

- (3) a. Lan dạy cho đến trưa.
Lan teach cho until noon
'Lan taught until noon.'
- b. Lan không dạy cho đến trưa.
Lan NEG teach cho until noon
'Lan didn't teach until noon.'
- (4) a. *Nam thức dậy cho đến trưa.
Nam wake.up cho until noon
Intended: 'Nam woke up until noon.'
- b. Nam không thức dậy cho đến trưa.
Nam NEG wake.up cho until noon
'Nam didn't wake up until noon.'

Unlike *cho đến*, *đến* is only compatible with durative predicates, not with punctual predicates. With or without negation, the sentences in (5), where the *đến*-phrase modifies a durative predicate, are grammatical. However, the sentences in (6), where the *đến*-phrase modifies a punctual predicate, are not, regardless of the presence of negation.

- (5) a. Lan dạy đến trưa.
Lan teach until noon
'Lan taught until noon.'
- b. Lan không dạy đến trưa.
Lan NEG teach until noon
'Lan didn't teach until noon.'
- (6) a. *Nam thức dậy đến trưa.
Nam wake.up until noon
Intended: 'Nam woke up until noon.'
- b. *Nam không thức dậy đến trưa.
Nam NEG wake.up until noon
Intended: 'Nam didn't wake up until noon.'

2.2. Differences and similarities between durative *đến* and *cho đến* sentences

Although the distribution of *đến* and *cho đến* are different, both modifiers are compatible with durative predicates. In this section, we will take a closer look at this point of similarity. What we will find is that even in durative sentences, *đến* and *cho đến* behave differently, and these differences as well as the distributional difference noted in §2.1 must be captured by any semantic account of the two modifiers.

2.2.1. Unnegated durative sentences with *đến* and *cho đến*

In its durative use, English *until* may permit a change-in-state at or after the time interval denoted by the complement of *until* (henceforth, the *u*-time). (7a), for example, can be used to describe a situation in which Mary was on vacation up to but excluding Monday. However, the sentence can also describe a situation where Mary's vacation lasted up to and including Monday.

- (7) a. Mary was on vacation until Monday.
- b. ... She returned from vacation on Monday. (Change on Monday)
- c. ... She returned from vacation on Tuesday. (Change after Monday)

Like English *until*, both *đến* and *cho đến* license a change-in-state inference in their durative uses. Unlike English *until*, *đến* and *cho đến* are not individually ambiguous. The contrast between (8) and (9) shows that the *cho đến* sentence says that Lan's summer vacation lasted up to but excluding August, which is why it is compatible with the context in (8), where students must return to school on August 1st, but not (9). On the other hand, the *đến* sentence says that Lan's summer vacation lasted up to and including August, which is why it is compatible with the context in (9), where students must return to school on September 1st, but not (8). From this, we see that *đến* only permits a change-of-state inference after the *u*-time, whereas *cho đến* only permits a change-of-state inference at the *u*-time.

- (8) Context: Students must return to school on August 1st.
Lan được nghỉ hè ✓ cho đến/ ✗ đến tháng 8.
Lan get break summer cho until until August
'Lan was on summer vacation until August.'
- (9) Context: Students must return to school on September 1st.
Lan được nghỉ hè ✗ cho đến/ ✓ đến tháng 8.
Lan get break summer cho until until August
'Lan was on summer vacation until August.'

2.2.2. Negated durative sentences with *đến* and *cho đến*

Đến and *cho đến* also differ in their interaction with durative predicates under negation. While negated durative *đến* sentences like (10a) are unambiguous, negated durative *cho đến* sentences like (11a) can be ambiguous.

