The suffix that makes Persian nouns unique

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Abstract

Altough it is widely acknowledged that Tehrani Persian (often broadly labeled as Persian) has no dedicated marker of definiteness, the nominal suffix *-e* has been analyzed as a colloquial definiteness marker. Here I show that *-e* can mark bare nominals to ensure a definite interpretation, but it can also appear on indefinites marked by the indefinite determiner *ye*. I show that indefinites marked by *-e* are scopally inert. To unify the effect of *-e* on definites and indefinites, I propose that *-e* introduces a uniqueness implication on the nominal it modifies. More specifically, N-*e* denotes a singleton set of objects. On a bare nominal, this uniqueness implication ensures a definite interpretation. On an indefinite, it restricts the domain of quantification to a singleton, making the indefinite scopally inert. I present a compositional account of definite and indefinite constructions with *-e* in Tehrani Persian.

1   Introduction

The goal of this paper is to provide a unified account for the semantics of the nominal suffix *-e* on definite and indefinite constructions in Tehrani colloquial Persian. There is no marker of definiteness similar to the English *the* in Tehrani Persian. Instead, definite descriptions are conveyed using two constructions: simple definites and specific definites. Simple definites are bare nominals that receive a definite interpretation due to implicit contextual cues that support such an interpretation. Specific definites are bare nominals that are modified by the nominal suffix *-e*, and consequently enforce a definite interpretation explicitly.

While the role of *-e* in enforcing a definite interpretation on bare nominals has been discussed before (Ghomeshi, 2003), its role on Persian indefinites has remained largely understudied. Similar to English, Tehrani Persian has an indefinite determiner. I call constructions marked by the indefinite determiner *ye* simple indefinites. The suffix *-e* can also modify simple indefinites, resulting in a construction which I call specific indefinite. Table 1 provides a summary of the constructions described here, as well as their forms and examples.

Construction	Form	Example
Bare Nominal	N	māshin (car)
Specific Definite	N-e	māshin-e (the car)
Simple Indefinite	ye N	ye māshin (a car)
Specific Indefinite	ye N-e	ye māshin-e (a car)

Figure 1: Four constructions discussed in this paper with examples.

In order to understand the semantic contribution of *-e*, I compare the constructions with and without this suffix. Section 2 compares the bare nominal and the specific definite. It shows that *-e* on a bare nominal enforces a definite interpretation. Section 3 compares the simple indefinite and the specific indefinite. It shows that simple indefinites can take variable scope while specific indefinites always take wide scope with respect to other sentential operators. Section 4 argues that indefinites marked by *-e* are only scopally indefinite and not epistemically specific. Section 5 shows that *-e* does not introduce any common ground requirements and finally section 6 provides a formal and compositional account of the specific definite and specific indefinite constructions in Persian.

2 Bare Nominal vs. Specific Definite

In this section I compare the bare nominal construction (N) and the specific definite construction (N-*e*). The bare nominal construction can be interpreted as generic, indefinite, or definite depending on the utterance context. Example (1) shows the bare nominal *māshin* (car) in three different contexts. In (1a), the bare nominal is used in a context that supports a generic interpretation. In (1b) the bare nominal is interpreted like an indefinite and in (1c) it is interpreted similar to a definite description like "the car".

(1) a. [Context: Amir is discussing cars and their problems. He says:]

   māshin havā-ro ālude   mi-kon-e
   car   air-OM   polluted IPFV-do-3.SG
   "Cars pollute the air."

   b. [Context: Amir is crossing the street without checking the traffic. Leila stops him

   and says:]

   māshin mi-zan-e   be-het
   car   IPFV-hit-3.SG to-2.SG
   "Some car is gonna hit you."

   c. [Context: Amir and Leila have one car only. One day Amir comes home and says:]

   māshin xarāb   shod-e
   car   broken become.PST-3.SG
   "The car's broken."

