

Contradiction-Free Strengthening and Alternative Discharge: The Case of Farsi *-i* Indefinites.¹

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Abstract. Existential Free Choice Items (EFCIs) differ from each other both within and across languages with respect to a number of parameters (Alonso-Ovalle and Menéndez-Benito, 2015; Chierchia, 2013). Our understanding of the possible variation within this class of items is rather limited, however, because the sample of EFCIs that have been studied in depth is also quite narrow. This paper contributes new data. We zoom in on a variety of indefinites in Farsi (Indo-Iranian), which we call *-i* indefinites (*i*-INDs for short), that share some core properties of EFCIs. The paper has two main goals. It discusses (a) where *i*-INDs fit crosslinguistically, and (b) how they fit within the type of alternative-based theory of EFCIs developed in Chierchia 2013. With respect to (a), the paper shows that *i*-INDs pattern with other EFCIs in modal and downward entailing contexts, but, surprisingly, with ordinary indefinites in unembedded contexts. With respect to (b), the paper shows that the behavior of *i*-INDs is predicted by an alternative-based theory if, as a last resort strategy, some EFCIs allow for the deactivation of some of the alternatives that they invoke, under the threat of deriving a contradiction.

Keywords: Free Choice Items, Exhaustification, Indefinites, Farsi.

1. Introduction

Existential Free Choice Items (EFCIs) are quantificational DPs that have existential force. They contrast with ordinary indefinites in that, when interpreted under the scope of a modal, they yield interpretations that are stronger than those that ordinary indefinites give rise to. To illustrate, consider the pair of German sentences in (1), from Kratzer and Shimoyama 2002, which feature the ordinary indefinite *ein* and its EFCI counterpart *irgendein*.

- (1) a. Mary muss einen Arzt heiraten.
Mary has-to EINEN doctor marry
'Mary has to marry a doctor.' (Kratzer and Shimoyama, 2002: p. 13)
- b. Mary muss irgendeinen Arzt heiraten.
Mary has-to IRGENDEIN doctor marry
'Mary has to marry a doctor—any doctor.' (Kratzer and Shimoyama, 2002: p. 13)

With *ein* or *irgendein* scoping under the deontic necessity modal, both (1a) and (1b) convey that in all worlds compatible with what Mary is permitted to do, she marries a doctor, but while (1a) is compatible with Mary not being allowed to marry some doctors, (1b) requires that Mary be

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permitted to marry *any* doctor. This requirement, which is usually referred to in the literature as a ‘free choice effect’ (FCE), teases (1b) apart from (1a) (Kratzer and Shimoyama, 2002).

EFCIs have received a considerable amount of attention in the literature (see Alonso-Ovalle and Menéndez-Benito 2015 for an overview). By now we know, for instance, that these items differ from each other both within and across languages with respect to a number of parameters (Alonso-Ovalle and Menéndez-Benito, 2015; Chierchia, 2013). Yet, our understanding of the possible crosslinguistic variation within this class of items remains limited because the size of the sample of studied EFCIs is also quite limited.

This paper contributes new data. We zoom in on a variety of indefinites in Farsi (Indo-Iranian), which we will call *-i* indefinites (*i*-INDs for short), that share some core properties of EFCIs. The paper has two main goals. It discusses (a) where *i*-INDs fit crosslinguistically, and (b) how they fit within the type of alternative-based theory of EFCIs developed in Chierchia 2013. The main claims of the paper are the following: i) with respect to (a), we show that *i*-INDs pattern with other EFCIs in modal and downward entailing contexts, but, surprisingly, with ordinary indefinites in unembedded contexts; ii) with respect to (b), we discuss how their behavior is predicted by an alternative-based theory if, as a last resort strategy, some EFCIs allow for the deactivation of some of the alternatives that they invoke under the threat of deriving a contradiction.

The paper is structured as follows: Section 2 reviews some of the parameters of variation among EFCIs that have been presented in the literature and shows how *i*-INDs position themselves in the space of possible variation; Section 3 reviews the basics of the type of alternative-based theory of EFCIs presented in Chierchia 2013, which captures the pattern of interpretation of *i*-INDs in modal and DE contexts, where they behave like other EFCIs; Section 4 focuses on the interpretation of *i*-INDs in unembedded contexts, where they depart from other EFCIs, and, to conclude, Section 5 summarizes the discussion.

2. Situating *i*-INDs

We start by providing in Section 2.1 a review of some of the parameters of variation that EFCIs are known to be sensitive to. Section 2.2 describes the behavior of *i*-INDs with respect to the properties discussed in Section 2.1. As mentioned above, *i*-INDs pattern with other EFCIs in modal and downward entailing contexts, but depart from them when unembedded. Section 2.3 summarizes the discussion.

2.1. Some parameters of variation

EFCIs can be selective with respect to the type of modals under which they can be embedded. The example in (1b) shows that *irgendein* can be interpreted under the scope of a modal that receives a deontic interpretation, and (2) that it can also be interpreted under the scope of a modal that receives an epistemic interpretation (Kratzer and Shimoyama, 2002). Spanish *algún*, another EFCI, patterns with *irgendein* in that it can be interpreted under both deontic and epistemic modals as well (Alonso-Ovalle and Menéndez-Benito, 2010).

- (2) Juan muss in irgendeinem Zimmer im Haus sein.
 Juan must in IRGENDEINEM room in-the house be
 ‘Juan must be in a room of the house.’ (Aloni and Port, 2015: p. 120)

Not all EFCIs are equally flexible, though. EFCIs differ with respect to the type of modals that they tolerate. Romanian *vreun*, for instance, has been described as being grammatical only under epistemic modals (Fălăuș, 2014), as the contrast between (3a) and (3b) (where the modals are assumed to have a deontic interpretation) illustrates.

- (3) a. (Din câte știu,) Maria {trebuie / poate} să fie cu vreun
 from what know-1.SG Maria {must / may} SUBJ be-3.SG with VREUN
 coleg.
 colleague
 ‘(As far as I know,) Maria must/may be with a colleague.’ (Fălăuș, 2015: p. 68)
- b. *Trebuie/ *Pot să pregătesc vreun curs până mâine.
 must may SUBJ prepare-1.SG VREUN course by tomorrow
 ‘I must/may prepare a course by tomorrow.’ (Fălăuș, 2015: p. 68)

EFCIs not only differ with respect to which type of modals they allow for, they also differ with respect to the interpretations that they trigger when embedded under modals. As we have seen, some EFCIs, like *irgendein*, trigger a FCE—they convey that *each* individual in the extension of the NP instantiates the existential claim in some accessible world. Other EFCIs, like *algún*, convey a weaker interpretation in modal contexts: they simply require that there be more than one individual in the extension of the NP that instantiates the existential claim in some accessible world—a ‘modal variation’ effect (MVE)(von Fintel, 2000). For instance, when *algún* is interpreted under the modal, the sentence in (4) requires more than one doctor to be a permitted option, but is compatible with María not being permitted to marry some doctors.

