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The present contribution follows up on [Rudnev \(2011\)](#), which, in turn, was based on a presentation I gave in Barbara's semantics class in the spring of 2008.¹ It is for this reason that I omit most of the arguments for the pronominal nature of *kendisi* and present a formalisation of its semantic properties based on [Partee \(1983\)](#) and [Elbourne \(2008\)](#).

18.1 Introduction

I first started thinking about the syntactic and semantic properties of the Turkish reflexive-based pronominal element *kendisi* during Barbara's course on formal semantics and anaphora, which she taught at the Russian State University for the Humanities in the spring of 2008. The initial observations were written up as a course paper ([Rudnev 2008](#)), which was later transformed into an article and eventually published as [Rudnev \(2011\)](#). In [Rudnev \(2011\)](#) I attempted to situate *kendisi* in the typology of anaphoric expressions and ended up arguing that it belongs in the same class as English-style pronominals despite being formed on the basis of a reflexive.

The conclusion that *kendisi* is a pronominal was based on the following observations, each of which is typical of pronominals such as the English *he*,

¹ It is an honour to be invited to contribute to this volume. I am grateful to the editors for the invitation, and to Güliz Güneş for her native speaker intuitions. Finally I would like to thank Ekaterina Lyutikova for discussing with me various approaches to the structure of possessive constructions in Turkic languages.

and different from a prototypical reflexive:

- *kendisi* can be anaphoric to a non-local antecedent
- *kendisi* may not be semantically bound by a local antecedent
- *kendisi* may be used without an antecedent
- *kendisi* can be used as a *donkey*-pronoun
- *kendisi* can be used as a resumptive pronoun
- *kendisi* allows both *de se* and *de re* readings in intensional contexts
- *kendisi* may occupy the sentential subject position

In [Rudnev 2011](#) I capitalised on *kendisi*'s external syntax whilst leaving the issues relating to its internal composition for another occasion. The present note is such an occasion.

18.2 Pronouns as definite descriptions

The general framework adopted in this note is [Elbourne's \(2008\)](#) interpretation of [Heim & Kratzer \(1998\)](#), and I will assume the reader's familiarity with it. I will also assume that the reader is familiar with the analysis of pronominal expressions as *definite descriptions* ([Elbourne 2005](#)).

- (1) a. If a farmer owns a donkey, he always beats it.
b. If a farmer owns a donkey, he always beats the donkey he owns.

[Elbourne \(2005, 2008\)](#) treats personal pronouns like *it* in (1a) to be complex definite descriptions like *the donkey he owns* in (1b).

18.2.1 The structure of pronominal expressions

Analyses which treat pronouns to be covert definite descriptions vary in their account of what makes English pronouns look so different from the English definite determiner: if *it* in (1a) above is indeed a short version of *the donkey he owns* in (1b), why are (2) unacceptable?

- (2) a. *If a farmer owns a donkey, he always beats the.
 b. *If a farmer owns a donkey, he always beats it donkey.

Elbourne (2005) proposes that personal pronouns correspond to definite descriptions in which the complement of the definite determiner undergoes NP-ellipsis. Because this is demonstratively wrong for *kendisi*, another implementation is in order, and I suggest that Elbourne's (2008) formalisation of Nunberg 1993 is an appropriate first step in developing a full account of *kendisi*.

In a classic paper Nunberg (1993) proposes that personal pronouns consist of the following four parts:

- A *deictic component* picking up a contextually salient object called an *index*, on the basis of which the actual interpretation of the indexical will be computed.
- A *relational component*, which constrains the relation that must hold between the index and the interpretation.
- A *classificatory component* including ϕ -features
- An *interpretation*, which is an individual or definite description contributed to the proposition expressed.