What I do next is add the nominal suffix -e to each of these sentences and see its effect on the interpretation of the sentences. Example (2) below adds the suffix -e to the sentences in example (1). First, in (2a) I have added -e to the generic sentence in (1a). The resulting specific definite construction is not acceptable in a generic context anymore, but it would be acceptable in a new context where Amir is referring to a unique car in the utterance context. The addition of -e to the bare nominal results in a definite interpretation of the nominal. Next, in (2b) I have added -e to the bare nominal in sentence (1b). This new sentence is no longer appropriate for the original context of (1b) and is better suited for a context where a particular car has been introduced such as the one in (2b). It is of course possible to imagine a particular car in the context of (1b) to make the context compatible with the specific definite used. The important intuition is that the interpretation of the specific definite relies on the presence of a unique car in the context. Finally, in (2c) I add -e to the sentence in (1c) where the context supported a definite reading. My intuition is that -e is completely appropriate for the original context in (1c) and does not alter the original interpretation much; possibly only adding to the salience of the car in the conversation.

(2) a. [#Context 1a: Amir is discussing cars and their problems. He says:]

[Context: Amir shows the video of an old car with a smokey exhaust. He says:]

māshin-e havā-ro ālude   mi-kon-e
car-UM   air--OM polluted IPFV-do-3.SG
"The/that car pollutes the air."

b. [#Context 1b: Amir is going to cross the street without checking the traffic. Leila

stops him and says:]

[Context: Amir is walking in a parking lot. A car is backing out. Leila stops him

and says:]

māshin-e mi-zan-e   be-het
car-UM   IPFV-hit-3.SG to-2.SG
"The/that car is gonna hit you."

c. [Context 1c: Amir and Leila have one car only. One day Amir comes home and

says:]

māshin-e xarāb   shod-e
car-UM   broken become.PST-3.SG
"The/that car's broken."

The comparison of the examples and the contexts in (1) and (2) suggests that the nominal

suffix *-e* enforces a unique instantiation of the nominal in the utterance context. In (1) the first

two examples (1a) and (1b) were not interpreted in a context where a unique car was being

discussed and adding the suffix *-e* in (2a) and (2b) required new contexts where a unique car

was under discussion. The third example (2c) already had a context with a unique car in the

discourse and as a result the addition of the suffix *-e* was compatible with it. These examples

suggest that *-e* adds a uniqueness implication to the bare nominal.

3   Simple Indefinite vs. Specific Indefinite

In this section I investigate the semantic effect of *-e* on indefinites by comparing the simple

indefinite construction (*ye* N) with the specific indefinite construction (*ye* N-*e*). Example (3)

shows the simple indefinite and the specific indefinite constructions in an existential sentence.

My judgement is that the example without *-e* in (3a) and the one with *-e* in (3b) receive similar interpretations.

(3) [Context: Leila looks out the window. She says:]

    a. ye zan   dam-e dar-e
       ID woman close-EZ door-3.SG
       "A woman is at the door."

    b. ye zan-e   dam-e dar-e
       ID woman-UM close-EZ door-3.SG
       "A woman is at the door."

The interpretations diverge, however, when we introduce quantificational elements. In (3) I test the scope interaction of the simple and specific indefinite constructions with the universal quantifier *hame*. Colloquial Tehrani Persian has two universal quantifiers: *hame* and *har*. *hame* shares some features with the English quantifier *all*. For example they are both used in partitive constructions like "all of the students". *har* is closer to the English quantifiers *every* and *each*. I leave a proper analysis of these universal quantifiers for future work. Here I use *hame* in my examples but the conclusions hold if *hame* is replaced, mutatis mutandis, with *har*.

The sentence in (4a) uses the simple indefinite *ye ostād* "a professor" and has two interpretations. First, one in which the universal scopes over the indefinite: for everyone there was a possibly different professor. Second, one in which the indefinite scopes over the universal: everyone said hello to the same professor. In (4b) I have added the suffix *-e* to the indefinite. The only available interpretation in this example is one where the existential scopes over the universal. Therefore, adding *-e* to the indefinite resulted in the indefinite taking wide scope with respect to the universal quantifier.

