

Almost at-a-distance

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Abstract

We claim that the meaning of the adverbial *almost* contains both a scalar proximity measure and a modal that allows it to work sometimes when proximity fails, what we call the at-a-distance reading. Essentially, *almost* can hold if the proposition follows from the normal uninterrupted outcomes of adding a small enough number of premises to a selection of relevant facts. *Almost at-a-distance* is blocked when the temporal properties of the topic time and Davidsonian event prevent normal outcomes from coming true when they need to.

This approach to *almost* differs from the two general approaches that have emerged in the literature, by replacing the negative polar condition (not p) with a positive antecedent condition that entails not p while avoiding the numerous well-documented complications of employing a polar condition. Since this approach to *almost* involves a circumstantial base with a non-interrupting ordering source, *almost* behaves in certain ways like the progressive, and shows contextual variability of the same kinds that we see with premise sets.

1 Introduction

The adverbial *almost* has a clear intuitive meaning, but has proven very difficult to reconcile with a formal semantics. Two basic approaches characterize our understanding of *almost* in the literature. Under scalar alternative accounts, *almost p* holds when p is false but some close alternative proposition q is true. Modal closeness accounts argue that *almost p* holds of world w when p is false in w, but true in some close alternative world w'.

- (1) a. **scalar alternative:**
[[*almost p*]] = $\lambda w. \neg p(w) \ \& \ \exists q[q \approx_{ALT} p \ \& \ q(w)]$
- b. **modal closeness:**
[[*almost p*]] = $\lambda w. \neg p(w) \ \& \ \exists w'[w' \approx w \ \& \ p(w')]$

Despite their differences, these approaches both accept that the basic components of *almost* are a **polar condition** (not p) and a **proximal condition** (close to p). However, this two-part meaning has proven problematic, and most of the literature on *almost* has sought to resolve these problems.

The polar condition causes trouble because the negation it contains behaves in ways negation should not. The negation does not license NPIs, is immune to evaluation, and often seems to express an implicature rather than an assertion.

The proximal condition also causes trouble, because *almost* does not always require closeness, or at least closeness as we typically understand it. *I almost lived in San Francisco* could be true even if you only considered it, but made no steps to actually do it. Since it is also true if you nearly came to live there, the sentence is ambiguous between a reading expressing an event's actual proximity to success and one expressing an event that would have been successful given certain assumptions. This latter reading we call '*almost at-a-distance*'. The at-a-distance reading can hold of any point in an accomplishment well before it culminates, not just the start or endpoint of the process: *I almost climbed Mount Everest, but I couldn't raise the money*.

To capture the at-a-distance reading and avoid the problems with polar conditions, we argue that both scalar and modal approaches are incomplete and actually complement each other. The meaning of *almost* must include a scalar component and a distinct modal component. *Almost* applies if you are close to success or if you are close to a point where you *would have* succeeded had nothing else intervened. The meaning of *almost* contains an antecedent condition (2a) that provides information for a modal condition (2b). Roughly put:

- (2) $\llbracket \textit{almost} \rrbracket(p)(w) = 1$ iff
- a. **antecedent condition:** There is a small enough set of propositions required for p(w) that do not hold, and
 - b. **modal condition:** In all normal worlds where that set holds along with what happened in w, and nothing else intervenes, p holds.

The modal condition applies trivially in the proximity reading, since assuming the antecedent condition's small enough set of propositions would entail truth of the proposition. Both proximity and at-a-distance readings are special cases of the general meaning in (2), which we will refine.

The antecedent condition captures the polar condition without its problems by employing an existentially quantified statement that entails $\neg p$. The modal condition relies on a non-interrupting ordering source, which is found in modal progressives (Portner 1998). In section 3, we will discuss the antecedent/modal orientation of *almost* in formal detail. In section 4 we explore how the at-a-distance reading is blocked in cases where the modal continuations cannot be completed. In section 5 we analyze the unavailability of at-a-distance reading when *almost* is used with non-verbal complements. Finally, in section 6, we show how our approach avoids pitfalls of the polar condition. First, though, we will lay out the facts of *almost* that require both a scalar and modal component.

2 Scalar and modal approaches belong together

We begin this argument by demonstrating that the scalar and modal approaches to *almost* complement each other. First we refine notions of scalar proximity to distance ourselves from including scaled focus alternatives in the denotation of *almost* in favor of a simple count of conditions that need to be met. Then, we discuss the link between modal projection in cases where *almost* is true despite a lack of proximity. We will see that uses of *almost* require closeness to a point that entails full completion of the event, but such entailment cannot occur reliably without modal restriction.

2.1 Refining scalar proximity

The scalar proximity approach was first offered by Hitzeman (1992), and has been thoroughly refined since (Sevi 1998; Horn 2002; Penka 2006). Amaral & Del Prete (2010) offer the most well-worked scalar account, based on Italian *quasi*. In it, they argue for a *quasi* (3) that takes a focused proposition P as its complement at LF, and asserts that P does not hold for the focused element α , but does hold of P for some element β below α on a scale with α as an endpoint, as long as β is close to α on the scale. The value of α , the scale's endpoint, is provided by the focused element (at 3pm), and the value of β is provided by the event. In (3), *quasi* [*almost*] applies because there is an arrival by Leo (β) that occurs close enough to 3 pm (α).

- (3) *Leo è arrivato quasi [alle 15]_F.*
 Leo is arrived **almost** [at.the 15]
 'Leo arrived at almost 3 p.m.'

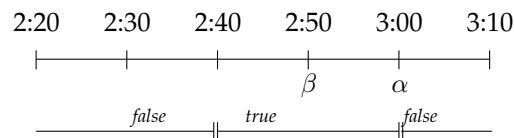


Figure 1: Scalar proximity to 3 pm

Amaral and del Prete's account works well, but some uses of *almost* require a refinement of the scalar approach. Sometimes *almost* can be felicitous even when there is no clear idea of what the scale of alternatives should be, or how they should be ordered. Penka (2006) suggests using Horn scales in such cases, but these only apply when scalar environments are triggered by particular lexical items like quantifiers or accomplishments. Nouwen (2006) finds examples like (4) which lack those items and do not lead to the standard of proximity required for such a scale.

(4) *Travis almost qualified for the long jump.*

No matter which part of the VP is focused in (4), even the entire VP, the scale will not consist of the focus alternatives to that constituent. Instead, we can construe a scale of distances based on the circumstances provided by the context. Assuming that a six-meter jump qualifies for the final, (4) is true if Travis jumped 5m90, but not if he jumped 2 m or 6m50.

Amaral and del Prete do note these kinds of cases as well. They propose that in contexts that do not generate Horn scales, speakers coerce a scalar interpretation usually based on event structure rather than focus alternatives. In the case of (4), the alternatives are simply the list of things that need to be done to satisfy the predicate, combined and ranked in a way that leads to culmination: Travis showed up, Travis made his run-up, Travis jumped without fouling, and so forth. We can think of this set of propositions as a list of missing necessary conditions.

However, we propose that the scalarity of *almost* does not require the conditions to be ordered in any natural way (like temporal order). Instead we can simply count them. Imagine that you wrote a poem of a particular form, like a villanelle. The villanelle form imposes a lengthy list of strict criteria: 19 lines long, containing 5 tercets and 1 quatrain. Meter is regular but not fixed. The tercets have ABA rhyme scheme, the quatrain ABAA. There are two lines that serve as refrains. One refrain must be the first line of the poem, the other the third line. The second and fourth tercets must end with the first refrain; the others end with the second. The last two lines of the poem must be the first and second refrains, respectively.¹

If you write a poem with all of these criteria, you have written a villanelle. If you write a poem with all save one, you have almost written a villanelle. It does not matter which criterion you failed, whether you changed a refrain², failed to keep a meter³, missed a rhyme⁴, or some combination of some of these. Since the criteria are not ranked, there is no way to coerce a scale ranking the propositions themselves.

