1. Introduction

Universal quantification may be expressed in Vietnamese\(^1\) by the combination of wh-morphology and a preverbal particle cúng, following a paradigm that also licenses interrogative, existential, and negative polarity interpretations for wh-indeterminates in different licensing contexts. The universal construction is peculiar in that it requires the licensed wh-phrase to precede its apparent licensor cúng in the clause.\(^2\) Given the basic SVO constituent order of Vietnamese, this results in the obligatory fronting of a universally quantified object (1), whereas the other wh-indeterminate constructions allow an object to remain in situ.\(^3\)

(1) a. * [ Con quái vật cúng phá hoại [ thành phố nào ]].
   CL monster CUNG destroy city which
   ‘The monster destroyed every city.’

If cúng is to be regarded as a licensing operator, as in Tran (2009), the lack of adjacency between it and the preposed wh-indeterminate in (1b) complicates a straightforward compositional account of the semantics of the construction, placing the licensee outside the scope of the licensor. In addition, the possibility of multiple quantifications in (2), a property not found in similar wh-constructions in Japanese and Mandarin in the same manner, presents a further confound where the function of multiple operators is expressed by what appears to be a single licensor, a phenomenon I will refer to as fusion.\(^4\)

---

* I would like to thank Karlos Arregi, Rebekah Baglini, Karen Chu, Mitcho Erlewine, Itamar Francez, Anastasia Giannakidou, James Huang, Yoshihisa Kitagawa, Peter Klecha, Greg Kobele, Jackson Lee, Jason Merchant, Nga Nguyen, Lien Pham, Mike Pham (no relation), Diane Rak, Osamu Sawada, Sanae Tamura, and Masahiro Yamada, and audiences in Chicago, Tsu, and Boston for their advice, feedback, and judgments. All errors are my own.

\(^1\) The data come from a variety of Southern Vietnamese which differs in some significant ways from other varieties discussed in the literature. Even more significantly, my own variant of the variety shows some idiosyncratic properties; other speakers reject some of the more complex sentences I offer in support of my analysis. Differences are noted where present, and I will attempt to account for them.

\(^2\) There are a few other constructions that produce universal interpretations, such as the prenominal mới ’every’ or tất cả ’all’, but they do not involve wh-morphology and do not require fronting.

\(^3\) Glossing abbreviations are as follows: 3SG = third person singular, ACC = accusative, CL = classifier, DEM = demonstrative, DEO = deontic, FUT = future, IPFV = imperfective, NEG = negation, NOM = nominative, PFV = perfective, PL = plural, POSS = possessive, PST = past, Q = question particle, TOP = topic, VRF = verum focus.
(2) [Ngày nào] [ ai ] cũng nhảy múa giống như họ đang cười ngira.  
Every day, every person dances as though riding a horse.

To account for this problem, I argue that cũng itself is not the licensing operator, a role fulfilled by an unpronounced focal head adjacent to the fronted phrase, but is instead a pronoun generated within vP that is extracted to the edge of TP. This requires there to be an instance of cũng for each focal operator, but only one instance is pronounced, so the fusion effect remains to be explained, but it is at least localized to the edge of TP rather than extending across multiple heads in the left periphery.

Another interesting phenomenon is the interaction between the universal quantification construction and a syntactically parallel contrastive focus construction in which the particle mới plays a role similar to cũng. The mới construction requires preposing the phrase containing an associated focused element (3a) and allows licensing focused elements in separate constituents (3b). It can also cooccur with universal quantification in the same clause, resulting in both particles being pronounced.

In these cases, the particles do not appear in a universal order, but they are also not in free variation: in some situations they surface as cũng mới, and in others, mới cũng. The order is determined not by the relative scope of the operators, which matches the order of the fronted constituents, but by the positions of the verbal arguments they correspond to: the default order is cũng followed by mới, unless an external argument receives contrastive focus, in which case mới appears before cũng. This conditioned variation I refer to as scattering.

In this paper, I propose that the particles cũng and mới are syntactically distinct from the focal heads that license their associated interpretations, and that the fusion and scattering properties of the two constructions when more than one focal head appears in a clause follow from a collision of pronominal particles at the edge of TP, resulting in a fusion effect through haplology applied to adjacent instances of the same particle and a scattering effect triggered by movement of external arguments to check agentive Case.

---

4 There is dialectal variation here. Licensing universal interpretations for wh-indeterminates in separate constituents is not possible in the variety of Vietnamese discussed by Tran (2009) but is generally acceptable in Southern Vietnamese.

5 Underlining indicates prosodic stress. The addition of chỉ ‘only’ makes the contrastive focus reading more accessible, though it is not strictly necessary.