- (4) María tiene que casarse con algún médico.
 María has to marry with ALGÚN doctor
 ‘Mary has to marry some doctor or other.’
 (Alonso-Ovalle and Menéndez-Benito, 2015: p. 10)

Some EFCIs, like *irgendein* or Italian *un qualche* (Aloni and Port, 2015; Chierchia, 2013), have been described as conveying a FCE in combination with deontic modals and a weaker MVE in combination with epistemic modals.

EFCIs also differ with respect to their behavior in downward entailing (DE) contexts. While some, like *irgendein*, are interpreted as plain existentials in these environments, as seen in (5a), others, like Italian *un NP qualsiasi*, are deviant in these contexts, as (5b) shows.

- (5) a. Niemand hat irgendeine Frage beantwortet.
 Nobody has IRGENDEINE question answered
 ‘Nobody answered any question.’ (Aloni and Port, 2015: p. 121)
- b. *Non tutti ragazzi hanno letto un libro qualsiasi.
 Not all boys had read UN book QUALSIASI
 (Chierchia, 2013: p. 260)

We find differences between EFCIs when they are unembedded, too. Some, like *irgendein* and *algún*, are felicitous, but convey a modal meaning component. The sentence in (6), for instance,

(6) María se casó con algún médico.
María se married with ALGÚN doctor
'María married some doctor or other—the speaker doesn't know who.'
(Alonso-Ovalle and Menéndez-Benito, 2015: p. 2)

(7) *Monica s-a întâlnit cu vreun prieten.
Monica REFL-have.3SG met with VREUN friend.MASC
'Monica met a friend.'
(Fălăuş, 2014: p. 122)

(8) Juan compró un libro cualquiera.
 Juan bought UN book CUALQUIERA
 ≈ ‘Juan grabbed a book at random.’ (Alonso-Ovalle and Menéndez-Benito, 2018: p. 2)

2.2. i -Indefinites

(9) Leili sib xarid.
Leili apple bought-3.SG
'Leili bought an apple/apples.'
(Krifka and Modarres, 2016: p. 875)

²*Yek* is realized as *ye* in the informal register.

- (10) Ye ketāb xarid-am.
one book bought-1.SG
'I bought a book.'
- (11) Ketāb-i xarid-am.
book-IND bought-1.SG
'I bought a book.' (Modarresi and Simonenko, 2007: p. 181)
- (12) Ye ketāb-i xarid-am.
one book-IND bought-1.SG
'I bought a book.'

We will zoom in here on the effect of the suffix *-i* by looking closely at the interpretation and distribution of bare *i*-INDs and *ye(k)* *i*-INDs, with a focus on the latter.

2.2.1. *i*-INDs in DE environments

We start with the behavior of *i*-INDs in DE environments. Unlike Italian *un NP qualsiasi*, but like Spanish *algún* or German *irgendein*, *i*-INDs are felicitous in these environments, where they seem to contribute plain existential quantification, as the translations of (13a) and (13b) illustrate.

- (13) a. Shak dār-am Forood (ye) film-i dide bāsh-e.
doubt have-1.SG Forood (one) film-IND seen be-3.SG
'I doubt that Forood has watched any movies.' doubt > $\exists$
- b. Age Ava (ye) ketāb-i bexun-e, ye jaize migir-e.
if Ava (one) book-IND read-3.SG one gift take-3.SG
'If Ava reads a book, she gets a gift.' if [... $\exists$...], then ...

There is an exception for *ye(k)* *i*-INDs. Unlike bare *i*-INDs, but like *algún* and *irgendein*, *ye(k)* *i*-INDs resist embedding under sentential negation, as (14) illustrates.

- (14) Forood ye ketāb-i na-xarid.
Forood one book-IND NEG-bought-3.SG
'Forood did not buy some book.' $*\neg > \exists$

We turn now to the behavior of *i*-INDs in modal contexts.

2.2.2. *i*-INDs in modal environments

i-INDs are felicitous under the scope of modals. Unlike *vreun*, and like *algún* or *irgendein*, they do not impose restrictions on the type of modals that they allow for. They are fine under modals that receive a deontic interpretation, as in (15a), with a possibility modal, or in (15b), with a necessity modal.

- (15) a. Forood mitun-e (ye) ketāb-i bexar-e.
Forood can-3.SG (one) book-IND buy-3.SG
'Forood can buy any book.'
- b. Forood bāyad (ye) ketāb-i bexar-e.
Forood must (one) book-IND buy-3.SG
'Forood must buy a book and he can buy any book.'

i-INDs are also grammatical under modals that receive an epistemic interpretation, as in (16a), with a possibility modal, or in (16b), with a necessity modal.

- (16) a. Forood momken-e (ye) ketāb-i xarid-e bāsh-e.
 Forood possible-be (one) book-IND bough-3.SG-PP be-3.SG
 ‘Forood might have bought a book.’
 b. Forood bāyad (ye) ketāb-i xarid-e bāsh-e.
 Forood must (one) book-IND bought-3.SG-PP be-3.SG
 ‘Forood must have bought a book.’

Under deontic modals, *i*-INDs contrast with *ye(k)* indefinites in that they convey a FCE, like *irgendein*, but unlike *algún*. We can see that with the help of the scenario in (17). While the sentence in (18), with a *ye(k)* NP indefinite, is true in that scenario, its counterpart with an *i*-IND (the sentence in (15a), repeated in (19) below) is false.

- (17) There are only five books ($\{b_1 \dots b_5\}$). Forood is allowed to buy b_1 , he is allowed to buy b_2 , and he is also allowed to buy b_3 , but he is not allowed to buy b_4 or b_5 .
 (18) Forood mitun-e ye ketāb bexar-e.
 Forood can-3.SG one book buy-3.SG
 ‘Forood can buy a book.’ $\Diamond > \exists$ TRUE
 (19) Forood mitun-e (ye) ketāb-i bexar-e.
 Forood can-3.SG (one) book-IND buy-3.SG
 ‘Forood can buy any book.’ FALSE

If the *i*-IND in (19) were interpreted as contributing an existential under the scope of the possibility modal, the sentence in (19) would be true in the scenario in (17), like (18) is. Since (19) is false, we see that in this context *i*-INDs yield interpretations that are stronger than those expected of an existential scoping under a modal: (19) requires all books to be permitted options. The deviance of the discourse in (20) highlights this.