(4) a. emruz hame   be ye ostād   salām kard-im
        today everyone to ID professor hello do-1.PL
        "Today we all said hello to a professor." (1. $\forall > \exists$, 2. $\exists > \forall$)

    b. emruz hame   be ye ostād-e   salām kard-im
        today everyone to ID professor-UM hello do-1.PL
        "There is a professor that today we all said hello to." ($\exists > \forall$)

What if we have two universal quantifiers? Is it possible to have a simple indefinite scope between the two universal quantifiers? What happens when we add *-e*? In (5) below I construct

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an example with two universal quantifiers. In (5a) I use a simple indefinite. The example has at least two prominent interpretations: one where the indefinite scopes over the universal quantifiers (the girls corrected the mistakes of the same boy) and one where the indefinite scopes between the universal quantifiers (for every girl there was a different boy whose mistakes were corrected). In (5b) I add the suffix -*e* to the indefinite *ye pesar* "a boy" and the resulting specific indefinite makes only one of the readings available: the one with the indefinite scoping over both universal quantifiers. This example suggests that indefinites with -*e* take the widest scope when interacting with multiple quantifiers.

(5) a. hame-ye doxtar-ā hame-ye eshtebā-hā-ye ye pesar ro tasih   kard-an
         all-EZ   girl-PL   all-EZ   mistake-PL-EZ ID boy   OM correct do-3.PL
         "All the girls corrected all the mistakes of a boy." (1. ∃ > ∀ > ∀ 2. ∀ > ∃ > ∀)

     b. hame-ye doxtar-ā hame-ye eshtebā-hā-ye ye pesar-e ro tasih   kard-an
         all-EZ   girl-PL   all-EZ   mistake-PL-EZ ID boy-UM OM correct do-3.PL
         "There is a boy that every girl corrected all his mistakes." (∃ > ∀ > ∀)

In (6), -*e* shows a similar wide-scope effect with respect to the temporal quantifier *hamishe* "always". In (6a) I use a simple indefinite which allows two interpretations: one with the existential claim scoping over the temporal quantifier (it's always the same boy) and one where the existential scopes below the temporal quantifier (it's a different boy every time). Adding -*e* in (6b) only allows the second reading with the indefinite taking wide scope.

(6) a. Sārā hamishe bā   ye pesar davā-sh   mi-sh-e
         Sara always   with ID boy   quarrel-3.SG IPFV-become-3.SG
         "Sara always gets into a fight with some boy." (1. ∃ > always 2. always > ∃)

     b. Sārā hamishe bā   ye pesar-e davā-sh   mi-sh-e
         Sara always   with ID boy(-UM) quarrel-3.SG IPFV-become-3.SG
         "Sara always gets into a fight with some boy." (∃ > always)

Next in (7), I test the simple and specific indefinite constructions in the de-re/de-dicto contexts. In (7a) I use the simple indefinite and the sentence allows two interpretations: one with the indefinite scoping over the modal "want" (there is a specific girl) and one with the indefinite scoping under the modal (Amir wants to marry just any girl). Yet again adding the suffix -*e* only allows the wide scope existential reading as (7b) shows.

(7) a. Amir mi-xā-d   bā   ye doxtar ezdevāj kon-e
         Amir IPFV-want-3.SG with ID girl   marry   do-3.SG
         "Amir wants to marry a girl." (1. ∃ > want 2. want > ∃)

     b. Amir mi-xā-d   bā   ye doxtar-e ezdevāj kon-e
         Amir IPFV-want-3.SG with ID girl-UM   marry   do-3.SG
         "There is a girl Amir wants to marry." (∃ > want)