6 Other speakers have rejected using mới and cũng consecutively, preferring a biclausal construction.
2. Universal Quantification

Vietnamese follows a typologically common pattern in which wh-phrases can produce a number of interpretations under different licensing contexts (Haspelmath 1997); interrogative, existential, universal, and negative polarity ‘any’ interpretations are all possible (4). Only in the universal construction is it required that the wh-indeterminate be preposed (4c).

(4) a. **Interrogative**
   
   Con quái vật phá hoại [ thành phố nào ] vậy?
   
   ‘Which city did the monster destroy?’

   b. **Existential**
   
   Con quái vật có phá hoại [ thành phố nào ].
   
   ‘The monster did destroy some city.’

   c. **Universal**
   
   [ Thành phố nào ] con quái vật **cũng** phá hoại.
   
   ‘The monster destroyed every city.’

   d. **Negative polarity ‘any’**
   
   Con quái vật không phá hoại [ thành phố nào ].
   
   ‘The monster did not destroy any city.’

In a universal construction, the preposed phrase is necessarily D-linked (Pesetsky 1987), requiring the domain of quantification to be accessible in the discourse. There is also a non-singleton constraint: the use of a wh-universal presupposes that the domain have a cardinality strictly greater than 1; (4c) is only felicitous if there are at least two cities in the domain.

There is also an additive use of **cũng** ‘also’/‘even’, shown in (5), but this does not require the associated phrase to be fronted. While it would be ideal to unify additive and universal **cũng**, their syntactic differences suggest that they might not be related synchronically, so I will set additive **cũng** aside as a distinct construction.


   ‘I too have read that book.’ / ‘I have read that book too.’

---

7 The conditions licensing these interpretations are somewhat complicated and are not consistent across dialects of Vietnamese; Bruening and Tran (2006) discuss the conditions licensing the interrogative, and Tran (2009) discusses the conditions licensing the existential. Free choice *any* is also found in wh-indeterminate paradigms in other languages (Giannakidou and Cheng 2006), but in Vietnamese, free choice constructions can be reduced to the combination of a universal and an external modal element.

8 There appears to be a weaker constraint against domains of size 2 that holds in some situations: (4c) is slightly odd, though not entirely infelicitous, if there are exactly two cities. This constraint appears not to hold if the domain consists of two alternatives; for example, if the speaker is deciding between two roads to take, it is perfectly acceptable to use the wh-universal to quantify over the domain of possible roads. In any case, a domain of size 3 is acceptable but not a domain of size 1.

9 For Tran (2009), it does require fronting; there seems to be dialectal variation here. There is also possibly a contribution from **rồi** ‘already’, which if omitted lowers the acceptability of the object focus reading in (5a).
b. [ Cuốn sách đó ] [ tôi ] càng đọc rồi.
   CL book that I also read already
   ‘That book, I too have read.’ (topicalized object) / ‘That book too I have read.’

A particle expressing both an additive meaning and universal quantification in conjunction with a wh-indeterminate can be found in other languages, including Japanese, in which a universal reading arises from the combination of a particle -mo and a wh-indeterminate such as dono ‘which’ inside the phrase immediately preceding it (Nishigauchi 1986, 1991; Shimoyama 2001; Yoshimura 2007), as in (6).\(^{10}\)

\[ (6) \text{ Japanese (Shimoyama 2001: 2) } \]
\[
\begin{array}{l}
\text{Yoko-wa dono hon-mo yonda.} \\
\text{Yoko-TOP which book-MO read} \\
\text{‘Yoko read every book.’}
\end{array}
\]

A similar universal construction in Mandarin consists of a particle dōu and a preposed wh-indeterminate such as shéi ‘who’ or shénme ‘what’ to its left, as in (7), though not necessarily adjacently; a preposed wh-indeterminate may be separated from dōu by the clausal subject, as with càng in Vietnamese, though it is not possible to do so with an adverb (Cheng 1991, 1995; Giannakidou and Cheng 2006).

\[ (7) \text{ Mandarin (Cheng 1995: 202) } \]
\[
\begin{array}{l}
a. \text{ Shéi dōu huì lái.} \\
\text{who all will come} \\
\text{‘Everyone will come.’}
\end{array}
\]
\[
\begin{array}{l}
b. \text{ Zhāngsān shénme dōu chī.} \\
\text{Zhangsan what all eat} \\
\text{‘Zhangsan eats everything.’}
\end{array}
\]

The constructions in all three languages allow the long-distance binding of an embedded wh-phrase: the wh-phrase need not be the constituent adjacent to the apparent licensor (8).\(^{11}\)

\[ (8) \text{ a. Japanese (Shimoyama 2001: 2) } \]
\[
\begin{array}{l}
[ [ Dono hon-ō yonda ] kodomo ] -mo yoku nemutta. \\
\text{which book-ACC read child -MO well slept} \\
\text{‘For every book } x \text{, the child who read } x \text{ slept well.’}
\end{array}
\]