- (20) Forood mitun-e (ye) ketāb-i bexar-e, (# ammā ne-mitun-e ketāb-e b_1 o
 Forood can-3.SG (one) book-IND buy-3.SG, (but NEG-can-3.SG book-EZ b_1 ACC
 bexar-e)
 buy-3.SG)
 ‘Forood can buy any book, but he cannot buy b_1 .’

When embedded under deontic necessity modals, *i*-INDs convey a FCE as well. To illustrate this, consider the scenario in (21). While the sentence in (22) with a *ye(k)* NP indefinite is a felicitous description of the scenario in (21), its counterpart with an *i*-IND, in (23), is false, because not all books are permissible options for Forood. The sentence in (23) conveys that Forood is required to buy a book and that any book is a permissible option for him.

- (21) There are only five books ($\{b_1 \dots b_5\}$). Forood is required to buy a book and he is allowed to buy b_1 , b_2 , or b_3 , but he is not allowed to buy b_4 or b_5 .
 (22) Forood bāyad ye ketāb bexar-e.
 Forood must one book buy-3.SG
 ‘Forood must buy a book.’ $\Box > \exists$ TRUE

- (23) Forood bāyad (ye) ketāb-i bexar-e.
 Forood must (one) book-IND buy-3.SG
 ‘Forood must buy a book and he can buy any book.’ FALSE

i-INDs are also felicitous with epistemic modals, necessity and possibility alike. However, under epistemic modals, *i*-INDs do not require all individuals in the extension of the NP to be possibilities. For instance: the sentence in (25) can describe the scenario in (24). In other words, in combination with epistemic modals, *i*-INDs convey a MVE effect, rather than a FCE. In this, *i*-INDs pattern with other EFCIs, like *irgendein* or Italian *un qualche* (Aloni and Port, 2015; Chierchia, 2013), as mentioned in the previous section.

- (24) Assume there are only five books ($\{b_1 \dots b_5\}$). The speaker is convinced that Forood has bought a book, but knows that he hasn’t bought b_4 or b_5 .
- (25) Forood bāyad (ye) ketāb-i xarid-e bāsh-e.
 Forood must (one) book-IND bought-3.SG-PP be-3.SG
 ‘Forood must have bought a book.’

In DE and modal contexts, *i*-INDs behave like other EFCIs, then. The situation is different when *i*-INDs are not embedded.

2.2.3. Unembedded *i*-INDs

Like *algún* or *irgendein*, but unlike *vreun*, *ye(k)* *i*-INDs are grammatical, as seen in (26a). However, the status of unembedded bare *i*-INDs depends on register. Farsi has two registers: formal and informal. In the formal register, unembedded bare *i*-INDs are grammatical. In the informal register, there is speaker variation: they are ungrammatical for some (Jasbi, 2016), but grammatical for others, as illustrated in (26b).

- (26) a. Forood dirooz ye ketāb-i xarid.
 Forood yesterday one book-IND bought-3.SG
 ‘Forood bought a book yesterday.’
- b. Sara ro be pesar-i moarefi kard-am.
 sara ACC to boy-IND introduce did-1SG
 ‘I introduced Sara to a boy.’ (Hosseini Fatemi, 2013: p. 7)

In contrast with other EFCIs that are grammatical in unembedded contexts, unembedded *ye(k)* *i*-INDs and bare *i*-INDs (when accepted) have no detectable modal component. Quite clearly, they do not express agent indifference. The sentence in (27a), for instance, can be an appropriate description of the scenario in (27b).

- (27) a. Forood dirooz (ye) ketāb-i xarid.
 Forood yesterday (one) book-IND bought-3.SG
 ‘Forood bought a book yesterday.’
- b. *Scenario*: Forood wanted to buy *The Iliad* and did so. He wouldn’t have bought any other book.

Unembedded *i*-INDs have no detectable epistemic component, either. The application of the battery of tests used in the literature to detect this modal component shows that this is the case.

For instance, unlike *algún*, *i*-INDs are compatible with *namely* continuations that specify the individual that instantiates the existential claim, as the discourse in (28) shows.

- (28) Forood dirooz (ye) ketāb-i xarid be esm-e Iliad.
 Forood yesterday (one) book-IND bought-3.SG to name-EZ Iliad
 ‘Forood bought a book yesterday, namely *The Iliad*.’

Likewise, unlike what is the case with *algún*, the dialogue in (29), where the addressee asks the speaker about the identity of the witness of the existential claim, is not deviant:

- (29) A: Forood dirooz (ye) ketāb-i xarid.
 Forood yesterday (one) book-IND bought-3.SG
 ‘Forood bought a book yesterday.’
 B: Which one?

Along the same lines, Aloni and Port (2015) show that asking ‘guess who?’ after a sentence containing *irgendein*, as in (30), is deviant. In contrast, the counterpart with an *i*-IND is perfectly fine, as (31) illustrates.

- (30) Irgendein student hat angerufen. # Rat mal wer?
 some student has called Guess PRT who?
 ‘# Some student called. Guess who?’ (Aloni and Port, 2015: p. 119)

- (31) Forood dirooz (ye) ketāb-i xarid. Hads bezan chi?
 Forood yesterday (one) book-IND bought-3.SG guess hit what
 ‘Forood bought a book yesterday. Guess which?’

Finally, Chierchia (2013) shows that discourses like (32), where the individual satisfying the existential claim is previously mentioned, are deviant with epistemic indefinites, as in (32a). As (32b) illustrates, they are fine with *i*-INDs.

- (32) a. John hat geschummelt. #Deshalb ist irgendein Student aus deiner Klasse
 John has cheated. Therefore is IRGENDEIN student from your class
 ein Betrüger.
 a cheater
 ‘John cheated. Therefore a student in your class is a cheater.’
 (Chierchia, 2013: p. 251)
- b. Forood ketāb-e Iliad-o xarid. Bana-bar-in Forood (ye) ketāb-i
 Forood book-EZ Iliad-ACC bought-3.SG therefore Forood (one) book-IND
 xarid-e
 bought-3.SG-PP
 ‘Forood bought *The Iliad*. Therefore, Forood has bought a book.’

In view of the data above, we conclude that *i*-INDs have no detectable modal component when unembedded.

To finish this section, we note that unembedded *i*-INDs, unlike *algún*, convey uniqueness (that at most one individual satisfies the existential claim). This is shown in (33):

- (33) Forood dirooz (ye) ketāb-i xarid, (# ye roman o ye ketāb-e
 Forood yesterday (one) book-IND bought-3.SG, (one novel and one book-EZ
 sher).
 poetry)
 ‘# Forood bought a book yesterday, a novel and a poetry book.’