As before, we could coerce different kinds of scales to use and measure proximity. We could choose an ordered rank of sets of criteria starting with a singleton, then a pair, a triple, and so forth, though that would still not reflect the event structure. Instead, we could simply coerce a numerical scale of the number of features required to make a villanelle. Either way, proximity to success corresponds to a high enough proportion of sets or numerals (which are mathematically ordered as sets); let us call this the **proximity threshold**. The crucial idea is that when we measure proximity by counting the conditions in this context, we do so with no regard to how the event unfolded. We are only

¹Dylan Thomas's *Do not go gentle into that good night* is perhaps the best-known English poem exemplifying the form.

²<https://thinkingsaying.wordpress.com/2015/05/06/fear-of-rejection-almost-a-villanelle-in-form/>

³<http://poetryforkidsjoy.blogspot.com/2013/02/quail-almost-villanelle.html>

⁴<http://emilyseals.blogspot.com/2012/03/my-almost-villanelle.html>

counting up ‘after the fact’. If the number of features met is lower than the full set of required features, but higher than the proximity threshold, *almost* works.

What we ultimately suggest is that instead of requiring *almost* to associate with focus and then forcing speakers to coerce scales when focus alternatives do not provide the right ones, we can include scale selection independently into the meaning of *almost*. Speakers always choose the conditions they are measuring, and focus can significantly affect that choice (we discuss this more in section 3.7). On this approach we capture proximity effects by measuring on plain numerical scales, even when judging how the event unfolded. If the event has 10 necessary conditions, and you complete 8, you’ve almost completed the action. If the complement of *almost* happens to order these conditions into a natural scale through event structure or focus, *almost* will appear to be based on that scale.

2.2 The need for modal projection

Refining a scalar account to merely count chosen missing conditions simplifies matters of scalar proximity, and we will see that it does not sacrifice previous findings. However, it still does not suffice, because *almost* can be felicitous even if proximity is not met, no matter what kind of scale we try to use. Imagine a baseball play where the batter hits the ball hard in such a way that he runs safely to second base. This play is known as a “double.” Now, imagine the next batter hits the ball in such a way that under most circumstances, he would reach second base safely. However, in this instance, an infielder catches the ball, making the batter “out.” About such a case, (5) expresses a true proposition.

(5) *The batter almost hit a double.*

No scalar approach can capture this truth. A Horn scale introduced by *double* would rank propositions expressing certain alternative baseball plays to a double (Table 1). That will not work here: Both cases involving a ‘single’ are false, ‘got out’ is true but too far away for the proximity threshold of *almost*, and ‘strikeout’ is false.

proposition	hit the ball	reached 1st	went for 2nd	reached 2nd
The batter hit a double	+	+	+	+
The batter hit a single but got put out at 2nd	+	+	+	–
The batter hit a single	+	+	–	–
The batter got out	+	–	–	–
The batter struck out	–	–	–	–

Table 1: Ranked alternatives to a double

We cannot construe a scale based on event structure that would lead to a proximity reading, or even coerce a scale based on counting the proportion of

met conditions, because out of all the things that needed to happen to make a double, only a few actually happened. The batter must hit the ball. The ball has to travel into the outfield, the outfielders have to be far enough to require chasing the ball down, the batter has to stay on his feet running to second base, he has to touch first base, reach second base, and not be tagged by a fielder with the ball. Only one of these events occurred.

If we coerced a scale based on the things needed to be done to get a double if the event had run its course, we would still end up with an out, because the event did run its course. To even envisage an applicable scale of this sort, we would have to suppose a continuation of the event *without* the fielder catching the ball, along with no other impediments. We must suppose that the batter doesn't trip on the way to second base, that no other fielder catches the ball, and that any other thing that could go wrong doesn't. In essence, we only gain proximity if we project counterfactually into the future from some point during the actual event. We therefore need counterfactual reasoning to judge the truth of *almost* at least some of the time.

Looking back, we can apply the same observation to our long jump case (4). Imagine that Travis is the defending world champion and absolute favorite to win. His qualification for the final requires a 6m00 jump, which for him is a mere formality. On his turn he jumps a record 9m00, but oh no! His toe was over the line and he fouled, scoring no distance at all. He finishes in last place, but (4) is still true. If we employ a scale based on placement or scored distance, *almost* should not be felicitous because Travis's position is below any proximity threshold proximal to qualification. Instead, conditional supposition gets us the result: It is the fact that he fouled that matters. Essentially, (4) is true because if he hadn't fouled, he would have qualified, assuming nothing else went wrong. Since nothing else did go wrong in this context, that assumption is a safe one.

We will call such cases ***almost at-a-distance***, or AAD. We can define AAD as instances of *almost* whose proposition's truth requires modal projection into the future (from the event) in which nothing goes wrong that would prevent the described event's success. In such cases, the set of missing conditions is large enough that no small-enough set of them can be assumed along with all the conditions that did occur that will entail the prejacent's truth in all worlds. We can contrast these to a proximity reading of *almost*, where the small-enough set is enough to entail the prejacent without requiring a modal.

2.3 Lowering the proximity threshold away from the endpoints

We have made the observation that *almost* can be felicitous even if the event is not closer to culmination than some relevant proximity threshold. This observation was actually made long ago, but had always been resolved by simply lowering the threshold. We will show that the modality of *almost* at-a-distance is driving that lowering.

Morgan (1969) and McCawley (1972) found that *almost* could apply to events that weren't close to culmination, as in (6).⁵

Context:

John and Harry got into a fight. John had a gun in his pocket and considered shooting Harry, but then cooler heads prevailed.

(6) *John almost killed Harry.*

Morgan and McCawley each preserved proximity to employ *almost* as evidence towards a decomposition of events and verbal predicates into sub-events. Specifically, McCawley proposed decomposing *kill* into *act in a way to cause x to become dead*, where each decomposed predicate projects. *Almost* indicates a proximity to the culmination of one of the sub-events, depending on its location in the decomposed verb.

- (7) a. John **almost** (acted to cause Harry to become dead) = (6)
b. John acted to **almost** (cause Harry to become dead) ≠ (6)
c. John acted to cause Harry to become **almost** (dead) ≠ (6)

However, (Dowty 1979: 242) demonstrates that the decomposition of predicates like *kill* in this fashion is independently unfounded. Not to mention, many predicates cannot be decomposed this way. Even with a more modern approach to verbal decomposition, Rapp & von Stechow (1999) find no interpretational effects of verb decomposition applying to German *fast*. Instead, its interpretation depends on its placement with respect to an aspectual projection. Translating their modal approach to a scalar one for this discussion, the placement of *fast* above aspect would put the event near the lower endpoint of the scale, such that the event almost began to happen. They call this a *counterfactual* reading (see Martin (2005) for similar facts about French). The placement of *fast* below aspect gives the reading at the higher endpoint of the scale, which is the proximity reading. This difference puts *fast* in line with scalar accounts (like Hitzeman (1992)) that propose *almost* to be compatible with either endpoint of a scale.