\(^{10}\) This should be distinguished from NPI -mo (iia), which Yoshimura (2007) observes to have a distinct pitch pattern. Likewise, Vietnamese càng is not used in NPI wh-indeterminate constructions (iib), and the use of càng with negation (iia) is just a universal with a negated predicate and requires a D-linked wh-indeterminate (ai ‘who’ has both D-linked and non-D-linked uses).

\[ (i) \text{ a. Japanese NPI (Yoshimura 2007: 334) } \]
\[
\begin{array}{l}
\text{John-wa dare-mo mi-nak-atta.} \\
\text{John NEG see who}
\end{array}
\]

\[ (ii) \text{ Vietnamese càng with negation (not NPI) } \]
\[
\begin{array}{l}
\text{Ai John càng không thấy.} \\
\text{who John CUNG NEG see} \\
\text{‘John didn’t see anyone.’}
\end{array}
\]

\(^{11}\) Some Vietnamese speakers report a difficulty in accepting sentences in which a wh-indeterminate is embedded in a relative clause modifying a non-wh-indeterminate, as in (8b). Other embedded wh-indeterminates, as in (8d), are acceptable.
b. Vietnamese

[ Đứa [ đọc cuốn sách nào ] cùng bị ác mộng.
child read CL book which CUNG suffer nightmare
‘For every book x, the child who read x had a nightmare.’

c. Mandarin (Cheng 1995: 203)

[ Lìsì chī shénme ] dōu gēn wǒ wúguān.
Lìsì eat what all to I irrelevant
‘Whatever Lìsì eats is irrelevant to me.’

d. Vietnamese

[ Lìsì ān cái gì ] cùng làm tôi lo.
Lìsì eat what CUNG make I worry
‘Whatever Lìsì eats makes me worried.’

Furthermore, all three constructions also allow same-constituent licensing: two or more wh-phrases can be bound within a constituent with only one apparent licensor (9).

(9) a. Japanese (Shimoyama 2001: 26)

which student-NOM which house-to invited pianist -MO came
‘Every pianist that a student had invited to some house came.’

b. Vietnamese

Musician piano student which invite come house which cung flee
‘Every pianist that some student had invited to some house fled.’

c. Mandarin (Cheng 1995: 222)

[ Shéi chī shénme ] dōu gēn wǒ wúguān.
who eat what all to I irrelevant
Lit. ‘Whoever eats whatever is irrelevant to me.’
‘Whatever pairs of x and y such that x eats y are irrelevant to me.’

d. Vietnamese

[ Aì ān cái gì ] cùng phải đi nhà thương.
who eat what CUNG must go hospital
‘Whoever ate anything had to go to the hospital.’

The Vietnamese construction differs in that it also allows separate-constituent licensing: quantification over wh-phrases in two distinct constituents that are not themselves part of a larger constituent external to the licensor (10).12

(10) a. [ Món nào ] [ aì ān nó ] cùng chê.
dish which who eat it CUNG antipraise
‘For every dish, everyone who ate it expressed a low opinion of it.’

b. [ Ở đâu ] [ aì ] cùng muốn hòa bình.
at where who CUNG want peace
‘Everywhere, everyone wants peace.’

This is in contrast to Mandarin, in which multiple separate wh-indeterminates cannot license multiple universal quantifications. Only the wh-indeterminate closest to dōu can be interpreted as a universal, and the others must receive interrogative interpretations (11).

12 For Tran (2009), only the wh-phrase closest to cùng can attain universal quantification, and the others become interrogatives, as in Mandarin (11). Speakers of the present dialect, however, do accept wh-phrases in separate constituents.
Shéi shénme dōu chī?
‘Who eats everything?’ / *‘What does everyone eat?’ / ‘Everyone eats everything.’

In Japanese, multiple separate wh-indeterminates can be licensed, but only by multiple instances of -mo (12a). If the Vietnamese construction is structurally analogous, we would expect multiple instances of cùng as well. However, this is not the case (12b).

I will argue that (12a) and (12b) are nevertheless analogous structures, and that the apparent discrepancy is simply due to -mo and cùng not playing the same syntactic role. Instead, Japanese -mo corresponds to an unpronounced operator in Vietnamese, while cùng is a pronoun that moves to the edge of TP; its Japanese counterpart, if any, is unpronounced.

3. Same-Constituent vs. Separate-Constituent Licensing

At first glance, the same-constituent and separate-constituent licensing constructions in Vietnamese and Japanese might appear to have the same semantics, where the denotations given for (13a) and (13b) are logically equivalent.