- (10) a. Lan không dạy *đến* trưa.
Lan NEG teach until noon
'Lan didn't teach until noon.'
- b. ... Lớp của Lan kết thúc lúc 11 giờ.
class POSS Lan end at 11 o'clock
'Her class ended at 11 o'clock' (Not-throughout interpretation: ✓)
- c. ... #Lan bắt đầu dạy lúc trưa. Trước trưa Lan không có lớp.
Lan start teach at noon before noon Lan NEG have class
'Lan started teaching at noon. Before noon, she didn't have class.'
(Throughout-not interpretation: ✗)
- (11) a. Lan không dạy *cho đến* trưa.
Lan NEG teach cho until noon
'Lan didn't teach until noon.'
- b. ... Lớp của Lan kết thúc lúc 11 giờ.
class POSS Lan end at 11 o'clock
'Her class ended at 11 o'clock' (Not-throughout interpretation: Marginal)
- c. ... Lan bắt đầu dạy lúc trưa. Trước trưa Lan không có lớp.
Lan start teach at noon before noon Lan NEG have class
'Lan started teaching at noon. Before noon, she didn't have class.'
(Throughout-not interpretation: Preferred)

(10a) can only mean that Lan's teaching did not last until noon, that is, she finished teaching before then. (11a), where *cho đến* replaces *đến*, permits this interpretation marginally, but its more accessible meaning is that Lan did not start teaching until noon. The literature on boundary adverbials often refers to the first interpretation as the not-throughout interpretation and to the second interpretation as the throughout-not interpretation. The not-throughout interpretation indicates that it is not the case that the relevant eventuality lasted until the *u*-time, that is, the eventuality ended before the *u*-time. The throughout-not interpretation indicates that there was no occurrence of the eventuality before the *u*-time, that is, the relevant eventuality did not begin until the *u*-time. This ambiguity is another respect in which Vietnamese *cho đến* is similar to English *until*. (12a), like (11a), is ambiguous between the not-throughout interpretation and the throughout-not interpretation.

- (12) a. Bill didn't sleep until noon.
b. ... He woke up before that. (Not-throughout interpretation)
c. ... He started sleeping at noon. (Throughout-not interpretation)

2.3. The exclusive boundary of punctual *cho đến*

Recall from §2.1 that punctual predicates can only be modified with *cho đến*-phrases in the presence of negation. In this section, I will show that *cho đến* behaves similarly in negated punctual sentences as in unnegated durative sentences. We saw that the unnegated durative *cho đến* sentence in (8) implies that Lan is no longer on summer vacation in August (in particular, on August 1st). Thus, the change-of-state inference, from Lan's summer vacation to Lan's return to school is placed at the *u*-time. The change-in-state inference generated by the punctual use of *cho đến* (under negation) is parallel to this. (13a) implies that: (i) Lan's school year has started, so Lan's summer vacation did indeed end; and (ii) it ended at the *u*-time, August. We know (i) because the continuation in (13d) indicates that it is infelicitous to describe Lan's summer vacation as ongoing. Given (i), we know (ii) because (13b), which says that Lan returned to school in August, is a felicitous continuation to (13a), unlike (13c), which says that Lan was on vacation

through August and only returned to school in September. Thus, we can see from (13) that punctual *cho đến* resembles its durative use in that it also places the change-in-state at the *u*-time.

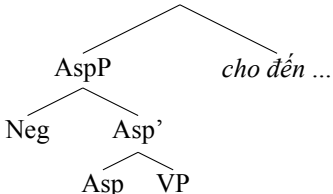
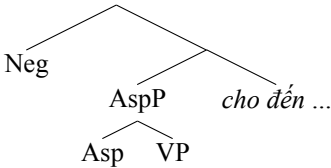
- (13) a. Lan không bắt đầu năm học cho đến tháng 8.
Lan NEG start year school cho until August
‘Lan didn’t start the school year until August.’
- b. ... Tháng 8 Lan quay lại trường.
August Lan return school
‘Lan returned to school in August.’
- c. ... #Tháng 8 Lan chưa quay lại trường. Tháng 9 Lan mới quay lại trường.
August Lan yet return school September Lan only return school
‘Lan hadn’t returned to school in August. She only returned to school in September.’
- d. ... #Thực ra Lan vẫn đang nghỉ hè.
actually Lan still PROG break summer
‘In fact, Lan is still on summer vacation.’

