportional and specific. Under the former, they contribute the information that "a certain fraction of possible referents (more than one but certainly less than, say, 20 percent) satisfies the predicate" (5). Naturally, this use is only available to those NPs whose denotation is

not restricted to single (atomic) individuals. The proportional reading is exemplified in (16), taken from Bronnikov 2006 (5):

(16) Možet byt', ty poznakomiš'sja koe s kem
     may be you get-acquainted$_{2SG.FUT}$ someone with who

     iz studentov.
     of students

     'Maybe you will make friends with some of the students.'

This usage does not require a speaker-identifiable referent, and *koe*-items are not required to take widest s-scope. Thus, under the salient reading of (16), the *koe*- item is interpreted within the scope of the modal expression *možet byt'* 'maybe'.

Under the specific use, the one that is relevant for our purposes, *koe*- items inform the hearer that the referent is speaker-identifiable. Further, *koe*- items with the specific meaning consistently take wide scope relative to other operators. For instance, (17a) can only mean that there is a particular person whom Lena failed to notice. It further specifies that the speaker can identify the person. In turn (17b) means the speaker can identify a particular individual that Dima wants to write to.

(17) a. Lena koe-kogo ne zametila.
        Lena someone NEG noticed

        'There is a person that Lena didn't notice.'

     b. Dima xočet koe-komu napisat'.
        Dima wants someone$_{DAT}$ write$_{INF}$

        'Dima wants to write to someone.'

As revealed by the properties of *-to* items discussed in the previous section, wide s-scope on its own does not guarantee speaker identifiability. Still, specific *koe*- items are indeed inherently speaker-identifiable. This is suggested by the infelicity of the sentences in (18) below. Importantly, all these sentences contain NPs with *koe*- items that can only encode a single individual (either by virtue of their inherent properties or as a result of restrictions imposed by the

context). This way we can make sure that the specific rather than the proportional reading is involved.

(18) a. #Koe-kto pozvonil, no ja ne   znaju, kto   èto   byl.
          someone called   but I   NEG know   who this   was

     'Someone called, but I don't know who it was.'

   b. #Dima razrabatyvaet koe-kakoj projekt, o   kotorom
       Dima   works-out   some   project about which

       ja   ne   imeju ni   malejšego   predstavlenija.
       I   NEG have   not slightest   idea

       'Dima is working on some project of which I do not have the slightest idea.'

   c. #Ivan koe   na kom ženilsja; ponjatija ne
       Ivan   someone on who married   idea   NEG

       imeju,   na kom imenno.
       have$_{1SG}$ on who exactly

       'Ivan has married someone; I have no idea who exactly.'

All these sentences assert that the speaker cannot identify the referent of an NP that constitutes or contains a *koe-* item. This results in the infelicity of the sentences, since *koe-* items contribute the information that the referent is identifiable to the speaker.

Koe- items of the specific (as opposed to proportional) type typically contribute an additional meaning component. Their use suggests that the speaker is unwilling to reveal the identity of the referent to the hearer, at least at the time of speech. Thus, *koe-* items contribute the information that the speaker knows who the referent is but will not share this information with the hearer. I believe that this latter component is a conversational implicature. The hearer knows that the speaker can identify the referent and, thus, could have disclosed the identity if she had wanted to. In fact, we are dealing with an apparent violation of the Gricean Cooperative Principle and more specifically of the maxim of quantity: the speaker disagrees to disclose information that is known to her and that is relevant. This apparent violation leads the hearer to conclude that the speaker is unwilling to disclose the identity of the referent for some reason, which further depends on the context. Possibly, the speaker wants the hearer to guess who the refer-

ent is (as discussed in Bronnikov 2006). Alternatively, the speaker may reveal her negative attitude towards the hearer by showing that she will intentionally conceal some (possibly important) piece of information. It is probably precisely these effects that cause the use of *koe-*items to be restricted to informal speech.[7]

The implicature can be cancelled, however, as the speaker may reveal the identity of the referent immediately after a *koe-* item has been used. Thus, the following discourse is perfectly acceptable.

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[7] Interestingly, in informal speech, *-to* items can also mark unwillingness to disclose the referent or name it explicitly. A striking example of the latter option is illustrated in (i), taken from a Russian translation of a book by A. A. Milne. The sentence is uttered after Pooh gets stuck in the rabbit hole. Rabbit utters the word *kto-to* 'someone' referring to Pooh, as is obvious to all the discourse participants.