The deviance of the ‘how many’ question in the discourse in (34) points in the same direction.

- (34) A: Forood dirooz (ye) ketāb-i xarid.
 Forood yesterday (one) book-IND bought-3.SG
 ‘Forood bought a book yesterday.’
 B: # How many?

2.3. Interim summary

Table 1 below summarizes the previous discussion and compares *i*-INDs with other EFCIs. We see that *i*-INDs show a distinctive property of EFCIs: in DE contexts, they behave like plain existentials, but in modal contexts, their interpretation is stronger than that of ordinary indefinites. *i*-INDs depart from other EFCIs in how they behave when unembedded: they are grammatical, but they do not convey modality. Like ordinary indefinites (and unlike some EFCIs, like *algún*), in unembedded contexts *i*-INDs convey uniqueness.

Taking as baseline the contribution of *i*-INDs in DE contexts, which shows that they are interpreted as existentials, we can conclude that the suffix *-i* triggers strengthening of a basic existential interpretation both in modal—where they trigger a FCE or a MVE—and in unembedded contexts—where they convey uniqueness. The strengthening of a basic existential interpretation in modal contexts is a distinctive property of EFCIs. We turn next to the issue of where *i*-INDs fit in a theory of EFCIs that relies on strengthening of a core existential interpretation, taking the implementation of Chierchia 2013 as basic framework.

EFCIs \ contexts	modal		DE	unembedded
	epistemic	deontic		
<i>irgendein</i>	strengthened		$\exists x$	modality
<i>algún</i>	strengthened		$\exists x$	modality
<i>vreun</i>	strengthened	*	$\exists x$	*
<i>un qualsiasi</i>	strengthened		*	modality
<i>i</i> -INDs	strengthened		$\exists x$	no modality

Table 1: *i*-INDs compared to other EFCIs

3. EFCI behavior: *i*-INDs in modal and DE contexts

We start in Section 3.1 with a preview of the alternative-based theory of EFCIs presented in Chierchia 2013, which, as we will see in Section 3.2, suffices to capture the behavior of *i*-INDs in modal and DE contexts. This is unsurprising, since *i*-INDs pattern with other EFCIs in these environments. We will then turn in Section 4 to the behavior of *i*-INDs in unembedded contexts, where *i*-INDs depart from other EFCIs.

3.1. An alternative-based theory of EFCIs (Chierchia, 2013)

According to the theory of EFCIs presented in Chierchia 2013, EFCIs are existential quantifiers that introduce two types of semantic alternatives: scalar and strengthened (‘pre-exhaustified’) domain alternatives. To illustrate, under this analysis, the *i*-IND in (35a) is taken to be an existential quantifier: it denotes the set of properties that are true of at least one book in a given domain D .³ Its domain alternatives, in (35b), are determined by (possibly) shrinking D . The scalar alternatives, in (35c), are determined by (possibly) shrinking D and considering stronger cardinality predicates (Chierchia, 2013: 252).

$$\begin{aligned}
 (35) \quad & \text{a. } \llbracket (\text{ye}) \text{ book-}i_{[+\sigma, +D]}(D) \rrbracket^g = \lambda P_{\langle e, st \rangle} . \lambda w . \exists x [\text{BOOK}_w(x) \wedge \text{ONE}(x) \wedge \mathbf{D}_w(x) \wedge P_w(x)] \\
 & \text{b. } \llbracket (\text{ye}) \text{ book-}i_{[+\sigma, +D]}(D) \rrbracket^{g, D\text{-ALT}} = \\
 & \quad \{ \lambda P . \lambda w . \exists x [\text{BOOK}_w(x) \wedge \text{ONE}(x) \wedge D'_w(x) \wedge P_w(x)] \mid D'_w \subseteq \mathbf{D}_w \} \\
 & \text{c. } \llbracket (\text{ye}) \text{ book-}i_{[+\sigma, +D]}(D) \rrbracket^{g, \sigma\text{-ALT}} = \\
 & \quad \{ \lambda P . \lambda w . \exists x [\text{BOOK}_w(x) \wedge \mathbf{N}(x) \wedge D'_w(x) \wedge P_w(x)] \mid D'_w \subseteq \mathbf{D}_w \wedge \mathbf{N} > \text{ONE} \}
 \end{aligned}$$

The alternatives in (35b) and (35c) turn propositional by combining with other expressions in the semantic derivation through pointwise functional application. For instance, assuming that the domain of quantification is the set of individuals $\{b_1, b_2\}$, the IP in (36a) expresses the proposition that Forood bought one of these two books ($b_1 \vee b_2$) and contributes the set of domain alternatives in (36c) and the set of scalar alternatives in (36e).⁴ Each domain alternative p can be strengthened by conjoining it with the negation of as many other domain alternatives as consistency permits. The set containing these strengthened domain alternatives at the propositional level (the ‘pre-exhaustified’ domain alternatives) is given in (36d).

$$\begin{aligned}
 (36) \quad & \text{a. LF: } [\text{IP Forood bought } (\text{ye}) \text{ book-}i_{[+\sigma, +D]}] \\
 & \text{b. } \llbracket [\text{IP} \dots (\text{ye}) \text{ book-}i_{[+\sigma, +D]}] \rrbracket = b_1 \vee b_2 \\
 & \text{c. } \llbracket [\text{IP} \dots (\text{ye}) \text{ book-}i_{[+\sigma, +D]}] \rrbracket^{D\text{-ALT}} = \{b_1, b_2\} \\
 & \text{d. } \llbracket [\text{IP} \dots (\text{ye}) \text{ book-}i_{[+\sigma, +D]}] \rrbracket^{\text{EXH-D-ALT}} = \{b_1 \wedge \neg b_2, b_2 \wedge \neg b_1\} \\
 & \text{e. } \llbracket [\text{IP} \dots (\text{ye}) \text{ book-}i_{[+\sigma, +D]}] \rrbracket^{\sigma\text{-ALT}} = \{b_1 \wedge b_2\}
 \end{aligned}$$

These alternatives play a role in strengthening the assertion, via corresponding exhaustification operators (O_σ for ALT_σ , and $O_{\text{EXH-D}}$ for $\text{ALT}_{\text{EXH-D}}$). The strengthening operators O_σ and $O_{\text{EXH-D}}$ take a propositional constituent ϕ , and strengthen $\llbracket \phi \rrbracket$ with the negation of all the alternatives to ϕ (of the relevant type) not entailed by $\llbracket \phi \rrbracket$:

$$(37) \quad \llbracket O_x[\phi] \rrbracket = \lambda w . \llbracket \phi \rrbracket(w) \wedge \forall p \in \llbracket \phi \rrbracket^{x\text{-ALT}} [p(w) \rightarrow \llbracket \phi \rrbracket \subseteq p]$$