The semantics of *cho đến* must incorporate the observations concerning its punctual usage presented in this section. In its interaction with punctual predicates, we see that *cho đến* not only requires the presence of negation but also produces a change-in-state inference at the *u*-time, a behavior consistent with its durative use.

3. Proposal

3.1. Syntactic assumptions

Before we develop a semantics of *đến* and *cho đến*, we must make our assumptions about their syntax clear. First, we assume that *đến*-phrases and *cho đến*-phrases appear as sister to the aspect phrase which contains the relevant verb and its arguments. With respect to aspect, we assume that: (i) the perfective aspect PFV accompanies punctual predicates, while the imperfective aspect IMP accompanies durative predicates; and (ii) following Klein (1994) and Kratzer (1998), PFV asserts that the event time is contained within the evaluation time, whereas IMP asserts that the event time contains the evaluation time. Thus, it follows that punctual predicates are instantiated by an event whose occurrence is contained within the evaluation time, whereas durative predicates are instantiated by a state whose duration contains the evaluation time. The remaining question is whether *cho đến*-phrases scope above negation, as in (14a), or below it, as in (14b), especially in their punctual use.

- (14) a. 
- b. 

The issue of whether (14a) or (14b) is correct is relevant for both Klima’s 1-*until* theory and *cho đến*.² Under Klima’s 1-*until* theory, *until* has a selectional constraint: it is only compatible with “durative” constructions, which include durative predicates and negations of punctual predicates. What all these predicates share is that they satisfy the subinterval property, which requires that if a predicate holds of an interval, then it must hold of every one of its subintervals. Thus, we may restate Klima’s proposal as *until* lexically selects for predicates which satisfy the subinterval property. If this is correct, it follows that the relevant predicate must scope below *until*; otherwise, it is not clear how the subinterval property of the predicate can be accessible at the syntactic level where *until* and the predicate merge. Since *cho*

² Given that *đến* is not compatible with punctual predicates and negated durative *đến* sentences only take the not-throughout interpretation, I assume that negation must take scope above *đến*.

đến appears to have the same distribution as English *until*, if we extend Klima's 1-*until* theory of *until* to *cho đến*, negated punctual *cho đến* sentences like (4b), must have the syntactic structure in (14a), not (14b).

However, there are two serious problems with this analysis. First, it leads to the prediction that negated punctual predicates are also compatible with *đến*. This is because the theory classifies all predicates with the subinterval property as "durative" and as we saw in §2.1, *đến* only selects for durative predicates, which should, by this definition, include negated punctual predicates. However, *đến* is actually not compatible with negated punctual predicates as exemplified by the ungrammaticality of the negated punctual *đến* sentence in (6b). I conclude from the interaction of *đến* with punctual predicates, or lack thereof, that it is not the durativity of negated punctual predicates that makes them compatible with *cho đến*. Thus, *cho đến* does not have a selectional constraint that favors negated punctual predicates and durative predicates as a single category. Given this, the syntax of negated punctual *cho đến* sentences like (4b) is not restricted to (14a), as Klima's 1-*until* theory would lead us to believe.

Another argument against the syntactic assumption in (14a), and Klima's 1-*until* theory as a whole, is based on the interaction of *cho đến* with negative quantifiers such as *không ai* 'nobody'. Consider (15).³

- (15) [Không ai]_i thức dậy cho đến khi chuông báo thức của mình_i reo.
 NEG who wake.up cho until when alarm.clock POSS self ring
 'Nobody woke up until his alarm clock rang.'