It is clear that *almost* can apply at either end of a scale, but we find that *almost* at-a-distance allows *almost* to apply away from the endpoints. In (8), describing a failed climb of Mount Everest, *almost* can apply felicitously at any step along the way. The subject had to stop because of some impediment. No matter which step the impediment occurs at, the sentence is felicitous, although less and less so as we go down the list.

- (8) *I almost climbed Mount Everest, but ...*
a. *I fell ill when I was 200m from the summit.*
b. *I had to turn around from the last base camp.*

⁵We have added a context to this classic example.

- c. *the weather turned bad halfway up.*
- d. *base camp was inaccessible.*
- e. *I couldn't get into Nepal.*
- f. *I couldn't raise the money.*
- g. *I decided not to get off the couch.*

Like McCawley, our response to (8) is to lower the threshold for success away from the endpoint. The success threshold (T) is not the point provided by the predicate P (or any complement of *almost*). Once this threshold (T) drops depending on the context, the proximity threshold β will drop along with it.

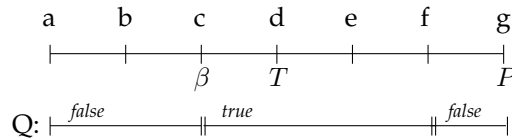


Figure 2: Threshold drop

In (8d), the sentence is acceptable for cases where I almost made it to base camp, if we can lower the threshold to a point where the proposition that I almost made it to base camp guarantees the proposition that I almost climbed Mount Everest. The question now turns to the determination of the factors permitting this threshold drop.

The only way to guarantee a successful threshold drop is if T entails P , but T does not entail P by itself, because in some worlds something blocks you at a later step. We need a modal whose domain limits the entailment worlds to accessible ones where nothing blocks the rest of your climb.

The more that T drops away from P , the less likely that T will entail P , and the less likely it is that *almost* will be acceptable. This was already apparent in (8), but imagine now you've lost a basketball game and tell your friend:

- (9) *We almost won the game.*

If we had lost the game 82-81 after missing a last-second shot, (9) is true. It is obvious that in all accessible worlds where you make the shot you would have won. However, as we get further away from a last-second shot, the strength of *almost* weakens. For instance, it's likely in (9b) that you would have won if your star hadn't gotten hurt, but it is not certain. A properly constructed modal will be able to achieve this effect, by shrinking the set of worlds until the implication holds in all of them.

- ~(9) a. We lost 82-81, when I missed a last-second shot.
 b. We lost 82-78, after our star player got hurt with 3 minutes left and our team leading 78-76.

- c. We lost 82-70, and led with 7 minutes remaining, but failed to score after that.
- d. We lost 82-48, and didn't even score in the first 10 minutes.

Returning to Morgan's and McCawley's example (6), we see that if John thought about killing Harry but didn't, that scenario requires a modal to restrict us to worlds where that thought forms part of a larger event whose outcome is killing Harry. Those scenarios involve the at-a-distance reading. The scenarios where the event actually nearly culminates involve the proximity reading and do not require a modal for truth.

2.4 Against mere modal proximity

We have argued that a modal is required for the meaning of *almost*, but modal accounts are not new, either. The earliest one was offered by Sadock (1981) as an attempt to derive the polar condition pragmatically. *Almost p* is true of *w* if there is a close alternative world to *w* where *p* holds. The closeness relation that comes with the modal provides the proximal condition with no further assumption.

A more well-developed version was made by Rapp & von Stechow (1999), who examine German *fast* (The relevant parts of their proposal apply in English). Their modal approach asserts the polar condition.

$$(10) \llbracket \textit{fast} \rrbracket = \lambda p \lambda w. p(w) = 0 \ \& \ \exists w' [\textit{close}(w)(w') \ \& \ p(w') = 1]$$

Our account will differ from theirs by showing that the closeness that comes with this modal does not suffice for cases where *almost* only applies at a distance. We need additional aspects of modal meaning.

The notion of closeness in these modal approaches is standard. Two worlds are identical if every proposition true of one is true of the other. Worlds differ increasingly as they differ one proposition at a time. Rapp & von Stechow do not work out this notion, but Nouwen (2006) does. Simplifying slightly, *almost* compares two worlds based on the number of relevant propositions they share. Two worlds are identical if they share all propositions. They are 1-removed if one relevant proposition differs, 2-removed if two do, and so on. This sense of modal closeness leads directly to relying on a numerical scale rather than requiring ranked propositions. *Almost p* is true if and only if there is a world *w'* where *p* holds that is not too far removed from *w*.

Let's see how this approach works with an example. In (11), we only need to change two of the subject's properties based on the contextually provided scale. Thus, the closest world where *p* holds is 2-removed from the actual world, so at least one world is only 2-removed. Proximity is determined simply, along the numerical scale of *n*-removal. In this case, let's set 2-removal as the threshold close enough for *almost*, so this use is felicitous.

Context:

To qualify for the final, Travis needs to jump 6m00. Instead, he jumps 5m90, and fails to qualify.

(11) *Travis almost qualified for the long jump final.*

w ₀	w ₁	w ₂	Property
F	F	T	[$\lambda x \lambda w. x$ jumped 6m00 in w](Travis)
F	T	T	[$\lambda x \lambda w. x$ jumped 5m95 in w](Travis)
T	T	T	[$\lambda x \lambda w. x$ jumped 5m90 in w](Travis)
0	1	2	: n-removal

Falsehood arises in (12), where four propositions must change on the contextually provided scale for the event to succeed. The closest world where p holds is 4-removed from the actual world, so no world is only 2-removed, and *almost* fails.

Context:

To qualify for the final, Travis needs to jump 6m00. Instead, he jumps 5m80, and fails to qualify.

(12) *Travis almost qualified for the long jump final.*

w ₀	w ₁	w ₂	w ₃	w ₄	Property
F	F	F	F	T	[$\lambda x \lambda w. x$ jumped 6m00 in w](Travis)
F	F	F	T	T	[$\lambda x \lambda w. x$ jumped 5m95 in w](Travis)
F	F	T	T	T	[$\lambda x \lambda w. x$ jumped 5m90 in w](Travis)
F	T	T	T	T	[$\lambda x \lambda w. x$ jumped 5m85 in w](Travis)
T	T	T	T	T	[$\lambda x \lambda w. x$ jumped 5m80 in w](Travis)
0	1	2	3	4	: n-removal

In essence, Nouwen's n-removal is a scalar approach where all the scales rank counts of comparisons between possible worlds rather than counts of propositions themselves. However, despite its use of a modal, it does not apply to *almost* at-a-distance. As we saw, *almost* at-a-distance corresponds to dropping the threshold away from the endpoint of the scale, and that this drop relies on entailment. The result of entailment in a possible world semantics leads to an unwelcome result.

Consider the case of climbing Everest below (14), where you fail to enter Nepal. Given the propositions listed, the nearest success world is w_5 , 5-removed from the actual world, making it too far for the proximity reading if the threshold is 2-removal.