³ $\llbracket \cdot \rrbracket^{g, D\text{-ALT}}$ and $\llbracket \cdot \rrbracket^{g, \sigma\text{-ALT}}$ are interpretation functions that map expressions to sets of semantic objects. For expository purposes, we use $\llbracket \cdot \rrbracket^{g, \text{EXH-D-ALT}}$ for the ‘pre-exhaustified’ domain alternatives. In (35a) we use a domain variable $D_{\langle s, et \rangle}$, an argument of the quantifier, for convenience. We take $\mathbf{D}_w$ to be the value of D at the evaluation world w , and $\text{ONE}(x)$ to convey that the cardinality of x is larger or equal to one. In (35c), $\mathbf{N}$ conveys that x has cardinality n or more, where n is larger than one. We freely switch from function to set talk.

⁴To make LFs more readable, we follow Chierchia 2013 in representing the quantifier *in situ*. In (36), ‘ b_n ’ stands for the proposition that Forood bought b_n . Note that the set of scalar alternatives should also include the contradiction ($\perp$), because functions like $\lambda w . \exists x [\text{B}_w(x) \wedge \mathbf{N}(x) \wedge x \in \{b_1\} \wedge \text{BOUGHT}_w(F, x)]$ (where n conveys that x has cardinality larger than 1) are in the set. Since the assertion is not contradictory, it does not entail $\perp$, and, so, the exhaustification operator (introduced below) will negate $\perp$. The effect of conjoining the assertion with the negation of $\perp$, the tautology ($\top$), is innocuous. For that reason, and to improve readability, we ignore $\perp$. We also ignore the assertion from the set of domain alternatives.

The alternatives introduced by EFCIs have to be obligatorily used up by one of these operators. The $_{[+\sigma/+D]}$ subscript conveys that both the scalar and (strengthened) domain alternatives are ‘active’ and need to be ‘discharged’ by the corresponding strengthening operator.

3.2. *i*-INDs as EFCIs

The setup above is designed to derive the behavior of EFCIs. We have seen in Section 2 that *i*-INDs behave like other EFCIs in modal and DE contexts, and, therefore, if we just restrict our attention to these environments, this basic setup extends to them. Let’s provide an illustration.

Under deontic modals, we have seen that *i*-INDs trigger a FCE, as the discourse in (20), repeated in (38) below, shows.

- (38) Forood mitun-e (ye) ketāb-i bexar-e, (# ammā ne-mitun-e ketāb-e b_1 o
 Forood can-3.SG (one) book-IND buy-3.SG, (but NEG-can-3.SG book-EZ b_1 ACC
 bexar-e)
 buy-3.SG)
 ‘# Forood can buy any book, but he cannot buy b_1 .’

Exhaustification derives the FCE. Consider the LF of the Farsi counterpart of (39a), presented in (39b). Assuming a domain containing two books ($\{b_1, b_2\}$), the IP conveys the proposition that Forood bought b_1 or b_2 , in (40a), and contributes as scalar alternative the proposition that Forood bought both books, in (40b). Since the scalar alternative is stronger than (40a), O_σ strengthens (40a) by conjoining it with the negation of that alternative, as seen in (40c). The complement of $O_{\text{EXH-D}}$ expresses the proposition that is true in any world where Forood is allowed to buy only one of the books in the set $\{b_1, b_2\}$. The domain alternatives of the complement of $O_{\text{EXH-D}}$ are given in (40e), and the domain of pre-exhaustified domain alternatives in (40f). All propositions in (40f) are stronger than the proposition in (40d). $O_{\text{EXH-D}}$ yields the proposition that is true in a world w if and only if (40d) is true in w and all propositions in (40f) are false in w . The negation of the propositions in (40f) conveys that either Forood is permitted to buy b_1 and he is also permitted to buy b_2 , or that he is not permitted to buy either book, as shown in (41). That, together with the proposition expressed by the argument of $O_{\text{EXH-D}}$ entails that Forood is permitted to buy either book, as (42) illustrates.

- (39) a. Forood can buy (ye) book-i
 b. LF: $O_{\text{EXH-D}} \diamond O_\sigma [\text{IP Forood buy (ye) book-i}_{[+\sigma,+D]}]$
- (40) a. $\llbracket [\text{IP} \dots (\text{ye) book-i}_{[+\sigma,+D]}] \rrbracket = b_1 \vee b_2$
 b. $\llbracket [\text{IP} \dots (\text{ye) book-i}_{[+\sigma,+D]}] \rrbracket^{\sigma\text{-ALT}} = \{b_1 \wedge b_2\}$
 c. $\llbracket O_\sigma [\text{IP} \dots (\text{ye) book -i}] \rrbracket = (b_1 \vee b_2) \wedge \neg(b_1 \wedge b_2) \Leftrightarrow b_1 \veebar b_2$
 d. $\llbracket \diamond O_\sigma [\text{IP} \dots (\text{ye) book -i}] \rrbracket = \diamond(b_1 \veebar b_2)$
 e. $\llbracket \diamond O_\sigma [\text{IP} \dots (\text{ye) book -i}] \rrbracket^{\text{D-ALT}} = \{\diamond b_1, \diamond b_2\}$
 f. $\llbracket \diamond O_\sigma [\text{IP} \dots (\text{ye) book -i}] \rrbracket^{\text{EXH-D-ALT}} = \{\diamond b_1 \wedge \neg \diamond b_2, \diamond b_2 \wedge \neg \diamond b_1\}$
- (41) a. $\neg(\diamond b_1 \wedge \neg \diamond b_2) \Leftrightarrow \neg \diamond b_1 \vee \diamond b_2 \Leftrightarrow \diamond b_1 \rightarrow \diamond b_2$
 b. $\neg(\diamond b_2 \wedge \neg \diamond b_1) \Leftrightarrow \neg \diamond b_2 \vee \diamond b_1 \Leftrightarrow \diamond b_2 \rightarrow \diamond b_1$
- (42) $\llbracket O_{\text{EXH-D}} \diamond O_\sigma [\text{IP} \dots] \rrbracket = \diamond(b_1 \veebar b_2) \wedge (\diamond b_1 \leftrightarrow \diamond b_2)$

This setup derives the FCE of *i*-INDs in deontic contexts. We have seen that *i*-INDs convey

a weaker modal component (a MVE) with epistemic modals. In the interest of space, we will ignore the contrast between these two types of modal contexts, and refer the reader to Chierchia 2013 (chapter 5) for discussion of this issue.