Structurally, however, (13b) consists of two quantifications, an outer one and an inner one within its scope; the inner quantification has a domain dependent on particular assignments to the outer quantification variable. (13a) has only one quantification over child-book pairs, following unselective binding accounts of multiple wh-indeterminates licensed by a single operator, such as Kratzer and Shimoyama’s (2002) for Japanese, that allow a single quantifier to bind tuples of variables rather than a single variable (Lewis 1975). I argue that unselective binding does not reflect the structure of (13b).

To distinguish the two, we can examine the constraints that hold for any universal quantification. Both Vietnamese and Japanese have a constraint against singleton domains, which we can observe with the sentences in (14).
(14) a. Vietnamese

Đứa nào cũng cười.

child which laugh

‘Every child laughed.’

b. Japanese

Dono kodomo-mo waratta.

which child-MO laughed

‘Every child laughed.’

When the domain consists of three children, and each of them laughs, both (14a) and (14b) are acceptable, but when the domain consists of only one child, neither is acceptable (Osamu Sawada, p.c.).

What happens when we apply this test to the multiple wh-indeterminate examples? Here, if we have a context in which there are three children and three books, and each child reads all three of the books and praises all of them, then the same-constituent and separate-constituent licensing examples should both be felicitous. (13a) quantifies over 9 child-book pairs, while (13b) quantifies first over 3 children, and then for each child, the 3 books that that child read. In both cases, all quantifications have a domain size of at least 3. Indeed, the prediction holds.

When we change the context to have only one book per child, however, we expect a difference in acceptability resulting from the non-singleton constraint not being satisfied for the inner quantification. If Alice reads only the Aeneid and praises it, Bob reads only Beowulf and praises it, and Carol reads only The Thackery T. Lambshead Pocket Guide to Eccentric & Discredited Diseases and praises it, then (13a) will quantify over 3 child-book pairs (⟨Alice, Aeneid⟩, ⟨Bob, Beowulf⟩, ⟨Carol, TTTLPGiE&DD⟩). (13b), however, will first quantify over 3 children, and then for each assignment of the variable of quantification to a particular child, quantify over the set of books that that child read: for each child, the inner quantification has a singleton domain, and the non-singleton constraint fails to hold. This correctly predicts the observation that in this context, (13a) is felicitous, but (13b) is not.\(^\text{13}\)

If the Vietnamese separate-constituent licensing construction is structurally analogous to the Japanese construction with multiple instances of -mo, then we would predict the Japanese counterparts to the Vietnamese sentences, given in (15), to have the same cardinality-based felicity conditions.

(15) a. Same-constituent licensing


which book-ACC read which child -MO DEM-ACC praised

‘Every child who read any book praised it.’

\[ \forall (x, y) [ \text{CHILD}(x) \land \text{BOOK}(y) \land \text{READ}(y)(x) \Rightarrow \text{PRAISE}(y)(x)] \]

b. Separate-constituent licensing


which child -MO DEM-NOM read which book -MO praised

‘Every child praised every book s/he read.’

\[ \forall x [ \text{CHILD}(x) = [ \forall y : \text{BOOK}(y) \land \text{READ}(y)(x) \Rightarrow \text{PRAISE}(y)(x)] ] \]

The prediction is borne out: when the three children each read all three books, both (15a) and

\(^{13}\) Each wh-indeterminate also carries its own non-singleton constraint: the context must have more than one individual satisfying the nominal description of each wh-indeterminate. This constraint parallels the referential vagueness property found for existential indeterminates (Giannakidou and Quer 2011) and may derive from properties common to all indeterminates. So (13a) is not felicitous in a context in which there is only one child and that child reads three books, because although there are three pairs, there is only one child. Likewise, it is not felicitous in a context in which there is only one book and three children read it. (13a) can be rendered more felicitous in these cases by adding extra children who read no books, or by adding extra books read by no children, respectively. This observation is consistent with non-singleton constraints on both the domain of universal quantification and the satisfiability set of each wh-indeterminate.
(15b) are felicitous, but when each child reads only one book, (15a) is felicitous while (15b) is not (Osamu Sawada, p.c.).

Thus we see that separate-constituent licensing in Vietnamese requires separate operators, but they are marked by only one apparent licensor, a fusion phenomenon that must be accounted for. The solution I will adopt is that Vietnamese has an unpronounced operator playing the role of -mo; this explains why there is no cũng next to the first fronted constituent and also allows for the separate-constituent licensing constructions in Vietnamese and Japanese to be handled in a uniform manner. Following Tran (2009), I characterize the universal quantification construction as having a Focus head with the wh-indeterminate in the Spec position, but treat this head as being unpronounced rather than assigning cũng to it. The particle cũng is instead a pronoun that moves to the edge of TP; it refers to the variable of quantification introduced by a corresponding Focus head in the left periphery. Since this is a one-to-one relation, there must also be multiple instances of cũng in separate-constituent licensing constructions. I argue that these instances are adjacent and are reduced by a process of haplology, accounting for the fusion property.