(i)   …kto-to   sliškom   mnogo   est!
        someone   too   much   eats

      'Someone eats too much!'

In this case, the referent of the subject NP is not only known to the speaker but also familiar to all the discourse participants, which means that a definite NP would be appropriate. Still, the subject chooses to use an indefinite NP and moreover one that lexically marks lack of speaker identifiability (but a *koe-* item could be used here, too). Apparently, in such cases as (i), the choice of using an item marked as non-identifiable signals the speaker's unwillingness to name the referent of the NP directly. The speaker uses a *-to* item *as if* he could not name the referent in a context which makes it clear that in fact he *can* do so. This way, the speaker avoids referring directly to Pooh, although such a reference is intended. A humorous effect results; in addition, the subject avoids explicitly uttering a statement that may be judged as impolite. A similar effect is obtained if *koe-kto* is used instead of *kto-to*, since instead of using a definite, referring expression, the speaker chooses an indefinite NP that does not disclose the referent. Thus, while *-to* and *koe-* items are lexically specified for different (partially opposite) properties, they can make the same, or very close, pragmatic contribution in appropriate contexts. Indeed, as noted by Vsevolodova (2006), in certain cases such items may become interchangeable.

Crucially, I assume that such cases as (i) do not refute the non-identifiability approach to *-to* items. Such uses have a clearly marked flavor and they are only possible in a context which makes the 'literal' non-identifiability interpretation unavailable (and, thus, forces the hearer to look for an alternative reason for the use of a *-to* item). Further, if we were to conclude on the basis of (i) that *-to* does not contribute lack of identifiability, we would have to conclude by the same reasoning that *-to* items are not indefinite, as they can be used to refer to a contextually presupposed individual. See also Padučeva (1985/2010), who notes that while in some idiolects, *-to* items may receive interpretations characteristic of *koe-* items, such uses are substandard.

(19) Koe-kto   pozvonil. Ty   ne   poveriš',   no èto byl Dima!
      someone called   you NEG believe$_{2SG.FUT}$ but this was Dima

'Someone called. You wouldn't believe it, but it was Dima!'

To sum up thus far, the properties of *-to* items and of *koe-* items reveal that natural language can explicitly mark both speaker identifiability and its absence.

3.3. Lack of Speaker Identifiability and the Free-Choice Effect

Certain lexical items have been argued to mark lack of speaker identifiability in various languages by virtue of being free-choice items (cf. Kratzer and Shimoyama 2002, Alonso-Ovalle and Menéndez-Benito 2003, Farkas 2005, Zamparelli 2007). Informally, the free-choice epistemic effect contributed by them corresponds to the following interpretation: as far as the speaker's knowledge is concerned, any individual in the domain who has the property specified in the indefinite NP could make the proposition true. For instance, according to (20), as far as the speaker knows, any linguist in the department could turn out to be the one that Mary is dating. This interpretation is attributed to the fact that the Spanish *algún* is a free-choice item, as noted by Alonso-Ovalle and Menéndez-Benito (2003).[8] Naturally, the free-choice effect gives rise to lack of speaker identifiability.

(20) María está saliendo con **algún** chico del
      Mary is   going-out with some   guy   of-the

      departamento de   lingüística.
      department   of   Linguistics

'Mary is dating some guy from the department of linguistics.'

Free-choice items are further exemplified by *any* in English and *ugodno*-items in Russian. For instance, according to (21) Vasja will tell secrets to any individual who asks him to, as discussed by Bronnikov (2006: 9).

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[8] These authors claim that the contribution of *algún* is weaker than that of a free-choice item.

(21) Vasja   rasskazyvaet sekrety   komu ugodno.
      Vasja   tells   secrets   to-anyone

      'Vasja would tell secrets to anyone.'

Naturally, the free-choice effect gives rise to lack of speaker identifiability. It should be pointed out, however, that *-to* items in Russian do not exhibit the free-choice effect. Thus, (22) receives a different interpretation from (21). According to (22), there is at least one individual to whom Vasja tells secrets (and the speaker cannot identify this individual). However, the sentence does not assert that Vasja is a blabbermouth who cannot keep secrets and would disclose them to anyone who approaches him. Example (22) is perfectly compatible with a situation whereby Vasja discloses secrets to one or two persons and never tells them to the other individuals in the domain.