Moving beyond these modal cases, we have seen that (object) *i*-INDs are interpreted as narrow scope existentials in DE environments, just like other EFCIs, as (13b), repeated in (43), shows.

- (43) Age Ava (ye) ketāb-i bexun-e, ye jaize migir-e.
 if Ava (one) book-IND read-3.SG one gift take-3.SG
 ‘If Ava reads a book, she gets a gift.’ if [... $\exists$...], then ...

Let’s consider (43), with the LF in (44a). Assuming a domain containing two books ($\{b_1, b_2\}$), the IP in the LF in (44a) denotes the proposition in (44b). Its scalar alternative, in (44c), is entailed by (44b), so O_σ has no effect. The pre-exhaustified domain alternatives, in (44d), are inconsistent with (44b), and their negation ($(b_1 \rightarrow g) \leftrightarrow (b_2 \rightarrow g)$) entailed by it, so $O_{\text{EXH-D}}$ has no detectable effect, either. If, unlike Italian *uno qualsiasi*, *i*-INDs tolerate vacuous exhaustification, (44a) shows their true, not strengthened, nature.

- (44) a. LF: $O_{\text{EXH-D}} O_\sigma$ [IP if Ava reads (ye) book-i_[+\sigma, +D], she gets a gift]
 b. $\llbracket \text{IP} \dots \rrbracket = (b_1 \vee b_2) \rightarrow g$
 c. $\llbracket \text{IP} \dots \rrbracket^{\sigma\text{-ALT}} = (b_1 \wedge b_2) \rightarrow g$
 d. $\llbracket O_\sigma [\text{IP} \dots] \rrbracket^{\text{EXH-D-ALT}} = \{b_1 \rightarrow g \wedge \neg(b_2 \rightarrow g), b_2 \rightarrow g \wedge \neg(b_1 \rightarrow g)\}$

To sum-up: in modal and DE contexts, *i*-INDs don’t really differ from other EFCIs, and the basic exhaustification approach to the behavior of EFCIs suffices to capture their behavior.

To our knowledge, the previous literature has not classified *i*-INDs as EFCIs. There are however hints about their status as EFCIs in previous work. For instance, Jasbi (2016) shows that bare *i*-INDs require the extension of their NP not to be a singleton. The example in (45), from Jasbi 2016, makes the point: the conditional in (45b) is deviant because the *i*-IND in its antecedent ranges over a singleton domain.

- (45) a. *Scenario*: Mr. and Ms. Karimi have two daughters and a son. In this family, ...
 b. #age pesar-i ezdevāj kon-e, pesar-e mojarad na-dār-im.
 if boy-IND marry do-3.SG, boy-EZ single NEG-have-1.PL
 ‘If a son marries, then we won’t have any single son.’ (Jasbi, 2016: p. 249)

If *i*-INDs are EFCIs, the antisingleton constraint should not come out as a surprise: if the extension of the NP were a singleton, there would be no proper domain alternatives, and domain exhaustification will always be vacuous.

Similarly, based on their behavior in DE contexts, Deal and Farudi (2007) hypothesized that *i*-INDs introduce domain alternatives (although they did not discuss the effect of these alternatives in modal contexts.)

There are then hints about the EFCIs status of *-i* INDs. But why only hints? The answer probably lies in their behavior in unembedded contexts. As we saw in Section 2, *i*-INDs behave like regular indefinites in unembedded contexts: they convey no modal component (but convey uniqueness). In the next section, we turn to the predictions of the alternative-based approach for the behavior of EFCIs in unembedded contexts.

4. Unembedded *i*-INDs

We start in Section 4.1 by laying out the predictions of the alternative-based approach with respect to the behavior of EFCIs in unembedded contexts. Sections 4.2 and 4.3 discuss these predictions with respect to the behavior of unembedded *i*-INDs and put forth the hypothesis that what teases *i*-INDs apart from other EFCIs is that they allow for partial exhaustification.

4.1. Unembedded EFCIs: the exhaustification approach and covert modality

To understand where unembedded *i*-INDs fit, let's look at the behavior of other unembedded EFCIs, together with the predictions of the exhaustification approach.

Under Chierchia's analysis, unembedded EFCIs are predicted to derive, by design, a pathological meaning. Consider, for instance, (46), and assume a domain containing two doctors: $\{d_1, d_2\}$. Since *irgendein*, by hypothesis, activates both scalar and domain alternatives, these alternatives have to be used up by $O_{\text{EXH-D}}$ and O_σ . The exclusion of the scalar alternative in (46c) entails, together with the assertion, that one of the pre-exhaustified domain alternatives in (46d) must be true, as seen in (47a). The exclusion of the pre-exhaustified domain alternatives in (46d) entails that the scalar alternative is true, as (47b) shows.

- (46) a. LF: $O_{\text{EXH-D}} O_\sigma [\text{IP Maria married irgendeinen}_{[+\sigma, +D]} \text{doctor}]$
b. $\llbracket [\text{IP Maria married irgendeinen}_{[+\sigma, +D]} \text{doctor}] \rrbracket = d_1 \vee d_2$
c. $\llbracket [\text{IP} \dots] \rrbracket^{\sigma\text{-ALT}} = \{d_1 \wedge d_2\}$
d. $\llbracket [\text{IP} \dots] \rrbracket^{\text{EXH-D-ALT}} = \{d_1 \wedge \neg d_2, d_2 \wedge \neg d_1\}$
- (47) a. $(d_1 \vee d_2) \wedge \neg(d_1 \wedge d_2) \Leftrightarrow (d_1 \wedge \neg d_2) \vee (d_2 \wedge \neg d_1)$
b. $(d_1 \vee d_2) \wedge (d_1 \leftrightarrow d_2) \Leftrightarrow (d_1 \wedge d_2)$

Excluding the scalar alternative and the preexhaustified domain alternatives derives a contradiction, as shown in (48). This is a virtue of the analysis, because the derivation of a contradiction helps explaining the behavior of those EFCIs that, like *algún* or *irgendein*, convey a modal component when unembedded. Note that inserting a necessity modal, as in (49a), avoids deriving a contradiction. Strengthening (49b) by conjoining it with the negation of the scalar alternative in (49c) does not entail that one of the pre-exhaustified domain alternatives in (49d) is true, as stated in (50).