An alternate solution would be to suppose that a single head has more than one specifier, allowing multiple wh-indeterminates to be licensed, in a fashion similar to some accounts of multiple fronted wh-interrogatives in languages like Bulgarian (Rudin 1988). To argue against this, I examine cases in which the syntactically parallel contrastive focus mới construction interacts with universal quantification. Since the same clause can host multiple instances of both constructions in an interspersed order, each operation taking scope over the next, a single operator head cannot handle all of the universal quantification operations in the clause.

4. Contrastive Focus

Contrastive focus may be expressed with the particle mới and a phrase to the left of it containing a focused element marked with prosodic stress; in the absence of stress on a particular element, the entire preposed phrase is focused. This is distinct from presentational focus, which is marked in situ by prosodic stress only and does not require the preposed position that contrastive focus with mới requires. This distinction in Vietnamese is consistent with É. Kiss’s (1998) separation of identificational focus and information focus, the former expressing exhaustive identification and occupying the specifier of a functional projection in the syntax, and the latter conveying new information without syntactic reordering.

The fronted phrase in a mới construction identifies a property which must hold for every individual satisfying the clausal predicate. When the fronted phrase is a definite DP, this identifies a unique individual (16a); in other circumstances, it can restrict the satisfiability set

---

14 Tran (2009) proposes that the wh-indeterminate moves to the Spec of FocP from within the vP. At least in the present dialect, there is evidence that the wh-indeterminate can be base-generated in Spec of FocP, though the situation is complicated by the existence of conditions that do show evidence of movement, for example when licensing a wh-indeterminate embedded within a pied-piped PP complement. When a DP is fronted, however, there is a lack of expected crossover effects (ia) associated with A'-movement (ib). The construction shares a number of syntactic properties with Clitic Left Dislocation in Romance and Greek (Cinque 1990; Iatridou 1995), though I set aside these details for now.

(i) a. [Đứa nào ]x [bạn nỏ ]x cũng ___y chửi ___x.  
   child which friend 3SG CUNG insult  
   ‘Every child was insulted by his/her friend.’

b. Tôi không biết [đứa nào ]x [bạn nỏ x,y,z ]y chửi ___x.  
   I NEG know child which friend 3SG insult  
   ‘I don’t know which child was insulted by his/her friend.’
of the clausal predicate (16b).

(16) a. [Nhà tôi] nó mới tới.
    house I it MOI come
    ‘It was my house that it came to.’

    b. [Một con mèo robot màu xanh] mới xuất hiện.
    one CL cat robot color blue MOI appear
    ‘It was a blue robotic cat that appeared.’

The construction is syntactically parallel to universal cùng and similarly permits same-constituent and separate-constituent licensing (17).

(17) a. Same-constituent licensing
    child this read book which MOI praise it
    ‘It was this child-book pair such that the child praised the book.’

    b. Separate-constituent licensing
    [Đứa này] [cuốn này nó đọc] mới — khen —.
    child this book this 3SG read MOI praise
    ‘It was this child for whom it was this book that s/he read that s/he praised.’

The separate-constituent licensing case expresses two levels of contrast and can be used felicitously for instance when correcting a statement that is itself a correction of another statement.

As with universal quantification, there is a non-singleton domain constraint. Here it is the satisfiability set of the clausal predicate, rather than that of the preposed licensee, that is required to have a non-singleton domain. One cannot use the construction felicitously if only one individual is known in the context to satisfy the clausal predicate.

To account for separate-constituent licensing with either universal quantification or contrastive focus, as well as the use of both universal quantification and contrastive focus in the same clause, I treat each unpronounced licensor as a Focus head and allow for recursion to generate successively nested FocPs. Each head then checks a corresponding feature of either [+universal] on cũng or [+contrafocus] on mới through an agreement operation, which is required because the pronouns mới and cũng would otherwise be interchangeable. An Agree operation (Chomsky 2001) may be applied in this case as the probe and the goal are in a c-command relation and occupy the same phase.

5. Particle Collisions

Let us look at the interaction of universal quantification and contrastive focus, both of which may appear in the same clause, in which case they produce scattering effects as the particles collide at the edge of TP. We can take a transitive verb with an agentive subject and apply contrastive focus to either the subject or the object and universal quantification to the other argument. Furthermore, universal quantification and contrastive focus have two possible relative scopes with differing interpretations. When we test all four of these combinations, we find that in each case, the particles cũng and mới appear side by side preverbally but not in the same order for all combinations.16

15 It may be possible to extend this account to Mandarin and dialects of Vietnamese that do not permit separate-constituent licensing if a parameter in these languages prohibits recursion on FocP.

