Epistemic Indefinites under Focus

INTRODUCTION: Epistemic indefinites (EIs) convey ignorance or indifference with respect to the referent of the indefinite phrase (e.g. German irgendein, Spanish algún, Romanian vreun, or Italian un NP qualsiasi). There is a growing number of studies seeking to identify parameters of variation among EIs and the way these parameters interact ([1],[2],[3]). This paper complements the existing picture by discussing a new dimension of variation, namely interaction with focus, with two goals. First, we establish a correlation between the modal inference triggered by EIs and the possibility to associate with focus. Second, we seek to accommodate the observed patterns in recent alternative-based approaches to EIs, arguing that focus affects lexically activated alternatives, by expanding the set of domain alternatives.

FACTS: EIs have been shown to trigger two kinds of modal inferences: (i) Free Choice (FC) requiring that all elements in the quantificational domain qualify as equally possible options (1a), and (ii) Modal Variation (MV) which imposes the weaker requirement that some, but not necessarily all alternatives in the relevant domain be epistemic possibilities (1b).

(1) a. Prendi una carta qualsiasi! Free Choice: \( \forall x \phi \)
   ‘Take a card, any card.’

   b. Maria deve aver sposato un qualche professore Modal Variation: \( \neg \exists x \square \phi \)
   ‘Maria must have married some professor, I don’t know who’

Focusing mainly on Romance data, we discuss two types of EIs and present evidence that EIs that sustain the FC inference can bear focal stress, whereas items that convey MV cannot:

A. UN QUALSIASI type: EIs like un qualsiasi/un oarecare normally disallow negative polarity uses. However, if they are focused, they can occur under downward-entailing operators, acquiring a ‘not just any’ reading. The examples in (2) deny the FC inference and convey that some boys/Gianni read some special book. In the absence of focus, the examples in (2) are ruled out.

(2) Pochi ragazzi hanno un libro QUALSIASI/Gianni non ha letto un libro QUALSIASI
   ‘Few boys have read just any book./Gianni hasn’t read just any book.’

B. UN QUALCHE type: In contrast to this, EIs like un qualche/vreun can never be focused, regardless of whether they occur in a downward entailing (DE) (3a) or modal context (3b):

(3)a. #Maria deve sposare UN QUALCHE dottor
   b. #Nimeni nu a citit VREUN articol
   ‘Maria must marry UN QUALCHE doctor’
   ‘Nobody not has read VREUN paper

PROPOSAL: Building on recent alternative-based approaches of EIs [2],[4], we derive the observed pattern from the interaction between lexically activated alternatives (which we assume to be responsible for MV and FC inferences) and focal alternatives. Our proposal is based on the following assumptions, both of which have been independently argued for:

ASSUMPTION 1: the different modal inferences follow from the consideration of different domain alternatives ([2],[3]). More precisely, we assume that EIs have active domain alternatives, which need to be factored into meaning. Adopting an alternative-and-exhaustification framework [3], this is done via a covert alternative-sensitive operator (akin to only) which leads to the negation of non-entailed alternatives (4).

(4) O_c(p) = p \land \forall q \in C \ [q \rightarrow p \subseteq q]

The set of domain alternatives to which O applies is made of singleton members of the domain D for EIs like un qualche (5a), and of any subdomain of D for un
Alternatives and exhaustification: non-quantification

Exhaustification over these sets of alternatives leads to MV for *un qualcche* and to FC for *un qualsiasi* ([2],[3]):

(5) a. *un qualcche*  \quad b. *un qualsiasi*

{\lambda \mathcal{P}\lambda \mathcal{Q} \exists x \in \{u\} [\mathcal{P}(x) \land \mathcal{Q}(x)], u \in D\}

{\lambda \mathcal{P}\lambda \mathcal{Q} \exists x \in D[\mathcal{P}(x) \land \mathcal{Q}(x) : D' \subseteq D]}

{\{a, b, c\}} \quad {\{avb, avc, bvc, a, b, c\}}

ASSUMPTION 2: Focus adds domain alternatives to the set of those lexically activated (building on the account of focused *wh*-phrases in Chinese, [5])

Putting (i) and (ii) together, we account for cases like (2) as follows. For items that activate subdomains of any size (as in (5b)), the only way to add domain alternatives (in the presence of focus) is by extending the initial domain. This means that the presence of focus leads to the consideration of a superset of D, namely $D'=\{a,b,c,d\}$, and the set of domain alternatives is as in (6b):

(6) a. O[~c[ un libro qualsiasi][+F] [ Gianni non ha letto t]]

b. Domain Alternatives: {~x \in D'[book(x) \land read(Gianni, x)]: D' \subseteq D or D \subseteq D'}

Exhaustification applies to this enlarged set and seeks to eliminate stronger alternatives. In the presence of negation (or any other DE-operator), the lexically activated alternatives are of the form {~(avb), ~(avc), ~a…}, and are all entailed by the assertion (~(avbvcc)). Crucially however, the new super-domain alternative is not entailed. So through exhaustification, it will be excluded (7).

(7) O_2[Gianni didn’t read un libro qualsiasi]  =  

= ~\exists x \in D [book(x) \land read(Gianni,x) \land ~((~\exists x \in D'[book(x) \land read(Gianni,x)])],

where $D \subseteq D'$

= (~\exists x \in D[book(x) \land read(Gianni,x)]) \land (\exists x \in D'[book(x) \land read(Gianni,x)])

According to (7), the sentence in (2) with *un libro qualsiasi* focused is interpreted as saying that Gianni did not read a book in the initially considered domain of quantification, but he did read a book in some other, special domain (pragmatically determined).

Things are different for *un qualcche/vreun* EIs. In particular, their lexically determined alternatives are different, in that they are restricted to singleton domain alternatives (5a). In the absence of focus, a sentence like (3a), or its equivalent with *vreun*, is grammatical and triggers a partial variation inference. Once we bring in focus, domain alternatives must be added to the set in (5a). Here however, we can include non-singleton subdomains, amounting to a set of alternatives identical to the one in (5b). But exhaustification over this set would result in the FC inference, a state-of-affairs completely disallowed by these EIs, which can only trigger MV. Romanian *vreun* for instance has been argued to encode a ban on FC [4]. This suggests that focus activated alternatives cannot conflict with the lexical meaning of EIs, explaining why these EIs can never be focused.

We further show that our analysis captures the behavior of German *irgendein* in modal contexts which has been shown to be compatible with both MV and FC, but to require focus when it gives rise to the FC reading [1]. The correlation established in this paper contributes to the typology of EIs and paves the way for a better understanding of the interaction between lexical and focal alternatives.