

Arbitrariness: a definite account

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1 Introduction

This paper develops a uniform semantics for a large class of items involving arbitrary interpretation. Subject pronouns in sentences in [1], and implicit agents in sentences in [2] exemplify some of the items claimed to have ‘arbitrary interpretation’¹.

- (1) a. Korabl’ vchera \emptyset potopili. (Russian)
Ship yesterday \emptyset sank-3pl.
‘They sank the ship yesterday.’ (English)
- b. V Amerike \emptyset govor’at po-anglijski. (Russian)
 In America \emptyset speak-3pl in-English.
 ‘They speak English in America.’ (English)
- (2) a. Vchera byl potoplen vrazheskij korabl’. (Russian)
 Yesterday was sunk enemy-adj. ship.
 ‘Yesterday, the enemy ship was sunk.’ (English)
- b. Novyj God (v etot raz/obychno) prazdnovalsja pyshno. (Russian)
 New Year (in this time/usually) celebrated-SJA splendidly.
 ‘The New Year (this time around/usually) was celebrated with splendour.’

The semantics of arbitrariness has received significant attention in the literature (Jaeggli (1986), Cinque (1988), Condoravdi (1989), Kim (1991), Chierchia (1995), Koenig and Mauner (1999), Alonso-Ovalle (2002), Cabredo-Hofherr (2002), inter alia), yet to-date no adequate uniform semantic analysis has been proposed.

In this talk I will concentrate on 3rd-person plural arbitrary pronouns in English and Russian, and implicit agents in short verbal passives in these languages and in Russian sja-passives, arguing that a uniform treatment of these items as definite descriptions accounts for the full range of available interpretations.

¹Other examples of ‘arbitrary’ items are the uncontrolled PRO subjects of infinitival clauses, and lexical impersonal pronouns, like German *man* and French *on*. The semantics of these items, though extremely interesting, is beyond the scope of this paper

2 Previous accounts

2.1 Uniform indefinite translation is inadequate

The standard treatments (e.g., Cinque (1988)) of the 3rd-person plural arbitrary pronouns (3pl. arbs) translate them as a kind of indefinite (e.g., a free variable). The indefinite is then bound by the sentence-level operator, e.g., in episodic sentences, the existential quantifier over events unselectively binds the free variable introduced by the indefinite; in generic sentences, the unselective binding is done by the generic operator. This has the effect of existential quantification over the agent in episodic sentences [1a], and of universal-like quantification of the agent in the scope of generic or habitual operators [1b].

Consider the sentences below:

- (3) a. Zdes' \emptyset igrajut v karty na urokah.
Here \emptyset play-3pl in cards on classes.
'They play cards here during classes.'
- b. Vchera v Amerike \emptyset radostno otprazdnovali Den' Nezavisimosti.
Yesterday in America \emptyset joyfully PRF-celebrated-3pl. Day of-Independence
'Yesterday in America they have celebrated Independence Day with joy.'

The sentence in [3a] has a reading in which only a couple of hooligans play cards during classes - so the sentence is existential with respect to the agents. At the same time, the most natural reading of the sentence in [3b] is almost-universal over the agents - pretty much everyone in America celebrated Independence Day with joy. The existence of existential arbs in generic sentences [3a], and of generic/universal arbs in episodic sentences [3b] suggests that the uniform account translating the arb as an indefinite is inadequate.

2.2 Ambiguity account

In a recent proposal, Cabredo-Hofherr (2002) treats the arbs as ambiguous between a free variable interpretation, which gives rise to the various existential readings [1a, 3b], and a definite-plural interpretation, which is responsible for the quasi-universal and "corporate responsibility" readings [1b, 3b, 4].

- (4) Opiat' \emptyset podniali nalogi.
Again \emptyset raised-3pl. taxes.
'They've raised the taxes again.'

In the following sections I am going to argue against this approach, first showing that the indefinite translation of the arb (i.e., the free variable translation) is unnecessary since it can be derived from the plural definite translation (Section 3.1). I will then provide evidence that the indefinite translation is empirically inadequate, since arbs behave like overt definite plurals and unlike overt indefinites with respect to quantificational variability effects (Section 3.2). I will then extend this analysis to account for implicit agents in short passives [2a] and sja-passives [2b] (Section 4).

3 Uniform analysis for third-plural arbs

This account proposes that arbs are translated unambiguously as definite descriptions. The argument is twofold: first, I show that we do not need the existential translation for the arbs; then, I present evidence that this translation is actually undesirable.