(22) Vasja   komu-to   rasskazyvaet (svoi)   sekrety.
      Vasja   someone   tells   own   secrets

      'Vasja tells (his) secrets to someone.'

The fact that *-to* items are not free-choice items receives further support from the acceptability of (23):

(23) Komu-to Vasja rasskazyvaet svoi sekrety, no   točno
      someone Vasja tells   own   secrets   but   certainly

      ne   komu ugodno.
      NEG   to-anyone

      'There is someone to whom Vasja tells his secrets, but he
      certainly doesn't tell them to anybody.'

A *-to* item is used felicitously in a sentence which explicitly denies Vasja's readiness to tell secrets to any individual in the domain.

It can thus be seen that lack of speaker identifiability cannot be reduced to the free-choice effect. Rather, free-choice interpretation can be seen as a special, radical case of non-identifiability to the speaker. Thus, everything else being equal, a sentence which contains a free-choice item exhibits a more restricted, stronger meaning than its counterpart with a *-to* item.

To conclude this section, it can be seen that speaker identifiability is not an extra-linguistic factor. Language is sensitive to this property, as there are lexical items inherently specified as (not) speaker-identifiable. Moreover, I have argued that the absence of speaker identifiability need not be a by-product of narrow s-scope or of the free-choice effect.

4. Speaker Identifiability: A Formal Representation

In this section, I propose a formal analysis of specificity in terms of speaker identifiability.

4.1. Speaker Identifiability and Possible Worlds

Within an intensional framework, an individual's worldview has been represented as a set of possible worlds that are compatible with her beliefs about reality (e.g., the set of worlds that are doxastically accessible to the individual (Heim 1992), an epistemic model in Giannakidou 2001, or an epistemic base in Farkas 2002b). For instance, Farkas (2002b) defines an epistemic modal base $E_{a,w}$, a set of possible worlds that are consistent with an individual a's beliefs about the world w. For the purposes of defining speaker identifiability, we will focus mainly on the modal base $E_{Sp,wo}$, the set of worlds that represents the speaker's beliefs about w_0 (the actual world).

Example (24) below contains a formal definition of speaker identifiability for a singular NP.[9]

(24)   A singular NP that appears in a sentence S uttered by speaker A is speaker-identifiable iff

$\exists y \, \forall w \, [w \in E_{A,wo} \rightarrow (P(y,w) \land Q(y,w))]$

where P is the property contributed by the content of the NP, and Q is the other property ascribed to the referent of the NP in the sentence.

If the NP in question functions as the subject of the sentence, then Q corresponds to the property denoted by the VP. Thus, in the sentence

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[9] I restrict the discussion to singular NPs for the sake of simplicity.

A picture is missing from the gallery, P corresponds to the property of being a picture and Q to the property missing from the gallery. In turn, in the sentence *John saw a student*, P stands for the property of being a student and Q for the property of being an individual that John saw.

The condition in (24) essentially means that an NP is speaker-identifiable if and only if there is an individual who has the properties ascribed to its referent in every possible world within the speaker's epistemic base. If the speaker identifies the referent as a particular individual, say, *a*, then *a* will have the properties ascribed to the referent in every world that is compatible with the speaker's beliefs.

An NP is not speaker-identifiable if the condition in (24) does not hold. This can happen in two cases. First, the speaker may not be committed to the existence of a referent. In that case, not every possible world in $E_{A,wo}$ will contain an individual who belongs to the intersection of the sets denoted by P and Q. Second, the speaker may be committed that the referent exists but be unable to identify it. In that situation, different individuals will satisfy the properties P and Q in different worlds in $E_{A,wo}$. Importantly, in this case (25) will hold.

(25) $\forall w \; [w \in E_{A,wo} \rightarrow \exists y \; (P(y,w) \wedge Q(y,w))]$

where P and Q are as defined in (24)

Example (25) on its own is not sufficient to capture non-identifiability, since (24) constitutes a special case of (25). In order for an NP to be not speaker-identifiable, (25) must combine with the condition in (26), which is a negation of (24). Example (25) demonstrates that the speaker is committed to the existence of an individual that has the properties P and Q; Example (26) ensures that she cannot identify such an individual.