- (48) $[(d_1 \vee d_2) \wedge \neg(d_1 \wedge d_2) \wedge (d_1 \leftrightarrow d_2)] \Leftrightarrow \perp$
- (49) a. LF: $O_{\text{EXH-D}} O_\sigma \Box [\text{IP Maria married irgendeinen}_{[+\sigma, +D]} \text{doctor}]$
b. $\llbracket \Box [\text{IP Maria married irgendeinen}_{[+\sigma, +D]} \text{doctor}] \rrbracket = \Box(d_1 \vee d_2)$
c. $\llbracket \Box [\text{IP} \dots] \rrbracket^{\sigma\text{-ALT}} = \Box(d_1 \wedge d_2)$
d. $\llbracket \Box O_\sigma \Box [\text{IP} \dots] \rrbracket^{\text{EXH-D-ALT}} = \{\Box d_1 \wedge \neg \Box d_2, \neg \Box d_1 \wedge \Box d_2\}$
- (50) $\Box(d_1 \vee d_2) \wedge \neg \Box(d_1 \wedge d_2) \not\Leftrightarrow (\Box d_1 \wedge \neg \Box d_2) \vee (\neg \Box d_1 \wedge \Box d_2)$

Both the scalar and pre-exhaustified domain alternatives can be excluded, then, without deriving a contradiction. Excluding both the scalar and the pre-exhaustified alternatives derives the contingent proposition in (51), which conveys a FCE. If the necessity modal is epistemic, the detected speaker ignorance component is derived.⁵

⁵When more than two domain alternatives are at play, this reasoning will derive an epistemic FCE. Something else

$$(51) \quad \llbracket (49a) \rrbracket = \quad \Box(d_1 \vee d_2) \wedge \neg \Box(d_1 \wedge d_2) \wedge (\Box d_1 \leftrightarrow \Box d_2) \\ \Rightarrow \quad \Diamond d_1 \wedge \Diamond d_2 \wedge \Diamond \neg d_1 \wedge \Diamond \neg d_2$$

To sum up, if EFCIs activate both scalar and (strengthened) domain alternatives, and active alternatives have to be exhaustified, EFCIs are predicted to derive a contradiction. The derivation of a contradiction can be prevented by inserting a necessity modal. We can then think of the insertion of a covert modal as a last resort strategy that prevents the derivation of a pathological meaning. This accounts for the behavior of those EFCIs that, like *irgendein* or *algún* are grammatical in unembedded contexts, where they convey modality. But a question arises: what about other EFCIs? We discuss them next, focusing on *i*-INDs.

4.2. Should modal insertion be freely available?

Recall that unembedded *i*-INDs are grammatical but do not have a modal component. As we have seen before, the dialogue in (29), repeated in (52) below, is perfectly appropriate, in contrast with other EFCIs.

- (52) A: Forood dirooz (ye) ketāb-i xarid.
 Forood yesterday (one) book-IND bought-3.SG
 ‘Forood bought a book yesterday.’
 B: Which one?

If covert modals can be freely inserted to avoid the derivation of a contradiction, why do *i*-INDs not have a modal component when they are unembedded? To answer this question, it would be useful to point out that it is not just the behavior of *i*-INDs that poses questions. Recall that Romanian *vreun* is ungrammatical when unembedded, as (7), repeated below, shows.

- (53) *Monica s-a întâlnit cu vreun prieten.
 Monica REFL-have.3SG met with VREUN friend.MASC
 ‘Monica met a friend.’ (Fălăuș, 2014: p. 122)

Why is the insertion of a covert necessity modal not a possible way of rescuing (53)? The ungrammaticality of *vreun* in unembedded contexts suggests that the insertion of a covert modal might not be a freely available strategy in all languages, as suggested in Fălăuș 2015. If the insertion of a covert necessity modal is not an option in Romanian, or at least not an option for *vreun*, this item would be predicted to derive a contradiction obligatorily, and this could be behind its deviance. We can understand the behavior of *vreun* vs. the *irgendein/algún* type of EFCIs by making the assumption that modal insertion is not freely available. When modal insertion is a possibility, EFCIs are grammatical, but, as a result of the insertion of a covert modal, convey a modal component. When modal insertion is not a possibility, an unavoidable pathological meaning is derived, which could be behind the ungrammaticality of *vreun* (Gajewski, 2002).

Turning back to EFCIs, another question arises. If modal insertion is not always a possibility, perhaps it won’t be a possibility in the case of *i*-INDs. That would explain why *i*-INDs do not have a modal component. But why are *i*-INDs not ungrammatical? What prevents the derivation of a pathological meaning?

needs to be said to derive a weaker MVE. On this issue, we refer the reader, again, to Chierchia 2013 (chapter 5).

In the next subsection, we explore a natural answer to this question. The derivation of a contradiction in unembedded contexts hinges upon the assumption that both scalar and domain alternatives have to be used up in exhaustification. Exhaustification with respect to scalar alternatives only, or with respect to the strengthened domain alternatives only does not derive a contradiction. One possibility to explore, then, is that modal insertion is not freely available in Farsi, but partial exhaustification is. That would allow to explain the grammaticality of *i*-INDs and the lack of a modal component at the same time. We discuss this possibility next.

4.3. Partial exhaustification as a last resort

Let's get back to the basic configuration in unembedded contexts, with the example in (54), which lists, again, the relevant scalar and pre-exhaustified domain alternatives.

- (54) a. LF: $O_\sigma[\text{IP Forood bought (ye) book-}i_{[+\sigma, +D]}]$
 b. $\llbracket [\text{IP} \dots (\text{ye}) \text{ book-}i_{[+\sigma, +D]}] \rrbracket = b_1 \vee b_2$
 c. $\llbracket [\text{IP} \dots (\text{ye}) \text{ book-}i_{[+\sigma, +D]}] \rrbracket^{\sigma\text{-ALT}} = \{b_1 \wedge b_2\}$
 d. $\llbracket [\text{IP} \dots (\text{ye}) \text{ book-}i_{[+\sigma, +D]}] \rrbracket^{\text{EXH-D-ALT}} = \{b_1 \wedge \neg b_2, b_2 \wedge \neg b_1\}$

As we saw before, the exclusion of *both* the scalar and the pre-exhaustified domain alternatives yields a contradiction. The exclusion of the scalar alternative alone doesn't: it delivers the contingent proposition in (55), conveying that Forood bought only one book. This is the attested meaning.

- (55) $\llbracket (54a) \rrbracket = (b_1 \vee b_2) \wedge \neg(b_1 \wedge b_2)$

Exhaustification with respect to the pre-exhaustified domain alternatives alone, as in (56a), does not derive a contradiction, either, but rather the contingent proposition in (56b), which conveys that Forood bought both books. This proposition, however, does not correspond to the attested interpretation of the sentence.