In (15), the negative quantifier subject *không ai* 'nobody' binds the reflexive possessive pronoun, *mình* 'self' contained in the *cho đến*-phrase. The resulting meaning is shown in the English translation. The acceptability of (15) and the availability of the bound interpretation are problematic for Klima's 1-*until* theory. This is because *cho đến* needs to select for an expression that includes the negative quantifier to satisfy the subinterval property and its subsequent (hypothesized) durativity requirement.⁴ However, if *cho đến* selects the expression *không ai thức dậy* 'nobody woke up' as its sister, the reflexive pronoun would no longer be in the scope of the quantifier. The sentence should, under Klima's 1-*until* theory, not allow the quantifier to bind the pronoun, contrary to fact. Therefore, I conclude that in the presence of negation, *cho đến*-phrases take scope below negation, as in (14b).

Now, I will turn to the semantics of *đến* and *cho đến*. The proposals in the following sections are based on the conclusions reached above: (i) *đến* and *cho đến* are sisters to the aspect phrase; and (ii) in negated sentences, the two modifiers take scope below negation.

3.2. *Đến* as universal quantifier

We saw in §2 that a semantics of *đến* must account for the following facts: (i) *đến* is only compatible with durative predicates; (ii) unnegated durative *đến* sentences generate a change-of-state inference after the *u*-time; and (iii) negated durative *đến* sentences unambiguously take the not-throughout interpretation.

Dowty (1979) proposes that durative adverbials universally quantify over all subintervals of an interval such that if the predicate holds of an interval, it must hold of each of its subintervals. Predicates satisfying this requirement are said to have the subinterval property. We can assume a similar analysis for *đến*: *đến* introduces a time interval throughout which the relevant eventuality occurs. Following Iatridou & Zeijlstra (2021), I will refer to this interval of time as the *until* time span (UTS). The left boundary (LB) of the UTS matches that of the evaluation time, whereas its RB matches the RB of the *u*-time. If a predicate is compatible with *đến*, that is, if a predicate holds of its UTS, then it must hold of every subinterval of the UTS. The semantics of *đến* is reflected as such in (16).

³ The use of variable binding to argue against Klima's 1-*until* theory first appeared in (de Swart 1996). de Swart used variable binding to argue that negation must scope above English *until* in negated punctual sentences. Here, we reach the same conclusion with *cho đến* and extend the claim to negated durative sentences as well.

⁴ Although punctual predicates such as *wake up* do not have the subinterval property, if no-one wakes up between 11AM and noon, it follows that no-one wakes up between 11AM and 11:30AM, so the fact that the interval [11, noon] verifies the predicate *no-one wakes up* guarantees that its subinterval [11, 11:30] also verifies the predicate. Thus, we can see that the constituent *no-one wakes up* has the subinterval property and without the negative quantifier, the subinterval property would not be satisfied.

$$(16) \quad \llbracket \acute{d}e\acute{n} \mathbf{X} \rrbracket = [\lambda t_i : \text{RB}(t) = \text{RB}(\llbracket \mathbf{X} \rrbracket) . \lambda p_{(i,t)} . [\forall t'(t' \subseteq t \rightarrow p(t'))]]$$

If Bill wakes up between 11AM and noon, it does not follow that Bill wakes up between 11AM and 11:30AM, so the fact that the interval [11, noon] verifies the punctual predicate *wake up* does not guarantee that its subinterval [11, 11:30] verifies the predicate as well. Thus, punctual predicates do not have the subinterval property. Consequently, they cannot satisfy the truth conditions in (16) which require that the prejacent of *đén* have the subinterval property. This explains why *đén* is only compatible with durative predicates. The oddity of (unnegated) punctual *đén* sentences can, by extension, justify the oddity of their negated counterpart. Given that negation must outscope *đén*, we can treat negated punctual *đén* sentences simply as the negation of their unnegated, ungrammatical counterpart and, thus, negated punctual *đén* sentences are themselves ungrammatical.