(26) $\neg\exists y \; \forall w \; [w \in E_{A,wo} \rightarrow (P(y,w) \wedge Q(y,w))]$

According to the proposed account, if an NP is specified as speaker-identifiable, there is an individual that has the properties ascribed in the sentence in every possible world that belongs to the speaker's epistemic modal base. The same individual will be characterized by these properties in all these worlds. In contrast, if the NP is not speaker-identifiable, the properties may be satisfied by different individuals in different worlds.

To illustrate, consider again the sentence in (1).

(1)   A picture fell off the wall.

Suppose that the speaker utters this sentence having in mind *Primavera*. In that case, *Primavera* would be a picture that fell off the wall in every possible world that conforms to the speaker's beliefs. Since the speaker is committed that *Primavera* fell off the wall, a world in which this is not the case will be excluded from this set of worlds. Such a world will not be compatible with her beliefs.

In turn, consider a situation when the speaker utters (1) without having any idea as to which picture has fallen. In that case, any world in which at least one picture fell off the wall will belong to the speaker's epistemic base, as long as it conforms to the speaker's beliefs in all the other respects. Thus, in every possible world in $E_{Sp,wo}$ there will be an object that is a picture and that fell off the wall, but in one world this may be *Primavera*, in another, *Portrait of a Lady*, in the third one, *Mona Lisa*, etc. In other words, different pictures may have fallen in different possible worlds in $E_{Sp,wo}$.

Importantly, the proposition encoded in (24), if it is accessible to the hearer, informs the latter that the NP is speaker-identifiable without revealing the identity of an individual that satisfies the sentence. This is a desirable result, since the hearer may know that an NP is speaker-identifiable without knowing who the identified individual is.

Further, it is crucial to point out that the information encoded by such formulae as (24) or its negation need not be available to the hearers. This information will be available to the hearers only if they are informed that the NP is (not) speaker-identifiable. This information can be contributed by the context or by a lexical item which is inherently specified as (not) identifiable to the speaker. A sentence like (1) in English is, in fact, most likely to remain indeterminate in this respect. Since the hearer of this sentence is likely to have no idea as to whether the speaker can identify a picture that has fallen or not, the utterance will contribute the information in (27a) but remain indeterminate with respect to the truth or falsity of (27b):

(27)   a. $\forall$w [w ϵ E$_{A,wo}$ → $\exists$y (picture(y,w) ∧ fell-off-the-wall(y,w))]

       b. $\exists$y $\forall$w [w ϵ E$_{A,wo}$ → (picture(y,w) ∧ fell-off-the-wall(y,w))]

In general, following Farkas (2002a), I assume that English NPs containing the indefinite article *a* are underspecified with respect to specificity. Speaker identifiability is one of the specificity-related properties relative to which indefinites of this type are underspecified. I take such sentences as (1) not to be ambiguous between a speaker-identifiable and a non-identifiable reading but rather indeterminate with respect to this distinction. I follow Farkas (1994, 2002a), rather than Fodor and Sag (1982) in this respect.

It can be seen that the distinction between NPs that are speaker-identifiable and ones that are not is to a large degree a matter of scope. Namely, speaker identifiability is a condition on the relative scope of the existential operator that binds the NP in question and the universal quantifier that quantifies over possible worlds in the speaker's epistemic base. Crucially, however, the universal quantifier does not constitute part of the truth conditions of the sentence. Rather, it is introduced by the context. This fact has two important consequences. Firstly, following Farkas (1994), we predict that speaker identifiability is a pragmatic property which does not affect the truth conditions of a sentence (as Farkas notes, the set of worlds that represents the speaker's epistemic state for sentences like (1) is introduced by the context).[10] Secondly, the identifiable / non-identifiable contrast can be obtained even in such sentences as (1), which do not contain an operator relative to which an NP can take both wide and narrow s-scope. The relevant operator is contributed by the context. This way, the intuition that sentences like (1) allow both specific and non-specific readings (in the sense of speaker identifiability) is accounted for.

Importantly, this analysis reveals a property that unifies the speaker identifiability approach to specificity and the scope approach. In both cases, specificity is treated as a condition on scope, with a specific reading corresponding to the wide scope of the existential operator. Thus, despite the considerable differences between the two phenomena, it is not surprising that both of them have been referred to by the same term.