Elbourne (2008) formalises Nunberg's (1993) approach in line with his own description-theoretic approach by assigning pronouns the structure in (3):

- (3) [it [R_1 i_2]]

Starting from the bottom, i_2 is an index, or a variable over individuals, corresponding to the deictic component. It then combines with R_1 , a free variable of type $\langle e, \langle se, st \rangle \rangle$, which expresses the relation holding between i_2 and Nunberg's interpretation. Glossing over the classificatory component, Elbourne (2008) proposes (4) as the semantic value of the interpretation itself.

- (4) $\llbracket \text{it} \rrbracket = \lambda f_{\langle se, st \rangle} . \lambda s . \lambda x . f(\lambda s' . x)(s) = 1$

As (4) shows, both definite determiners and personal pronouns denote, on Elbourne's (2008) approach, functions from properties to individual concepts (i.e., functions from situations to individuals).

Before I provide a similar-looking structure for *kendisi* later in §18.2.2, I address the question to what extent *kendisi* is indeed a definite description.

18.2.2 Analysis

Reasons to analyse *kendisi* as a definite description

In developing my analysis of the internal structure of *kendisi* I rely on two sources of evidence.

Possessive-like morphosyntax

The first piece of evidence comes from the overall resemblance between the morphological shape of *kendisi* and the way in which the possessum is marked in Turkish possessive constructions.

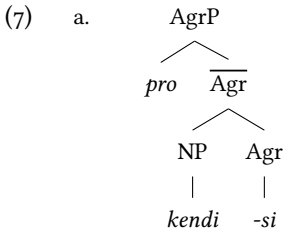
In all three noun phrases in (5) the possessed object, *araba* ‘car’, is carrying *-si*, the possessive agreement marker which reflects the third-person features of the possessor.

- | | | | | | | |
|-----|-------------|------------------|---------------|------------------|------------|------------------|
| (5) | Ali'nin | araba- si | on- un | araba- si | <i>pro</i> | araba- si |
| | Ali.GEN | car- 3SG | 3SG-GEN | car- 3SG | | car- 3SG |
| | ‘Ali’s car’ | | ‘his/her car’ | | | |

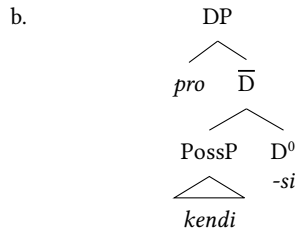
The *-si* morphology on *kendisi* is the same marker of possessor agreement. In addition, as argued by Kornfilt (2001), and illustrated in (6), *kendisi* can be accompanied by a possessor.

- | | | | | | | |
|-----|------------|------------------------------------|---------|-----------|---------|-----------|
| (6) | <i>pro</i> | kendi-si | on- un | kendi-si | Ali'nin | kendi-si |
| | | self- 3SG | 3SG-GEN | self- 3SG | Ali.GEN | self- 3SG |
| | | <i>lit.</i> : ‘his/her/Ali’s self’ | | | | |

Analyses of Turkish possessive constructions are too numerous to do justice to here, but I schematically represent two of them in (7). Kornfilt (2001) analyses *kendisi*, as well as other possessive phrases, as *agreement phrases*, or AgrPs (7a), whereas more recent approaches treat possessive phrases as DPs. The tree in (7b) is an adaptation of Pereltsvaig & Lyutikova’s (2014) proposal – originally designed to account for a number of possessive constructions in Tatar – for *kendisi*.



(Kornfilt 2001)



(Pereltsvaig & Lyutikova 2014)

It is immaterial for the purposes of the present paper which of the two analyses is the correct one, which is why I tentatively adopt (7b) as the syntactic structure of *kendisi*.

Definite-like behaviour

Though very attractive, Elbourne's analysis of pronouns as definite descriptions faces empirical difficulties when confronted with languages lacking definite determiners. Matthewson (2008) analyses pronouns in one such language – St'at'imcets – and identifies the following traits shared by definite expressions: (i) backwards pronominalisation, (ii) existential statements and (iii) sluicing.

As regards **backward pronominalisation**, Turkish *kendisi* behaves like a definite pronoun in a language like English, as shown by the unacceptability of (8b).