Lastly, the universal quantification in (16) requires the predicate to hold at every subinterval of the UTS, including the smallest, final subinterval consisting of its RB. This means that the predicate must hold at the RB of the UTS, and consequently, no change-of-state may occur there. Any change of state would, thus, have to follow the RB of the UTS (or the *u*-time), as empirically observed.

3.3. *Cho đén* as an exceptive

Recall from §2 that a semantics of *cho đén* must capture the following facts: (i) *cho đén* may occur in durative sentences and their negation as well as negated punctual sentences; (ii) *cho đén* sentences trigger a change-of-state inference at the *u*-time; and (iii) negated durative *cho đén* sentences have both the not-throughout and the throughout-not interpretations.

Like *đén*, *cho đén* also imposes a requirement on the evaluation time, namely that its RB matches the RB of the *u*-time, as formalized in (17).

$$(17) \quad \llbracket \text{cho đén } \mathbf{X} \rrbracket = [\lambda t_i : \text{RB}(t) = \text{RB}(\llbracket \mathbf{X} \rrbracket) . t]$$

In addition to its ordinary denotation, *cho đén* also has a focus denotation.⁵ I propose, following Alxatib (2024)'s view of *until*, that in the case of *cho đén*: (i) the alternatives are so-called prior time alternatives whose LB matches that of the evaluation time and whose RB is located at or before the RB of the *u*-time; and (ii) the strengthening operator is exceptive.⁶ These prior time alternatives have almost the same denotation as (17), except that their outputs are left-aligned subintervals of the evaluation time. The entry in (18) shows this.⁷

$$(18) \quad \llbracket \llbracket \text{cho đén } \mathbf{X} \rrbracket_F \rrbracket^F = \{[\lambda t_i : \text{RB}(t) = \text{RB}(\llbracket \mathbf{X} \rrbracket) . \llbracket \text{LB}(t), f(t) \rrbracket] : f \text{ is a choice function}\}$$

⁵ The idea that *until* is polarity sensitive dates back to Karttunen (1974) and has been supported by both sides of the *until* debate, unified and non-unified (Giannakidou 2002, Condoravdi 2008, Iatridou & Zeijlstra 2021). *Until* is said to be polarity sensitive because it requires the presence of negation in its punctual use. Since *cho đén* appears to have the same distribution as *until*, *cho đén* should also be polarity sensitive. Given the connection between polarity sensitivity and focus semantics (Krifka 1995, Chierchia 2013), I adopt the idea that certain expressions project lexically specified focus alternatives, and the idea that such alternatives are then subject to operators also selected by the relevant expression. These operators can either be overt like *only* or *even* or covert like the exhaustive operator EXH (Fox 2007, Chierchia 2013).

⁶ This is where Alxatib's proposal as well as my own departs from Iatridou & Zeijlstra's. Iatridou & Zeijlstra (2021) propose that *until* projects subdomain alternatives, which include all subintervals of the UTS, not just those left-aligned, and their strengthening operator is the covert EXH, which EXC is mirrored after.

⁷ In (18), if we assume that the evaluation interval *t* is a set of times then the choice function *f* takes the set of times *t* as its input and returns an element of the set *t*. This ensures that the output *f(t)* is included within the evaluation interval *t* and thus guarantees that the interval $\llbracket \text{LB}(t), f(t) \rrbracket$ is a left-aligned subinterval of the evaluation time *t*, which if defined, should match the UTS (Alxatib 2024).