3.1 Indefinite translation is not needed

3.1.1 Covers

Examples like [5] provide evidence that arbs behave like definite plurals with respect to distributivity. A predicate distributing over its definite plural subject does not have to go all the way to atoms (Schwarzschild (1991)). Instead, this subject denotation can be broken into intermediate pieces, and then the predicate distributes up to these pieces.

For example, both [5] are true in a situation [6a], where it's neither the case that each boy individually lifted the piano [6b], nor that all of them collectively did so [6c].

- (5) a. On the fourth floor, they lifted the piano.
b. The boys lifted the piano.
- (6) Residents of the fourth floor are the boys Ed, John, Bill, and Harry.
 - a. **Scenario:** Ed and John lifted the piano together, then Bill and Harry did.
 - b. **Scenario:** Ed, John, Bill, and Harry each lifted the piano
 - c. **Scenario:** Ed, John, Bill, and Harry together lifted the piano

The different distributivity possibilities are achieved by using covers over the domain of discourse.

A cover is defined as follows:

Definition. Cover - a collection of sets of entities, such that the union of the sets in the cover gives you the entire universe of discourse.

Examples. Universe=Bill, John, Mary, and Sue

Possible Covers:

Cover1={{Bill}, {John}, {Mary, Sue}}

Cover2={{Bill, John}, {John, Mary}, {Sue}}

Cover3={{Bill, John, Mary, Sue}}

Not a cover: {{Bill, John, Mary}}

Assuming the universe of discourse $D=\{\text{Ed, John, Bill, Harry}\}$, the covers in [7a-7c] correspond to the situations [6a-6c] respectively.

- (7) a. Cover = {{Ed, John}, {Bill, Harry}}
- b. Cover = {{Ed},{John},{Bill},{Harry}}
- c. Cover = {Ed, John, Bill, Harry}

A (pragmatically determined) variable over covers is an inherent part of each VP denotation, allowing predicates to distribute up to each cover-cell in the NP denotation, as illustrated in [8].

$$(8) \quad (\text{Part}(Cov_i)(\text{lifted-the-piano'}))(\text{the boys}) = \forall x[x \in [[Cov_i]] \wedge x \subseteq [[\text{theboys}']] \rightarrow x \in [[\text{lifted} - \text{the} - \text{piano}']]]]$$

The distributive operator applies to the ‘covered’ denotation: every cell x in the cover, such that x is a subset of ‘the boys’, lifted the piano. Assuming definite denotations for arbs, we can thus account for the different distributivity levels [6] available for [5a].

3.1.2 Teams

Brisson (1998) builds on the ideas of Schwarzschild (1991) to account for pragmatic weakening of sentences with plural definites (e.g., [5b] can be true even if only a few of the boys participated as in [9]).

$$(9) \quad \text{Scenario: only Ed and John lifted the piano.}$$

This approach allows sentences with definites to be compatible with essentially existential scenarios. This is equivalent to assigning team credit to the boys for lifting the piano. In Brisson (1998), pragmatic weakening is achieved by putting the exceptional members of the NP denotation in a cover-cell with non-members (‘pragmatic junkpile’). Then, the boys in [5b], interpreted with respect to the cover in [10] will essentially mean ‘the boys except Bill and Harry’.

$$(10) \quad \begin{aligned} \text{Universe} &= \{\text{Ed, John, Bill, Harry, Mary, Sue}\} \\ \text{Cover} &= \{\{\text{Ed, John}\}, \{\text{Bill, Harry, Mary, Sue}\}\} \end{aligned}$$

Whatever the implementation, team credit assignment allows existential readings for the definite-plural translation of the arbs, reducing the ambiguity analysis to a uniform treatment of arbs as definite descriptions

3.2 Indefinite translation is empirically inadequate

It has been noted that Q-adverbs like usually with indefinite subjects yield the effect of quantification over variable introduced by the indefinite (QVE) [11]².

$$(11) \quad \begin{aligned} &\text{Students at Penn are usually smart.} \\ &\text{QVE available: } \textit{Most students} = \textit{QVE on students} \end{aligned}$$

In contrast, QVE over a plural definite is achieved with operators like for the most part [12], not with Q-adverbs [13] (Romero and Nakanishi (2003)).

$$(12) \quad \begin{aligned} &\text{The students sitting over there now are for the most part smart.} \\ &\text{QVE available: } \textit{Most students} = \textit{QVE on students} \end{aligned}$$

²Non-QVE readings (i.e., “most situation..”) are ignored throughout.

- (13) The students sitting over there now are usually smart.
QVE not available: the only reading is ‘*Now they are smart, now they are not*’

The same pattern holds for Russian [14] and Spanish.