16 Unfortunately, the consecutive use of cùng and mới in either order renders a sentence unacceptable for my consultants, so the argument from interacting particles cannot be made using independent data,
(18) Contrastive subject > universal object
a. * [ Chỉ đứa này ] [ món nào nó thấy ] cúng mới ăn.
    only child this dish which 3SG see CUNGMOI eat
b. [ Chỉ đứa này ] [ món nào nó thấy ] mới cúng ăn.
    only child this dish which 3SG see MOI CUNGGeat

‘It was only this child who ate every dish s/he saw.’

(19) Contrastive object > universal subject
a. [ Chỉ đứa này ] [ thầy nào của nó ] cúng mới phạt.
    only child this teacher which POSS 3SG CUNGMOI punish
b. * [ Chỉ đứa này ] [ thầy nào của nó ] mới cúng phạt.
    only child this teacher which POSS 3SG MOI CUNGpunish

‘It was only this child who was punished by all of his/her teachers.’

(20) Universal subject > contrastive object
a. ? [ Đứa nào ] [ chỉ bạn nó ] cúng mới theo.
    child which only friend 3SG CUNGMOI follow
b. * [ Đứa nào ] [ chỉ bạn nó ] mới cúng theo.
    child which only friend 3SG MOI CUNGfollow

‘For every child x, it was only x’s friends that x followed.’

(21) Universal object > contrastive subject
a. * [ Đứa nào ] [ chỉ thầy nó ] cúng mới la.
    child which only teacher 3SG CUNGMOI scold
b. ? [ Đứa nào ] [ chỉ thầy nó ] mới cúng la.
    child which only teacher 3SG MOI CUNGscold

‘For every child x, it was only x’s teacher who scolded x.’

It is not immediately clear what determines the varying orders observed for this scattering phenomenon. In each case, the operator scope order corresponds to order of the preposed constituents: if contrastive focus takes scope over universal quantification, then the focused constituent precedes the quantified wh-indeterminate, and vice versa. For some reason, whenever universal quantification takes scope over contrastive focus, the resulting sentence with cúng and mới in the right order is somewhat degraded but remains more acceptable than the alternative with the particles in the wrong order.

The relative order of cúng and mới, however, is independent of the scope order. Instead, the generalization is that if the subject receives contrastive focus, the order is cúng preceding mới, but otherwise, mới precedes cúng. Extending this test to intransitive arguments and adjuncts, we find the distribution in (22), based on sentences like the selection in (23).

---

It is not immediately clear what determines the varying orders observed for this scattering phenomenon. In each case, the operator scope order corresponds to order of the preposed constituents: if contrastive focus takes scope over universal quantification, then the focused constituent precedes the quantified wh-indeterminate, and vice versa. For some reason, whenever universal quantification takes scope over contrastive focus, the resulting sentence with cúng and mới in the right order is somewhat degraded but remains more acceptable than the alternative with the particles in the wrong order.

The relative order of cúng and mới, however, is independent of the scope order. Instead, the generalization is that if the subject receives contrastive focus, the order is cúng preceding mới, but otherwise, mới precedes cúng. Extending this test to intransitive arguments and adjuncts, we find the distribution in (22), based on sentences like the selection in (23).

---

at least to my knowledge. There are a number of possible reasons for why the particles cannot occur adjacently for these speakers, and this fact alone does not necessarily mean that cúng and mới are not pronouns in their varieties of Vietnamese. Notably, these speakers allow cúng and mới to be stressed for emphasis, whereas for me, cúng and mới must remain unstressed and pronounced together with the following verb or tense, aspect, or modal head, which suggests that they are clitics. (When stressed for emphasis, cúng has only the additive reading for me.) This is perhaps not too surprising given the syntactic parallels to Clitic Left Dislocation.
Fusion and Scattering in Particle Collisions (C. Nguyen)

(22)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cùng mới</th>
<th>mới cùng</th>
</tr>
</thead>
<tbody>
<tr>
<td>transitive subject(CF) &gt; transitive object(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>transitive object(CF) &gt; transitive subject(∀)</td>
<td>✓</td>
<td>?</td>
</tr>
<tr>
<td>transitive subject(∀) &gt; transitive object(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>transitive object(∀) &gt; transitive subject(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>transitive subject(CF) &gt; adjunct(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>adjunct(CF) &gt; transitive subject(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>transitive subject(∀) &gt; adjunct(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>adjunct(∀) &gt; transitive subject(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>transitive object(CF) &gt; adjunct(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>adjunct(CF) &gt; transitive object(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>transitive object(∀) &gt; adjunct(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>adjunct(∀) &gt; transitive object(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>unergative subject(CF) &gt; adjunct(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>adjunct(CF) &gt; unergative subject(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>unergative subject(∀) &gt; adjunct(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>adjunct(∀) &gt; unergative subject(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>unaccusative subject(CF) &gt; adjunct(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>adjunct(CF) &gt; unaccusative subject(∀)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>unaccusative subject(∀) &gt; adjunct(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>adjunct(∀) &gt; unaccusative subject(CF)</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