In (8) I look at the scope relation of the simple and specific indefinite constructions with the belief verb *fekr kardan* "to think". The simple indefinite in (8a) has at least two prominent interpretations. On the first interpretation, there is a unique girl that everyone thinks Ali has married. On the second interpretation, everyone thinks that Ali has married a girl but they may think of different girls (e.g. Ali thinks Amir has married Targol but Hasan thinks Amir has married Leila.) In (8b) I have used the specific indefinite *ye doxtar-e* "a girl-e" and the only available interpretation is the one in which everyone is thinking of a specific girl that Amir has married. This example shows that the indefinite marked by *-e* takes the widest scope even in the presence of a universal quantifier and a belief verb.

(8) a. hame fekr   mi-kon-an Ali bā   ye doxtar ezdevāj kard-e
         all   thought IPFV-do-3.PL Ali with ID girl   marriage do-3.SG
         "Everyone thinks Ali has married a girl."

         (1. ∃ > ∀ > B 2. ∀ > B > ∃)

     b. hame fekr   mi-kon-an Ali bā   ye doxtar-e ezdevāj kard-e
         all   thought IPFV-do-3.PL Ali with ID girl-UM   marriage do-3.SG
         "Everyone thinks Ali has married a girl." (∃ > ∀ > B)

Finally I test the behavior of *-e* in the antecedent of conditionals marked by *age* "if". The simple indefinite example in (9a) has two prominent interpretations: first that Amir will be happy if he marries a specific girl (e.g. Leila) and second, that Amir will be happy if he marries any girl. As expected, in (9b) where the suffix *-e* is present on the noun, the only available interpretation is the specific one: there is a specific girl that if Amir marries, he will be happy.

(9) a. age Amir bā   ye doxtar ezdevāj kon-e,   xeili xoshhāl mi-she
         if   Amir with ID girl   marry   do-3.SG, very happy   IPFV-become.3.SG
         "If Amir marries a girl, he will be verh happy." (1. ∃ > if 2. if > ∃)

     b. age Amir bā   ye doxtar-e ezdevāj kon-e,   xeili xoshhal mi-she
         if   Amir with ID girl-UM   marry   do-3.SG, very happy   IPFV-become.3.SG

"There is a girl that if Amir marries, he will be happy." ($\exists >$ if)

To summarize, in this section I compared the simple indefinite (*ye* N) and the specific indefinite (*ye* N-*e*) constructions and showed that the presence of the suffix -*e* on an indefinite systematically picks the widest scope for that indefinite. Crucially, from the brief but relatively wide array of quantificational and scope taking items used in this section, it appears that the wide-scope tendency of the specific indefinite is very strong and independent of the nature and number of the other operators involved.

4 Specificity

Farkas (1994) discusses three types of specificity: epistemic, scopal, and partitive. The investigation of the specific indefinite in the previous section suggests that indefinites with -*e* in Tehrani Persian are scopally specific. Since scopally specific indefinites may also be epistemically specific, here I investigate whether the Persian indefinites with -*e* are also epistemically specific; meaning the speaker has a specific referent in mind when uttering them. It is important to emphasize that the issue here is not whether speakers can have a specific referent in mind when using indefinites with -*e*. They certainly can and many examples in the previous sections can show this. The issue is whether speakers must necessarily have a specific referent in mind when they use an indefinites marked by -*e*. In other words, are all indefinites with -*e* epistemically specific?

The examples below in (10) show that the answer is no. (10a) is a naturally occurring example from twitter. It is not at all necessary for the speaker or the addressee to know who the girl in this example is. In fact the context makes it likely that the speaker did not know the girl his friend was chatting with. Similarly in (10b), the specific indefinite can be uttered to convey the news that some man has committed suicide but there is no need for the speaker or the addressee to know exactly who this man is. This is similar to the usage of "some man" or "a certain man" in English. Examples like the ones in (10) suggest that the specific indefinite construction (*ye* N-*e*) is not epistemically specific.