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[10] See further evidence in favor of the pragmatic status of speaker identifiability in section 4.3.

4.2. Items Lexically Encoding (Non) Speaker Identifiability: A Formal Analysis

4.2.1. *-to* Items

It has been demonstrated above that *-to* items in Russian are inherently specified as not speaker-identifiable. At this point it is possible to provide a formal representation of this property. Example (28) is formulated as a felicity condition that *-to* items impose.

(28) **Felicity Condition Imposed by *-to* Items**

Let S be a sentence that is uttered by speaker A which embeds an NP containing a *-to* item. Let P be the property contributed by the content of the NP, and let Q be the other property ascribed to the referent of the NP in the sentence.

Then S is felicitous iff

$\neg \exists y \ \forall w \ [w \in E_{A,wo} \rightarrow (P(y,w) \wedge Q(y,w))]$

An NP that contains a *-to* item cannot have a referent identified by the speaker.

It should be pointed out that the usage of any of these items makes the information represented in (28) available to the hearers, i.e., the proposition in (28) comes to be part of the shared beliefs of discourse participants.

This analysis accounts for the unacceptability of the sentences which imply speaker identifiability of NPs containing *-to* items, discussed in section 3.1.2 above. For instance, consider again the example in (9), repeated below:

(9) #Ja vyšla zamuž za   kakogo-to šveda.
      I   married*F*   for   some   Swede

'I have married some Swede.'

A person is generally expected to be able to identify the individual she has married. This in turn means that she will be married to the same individual in every possible world belonging to her epistemic base. However, as a result of the condition in (28) above, (9) shows that this

is precisely not the case. The condition contributed to (9) by the word *kakoj-to* is provided in (29):

(29) $\neg\exists y \, \forall w \, [w \in E_{Sp,wo} \rightarrow (Swede(y,w) \wedge \text{the-speaker-married}(y,w))]$

Hence, the felicity condition triggered by a *-to* item in (9) clashes with our knowledge of the world, and the sentence is perceived as infelicitous.

The only felicitous sentence with a *-to* item that has been discussed in this paper whose acceptability still seems to remain unexplained is (13):

(13) Včera   ja vstretila kakuju-to ženščinu.
      yesterday I   met   some   woman
      'I met some woman yesterday.'

The somewhat exceptional use of a *-to* item is licensed here by virtue of the speaker's intention to communicate that she is not acquainted with the woman and does not have a sufficient amount of information about her. Crucially, the speaker does not merely have less information than she would have preferred to have; rather, intuitively, she does not have enough information in order to be able to say "I know this woman". Thus, in some intuitive sense, the speaker communicates that the woman is not identified by her. How can we explain, under the proposed analysis, the acceptability of (13) in case the speaker knows how the woman looks but does not have much information beyond the appearance? In all the possible worlds within the speaker's epistemic state, she met a woman with the same appearance. However, the women that the speaker met in the different worlds differ in having different names, standing in a different relation to other people, and in numerous other properties. For example, in w_1 the woman the speaker met may be George's sister Mary, in w_2, she is George's mother Jane, in w_3, Bill's wife Helga, etc. I take this to be sufficient to be able to say that the identity of the woman that makes (13) true is not the same in those different worlds, which means that (28) is satisfied. In other words, I assume that identical physical appearance does not constitute a sufficient condition for individual identity across worlds. It should also be noted that if the speaker has seen the woman only once, it is no guarantee that she would be able to

recognize her and that she remembers her appearance well enough. This in turn means that even physical appearance may not be identical across the worlds within the speaker's epistemic state.

Of course, this discussion is interconnected with questions that go beyond the semantics of *-to* items. What does individual identity across worlds involve? What counts as a sufficient amount of information for the purposes of identifiability? The latter issue is clearly context-dependent and has to do with the subjective view of the individual, as already discussed above. Different properties that contribute to identifiability may or may not be considered sufficient in order for the speaker to conclude: "I know that person", depending on the context. Consider the truth conditions of the sentence *I know who John talked to yesterday*. Suppose that I have seen the man John talked to but I have no other information about him. Depending on various further considerations, I could then say either *I know who John talked to, I have seen that man!* or *I don't know who John talked to; I am not familiar with that person*. Resolving these issues is beyond the scope of this paper.[11]