(13) *I almost climbed Mount Everest, but I couldn't enter Nepal.*

w ₀	w ₁	w ₂	w ₃	w ₄	w ₅	proposition
F	F	F	F	F	T	[$\lambda x \lambda w. x$ reached the summit in w](I)
F	F	F	F	T	T	[$\lambda x \lambda w. x$ reached the last base camp in w](I)
F	F	F	T	T	T	[$\lambda x \lambda w. x$ reached halfway up in w](I)
F	F	T	T	T	T	[$\lambda x \lambda w. x$ reached base camp in w](I)
F	T	T	T	T	T	[$\lambda x \lambda w. x$ entered Nepal in w](I)
T	T	T	T	T	T	[$\lambda x \lambda w. x$ raised the money in w](I)
0	1	2	3	4	5	: n-removal

On an at-a-distance reading, entering Nepal would have led to climbing Mount Everest. We've seen that this requires entailment, so any world where you enter Nepal is one where you climb Mount Everest. In that case, the nearest success world becomes w_1 in our example. Unfortunately, due to the entailed propositions, w_1 is now 5-removed from w_0 , pushing it beyond the threshold. *Almost* should always fail here.

(14) *I almost climbed Mount Everest, but I couldn't enter Nepal.*

w_0	w_1	w_2	w_3	w_4	w_5	proposition
F	T	T	T	T	T	[$\lambda x \lambda w. x$ reached the summit in w](I)
F	T	T	T	T	T	[$\lambda x \lambda w. x$ reached the last base camp in w](I)
F	T	T	T	T	T	[$\lambda x \lambda w. x$ reached halfway up in w](I)
F	T	T	T	T	T	[$\lambda x \lambda w. x$ reached base camp in w](I)
F	T	T	T	T	T	[$\lambda x \lambda w. x$ entered Nepal in w](I)
T	T	T	T	T	T	[$\lambda x \lambda w. x$ raised the money in w](I)
0	5	5	5	5	5	: n-removal

Using modality to capture proximity seamlessly incorporates the link between entailment and threshold drop, but falters because it doesn't bring successful worlds closer to the threshold in terms of n-removal. As we have already seen, the entailment is not guaranteed. The set of worlds where one reaches the summit must be a subset of the worlds where one reaches the highest base camp. Therefore, without removing worlds where the continuation fails, this version of threshold drop will take us further away from the actual world, and *almost* should fail. Consequently, we must independently limit the worlds at issue to ones where the entailment does hold. Even with a modal-closeness approach, an independent modality is required for the drop to occur.

3 A new orientation for *almost*

We have shown that in some cases, the interpretation of *almost* requires both a scalar and a modal component. We will propose a formal means of combining these components that ensures that both apply in all cases. When proximity holds, the modal will apply in a harmlessly superfluous fashion. When it fails, the modal is required for *almost* to hold at-a-distance.

Our denotation offers a new orientation for the meaning of *almost*. Rather than polar and proximal conditions, we employ an antecedent condition and a modal condition. The antecedent condition asserts that a small enough subset of necessary conditions for p do not hold. This entails the polar condition and contains a proximity measure. The modal condition asserts that if we assume that subset along with relevant parts of what did happen (a circumstantial modal base), and if we continue normally with no impediments (a non-interrupting ordering source), p holds.

We give a formal expression of this denotation in (15), mixing set and function notations for exposition. This denotation is cross-categorical, and it reflects

the notion that *almost* only fails to hold when both proximal and at-a-distance readings fail.

(15) Given a world w , an expression $\phi(\alpha)$,

Let $\text{NEC}(\phi(\alpha))(w)$ be a set of propositions necessary for $\phi(\alpha)$ to hold of w .

$\llbracket \text{almost} \rrbracket(\phi)(\alpha)(w) = 1$ iff: $\exists Z \left[\begin{array}{l} (Z \subseteq_{\text{SE}} \text{NEC}(\phi(\alpha))(w) \ \& \ w \notin \bigcup Z) \\ \& (\forall w' [w' \in \text{Best}_{\text{NI}}(\text{R}(\text{circ}(w), Z)) \rightarrow w' \in \phi(\alpha)]) \end{array} \right]$

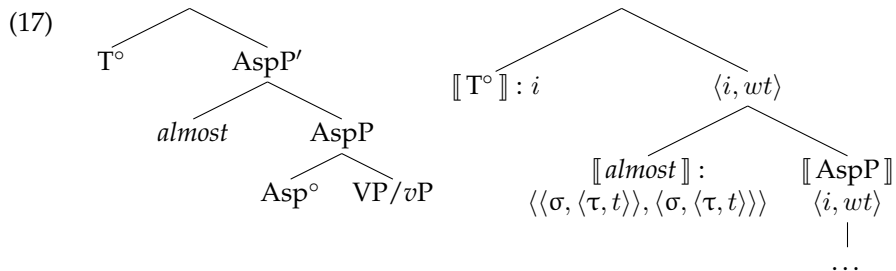
- a. There is a small enough subset Z of $\text{NEC}(\phi(\alpha))(w)$,
- b. such that no proposition of Z holds of w , and
- c. in all the best ordered worlds w' according to a non-interrupting ordering source
- d. such that the selected circumstances of w hold in w' along with Z ,
- e. $\phi(\alpha)$ holds of w'

The examples we've seen have been what we can call 'verbal' *almost*, and we can start our analysis with these. Verbal *almost* describes an adverbial placed fairly high in the verbal spine. It out-scopes a progressive, as the following difference shows.

(16) *Imogen was almost crossing the street, when a bus hit her.*

- a. \checkmark ALM > PROG : It is almost the case that in all worlds where the event continues without impediment, Imogen crossed the street
- b. $\#$ PROG > ALM : In all worlds where the event continues without impediment, Imogen almost crossed the street.

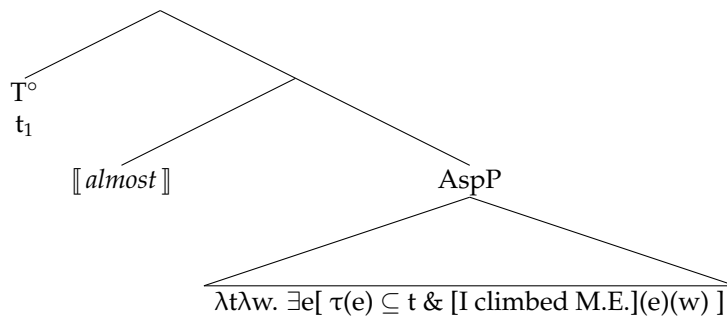
Assuming that tense auxiliaries in English are placed at T° , the placement of *almost* after the auxiliary verb *was* in the structure shows that it is placed below T° , which introduces tense. This structure places verbal *almost* above aspect but below tense, which we take as pronominal of type i (Kratzer 1998). This means that both sister and mother nodes to verbal *almost* will be of type $\langle i, wt \rangle$ in a possible-world semantics (with worlds of type w).



3.1 The proximity reading

Before showing how *almost-at-a-distance* works, we examine *almost* with a proximity reading, defined as one where modal projection is not required for *almost* to be felicitous. If I accomplished most of the steps required for climbing Mount Everest in a world w at time t_1 , it is true that I almost climbed Mount Everest at t_1 in w . In this case, the property argument of *almost* is the AspP denoting the set of time-world pairs in which there is an event of me climbing Mount Everest. In the denotation of *almost*, $\llbracket \text{AspP} \rrbracket$ corresponds to the first argument ϕ , and the topic time t_1 the second argument α .