(10) a. dust-am   eshtebāhi eskirin-shāt-e chat-esh-o   bā   ye doxtar-e ferestād
          friend-1.SG mistakenly screen-shot-EZ chat-3.SG-OM with ID girl-UM   sent.3.SG
          "My friend mistakenly sent me a screen shot of his chat with a girl."

      b. mi-g-an   tu Shiraz ye mard-e xod-koshi kard-e
          IPFV-say-3.PL in Shiraz ID man-UM self-killing did-PERF.3.SG
          "They say a man has committed suicide in Shiraz."

5   Common Ground Effects

In this section I compare the specific definite (N-*e*) and the specific indefinite (*ye* N-*e*) con-
structions with respect to their effect on the common ground; i.e. the mutual public knowledge
between the speaker and the addressee in the discourse. Consider two families: the Tehrani
family and the Yazdi family. Suppose that we know that the Tehrani family has only one son.
We don't know anything about the Yazdi family. Now looking at the examples in (11), I can
felicitously tell you the sentence in (11a); that the son in the Tehrani family is married. It pro-
vides further information about the unique son in the Tehrani family we knew about. However,
the sentence in (11b) about the Yazdi family is not as felicitous. It acts as if we knew about a
son in the Yazdi family when we did not. There is a sense of imposing further information or
asking the listener to accommodate information about the Yazdi family that was not in common
ground before.

(11) a. In the Tehrani family, …   b. In the Yazdi family, …

          pesar-e ezdevāj kard-e   # pesar-e ezdevāj kard-e
          son-UM marry   do-PERF.3.SG   son-UM marry   do-PERF.3.SG

          "The son has married."   "The son has married."

Compare the previous example with the ones in (12) where I use a specific indefinite instead
of the specific definite. The addition of the indefinite determiner *ye* flips the felicity judgments.
It is not felicitous to use the specific indefinite in (12a) to talk about the son in the Tehrani
family. The reason is that we already know about the son and a definite serves the reference
to the son better than an indefinite. However, it is completely felicitous to use the specific
indefinite in (12b) to inform the listener about a son in the Yazdi family. The specific indefinite

is suitable for introducing new information. The examples here show that even though the suffix *-e* appears on definites and indefinites, it has no role in determining the familiarity of the nominal. Familiarity is controlled by the presence or absence of the indefinite determiner *ye*.

(12) a. In the Tehrani family, …

       # ye pesar-e ezdevāj kard-e
         ID son-e   marry   do-PERF.3.SG

       "A son has married."

  b. In the Yazdi family, …

       ye pesar-e ezdevāj kard-e
        ID son-e   marry   do-PERF.3.SG

       "A son has married."

6   Analysis

Let me first summarize the findings in the previous sections. In section 2, I showed that the presence of *-e* on a bare nominal enforces a definite interpretation. In section 3, I showed that the presence of *-e* on an indefinite forces it to take the widest scope with respect to the other sentential operators. In section 4, I argued that indefinites with *-e* are not epistemically specific and in section 5 I showed that *-e* does not place any requirements on the common ground. The goal in this section is to unify these observations and propose a single lexical entry for *-e* that captures these effects.

I propose that the nominal suffix *-e* encodes the uniqueness of the nominal in the utterance context. To use an example, *māshin-e* (*car-e*) conveys that there is a unique car in the utterance context. This proposal captures the empirical observations in sections 2 and 3. With definites, the uniqueness implication introduced by *-e* is an essential part of the definite description (Russell, 1905; Abbott, 2006). On an indefinite, the uniqueness implication results in a singleton indefinite (Schwarzschild, 2002). The singleton indefinite is scopally inert; it does not participate in scope interactions and gives the impression of wide scope.

