



A NOTE ON NPI LICENSING IN VIETNAMESE

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Grammar and logic

- Grammar separates well-formed from ill-formed sentences (Chomsky 1957).
 - (1) a. colorless green ideas sleep furiously
b. *furiously sleep ideas green colorless
- Logic separates valid from invalid arguments.
 - (2) a. every student smokes and every student drinks
⇒ every student smokes and drinks
b. some student smokes and some student drinks
⇏ some student smokes and drinks
- There are grammatical contrasts which turn on logical differences, indicating that grammar and logic are not completely encapsulated (Barwise & Cooper 1981, von Stechow 1993, Gajewski 2008, Haida & Trinh 2020).
 - (3) a. **every** student but John came to the party
b. ***some** student but John came to the party
 - (4) a. at least **two** students came to the party
b. *at least **zero** students came to the party

Research questions

- Do languages vary with respect to how logic constrains grammar?
- If they do, what are the relevant notions which can be used to characterize this variation?

Case study: NPI licensing in Vietnamese & English

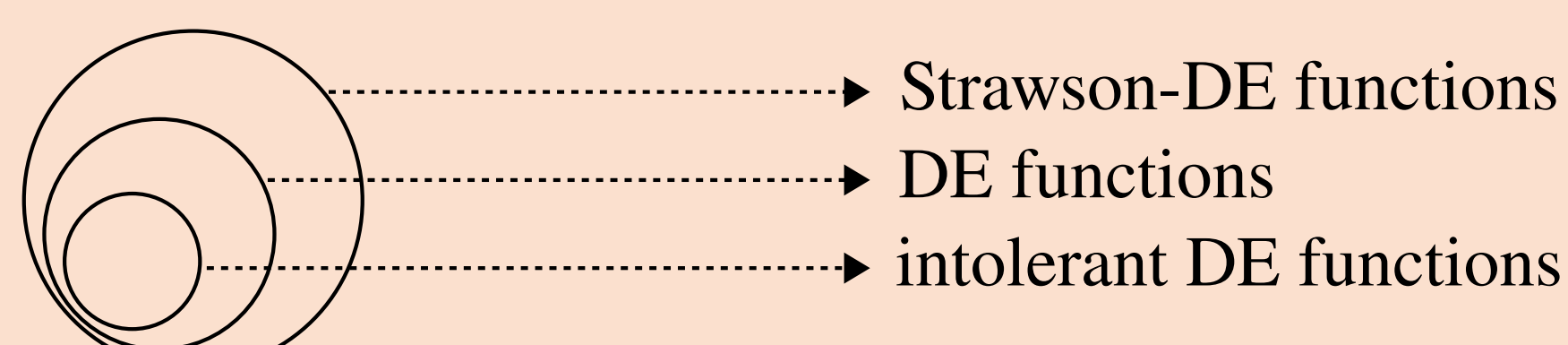
- Negative polarity items (NPIs) such as *any* or *ever* are existential quantifiers whose occurrence is limited to “negative” contexts (Fauconnier 1975, Ladusaw 1979).
 - (5) a. few students ever read books
b. *many student ever reads books
 - (6) a. ít sinh viên nào đọc sách bao giờ
few students read books ever
b. *nhiều sinh viên đọc sách bao giờ
many students read books ever
- The distribution of NPIs in Vietnamese overlaps only partially with that in English.
 - (7) a. only John ever reads books
b. *mỗi John đọc sách bao giờ
only John reads books ever
- We will propose a generalization to capture the differences.

Generalization

NPIs in English must be in the scope of a **Strawson-DE function**, whereas NPIs in Vietnamese must be in the scope of an **intolerant DE function**.

Definitions

- Def 1 A function f is DE (downward entailing) iff for any x, y such that $x \Rightarrow y, f(y) \Rightarrow f(x)$
- Def 2 A function f is Strawson-DE iff for any x, y such that $x \Rightarrow y$ and $f(x)$ is defined, $f(y) \Rightarrow f(x)$
- Def 3 A function f is intolerant iff for any x, y such that $x \Leftrightarrow \neg y, f(x) \Rightarrow \neg f(y)$



Prediction: ONLY

- [ONLY NP ____] is Strawson-DE but not DE (von Stechow 1999)
- (8) [ONLY NP VP] is defined only if [NP VP] = 1 when defined, [ONLY NP VP] = 1 iff there is no $A \neq NP$ such that [A VP] = 1
- (9) drinks espresso \Rightarrow drinks coffee
John drinks espresso
only John drinks coffee \Rightarrow only John drinks espresso

Prediction: EVERY

- [EVERY ____ VP] is Strawson-DE but not DE (Strawson 1952)
- (10) [EVERY NP VP] is defined only if there are NPs when defined, [EVERY NP VP] = 1 iff $NP \subseteq VP$
- (11) flying student \Rightarrow student
there are flying students
every student smokes \Rightarrow every flying student smokes
- (12) a. every student who ever read books passed the exam
b. *tất cả những sinh viên đọc sách bao giờ đều thi đỗ
every student who read books ever passed the exam

Prediction: IF

- [IF ____ , q] is Strawson-DE but not DE (Stalnaker 1975)
- (13) [IF p, q] is defined only if p is possible when defined, [IF p, q] = 1 iff $p \rightarrow q$
- (14) I win and break my leg \Rightarrow I win
winning may come with breaking my leg
if I win, I will be happy \Rightarrow if I win and break my leg, I will be happy
- (15) a. if John ever reads Mary's letters, he will be very surprised
b. *nếu John đọc thư của Mary bao giờ, nó sẽ rất ngạc nhiên
if John reads letters of Mary ever he will be very surprised

Prediction: REGRET

- [NP REGRETS ____] is Strawson-DE but not DE (Ladusaw 1980)
- (16) [NP REGRETS p] is defined only if $p = 1$ when defined, [NP REGRETS p] = 1 iff NP wants $\neg p$
- (17) drinking espresso \Rightarrow drinking coffee
John drank espresso
John regrets drinking coffee \Rightarrow John regrets drinking espresso
- (18) a. John regrets ever drinking coffee
b. *John hối hận là đã uống cà-phê bao giờ
John regrets drinking coffee ever

Prediction: AT MOST

- [AT MOST n NP ____] is DE but not intolerant (Gajewski 2005)
- (19) a. at most three students drink coffee
⇒ at most three students drink espresso
b. at most three students passed and at most three students fail $\neq \perp$
- (20) a. at most three students ever read Quine
b. *nhiều nhất là ba sinh viên đọc Quine bao giờ
at most three students read Quine ever