We now turn to the exceptive operator EXC. The operator is the mirror of covert *only* and overt EXH. It presupposes that its propositional argument (the prejacent) is false and asserts that its (non-identical) alternatives are true.⁸ In (19), I present, for the sake of simplicity, a syncategorematic semantics of EXC.

$$(19) \quad \llbracket \text{EXC XP} \rrbracket = [\lambda t_i : \forall q(q \in \llbracket \text{XP} \rrbracket_F^F \rightarrow t \in \text{Dom}(q)) \ \& \ \llbracket \text{XP} \rrbracket_F(t) = 0. \forall q(q \in \llbracket \text{XP} \rrbracket_F^F \ \& \ q \neq \llbracket \text{XP} \rrbracket_F \rightarrow q(t) = 1)]$$

In (20), I apply the proposed exceptive semantics of *cho đến* to the unnegated durative sentence in (8). The result produces the following constraints on the evaluation time: (i) it must have August as its RB; (ii) it must *not* be included within a state of Lan's summer vacation; and (iii) its left-aligned intervals must each be included within such a state. Together, this gives us the correct meaning reported in (8).

$$(20) \quad \llbracket \text{EXC} [\llbracket \text{IMP Lan được nghỉ hè} \rrbracket [\text{cho đến tháng 8}]_F] \rrbracket \text{ is defined for } t \text{ only if:}$$

$$\text{RB}(t) = \llbracket \text{tháng 8} \rrbracket = \text{August and } \neg \exists e(e \text{ is a state of being on summer vacation by } l \ \& \ t \sqsubseteq \tau(e)).$$

$$\text{If defined for } t, \llbracket \text{EXC} [\llbracket \text{IMP Lan được nghỉ hè} \rrbracket [\text{cho đến tháng 8}]_F] \rrbracket(t) = 1 \text{ iff}$$

$$\forall t' (t' \text{ is a left-aligned proper subinterval of } t (t' \neq t)$$

$$\rightarrow \exists e(e \text{ is a state of being on summer vacation by } l \ \& \ t' \sqsubseteq \tau(e))).$$

In (21), I apply the exceptive semantics of *cho đến* to the unnegated punctual sentence in (4a).

$$(21) \quad \llbracket \text{EXC} [\llbracket \text{PFV Nam thức dậy} \rrbracket [\text{cho đến trưa}]_F] \rrbracket \text{ is defined for } t \text{ only if:}$$

$$\text{RB}(t) = \llbracket \text{trưa} \rrbracket = \text{noon and } \neg \exists e(e \text{ is an event of waking up by } n \ \& \ \tau(e) \sqsubseteq t).$$

$$\text{If defined for } t, \llbracket \text{EXC} [\llbracket \text{PFV Nam thức dậy} \rrbracket [\text{cho đến trưa}]_F] \rrbracket = 1 \text{ iff}$$

$$\forall t' (t' \text{ is a left-aligned proper subinterval of } t (t' \neq t)$$

$$\rightarrow \exists e(e \text{ is an event of waking up by } n \ \& \ \tau(e) \sqsubseteq t')).$$

For any left-aligned subinterval t' of the UTS $[\text{LB}(t), \text{noon}]$, if Nam's waking up occurred within t' , then it must have occurred within the UTS as well. It is not possible for the punctual predicate *Nam thức dậy* 'Nam woke up', or any punctual predicate as a matter of fact, to be false of the UTS yet true of all its other focus alternatives. Thus, the truth conditions in (21) cannot be simultaneously satisfied. This contradiction explains the ungrammaticality of (4a) and other unnegated punctual *cho đến* sentences.

I now apply the exceptive semantics of *cho đến* to the negated durative sentence in (4b).⁹

$$(22) \quad \llbracket \text{EXC} [\text{NEG} [\llbracket \text{PFV Nam thức dậy} \rrbracket [\text{cho đến trưa}]_F] \rrbracket \rrbracket \text{ is defined for } t \text{ only if:}$$

$$\text{RB}(t) = \llbracket \text{trưa} \rrbracket = \text{noon and } \exists e(e \text{ is an event of waking up by } n \ \& \ \tau(e) \sqsubseteq t).$$

$$\text{If defined for } t, \llbracket \text{EXC} [\text{NEG} [\llbracket \text{PFV Nam thức dậy} \rrbracket [\text{cho đến trưa}]_F] \rrbracket \rrbracket(t) = 1 \text{ iff}$$

$$\forall t' (t' \text{ is a left-aligned proper subinterval of } t (t' \neq t)$$

$$\rightarrow \neg \exists e(e \text{ is an event of waking up by } n \ \& \ \tau(e) \sqsubseteq t')).$$