There are two more observations that I would like to capture in my analysis here. First, the uniqueness implication of *-e* is not affected by entailment canceling operators such as the antecedent of conditionals. Examples such as (9) suggest that the uniqueness implication of *-e* escapes the influence of entailment canceling operators and it is enforced globally. The interpretation of (9) is not "if there is a unique girl that Amir marries, he will be happy". In other

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words, the consequent does not depend on the uniqueness implication of the antecedent. The existence and uniqueness of "girl" is interpreted outside the scope of the conditional: "there is a unique girl and if Amir marries the girl, he will be happy". This observation suggests that even though the uniqueness implication is introduced in the antecedent by *-e*, it should be passed up the derivation tree unaffected by entailment cancelling operators until it is interpreted globally. Second, the contribution of *-e* is not presuppositional. In section 5, I showed that the usage of *-e* does not require a common ground that presupposes the uniqueness of the nominal description. The specific indefinite with *-e* can be felicitously used to introduce new information. The first and the second observations suggest that even though the uniqueness implication of *-e* is projective, it is not presuppositional. To capture these two observations in my analysis, I treat the uniqueness implication of *-e* as a conventional implicature using Potts (2005)'s two dimensional system. This way we can guarantee that the uniqueness implication is always enforced globally.

Figure 2 shows sample derivation trees for simple definite and indefinite constructions in Tehrani Colloquial Persian. A bare nominal that picks out a unique entity in the utterance context can be covertly type-shifted via Partee (1986)'s *iota* operator. On the other hand, a simple indefinite like *ye māshin* is similar to "a car" in English. The indefinite determiner *ye* introduces an existential quantifier.
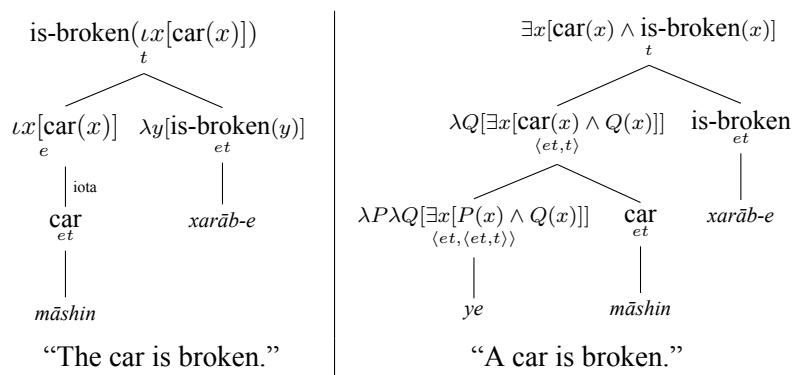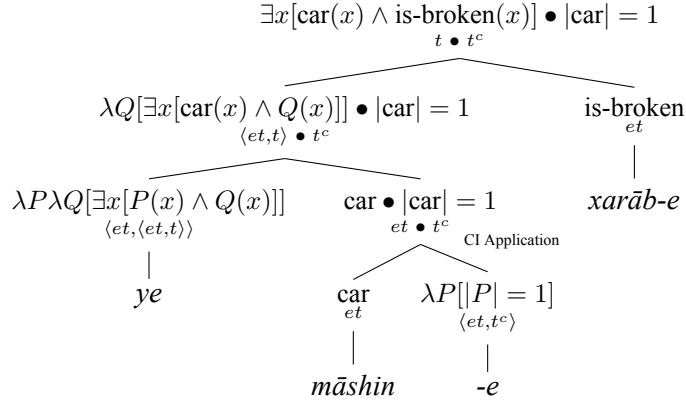

Figure 2: Derivations for sample definite and simple indefinite constructions in Persian

Figure 3 shows the derivation of an example specific indefinite. The black dot separates the at-issue or ordinary content of the sentence (left) from the projective content (right). A specific indefinite is derived similar to a simple indefinite, except that a uniqueness implication

is introduced by the nominal suffix *-e* and passed up in the projective dimension of the tree. This uniqueness implication will not be affected by other sentential operators and will be interpreted globally, ensuring that the indefinite will be scopally inert.