(18)



$$\llbracket (18) \rrbracket = \lambda w. \exists Z \left[\begin{array}{l} (Z \subseteq_{SE} \text{NEC}(\llbracket \text{AspP} \rrbracket(t_1))(w) \ \& \ w \notin \bigcup Z) \\ \& (\forall w' [w' \in \text{Best}_{NI}(\text{R}(\text{circ}(w), Z)) \rightarrow w' \in \llbracket \text{AspP} \rrbracket(t_1)]) \end{array} \right]$$

Given this, we can define NEC to take two arguments, in this case a proposition and a world, so that $\text{NEC}(\text{CME}(t_1))(w)$ returns a set of conditions necessary for $w \in \text{CME}(t_1)$ (19). This set can vary for many reasons which we will discuss, but for now let us assume that it contains seven steps. The end of the modal condition ($w' \in \llbracket \text{AspP} \rrbracket(t_1)$) indicates that these steps must occur within the topic time.

(19) *I almost climbed Mount Everest at t_1 (but I had to turn back halfway up)*

- a. Let $\text{CME} = \llbracket \text{AspP} \rrbracket$ in (18)
- b. $\text{NEC}(\text{CME}(t_1))(w) = \{ A, B, C, D, E, F, G \}$
 - ✓A = λw . I decide to climb Mount Everest at t_1 in w
 - ✓B = λw . I raise the funds at t_1 in w
 - ✓C = λw . I arrive in Nepal at t_1 in w
 - ✓D = λw . I make it to base camp at t_1 in w
 - ✓E = λw . I make it halfway up at t_1 in w
 - F = λw . I reach the Hillary Step at t_1 in w
 - G = λw . I reach the summit at t_1 in w

$\text{NEC}(\text{CME}(t_1))(w)$ contains seven propositions. Of these, only the members of $\{ A, B, C, D, E \}$ hold of w at t_1 in (19). The other steps are the missing conditions. The sets of missing conditions are $\{ F \}$, $\{ G \}$, $\{ E, G \}$.

If *almost* is felicitous, one of these sets must be “small enough,” and can be assumed along with the met conditions to entail p of w at t_1 in all the right modal worlds. In the simplest case, that set is $\{ F, G \}$, whose assumption entails p in all worlds, because it completes the set of missing conditions. We can assume the modal’s presence to maintain a single denotation, but it has no effect here.

Determining that this set is small enough requires a scalar component, which we now lay out. Earlier we saw that proximity with *almost* can rely on a simple numeric scale of propositions met. Proximity can thus be measured with Jaccard dissimilarity, which indicates proportionally how few members two sets share. Disjoint sets have a dissimilarity value of 1; identical sets 0.

(20) **Jaccard dissimilarity (d_J)**

$$\text{Given sets } A, B: \quad d_J(A, B) = 1 - \frac{|A \cap B|}{|A \cup B|}$$

$$\text{Whenever } A \subseteq B: \quad d_J(A, B) = 1 - \frac{|A|}{|B|}$$

A set of missing conditions Z is a subset of some set of necessary conditions $\text{NEC}(p(t))(w)$, so the two sets’ Jaccard dissimilarity ($d_J(Z, \text{NEC}(p(t))(w))$) will correspond inversely to Z ’s size relative to the superset. As Z gets smaller, its dissimilarity to $\text{NEC}(p(t))(w)$ rises toward one. The truth-conditions of *almost* require the dissimilarity of Z to $\text{NEC}(p(t))(w)$ to be closer to 1 than some particular threshold value T . This value is not easy to determine, and may not be completely fixed. We will not attempt a precise formulation of the exact number T should be, but it seems to typically fall between .7 and .8.⁶

(21) **Small enough subset**

A is a small enough subset of B ($A \subseteq_{SE} B$) if and only if:

- a. $A \subseteq B$ and
- b. $d_J(A, B) \geq T$, where
- c. T is a contextually selected value such that $.7 \leq T \leq .8$

Returning to (19) we see that $\{ F, G \}$ has a Jaccard dissimilarity of $\frac{2}{7} = .714$ with respect to the set of necessary conditions. This value exceeds T , so the two-member set is small enough.

$$(22) \quad d_J(Z, \text{NEC}(p(t_1))(w)) = 1 - \frac{|\{F, G\}|}{|\{A, B, C, D, E, F, G\}|} = 1 - \frac{2}{7} = .714$$

Any world where the small-enough set $\{ F, G \}$ holds along with $\{ A, B, C, D, E \}$ will be a world where p holds of w at t_1 , since all of $\text{NEC}(p(t_1))(w)$ holds. *Almost* is felicitous. The modal becomes superfluous, because the modal base worlds will all entail p .

⁶Our setting of T between .7 and .8 is crude and warrants its own investigation. For now it will suffice because the exact value is not a crucial component of our analysis. The inexactitude of T is reflected in judgments of *almost*. Also, the proportion will depend on the chosen set of necessary conditions. T seems to increase along with the cardinality of $\text{NEC}(p(t))(w)$; for instance, 8 out of 10 allows *almost* more easily than 800 out of 1000 does, and so on.

3.2 The at-a-distance reading

We have defined *almost*-at-a-distance as occurring when the proximity reading fails, but *almost* works due to a modal projecting into the future from the event. In the formal terms just laid out, AAD occurs when the Jaccard similarity is lower than the requisite threshold, but the small-enough set brings us to a point where the entailment occurs, subject to modal restriction.

This modal employs a circumstantial modal base, which assumes certain facts about the world that are selected by the speaker (Abusch 2012). When the event is close to culmination (19), a small-enough set of missing conditions entails p . In a case like (23), though, given the same set of necessary conditions, there is no small-enough set that entails p . Only one of the seven conditions (A) is met.

(23) *I almost climbed Mount Everest* (in w at t_1) (*but I couldn't raise the money*)

a. $\text{NEC}(\text{CME}(t_1))(w) = \{ A, B, C, D, E, F, G \}$

$\checkmark A = \lambda w$. I decide to climb Mount Everest in w at t_1

$B = \lambda w$. I raise the funds in w at t_1

$C = \lambda w$. I arrive in Nepal in w at t_1

$D = \lambda w$. I make it to base camp in w at t_1

$E = \lambda w$. I make it halfway up in w at t_1

$F = \lambda w$. I reach the Hillary Step in w at t_1

$G = \lambda w$. I reach the summit in w at t_1

As before, small-enough subsets will have no more than two members. Added to $\{A\}$, none of these sets entail p in all worlds— $\{A, B, C\}$, $\{A, C, D\}$ etc. Instead, the modal projects into the future from $\{A, B, C\}$ until the other conditions are met. Those conditions are not met in all possible worlds, so for truth, the modal will need to restrict the interpretation to worlds where the entailment does hold.

A circumstantial modal base selects relevant facts that hold in the evaluation world, and enter the modal assumption in modal worlds. We employ a modal base function circ that takes an evaluation world w and returns the set of relevant circumstances of w . In a case like climbing Mount Everest, those are the necessary conditions that the event has actually met, the nature of the mountain, the weather, and so forth.

(24) $\text{circ}(w) \subseteq \{ \lambda w$. Mt. Everest exists at t_1 in w , λw . I decided to climb Mount Everest at t_1 in $w \dots \}$

The modal base is modified by assuming a small-enough subset Z of missing conditions, giving us the intersection of Z the set given by circ . That intersection is provided to *almost* by the relation R , which takes sets of propositions and returns the set of worlds where the largest consistent subset of their intersection holds (Kratzer 2012).

$$(25) \quad R(\text{circ}(w), Z) = \{ w' \mid \forall p [p \text{ is in the largest consistent subset of } \text{circ}(w) \cap Z \rightarrow w' \in p] \}$$

For the example, let's make Z the small-enough set $\{ B, C \}$. This relation modifies the modal base into $R(\text{circ}(w), Z)$, which is a subset of $\bigcap \{ A, B, C \}$.