- (14) a. Studenty obychno gordjatsja dekanom.
 Students usually are-proud with-dean.
 ‘Students are usually proud of the dean.’
QVE available: *Most students = QVE on students*
- b. Eti studenty bol’shej chast’ju gordjatsja dekanom.
 These students most-INSTR part-INSTR are-proud with-dean.
 ‘These students are for the most part proud of the dean.’
QVE available: *Most students = QVE on students*
- c. Eti studenty obychno gordjatsja dekanom.
 These students usually are-proud with-dean.
 ‘These students are usually proud of the dean.’ **QVE not available:** the only reading is ‘*Now they are proud, now they are not*’

Notably, QVE readings with 3pl arbs in Russian, Spanish, and English are achieved with *for the most part*, but not with Q-adverbs [15].

- (15) a. Na etom fakul’tete bol’shej chast’ju \emptyset gordjatsja dekanom.
 On this department most-INSTR part-INSTR \emptyset are-proud with-dean.
 ‘In this department, they’re for the most part proud of the dean.’
QVE available: *Most people in the department = QVE on people in the department*
- b. Na etom fakul’tete obychno \emptyset gordjatsja dekanom.
 On this department usually \emptyset are-proud with-dean.
 ‘In this department, they’re usually proud of the dean.’
QVE not available: the only reading is ‘*Now they are proud, now they are not*’

As this pattern of QVE readings indicates, 3pl arbs are never translated as indefinites, but are strikingly similar to overt definite plurals.

4 Payoffs: implicit agents in passives and sja-passives

The definite semantics given above is also applicable to the implicit (syntactically present yet phonologically null) agents in short verbal passives [16] or in Russian sja-passives [17] (compare [18]).

- (16) V Ispanii, Rozhdestvo bylo otmecheno obzhiralovkoj.
 In Spain, Christmas was celebrated with-feast(slang).
 ‘In Spain, Christmas was celebrated by a feast.’
- (17) V Ispanii, Rozhdestvo otmechaetsja obzhiralovkoj.
 In Spain, Christmas celebrates-sja with-feast(slang).
 ‘In Spain, Christmas is celebrated by a feast.’

- (18) V Ispanii, Rozhdestvo \emptyset otmechajut obzhiralovkoj.
 In Spain, Christmas \emptyset celebrate-3pl. with-feast(slang).
 ‘In Spain they celebrate Christmas by a feast.’

While the discourse conditions under which implicit agents and 3pl arbs are used are somewhat different (with different readings being generally preferred), their truth-conditions (the range of scenarios with which they are compatible) is the same. Thus, [19] is compatible with [20a-20d] ([20d] being preferred). Note the intermediate distributivity effects, which are triggered by contextually salient intermediate covers [20c], as they would be for overt definites.

- (19) V Gruzii byl obvinen v korruptsii prezident.
 In Georgia was accused in corruption president.
 ‘In Georgia, the president was accused of corruption.’
- (20) a. Each Georgian personally accused the president in a general vote.
 b. The Georgians collectively accused the president.
 c. Abkhassians, Adjarians, Osetins, population of Tbilisi, and other groups of Georgians in turn accused the president.
 d. Team credit assigned to the collective of all Georgians, or to each cover-cell, so representative(s) did the actual accusing.

Moreover, implicit agents also exhibit definite-like QVE [21].

- (21) a. QVE patterns in short passives:
 i. In Spain, Michael Jackson is for the most part admired.
QVE available: *Most Spaniards = QVE on Spaniards*
 ii. In Spain, Michael Jackson is usually admired.
QVE not available: the only reading is ‘*Now he’s admired, now he’s not.*’
- b. QVE patterns in sja-passives:
 i. V Rossii, “Pravda” bol’shej chast’ju preziraetsja.
 In Russia, “Pravda” most-INSTR part-INSTR despises-sja.
 ‘In Russia, “Pravda” is for the most part despised.’
QVE available: *Most Russians = QVE on Russians*
 ii. V Rossii, “Pravda” obychno preziraetsja.
 In Russia, “Pravda” usually despises-sja.
 ‘In Russia, “Pravda” is usually despised.’
QVE not available: the only reading is ‘*Now it’s despised, now it’s not.*’

Thus, the definite translation of implicit agents is in fact required; more so since definite-like QVE [21] and intermediate distributivity effects [20c] are present only in the agentive verbal passives and sja-passives, but not in the adjectival or non-agentive ones [22], which involve no agent denotation to cover and distribute over.

- (22) In Spain, Michael Jackson is usually/for the most part unadmired.
QVE not available: the only reading is ‘*Now he’s unadmired, now he’s not*’

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