- (56) a. LF: $O_{\text{EXH-D}}[\text{IP Forood bought (ye) book-}i_{[+\sigma, +D]}]$
 b. $\llbracket (56a) \rrbracket = ((b_1 \vee b_2) \wedge (b_1 \leftrightarrow b_2)) \Leftrightarrow (b_1 \wedge b_2)$

If partial exhaustification (i.e. exhaustification with respect to either the scalar or the pre-exhaustified domain alternatives) were available as a way of avoiding the derivation of a contradiction, then no contradiction would be expected to arise in unembedded contexts. That's a good result, since *i*-INDs are allowed in unembedded contexts (universally, in the case of *ye(k)* INDs; at least for some speakers, in the case of bare *i*-INDs.) But partial exhaustification delivers two possible interpretations, and only one is attested, so if partial exhaustification is an option, it has to be restricted to partial exhaustification with respect to the scalar alternatives, since that yields the attested interpretation.

Restricting partial exhaustification to the scalar alternatives can be motivated. There is a crucial difference between partial domain exhaustification and partial scalar exhaustification: partial domain exhaustification delivers a contingent proposition, but one that is equivalent to an alternative (the scalar one.) Chierchia (2013) argues that exhaustification should be restricted in this case, and captures this with the principle below, which directly rules out (partial) domain exhaustification.

(57) *Chierchia's Exhaustification Economy Principle*

Exhaustification is not allowed if it yields a meaning logically equivalent to one of the potential alternatives. (Chierchia, 2013: p.129)

If *i*-INDs allow for partial exhaustification as a last resort strategy to avoid the derivation of a contradiction, and the insertion of a covert necessity modal is not a possibility, we predict their attested interpretation when unembedded: the absence of a covert modal accounts for the absence of their modal component, and partial scalar exhaustification derives the attested uniqueness component. We contend that the possibility of allowing for partial exhaustification is what lies behind the difference between *i*-INDs and the other EFCIs that we discussed above.

To conclude this section, some house keeping is in order. In Chierchia's system $[+\alpha]$ alternatives have to be obligatorily used up by exhaustification operators. That means that the type of LFs that we relied on to illustrate partial exhaustification, like (58), are in fact ruled out. To allow for partial exhaustification, alternatives need to be deactivated, as in (59).

(58) LF: O_σ [IP Forood bought (ye) book- $i_{[+\sigma,+D]}$]

(59) a. O_σ [IP Forood bought (ye) book- $i_{[+\sigma,-D]}$]
 b. $O_{\text{EXH-D}}$ [IP Forood bought (ye) book- $i_{[-\sigma,+D]}$]

We assume that $[-\alpha]$ alternatives need not be discharged by an exhaustifier, but are still visible in the pragmatics proper, and, therefore, to the Exhaustification Economy Principle.

4.4. *ye(k)* *i*-INDs vs. bare *i*-INDs

Before concluding this section, let us briefly get back to one of the observations made in Section 2: We pointed out that there is a contrast between *ye(k)* *i*-INDs and bare *i*-INDs when unembedded: While unembedded *ye(k)* *i*-INDs are grammatical in all registers, unembedded bare *i*-INDs vary: they are grammatical for all speakers in the formal register, but not for all speakers in the informal register.

The contrast in unembedded contexts for some speakers in the informal register would follow if, for those speakers, *ye(k)* *i*-INDs activate both scalar and domain alternatives (they are $[+\sigma,+D]$) but bare *i*-INDs only activate domain alternatives (they are $[-\sigma,+D]$), if we assume that deactivation of alternatives ($[+\alpha] \rightarrow [-\alpha]$) is possible, but activation ($[-\alpha] \rightarrow [+\alpha]$) is not, and that complete deactivation (going from $[+\alpha,+\beta], [-\alpha,+\beta]$ or $[+\alpha,-\beta]$ to $[-\alpha,-\beta]$) is not possible either.

For those speakers that categorize bare *i*-INDs as $[-\sigma,+D]$, the situation is the following: $[+D]$ requires $O_{\text{EXH-D}}$, as in (60). But, as we saw before, this results in a violation of the Exhaustification Economy Principle in (57), hence the configuration is ruled out (and complete deactivation of the alternatives, ending in $[-\sigma,-D]$ is not a possibility.)

(60) $O_{\text{EXH-D}}$ [NP- $i_{[-\sigma,+D]}$]

In the case of *ye(k)* *i*-INDs, $[+\sigma,+D]$ requires O_σ and $O_{\text{EXH-D}}$, but, as we saw, that derives a contradiction. Deactivation of the scalar alternatives ($[+\sigma] \rightarrow [-\sigma]$) results in a violation of the Exhaustification Economy Principle. Deactivation of the (strengthened) domain alternatives ($[+D] \rightarrow [-D]$) solves the issue, deriving the attested uniqueness component.

5. Conclusion

Let's sum up. With the alternative-based analysis of EFCIs presented in Chierchia 2013, EFCIs are predicted to derive pathological meanings in unembedded contexts. Previous literature relied on one last resort strategy (the insertion of a covert modal) to avoid the pathology. In this paper, we have proposed that *i*-INDs illustrate the existence of a second last resort strategy for EFCIs: the possibility of deactivating alternatives (and therefore have only partial exhaustification.)

If our discussion is on the right track, neither strategy is freely available in all languages. It is reasonable to assume that EFCIs vary along two parameters: whether they allow for the insertion of a covert modal or not $[\pm \square]$, and whether they allow for partial exhaustification or not $[\pm P]$. As summarized in the table below, *vreun* can be taken to exemplify a situation where neither covert modal insertion nor partial exhaustification is possible. The *irgendein* / *algún* type illustrates what happens when partial exhaustification is not possible, but covert modal insertion is. Finally, *i*-INDs illustrate a case where covert modal insertion is not available, but partial exhaustification is.

		$\square$ -insertion	Partial Exh
(61)	<i>irgendein</i> / <i>algún</i> -type EFCIs	+	–
	<i>vreun</i>	–	–
	<i>-i</i> INDs	–	+

This proposal raises some not so trivial questions. For one, we need to understand *why* covert modal insertion is not freely available. In discussing the role of covert modals in licensing EFCIs, Chierchia (2013: 293) puts forth the question of whether these covert modals should be part of the lexicon across languages. We can assume that they are not. Alternatively, it could still be the case that covert modals *are* freely available, but that some property teasing them apart from overt modals clashes with some EFCIs like Romanian *vreun* or the *i*-INDs discussed in this paper. Chierchia (2013: 294) sketches a proposal along these lines by proposing a constraint that disallows *vreun* in the scope of a covert modal on the basis of the observation that it competes with another free choice item. Determining the extent to which that possibility can be extended to the case of *i*-INDs will be left to further research.

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