The worlds selected by the modified modal base are sorted by a non-interrupting (NI) ordering source, which Portner (1998, 2009) lays out to solve the progressive paradox: A progressive-marked event does not necessarily end as a complete event fitting the description (26). Instead, the progressive indicates that if nothing ordinary intervenes, given the state of things at the topic time/reference time, the event *would* later finish.

- (26) *Jeanne was crossing the street (at t) when she got hit by a bus*
 $\not\Rightarrow$ There is an event of Jeanne crossing the street at t
 $=$ There is an event throughout t such that had it continued without interruption, it would be an event of Jeanne crossing the street that ends after t

Portner improves upon previous modal analyses with a function Best_{NI} , which applies a non-interrupting ordering source to the modal base and selects the best normal worlds where the event continues uninterrupted.⁷ An NI ordering source contains propositions that describe normal situations that could intervene. If Jeanne is crossing the street, those propositions might include that Jeanne doesn't trip, that Jeanne doesn't change direction, that the oncoming bus stops, and so on. In worlds where these propositions hold, the event is completed.

We saw that to use *almost* at-a-distance, we had to project counterfactually into the future from the event and assume that everything worked out. In (5), where a baseball player almost hit a double, we assumed a list of things that had to not happen in order for the double to be completed— the fielders had to be far enough from the ball, the runner had to stay on his feet, and so forth. In our mountain-climbing scenario, the modal base returns worlds where the speaker raises the funds and reaches Nepal (propositions A and B). In the actual world, when somebody accomplishes those things, they normally succeed in climbing the mountain if nothing else intervenes— they don't fall ill, they don't get injured, the weather doesn't stop them, and so on. The ordering source reflects this normal outcome, containing propositions where no problems impede progress.

Formally, Best_{NI} takes a set of worlds and applies the ordering source NI, which is a set of propositions of a negative character, since they describe events not taking place— the weather doesn't turn bad, nobody gets hurt, and so on. Best_{NI} returns the subset of the modal worlds where the most non-interruptions occur.⁸

⁷Portner assumes that there always is a best-ranked object, and we adopt that assumption.

⁸We follow Portner in assuming that there always is such a subset.

- (27) **Ordering:** Given two worlds w' , w'' , and the set of propositions NI, $w' \leq_{\text{NI}} w''$ iff the set of propositions in NI that hold of w' is a superset of those that hold of w'' .
- (28) $\text{Best}_{\text{NI}}(\text{R}(\text{circ}(w), Z)) =$
 $\{ w' \in \text{R}(\text{circ}(w), Z) \mid \neg \exists w'' [w'' \in \text{R}(\text{circ}(w), Z) \ \& \ w'' <_{\text{NI}} w'] \}$

Applied to (25), that gives us the set of worlds where all the necessary conditions hold, giving us the entailment that renders *almost* felicitous. Essentially, there is a small enough set of missing conditions such that in all the best non-interrupting worlds, all the missing conditions hold.

- (29) from (25)
 $\text{R}(\text{circ}(w), Z) \subseteq \bigcap \{A, B, C\}$
 $\text{Best}_{\text{NI}}(\text{R}(\text{circ}(w), Z)) \subseteq \bigcap \{A, B, C, D, E, F, G\}$

3.3 The role of normality

Put simply, the meaning of *almost* involves a scalar component counting missing necessary conditions, and a modal component that involves the same ordering source seen in the progressive. The at-a-distance reading of *almost* requires the modal component in order to be true, so we can predict that this reading is unavailable in contexts where the progressive fails due to the ordering source.

One such context occurs when all successful continuations require non-normal worlds. The non-interrupting ordering source's involvement of normal worlds derives the role that normal outcomes play in the progressive and in *almost*. In (30a), the progressive is false even if Mary had killed a few Roman soldiers, because even in the best uninterrupted normal outcomes, she will not defeat an army single-handedly. If the scenario continues and she is then killed (30b), the use of *almost-at-a-distance* (AAD) is false, for the same reasons.

- (30) Mary fought an entire Roman army by herself, and started off strong, slaying three soldiers. This only left 9,997 in front of her...
- a. progressive: #*Mary was wiping out the Roman army.*
 ... who promptly slew her.
 - b. AAD: #*Mary almost wiped out the Roman army.*

The steps required to wipe out the army are in NEC, and the circumstances include the weaponry she is using, her physical condition, the three slayings she has managed, any help she might have, the Romans' physical conditions, the terrain, and so forth. Assuming these, and the three slain Romans, even the best normal outcomes will not lead to her victory.

Changing these circumstances can make the proposition true. If Mary had a nuclear weapon in her arsenal, and launched it towards the massed army, (30a) is true with the progressive even if she had slain zero soldiers so far,

because success would normally ensue from an uninterrupted continuation given the new circumstances– the weaponry she is using has changed, but her physical condition, any help she might have, the Romans’ physical conditions, the terrain, and the rest could be the same. Were she about to decide to launch a warhead before being dissuaded, AAD becomes true in (30b) for the same reason. Portner (1998) points out that the notion of normal outcomes relies on judging probability. Judging probability generally suits a premise semantics well, even with complex combinations of ordering sources (Katz et al. 2012).⁹

3.4 Context dependency in circumstances

The use of a circumstantial modal opens at-a-distance readings of *almost* up to certain types of context dependency that appear in the use of premise sets.

As Abusch (2012) points out, a circumstantial modal also allows speakers to select different sets of relevant facts, leading to another kind of ambiguity. She gives an example of a tree falling away from a house due to a windstorm. An inspection finds that the tree was rotting on the side nearer the house, and had it fallen on its own would have landed right on the home office. The occupant of the office says “I could have been killed,” based on the circumstances including the rot, while the other household member says “No you couldn’t have,” based on the circumstances including the wind direction during the storm. Both are true, so if the two people start arguing, it’s really over whose selected circumstances are more relevant or important.

We expect to see a similar effect on truth from choosing circumstances with *almost*, and we do. The facts of the world will shape the truth of *almost*, by forging the modal’s strength. If you say *I almost climbed Mount Everest, but I decided to stay home*, whether that’s true will depend on independent facts that make the entailment come through. Some facts make *almost* stronger, while others make it weaker. It is much more believable if this sentence is uttered by a seasoned alpinist than by a bon-vivant semanticist, because the alpinist’s condition and experience make it far more likely that taking the step of deciding to do it will lead to actually doing it. Likewise, it is far more believable if the semanticist uttered *I almost wrote a squib about weak definites, but decided to watch TV* than it is for the alpinist, for similar reasons. In these cases, the scales of necessary conditions are identical, but the circumstances that are applied to the modal can vary, so the differences emerge in the modal component.

3.5 Context dependency in necessary conditions

The set of necessary conditions is also context-dependent. A subset of them is added to the modal base by the modal condition, so determining these condi-

⁹Lassiter (2011) offers an alternate approach to probability in modals that relies on numerical values. This might work very well with *almost*, but it would require more investigation to see how it can combine with sets of missing conditions. Generally, we expect that more detailed looks targeting the modal condition will find even more subtleties in the use of *almost* at-a-distance.

tions contributes to the modal premises. This in turn leads us to predict effects from their selection.

Another Abusch example involves a sports team nearly making the playoffs under one circumstantial modal base, but not another. *New York could have made the playoffs* might be true if you look at the standings mathematically but false if you consider how the season unfolded. Changing the counterfactual to *almost* triggers the same effect.