(22) essentially amounts to the proposition that the UTS contains an event of Nam waking up, but the smaller preceding intervals contain no such event. This is consistent and matches the intuitive interpretation of the sentence, namely that Nam's waking up must have occurred at exactly the u -time, noon. Thus, the combination of the focus alternatives to *cho đến* with the EXC operator correctly predicts that *cho đến* is only acceptable with punctual predicates when the sentence is negated.

Lastly, we will turn our attention to negated durative *cho đến* sentences, which are ambiguous between the not-throughout and the throughout-not interpretations. Given the arguments in §3.1, the ambiguity of negated durative *cho đến* sentences should not result from the scopal interaction between negation and *cho đến*, as believed by proponents of Klima's 1-*until* theory. Instead, I believe the ambiguity is attributable to two factors. The first, based on Karttunen (1974), is whether the durative predicate

⁸ The presupposition is motivated by the truth conditions of the not-throughout interpretation of negated durative *cho đến* sentences. It will prevent the unavailable interpretation of the negated durative *cho đến* sentence, namely the possibility of the relevant eventuality lasting through this UTS, which would otherwise be consistent with the truth conditions generated through the scope arrangement in (23c).

⁹ I assume that EXC outscopes negation. Applying negation above the EXC operator also generates consistent truth conditions, but they can be independently shown to be problematic.

is understood as a stative (e.g., *teach* as ‘to be teaching’) or as an inchoative (e.g., *teach* as ‘to start teaching’). The second is the scopal arrangement between negation and the exceptive operator EXC. With these two moving pieces, we must consider four possible parses of an example like (3b).

- (23) a. EXC [NEG [teach *cho đến* noon]] b. EXC [NEG [inchoative(teach) *cho đến* noon]]
 c. NEG [EXC [teach *cho đến* noon]] d. NEG [EXC [inchoative(teach) *cho đến* noon]]

The EXC operator in (23a) generates a contradiction. It presupposes the falsity of the prejacent, which itself has been negated, and thus requires the relevant state last through the entire UTS. Simultaneously, it asserts the truth of the non-identical alternatives, which have also been negated, and thus requires the relevant state not to last through any of the left-aligned subintervals. (23d) produces redundant truth conditions. The EXC operator asserts that the relevant event occurs in each of the left-aligned subintervals. This is then negated to say that the relevant event does not occur in at least one of the left-aligned subintervals, which already follows from the presupposition of EXC. This leaves (23b) and (23c) as the only available possibilities. (23b) produces the throughout-not interpretation, and (23c) produces the not-throughout interpretation, as desired.

4. Conclusion

In this paper, I have introduced the *until* paradigm in Vietnamese, which consists of two distinguishable boundary adverbials, *đến* and *cho đến*. Following Alxatib’s (2024) analysis of English *until*, I propose that *đến* and *cho đến* both introduce a time span, the UTS. The difference is while *đến* is purely durative and functions as a universal quantifier over subintervals of the UTS (like Alxatib’s THRU parse), *cho đến* has both durative and punctual uses and contains a silent exceptive propositional operator EXC (like Alxatib’s exceptive parse). The fact that Vietnamese requires two separate forms to express the meanings of one English *until* provides cross-linguistic support for the possibility of a purely durative English *until* (similar to *through*) co-existing alongside its punctual counterpart, which may pose a challenge for previous unifying accounts of *until* such as Klima (1964) or Iatridou & Zeijlstra (2021). Moreover, the existence of a purely durative *đến* in Vietnamese incompatible with negated punctual predicates provides further evidence against Klima’s 1-*until* theory and its main argument that the durativity of negation justifies *until*’s occurrence in negated punctual sentences.

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