- (8) a. Güliz gel- di. Sonra (kendisi) otur-du.
 Güliz.NOM come-PST then (self.3SG) sit- PST
 'Güliz₁ came. Then she₁ sat down.'
- b. *Kendisi gel- di. Sonra Güliz otur-du.
 self.3SG come-PST then Güliz.NOM sit- PST
 ('She₁ came. Then Güliz₁ sat down.')

Even though the only superficial difference between (8a) and (8b) involves the directionality of coreference (i.e., anaphora vs. cataphora), the unacceptability of (8b) cannot be reduced to a general dispreference for cataphoric dependencies. As shown in (9) below, *kendisi* can be used cataphorically.

- (9) Adam kendisin-i görüncə Ayşe pencere-den atla- dı.
 Adam.NOM self.3SG- ACC see.CVB Ayşe.NOM window-ABL jump-PST
 ‘When the man saw her₂, Ayşe₂ jumped out of the window.’

It is therefore not unimaginable that the surface position of *kendisi* relative to its antecedent in (8) is a reflex of the semantic notion of familiarity. If *kendisi* is a definite description, it is predicted to display familiarity effects.

Turning to **existential constructions**, it is an established fact in the formal-semantic literature that pronouns like *he* pattern with strong quantifiers like *all* in being unacceptable in existential constructions (Milsark 1974). Turkish obeys this generalisation, as can be seen from the contrast in (10).

- (10) a. Bahçe- de bir sürü insanlar var.
 garden-LOC one many person.PL COP:PRS:3
 ‘There are many people in the garden.’
 b. *Bahçe- de bütün insanlar var.
 garden-LOC all person.PL COP:PRS:3
 (‘There are all people in the garden.’)

The strong quantifier *bütün* ‘all’ behaves like its English counterpart in triggering unacceptability when used in an existential context. As far as the pronouns are concerned, both *o* and *kendisi* trigger the same effect. The context description below is from Matthewson (2008: 535).

- (11) **Context:** *You are sitting eating breakfast looking out at your garden and you see two people walking in the garden. You tell your grandson:*
 a. *Bahçe- de onlar var.
 garden-LOC they COP:PRS:3
 b. *Bahçe- de kendisin-ler var.
 garden-LOC self- PL COP:PRS:3
 (‘There’s them in the garden.’)

Both *o* and *kendisi*, then, behave like prototypical definite pronouns when appearing as pivots of existential constructions.

Matthewson’s (2008) final test for definiteness is based on the observation that in sentences with sluicing only an indefinite can serve as the antecedent for the *wh*-phrase in the elliptical clause. Sluicing in Turkish is illustrated in (12).²

² Whether sluicing exists in Turkish is still a matter of an ongoing debate in the ellipsis literature (cf. İnce 2012 and the references cited there). As far as the issue of indefiniteness as one of the

- (12) Biri ara-di, ama kim bil- mi- yor-um.
 Someone call-PST but who know-NEG-PRS-1SG
 ‘Someone has called but I don’t know who.’

The wh-phrase *kim* ‘who’ in (12) depends, in a way, on *biri* ‘someone’ in the antecedent clause. A potentially possible dependency between *kim* ‘who’ in the ellipsis clause and *kendisi* in the antecedent clause cannot be established.

- (13) *Kendisi ara-di, ama kim bil- mi- yor-um.
 self.3SG call-PST but who know-NEG-PRS-1SG
 (‘He has called but I don’t know who.’)

I follow [Matthewson \(2008\)](#) and interpret the unavailability of a sluiced continuation in (13) as a consequence of *kendisi* being semantically definite.

This concludes the presentation of *kendisi*’s definite-like behaviour, and we proceed to the implementation.

Implementation

We have seen from the foregoing discussion that there is ample evidence for *kendisi* to be treated as a definite description. Below I provide a preliminary implementation building on the work of [Nunberg \(1993\)](#), [Elbourne \(2008\)](#), [Pereltsvaig & Lyutikova \(2014\)](#).