$$\exists x[\text{car}(x) \wedge \text{is-broken}(x)] \bullet |\text{car}| = 1$$
$$t \bullet t^c$$

$$\lambda Q[\exists x[\text{car}(x) \wedge Q(x)]] \bullet |\text{car}| = 1$$
$$\langle et,t \rangle \bullet t^c$$

is-broken
et

$$\lambda P \lambda Q[\exists x[P(x) \wedge Q(x)]]$$
$$\langle et,\langle et,t \rangle \rangle$$

$$\text{car} \bullet |\text{car}| = 1$$
$$et \bullet t^c$$

xarāb-e

CI Application

ye

car
et

$$\lambda P[|P| = 1]$$
$$\langle et,t^c \rangle$$

māshin   *-e*

A specific car is broken.

Figure 3: Derivation for a sample specific indefinite construction in Persian.

Figure 4 shows the derivation of a sample specific definite construction. The derivation of a specific definite is similar to that of a simple definite shown in Figure 2. The main difference is that similar to a specific indefinite, a uniqueness implication is introduced by the nominal suffix *-e* which is passed up the tree as projective content. Since the nominal is marked explicitly as unique and the indefinite determiner is absent, the nominal is again type-shifted by *iota*. We can say that in specific definites in Persian, *-e* does explicitly what the context of the utterance often does implicitly with bare nominals: ensure that the nominal denotes a unique entity in the utterance context.

7 Conclusion

I investigated the semantics of four nominal constructions in Tehrani colloquial Persian: bare nominals (N), simple indefinites (*ye* N), specific indefinites (*ye* N-*e*), and specific definites (N-*e*). I first confirmed previous reports that bare nominals in Persian can be interpreted as either generic, indefinite, or definite, depending on the utterance context (Toosarvandani and Nasser, 2015). When the utterance context supports a definite reading, simple definite descriptions

$$\text{is-broken}(\iota x[\text{car}(x)]) \bullet |\text{car}| = 1$$
$$t \bullet t^c$$

$$\iota x[\text{car}(x)] \bullet |\text{car}| = 1 \qquad \lambda y[\text{is-broken}(y)]$$
$$e \bullet t^c \qquad\qquad\qquad et$$

| iota

$$\text{car} \bullet |\text{car}| = 1 \qquad\qquad xar\bar{a}b\text{-}e$$
$$et \bullet t^c$$
CI Application

$$\text{car} \qquad \lambda P[|P| = 1]$$
$$et \qquad\qquad \langle et, t^c \rangle$$

| |

$$m\bar{a}shin \qquad \text{-}e$$

The/that car is broken

Figure 4: Derivation for a sample specific definite construction in Persian.

such as *the car* surface as bare nominals. I showed that specific definites are similarly suitable for contexts that support definite interpretations. However, by adding the suffix *-e*, the specific definite enforces a definite reading regardless of the context. In other words in Tehrani Persian, *-e* does explicitly what utterance context often does implicitly.

Second, a simple indefinite (e.g. *ye māshin*) shows similar scope taking properties to a simple indefinite in English (e.g. a car). I showed that adding the suffix *-e* to a simple indefinite (e.g. *ye māshin-e*) results in a scopally specific indefinite: the indefinite takes the widest possible scope with respect to sentential operators. Finally, to provide a unified account for the semantic contribution of *-e* in definite and indefinite constructions, I proposed that *-e* carries a uniqueness implication and requires the nominal to denote a singleton set. I provided examples that suggested the uniqueness implication of *-e* is projective but not presuppositional. I presented a formal account that captured the empirical observations discussed in this paper.

8 Glossing Abbreviations

1	First Person	2	Second Person	3	Third Person
EZ	Ezafe Marker	IC	Indefinite Clitic	ID	Indefinite Determiner
IPFV	Imperfective Aspect	NEG	Negation	NPST	Non-Past Tense
PL	Plural	PST	Past Tense	SG	Singular
UM	Uniqueness Maker				

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