Imagine a sports team from New York that failed to qualify for the playoffs, which required a third-place finish or better. They finished fourth, but were actually eliminated halfway through the season before a miraculous run of victories. So they had no real chance of making the playoffs. The proposition in (31) would be true if we are measuring the distance to third place, because they finished fourth.

(31) *New York almost qualified for the playoffs.*

The chosen necessary conditions are the easily-scalable places in the standings at the end of the season. Most of those are true in this context, so there is a small-enough set whose assumption will get you the rest. The modal is unnecessary for *almost* to be true, so this is a proximity reading.

On the other hand, if we are considering how the season unfolded, the set of necessary conditions becomes the things needed to be done in order to qualify. Since the team was eliminated, some of these were left unmet. Even if most were met by the end of the season—bringing them up to 4th place—by the time they were eliminated, no normal worlds remained whose continuation would see them qualify. Just for the sake of the example, let's say they ultimately needed to win 50 games out of 80. Make the numerical scale of victories the set of necessary conditions. The team started by winning only 9 out of their first 40 games, making it impossible to reach 50 by mid-season. They then win all 40 after that, ending with 49 wins. They did not almost qualify.¹⁰

To be fair, they wouldn't have known they needed 50 until later in the season, but looking back as we say (31), we do. Still, if we select a point earlier in the season, the effect still applies. Imagine they had won their first two games, and modally project from there. Clearly this is false on the proximity reading, since 2 is not close to 50. They were not mathematically eliminated at the time, but had not achieved very many missing conditions. For the at-a-distance reading to apply, there has to be a small enough set that would get them with normal continuations to 50. Given the nature of the team, the odds were not good, just like they weren't when Mary wasn't wiping out the Roman army (30). If we modally project from points further along in the season, the odds grow worse and worse until elimination. So, if we choose the at-a-distance reading for *almost* in this context, the proposition is false.

(31) *New York almost qualified for the playoffs.*

¹⁰Let us reiterate the point about choosing different necessary conditions: Imagine that twenty years later, a kid reads the standings but has no knowledge of the season. The child would think that New York almost made the playoffs that year.

proximity TRUE because fourth is close enough to third

AAD FALSE because even the best normal outcomes based on any set of circumstances would lead to a failure to qualify.

Speakers can even deny the truth of these claims based on which set of conditions they choose.

- (32) A: (looks at standings) New York almost qualified for the playoffs!
B: No, they didn't! They were eliminated so early I quit watching by the end of the season.

Crucially, the fact of elimination does not necessarily rule out the AAD reading by itself. It depends on the circumstances. Let's say they had led the league 3/4 of the way through and were cruising until their star player broke a leg. Then they tumbled to seventh, being eliminated along the way. We could make (31) true if we modally project from the point before the leg-break. There is a lot of variability in the truth of *almost* at-a-distance, even more so than with proximity readings. However, this variability is just the kind we see in other aspects of modality, and we can see how the pieces of the meaning of *almost* contribute to this variability.

3.6 Constraints on necessary conditions

The use of premise sets gives the meaning of *almost* contextual flexibility exactly when we observe speakers being flexible. However, it also opens up the question of what might possibly limit them. For instance, nothing in our proposal prevents speakers from concocting sets of necessary conditions with only two members in order to guarantee proximity. However, we do not observe that behavior, suggesting that something prevents it. That said, the precise nature of the selection of necessary conditions extends past the boundaries of this paper, and likely resides outside the semantics. It hardly seems proper to work all these facts into the semantics of *almost*, or any lexical item. For now, we sketch some observed constraints on necessary conditions, while leaving their explanation to cognitive science.

(33) **Constraints on sets of necessary conditions**

- a. *Each step must be 'equivalent' in size.*

This is more obvious on a numeric scale— if the scale is from 1 to 20, each integer in between is on the scale. We cannot say that 12 is almost 20 by lumping numbers 13 to 20. Likewise, you can't package together some of the largest steps of an accomplishment together. Obviously these steps needn't be perfectly equivalent the way integers are, but there is a constraint against convenient packaging.

- b. *Each step must be independently represented.*

Even if you packaged propositions A and B together to make $A \cap B$, at least A would still be in the set, leaving you with as many propositions as you would have had anyways (cp. [Kratzer \(1977\)](#)).

c. *Scales must be relatively coarse*

Penka (2006) observes that *almost* works with round numbers (*almost 100*) but not with exact ones (*?almost 102*), because *almost* requires a coarse-grained scale. However, coarseness is relative. A thermometer can read ‘almost 102 degrees’ if the scale involves fractions of degrees.

The constraint on size ‘equivalence’ is not so simple, because some steps are significantly more important than others. Yet, close consideration shows that this disparity does not obviate the constraint. To illustrate this, let’s turn back to sport. In order to change a rule of association football (soccer), six of the eight votes of the International Football Association Board must approve. The football associations of England, Scotland, Wales, and Northern Ireland each have one vote, while FIFA, which otherwise governs the sport worldwide, has four votes. Whether a rule change almost passes depends on unequal power, but the semantics of *almost* neutralizes this inequality.

- (34) Scenario 1: England proposes a rule allowing teams to field 12 players. Scotland votes aye, but the others hate it, so the measure fails 6-2.

In (34), it is false that the measure almost passed. Focusing on the tally resulting from the vote, the necessary conditions are the propositions that 1 vote was in favor, that 2 votes were in favor, and so on. In that case, only 2 of the 6 required conditions are met, and that is not close enough. Even though FIFA’s four votes are lumped together, they count individually towards the total based on constraint b (33b), and the way the vote unfolds has no effect on that count.

Now, let’s refine the scenario to allow *almost* at-a-distance.

- (35) Scenario 2: England proposes a rule allowing teams to field 12 players instead of 11. Scotland hedges, Wales and Northern Ireland are dead-set against it. FIFA considers it after long debate. Scotland declares they will vote whichever way FIFA does. FIFA takes more time, nearly accepts it, but ultimately declines. The measure fails 7-1.

Fewer votes approved than in Scenario 1, so *The measure almost passed* is false on a proximity reading where the necessary conditions are the number of votes. The AAD reading is false with these conditions as well, and the falsehood of both readings makes the proposition false.

On the other hand, if we select necessary conditions that are the steps of the event as it unfolded, the a different result emerges. In that case we can select five conditions: The introduction of the measure (I), the debate (D), the proposition that FIFA votes in favor (F), and the propositions that England (E) and Scotland (S) approve.

- (36) {I, D, F, E, S}

In actuality, only three of them hold (I, D and E). Four steps are required, though, so a small-enough set of missing conditions is a singleton. The set {I, D, E} is not close enough for the proximity reading. In relevant modal worlds though, assuming the singleton set {F} means that S holds with it, making {I, D, F, E, S} hold, and entailing that the measure passes. There is thus a small-enough set that fits the description for *almost* to hold.

This scenario highlights that even when the parts of the event are not equal, that inequality is neutralized. Either the measuring of the event's result breaks its strength into a number of equal parts, or the event structure treats each part as a single step of the event, allowing *almost* at-a-distance to work. So (35) would also be true had Scotland debated, and FIFA agreed to vote whichever way Scotland did. Speakers are able to choose different sets of necessary conditions, just like they are able to choose different sets of circumstances in modals. Also, disputes can arise if speakers dispute whose set of necessary conditions ought to be at issue. In this IFAB case, one person might insist on the conditions that only counts the votes, and based on that choice, dispute that the measure almost passed.