In [Elbourne’s \(2008\)](#) formalisation of Nunberg’s proposal the most deeply embedded element is an *index*. Because *kendisi* is formed on the basis of *kendi*, which is a proper reflexive pronoun ([Kornfilt 2001](#), [Rudnev 2011](#)), I take the semantic value of *kendi* to be a variable over individuals:³

- (14) *The deictic component*
 $\llbracket \textit{kendi} \rrbracket = x_e$

Given the presence of overt possession morphology in the case at hand, as well as an influential treatment of possession in terms of a free relational variable ([Partee 1983](#)), I propose that Nunberg’s relational component in both the

licensing conditions of sluicing (or its functional analogue) is concerned, the competing analyses do not differ. I am indebted to James Griffiths and Güliz Güneş (p.c.) for helpful discussion.

³ Treating *kendi* in its rôle as a constitutive part of *kendisi* as an individual variable might prove fruitful since *kendi* in its reflexive uses is interpreted as a bound variable. The question of whether *kendi*’s bound-variable behaviour is the result of an individual variable being bound – as opposed to situation variables in [Elbourne \(2008\) et seq.](#) – should be addressed separately.

structure and meaning of *kendisi* should be equated with a possession relation encoded by means of the variable R whose value is provided contextually.

- (15) *The relational component*
 $\llbracket R \rrbracket = \lambda x_e. \lambda u. \lambda s. u(s) = x$

The classificatory component, which for Nunberg and Elbourne encodes ϕ -features, is inherited by *kendisi* from the possessor, and is most probably not interpreted on *kendisi* itself (cf. [Pereltsvaig & Lyutikova 2014](#)), which is why I do not include it in the exposition.

Finally, we can treat the null pronoun corresponding to the interpretation as an Elbournian definite description:

- (16) *The interpretation*
 $\llbracket o/pro \rrbracket = \lambda f_{(se,st)}. \lambda s. \iota x f(\lambda s'. x)(s) = 1$

Let us consider one example illustrating how the current system works.

- (17) Kendisi gel- di.
 self.3SG come-PST
 'She has arrived.'

The pronoun in question is used in (17) referentially, and its semantic value is given in (18), omitting the intermediate steps of the computation.⁴

- (18) $\llbracket kendisi \rrbracket = \lambda s. \iota x x$ is a female individual in s

Intransitive verbs like *arrive* have the semantic value in (19), where I am glossing over the semantics of the past tense for the sake of simplicity:

- (19) $\llbracket geldi \rrbracket = \lambda u_{(s,e)}. \lambda s. u(s)$ arrived in s

Finally, (17) has the semantics in (20), where the semantic values of *kendisi* and *geldi* combine by function application.

- (20) $\llbracket \text{Kendisi geldi} \rrbracket = \lambda s. \iota x$ such that x is a female individual in s arrived in s

The semantic value of *geldi* 'arrived' is a function whose domain contains the semantic value of *kendisi*. Once combined, the result is a set of situations (i.e., a proposition) in which a particular contextually salient female individual arrived.

⁴ The fact that the contextually salient individual is singular and female is a consequence of the internal composition of *pro*, which includes a classificatory component of its own.

18.3 Concluding remarks

In this note I have revisited the Turkish complex reflexive *kendisi* with a view to establishing whether its morphosyntactic appearance warrants a semantic analysis in terms of definite descriptions. Having adduced evidence from familiarity effects, existential constructions and sluicing, I have reached the conclusion that *kendisi* behaved like a definite description. I have then provided an adaptation of [Elbourne's \(2008\)](#) semantics for personal and demonstrative pronouns, whereby pronouns more generally, and *kendisi* in particular, are decomposable into four distinct components: an individual variable, a relational variable, classificatory information such as ϕ -features, and the individual contributed to the discourse.

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