Finally, it should be noted that the analysis proposed in (28) captures the difference between *-to* items and free-choice items which was discussed in section 3.3. Free-choice items do signal lack of speaker identifiability, but they introduce a further restriction. The usage of a free-choice item indicates that *any* individual in the domain that is characterized by the property contributed by the indefinite NP could make the sentence true, as far as the speaker's knowledge is concerned. Within the framework adopted in this paper, the latter constraint would be formalized as the condition in (30) (*D* standing for the domain).[12]

(30) $\forall y\ [(y \in D \wedge \exists w\ [w \in E_{A,wo} \wedge P(y,w)]) \rightarrow \exists w'\ [w' \in E_{A,wo} \wedge P(y,w') \wedge Q(y,w')]]$

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[11] Still, it should be noted that some properties are more likely to secure identifiability than others. Thus, (13) is fine if the speaker knows the woman's appearance, but it is much less likely to be accepted if the speaker knows the woman's name. Intuitively, in the latter case, the speaker is much more likely to be perceived as knowing who the woman is.

[12] The lack of identifiability constraint is identical to the one formalized in (26).

For every individual in the domain that has or may have the property P according to the speaker's beliefs, there is at least one possible world within the speaker's epistemic base such that this individual has the properties P and Q in this world. Clearly, this constraint makes free-choice items different from *-to* items. The use of a *-to* item allows the existence of P-individuals in the domain such that the speaker is sure that these individuals lack the property Q.

4.2.2. *Koe-* Items

Koe- items are inherently speaker-identifiable. The presence of such an item signals that there is a (contextually relevant) individual that has the properties ascribed to the referent of the NP in the sentence and whom the speaker can identify. This condition is formulated in (31).

(31) **Felicity Condition Imposed by *koe-* Items**

Let S be a sentence that is uttered by speaker A which embeds an NP containing a *koe-* item. Let P be the property contributed by the content of the NP, and let Q be the other property ascribed to the referent of the NP in the sentence.

Then S is felicitous iff

$\exists y \, \forall w \, [w \in E_{A,wo} \rightarrow (P(y,w) \wedge Q(y,w))]$

Again, the usage of a *koe-* item informs the hearer that the speaker can identify the referent. This piece of information becomes part of the shared beliefs. At the same time, the identity of the individual is not revealed. The only information that is included is that in every possible world that conforms to the speaker's worldview, exactly the same individual has the properties P and Q; in other words, speaker identifiability is present.

4.3. (Non)Identifiability Component: Semantics or Pragmatics?

It has been assumed so far in this paper that the notion of speaker identifiability is a pragmatic one. Thus, specificity under the proposed analysis does not affect the truth conditions of a sentence. I believe, however, that at this stage it is important to address the question explicitly and to check whether this assumption is correct. Does speaker

identifiability affect truth conditions? And if it does not, then by which mechanism is (lack of) speaker identifiability contributed by the lexical items under discussion? Is this a presupposition, a conversational implicature, or a conventional implicature? For instance, it is argued in Kratzer and Shimoyama 2002 that the non-identifiability component of the German *irgendein* is a conversational implicature. An analogous claim is made regarding existential free-choice items by Aloni and van Rooij 2007. In this section, the (non-)identifiability component of the meaning of *-to* and *koe-* items will be investigated. I will argue that (lack of) speaker identifiability contributed by these items is a conventional implicature.

4.3.1. Identifiability Is Not Entailed

Suppose that speaker A utters (32), having in mind *Primavera*.

 (32)   A picture is missing from the gallery.

Suppose further that *Primavera* is not, in fact, missing from the gallery but *Portrait of a Lady* is. Intuitively, in this case (32) would still not be judged as false. This seems to suggest that specificity in the sense of speaker identifiability does not affect truth conditions. Russell's argument along the same lines is discussed in Abbott 2003.

It should be pointed out, however, that specificity as speaker identifiability per se, under the analysis developed above, does not supply the information about who the referent of an NP is. Rather, the fact that an NP is specific informs the hearer that the speaker is able to identify the referent. Thus, the relevant question is whether this piece of information (the referent being identified or not identified by the speaker) constitutes part of the truth conditions of a sentence.

As discussed in section 4.1, sentences like (32) do not provide any information in this respect. However, we know that some languages, including Russian, lexically mark speaker identifiability or its absence. We should therefore check whether, in the presence of a lexical item sensitive to this property, speaker identifiability affects truth conditions, or rather constitutes a pragmatic constraint, as has been assumed in the previous sections.