(23) a. Contrastive transitive subject > universal adjunct
[ Chỉ đứa này ] [ ngày nào ] mới cùng nghe nhạc AKB48.
       only child this day which MOI CUNG listen music AKB48
‘It was only this child who listened to the music of AKB48 every day.’

b. Contrastive transitive object > universal adjunct
[ Chỉ cuốn này ] [ ngày nào ] tôi cùng mới đọc.
       only book this day which I CUNG MOI read
‘It was only this book that I read every day.’

c. Contrastive unergative subject > universal adjunct
[ Chỉ đứa này ] [ ngày nào ] mới cùng nhảy múa.
       only child this day which MOI CUNG dance
‘It was only this child who danced every day.’

d. Contrastive unaccusative subject > universal adjunct
[ Chỉ đứa này ] [ ngày nào ] cùng mới té.
       only child this day which CUNG MOI fall
‘It was only this child who fell down every day.’

This shows that it is not just a transitive subject but rather an external argument—an unergative subject or an agentive transitive subject—that when receiving contrastive focus triggers the mới cùng order. (Non-agentive transitives pattern with unaccusatives.)

If cùng and mới are focal heads in the left periphery, it is difficult to explain why their order does not correspond to the expected scope order but is conditioned by their associated argument positions within the verbal domain. Even if we allow for such conditioning, the surface order of the constituents and the particles must be derived by moving the focal heads into the correct order, an operation that would appear to violate the Head Movement...
The Proceedings of GLOW in Asia IX

Constraint (Travis 1984), followed by subsequent fronting of the preposed constituents while preserving their scope order.

6. The Mechanics of Scattering and Fusion

Alternatively, cũng and mới can be treated as pronouns generated within the vP that raise to the edge of TP and merge through Predicate Abstraction to establish a link between an assignment to a variable and the position the variable is evaluated in (Heim and Kratzer 1998); this mechanism can also account for relative clauses. The pronouns must move past T, as both particles obligatorily precede tense, aspect, and modal markers, as shown in (24).

(24) a. [ Con quái vật Godzilla] [ thành phố nào ] mới cùng sẽ phá hoại.
   ‘It is the monster Godzilla that will destroy every city.’
   CL monster Godzilla city which MOI CUNG FUT destroy
   b. [ Con quái vật Godzilla] [ thành phố nào ] mới cùng đã phá hoại.
   ‘It is the monster Godzilla that has destroyed every city.’
   CL monster Godzilla city which MOI CUNG PFV destroy
   c. [ Con quái vật Godzilla] [ thành phố nào ] mới cùng phải phá hoại.
   ‘It is the monster Godzilla that must destroy every city.’
   CL monster Godzilla city which MOI CUNG DEO destroy

We can suppose that Spec of TP consists of multiple landing sites and can accommodate all moved instances of cũng and mới, each one performing Predicate Abstraction as it merges. For semantic composition, the pronouns should merge in reverse order of the relative scope of the focal heads they are associated with, so that the application of each focal head to its predicate complement can assign values to the right variable. Thus, if contrastive focus takes scope over universal quantification, cùng must merge at a position higher than mới.

This order, however, is clearly not reflected in the surface order of cùng and mới. We can suppose that some mechanism forces all instances of cùng to precede all instances of mới, prior to any further extraction out of TP, resulting in an order of cùng mới. The mechanism could be a morphological process that orders the elements in Spec of TP upon spell-out, or it could be an agreement operation in the PF derivation that checks a special feature present on cũng but not mới, moving each instance of cùng to a higher agreement head above TP, as illustrated in (25).

(25) a. [ Món đồ ]_i [ đứa nào ]_j cùng_j mới_i —j ān —i
   ‘It is that dish that every child ate.’
   DP i AgrP[+special] Agr
   [+]special T’ TP
   T’ vP
   DP mới_i T vP
   t’ ān t_i

b. [ Món đồ ]_i[ đứa nào ]_j cùng_j mới_i —j ān —i
Although not well motivated independently, this account may explain the degraded acceptability of sentences in which universal quantification takes scope over contrastive focus, as in (26). These cases would require extraction of còng from under an intervening mòi when both are in Spec of TP. If such an extraction is structurally dispreferred due to a superiority constraint, then the weakening in acceptability is not unexpected.