It appears that the latter assumption is correct. Thus, in the following dialogue, the utterance of speaker B sounds inappropriate to native speakers of Russian:

(33) A: Prišla   kakaja-to   ženščina.
         came   some   woman

      'Some woman arrived.'

   B: #Ty   lžeš'!   Ty   prekrasno   znaeš, čto   èto tvoja
       you   lie   you   perfectly   know   that   this your

      mama!
      mother

      'You're lying! You know perfectly well that it's your
      mother!'

It follows from A's statement that she does not know which woman arrived; this contribution is made by the lexical item *kakaja-to*. In turn, B asserts that the woman is identified by A. Still, B's accusation of A is not considered acceptable by native speakers of Russian. Thus, in the given context, A's utterance is not judged as false, but rather as misleading. Intuitively, A conceals information, uses the *-to* item inappropriately, but does not lie. This suggests that the absence of speaker identifiability contributed by *-to* items constitutes a pragmatic rather than a truth-conditional meaning component.

The case is similar with *koe-* items, as illustrated in (34):

(34) A: Ivan   koe   na   kom   ženilsja.
         Ivan   someone   on   who   married

      'Ivan has married someone.'

   B: #Èto   nepravda!   Ty   ponjatija   ne   imeeš', kto   ego
       this   lie   you   idea   NEG   have   who   his

      žena.
      wife

      'This is not true! You have no idea who his wife is.'

The use of a *koe-* item in A's statement suggests that the speaker can identify Ivan's wife. B states that this is not the case; still, the claim that A's utterance is false does not seem appropriate. This stems from the

fact that *koe-* items contribute to the truth conditions only the existential interpretation of the NP; speaker identifiability is a pragmatic meaning component.

The next sections focus on the question of whether this is a presupposition, a conversational implicature, or a conventional implicature.

4.3.2. Not a Conversational Implicature

An important property of Gricean conversational implicatures is that they can be canceled. In turn, (lack of) speaker identifiability contributed by the lexical items under discussion cannot be canceled, which demonstrates that it is not a conversational implicature. The fact that (lack of) speaker identifiability is not cancelable is revealed by the infelicity of (35) and of all the sentences in (18) above; (18a) is repeated below for the sake of convenience.

(35) Maša   xočet   vyjti zamuž za   kakogo-to šveda. #Ja xorošo
     Masha   wants   marry$_{INF}$ for some   Swede I   well

     ego znaju, èto blizkij drug   moix roditelej.
     him know   this close   friend [my   parents]$_{GEN}$

     'Masha wants to marry some Swede. I know him well; he is a good friend of my parents.'

(18) a. #Koe-kto   pozvonil, no ja ne   znaju, kto   èto   byl.
        someone   called   but I   NEG   know   who   this was

        'Someone called, but I don't know who it was.'

For instance, if *-to* items contributed a conversational implicature that the referent is not speaker-identifiable, we would expect (35) to be acceptable, with the second sentence canceling the implicature contributed by the word *kakogo-to*.[13]

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[13] It has been pointed out in section 3.2 that *koe-* items may signal the speaker's unwillingness to disclose the identity of the referent and that this meaning component is a conversational implicature. Here, we see that the speaker identifiability meaning component has a different status. Speaker identifiability is not cancelable, whereas the unwillingness to disclose the referent is.

I conclude that the (non-)identifiability component of these items is not a conversational implicature.

4.3.3. Presupposition or Conventional Implicature?

We must next determine whether this component of meaning is a presupposition or a conventional implicature. Presuppositions and conventional implicatures share a number of properties, and, as discussed by Potts (2007), these two terms have often been treated in the literature as synonymous. However, Potts argues convincingly that the two notions should be distinguished and lists several properties that differentiate them. A close look at these properties reveals that the (non-)identifiability component of *-to* and *koe-* items constitutes a conventional implicature.

Firstly, a presupposition constitutes part of common background (unless accommodation is involved). As pointed out by Mittwoch (2008), this property is sometimes treated as a part of the definition of a presupposition. Thus, the presupposed information is expected to be present within the set of mutual beliefs of discourse participants before the sentence in question is uttered. In contrast, conventional implicatures at least tend to encode information that is not part of common ground. Crucially, the (non-)identifiability component of *-to* and *koe-* items constitutes novel information which has not been previously available to the hearers.[14]

Secondly, Potts points out that the regular assertive content of a sentence (i.e., what is being said) is logically dependent on the presuppositions involved. Thus, if a presupposition does not hold, the sentence as a whole lacks truth value. For instance, (36a) lacks a defined truth value if John does not have a sister. In contrast, the truth value of a sentence seems to be relatively independent from the content of conventional implicatures. Thus, intuitively (36b) can have a defined truth value even though Armstrong is not an Arkansan (according to Potts, (36b) conventionally implicates that Armstrong is an Arkansan). Despite the fact that the conventional implicature is false, we conclude

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[14] Given the fact that these items are inherently indefinite, they cannot be used to refer to individuals that have been previously mentioned in the discourse. This in turn means that they cannot be used to refer to individuals that are already known to be identified or not identified by the speaker.

from (36b) that the proposition Lance Armstrong has won the 2002 Tour de France is true.

(36)   a.   John's sister is smart.

     b.   Lance Armstrong, an Arkansan, has won the 2002 Tour de France!   (Potts 2007)

In this respect, the (non-)identifiability component of *-to* and *koe-* items patterns together with conventional implicatures, not with presuppositions. Thus, consider (37), which contains a *-to* item. We need not accommodate the fact that the speaker cannot identify the referent of the NP in order to recover the information represented in (39). In other words, the semantic contribution of this sentence (i.e., (39)) can be recovered even if the speaker does in fact know who has arrived. We will judge (37) as true if the conditions specified in (39) are satisfied and as false if they are not. The case is similar for (38), which contains a *koe-* item. Even if we know that the speaker cannot in fact identify the person, we can still conclude that the proposition *Somebody arrived* is asserted to hold. Thus, the regular assertive content of a sentence is not logically dependent on the (non-) identifiability component. This suggests that the latter constitutes a conventional implicature.

(37)   Kto-to   prišel.
     somebody   came

(38)   Koe-kto   prišel.
     somebody   came

(39) $\exists x \, (\text{arrived} \, (x))$

Finally, certain verbs, referred to by Karttunen (1973) as plugs, block the presuppositions contributed by their complement clauses. To illustrate, these verbs include *order* and *ask*. For instance, *John stopped beating his wife* presupposes that John used to beat his wife. However, *Bill ordered John to stop beating his wife* does not contribute the same presupposition. In contrast, the (non-)identifiability component is equally present if a *-to* or *koe-* item is found within the scope of a plug. Thus, (40) informs the addressee that the speaker cannot identify the

woman in question. This suggests that this meaning component is not a presupposition.

(40) Ivan velel[15] im najti kakuju-to ženščinu.
Ivan ordered them find$_{INF}$ some woman

'Ivan ordered them to find some woman.'

To conclude, the facts discussed in this section support the claim that the (non-)identifiability contributed by *-to* and *koe-* items is a pragmatic property which does not affect the truth conditions of a sentence. In particular, I have proposed that these items contribute a conventional implicature that the referent of the NP is (not) speaker-identifiable.

5. Conclusion

In this paper I have proposed a formal analysis of speaker identifiability. I have argued that this notion is linguistically relevant, and that it is lexically encoded by *-to* and *koe-* items by means of a conventional implicature. It has been proposed that speaker identifiability is to be analyzed as a special case of scopal specificity, which constitutes a condition on the set of possible worlds that conform to the speaker's worldview.

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[15] It should be noted that some directive verbs and, more generally a sub-group of intensional predicates, may mark their objects as non-specific via genitive Case-assignment. Such verbs (e.g., *trebovat'* 'demand', *prosit'* 'ask for', *ždat'* 'wait for', and *zasluživat'* 'deserve') can take both genitive and accusative complements. The range of factors that govern the choice of Case is wide and complex, but specificity appears to be among these factors. The type of specificity relevant for Case-assignment is different from speaker identifiability, however. Genitive objects have been argued to be non-specific in the sense that they denote properties (cf., e.g., Partee and Borschev 2004 and Kagan 2007a) and lack commitment to existence (cf. Kagan 2007b, 2010). The same properties have been argued to characterize objects that appear in the Genitive of Negation.

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