(26) a.  

\[
\begin{array}{l}
\text{\textbf{Đứa nào đĩa còng mòi ăn i}}
\end{array}
\]
‘For every child, it is curry that s/he ate.’

b.  

\[
\begin{array}{l}
\text{\textbf{AgrP}}
\end{array}
\]

To account for the mòi còng order when an external argument receives contrastive focus, we can apply a Case checking analysis in which an external argument is assigned agentive Case but must check it in Spec of Agr\textsubscript{S}P, above TP (Chomsky 1993).\footnote{There is an EPP feature on T that requires the specifier to be filled (i); in the case of an unaccusative verb, the object can therefore raise to this position and must do so when nothing else is available (ii). This position, however, does not check Case, a property that is consistent with the possibility of also satisfying the EPP by putting an adjunct in the specifier position in the absence of an external argument (iii).}

(i) * Xuat hien mot tran bao khong lo o Fukuoka hom qua.  
appear one CL storm giant at Fukuoka yesterday
Intended: ‘A giant storm appeared in Fukuoka yesterday.’

(ii) Mot tran bao khong lo xuat hien o Fukuoka hom qua.  
one CL storm giant appear at Fukuoka yesterday
‘A giant storm appeared in Fukuoka yesterday.’

(iii) Hom qua xuat hien mot tran bao khong lo o Fukuoka.  
yesterday appear one CL storm giant at Fukuoka
‘Yesterday, a giant storm appeared in Fukuoka.’
(27) a. [Đứa này] [món nào] [mới, cùng] ăn

‘It is this child who ate every dish.’

b. 

\[ \text{AgrS} \rightarrow \text{AgrP} \rightarrow \text{T} \rightarrow \text{VP} \]

This explains the scattering effect, but what about fusion? To account for the appearance of only one instance of cùng or mới in separate-constituent licensing, we can suppose that morphophonological haplology deletes extra adjacent instances of the same particle (28).

(28) a. [Món nào] [dứa nào] [mới, cùng] ăn

‘Every dish is such that every child eats it.’

b. 

\[ \text{AgrS} \rightarrow \text{AgrP} \rightarrow \text{T} \rightarrow \text{VP} \]

There is in fact independent evidence for haplology. If the movements place two instances of the same pronoun in positions separated by an instance of the other pronoun, then the conditions for haplology would not be met, and we expect all three instances to be pronounced. This is indeed the case for constructions that produce a sequence of mới cùng.
mới: this particular sequence is only possible when two licensees receive contrastive focus, one of them being an external argument, and a third licensee receives universal quantification, such as in (29). The sentence can be uttered in a context in which some books are under discussion, and all but one of them were submitted by their authors’ literary agents to every publisher they knew. The interlocutor claims that the exception is Book A, for which it is the book’s author, and not the author’s agent, who submitted the book. The speaker then utters (29a) to say that it is not Book A but Book B that meets that condition.

(29) a. [Cuốn này]_{i_j} [tác giả]_{n_{j_i}} [nhà xuất bản]_{nào} [hoặc biết]_{k_{m_{j_i}}} mới_{j_i}
    cứng_{k_{m_{j_i}}} mới_{j_i} -> j_′ gửi -> k_′ -> i_′
    CUNG MOI send
    ‘It is this book for which it is its author who sent it to every publisher they knew.’

b. Movement of cứng to Spec of AgrS does not produce any change in surface word order, so it is impossible to generate a sequence of cứng mới cứng under this account, and such sequences appear to be unattested. Nevertheless, (29) provides evidence for a haplology account, at least for mới.

7. Conclusion

The wh-universal quantification and contrastive focus constructions in Vietnamese pose a puzzle when they appear multiple times within the same clause. When two instances of the same focal operator appear, there is fusion, the reduction of two markers to a single pronounced particle, and when both focal operators are represented, there is scattering, the conditioned variation in the order of the particles cứng and mới.

In this paper, I argued that these phenomena can be accounted for by distinguishing the particles from unpronounced focal heads in the left periphery. This allows for fusion to be analyzed as an application of haplology, and for scattering to be analyzed as the result of Case checking. The analysis allows separate-constituent licensing in Vietnamese to be aligned with its counterpart in Japanese, and also accounts for non-adjacent licensing in other Vietnamese dialects and in Mandarin if recursion on Focus projections is blocked.
The shared syntactic properties of the universal quantification and contrastive focus constructions leave a number of questions that remain to be answered. What underlying syntactic and semantic properties are there that result in these two constructions patterning alike, and where do they belong in a larger account of the left periphery? How do the Vietnamese constructions relate to similar constructions in other languages, and what syntactic configurations are possible for expressing universal quantification or contrastive focus? Future work along these lines would illuminate the various components of information structure and the nature of the interactions among them.

References