3.7 Focus and necessary conditions

One other issue concerning necessary conditions is focus. Focus features prominently in some approaches that make *almost* focus-sensitive (Penka 2006; Amaral & Del Prete 2010; Kilbourn-Ceron 2017). A part of the focused constituent provides the scale's endpoint, and the scalar alternatives are based on the set of focus alternatives.

- (37) *Terese almost arrived [at 3 pm.]_F*
 ALT = { at 2:59, at 2:58, etc... }

However, we find that while focus might be important in many cases, it is not a requirement that should be included in the denotation of *almost*.

Almost does not always have a focused constituent in its complement (38), in English or Italian.¹¹ In fact, *almost* itself can be the focused constituent (39). In (38) and (39), the endpoint of the scale is provided by the complement of *almost/quasi*, not what is focused.

- (38) a. [*Terese*]_F *almost broke the record.*
 b. [*Teresa*]_F *ha quasi battuto il record.*
 ↗ Someone close to Terese on a scale broke the record
- (39) a. *Terese [almost]_F broke the record.*
 b. *Teresa ha [quasi]_F battuto il record.*
 ↗ The extent to which Terese broke the record is not 'almost', but close to it.

¹¹We thank several Italian speakers for their judgments.

Of course, focus is more complex than just attaching narrowly to a prosodically-marked constituent. Even so, we find that focus is not crucially linked to *almost*. Kilbourn-Ceron (2017) suggests that the complement of *almost*, which she calls its ‘associate’ at LF, is focused and provides the alternatives for the scale of proximity. However, the scalar alternatives are not always the focus alternatives. In (40), the VP’s focus alternatives involves marrying Chris, marrying Pat, and so on. But the scale that *almost/quasi* is building cannot involve those alternatives. Instead, it contains steps toward marrying Sam.

- (40) *Terese almost [married SAM]_F*
Teresa ha quasi [sposato SAM]_F

At best, we can say that the *almost* bases its scale, or in our approach its necessary conditions, off of the (largest) VP containing the focused constituent. However, that does not really gain us anything more than our proposal that *almost* takes them from its entire complement, especially once we consider the context effects we have seen.

Since focus does not necessarily provide the necessary conditions for *almost*, we do not include it in its meaning. Focus effects are common and often predictable, but we propose that these effects on NEC arise from the nature of the events themselves, rather than the meaning of *almost*. For instance, the nature of arrival events is such that the subject has to reach a particular location at a particular time, and that the parts of the event are each homomorphically mapped to some location or time. Since time is scalar, that location mapping is, too. If focus targets the location or the time, we can naturally evoke a scale that speakers easily adopt as necessary conditions. If focus targets something besides the location or time, that effect can dissipate, especially if the focused constituent is outside the scope of *almost*. Ultimately, we do not rule out a role for focus in the interpretation of *almost*, but we do not have convincing reasons to include it in its denotation.

In this section, we have shown how a single denotation of *almost* with an antecedent condition and a modal condition applies in proximity and at-a-distance readings. We also demonstrate that modal uses of *almost* exhibit the same kinds of contextual variability that pieces of modality trigger in the progressive and in counterfactuals with circumstantial modal bases. We discuss limits on necessary conditions and effects arising from the choice of necessary conditions, possible limits on them, and a more nuanced role for focus in their selection.

4 Systematic blocking of the at-a-distance reading

We have defined *almost* at-a-distance (AAD) as instances of *almost* where the following hold:

- The proposition containing *almost* is only true due to a modal projection from the parts of the event that satisfy necessary conditions.

- In this modal projection nothing out of the ordinary goes wrong that would prevent the described event’s success within the topic time.

The use of *almost* only leads to falsehood if both readings fail. When *almost* p is true without requiring any modal projection, we call this the proximity reading.

The way the denotation of *almost* is presented (15), the final part of the modal condition ensures that the prejacent must come true by the end of the topic time. Consequently, AAD can be blocked if the topic time interval is too short for the modal continuation to come true. This section discusses several contexts that routinely block AAD in this way.

4.1 Events with short times left

If the topic time does not provide room for completion, AAD will not apply. The predicate will not follow from any normal uninterrupted outcome of the premises, much less all of them.

Context:

You, a semanticist, had a good idea for a paper, and thought, “Maybe I’ll submit an abstract to SALT.” You decide to send one in and check the call for papers, but it turns out the deadline is today—in about an hour. So you decide not to.

(41) #*I almost sent an abstract to SALT* at t_2

This proposition is false because neither proximity nor distance readings hold. The lack of proximity reading is obvious, but the distance reading is blocked by the small topic time. If proposition A is the decision to send an abstract, and B through G are the other steps, something like Figure 3 is the result. In normal worlds you will not have time to finish within the topic time interval (the rectangle), even without interruption, and even if you would have normally finished given enough time.

— *Figure 3 is to be placed here* —

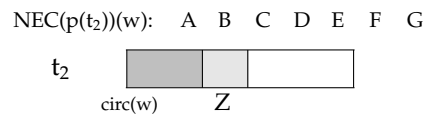


Figure 3: Unfolding of the event past the topic time

4.2 The progressive

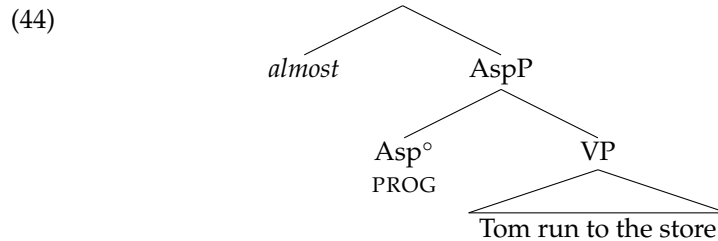
The lack of room to develop also explains why AAD fails with a progressive aspect complement. In (42), *almost* can indicate a state of Tom moving at a near run, or the near-beginning of a state of running to the store; both cases are proximity readings.

- (42) *Tom was almost running to the store.*
 a. Tom was jogging/walking quickly to the store
 b. Tom was about to run to the store

We cannot get an at-a-distance reading. For instance, that he was still but had he started moving he would have eventually been running. We also cannot use (42) to mean that he was running most of the way to the store.

- (43) a. # Tom was loping, but had he sped up, he would have wound up running
 b. # Tom was running most of the way to the store (even with focus on *to the store*).

The progressive is an interesting case because it involves a modal by the same ordering source we propose for *almost*. Portner (1998) proposes a Kratzerian update to modal accounts of the progressive by which there is an event that fills the topic time, such that in the best non-interrupted continuation worlds, there is a temporal extension of the topic time where the event is successful. For (42), we get the structure and meaning below:



$$(45) \quad \llbracket \text{AspP} \rrbracket = \lambda t \lambda w. \exists e \left[e \leq w \ \& \ \tau(e) = t \ \& \ \forall w' [w' \in \text{Best}_{\text{NI}}(\text{circ}(e)) \rightarrow \exists t' [t \subseteq_{\text{NF}} t' \ \& \ \text{Tom ran to the store in } t' \text{ at } w']] \right]$$

Tom was running to the store is true for time t if there is an event throughout t that when normally extended, is an event of Tom running to the store. Given this, the incompatibility with *almost* at-a-distance becomes evident. *Almost* requires the described event to come true during the topic time in the modal worlds, because it states that there are missing conditions in the actual world. Notably, the described event is not the completed event (the entire run to the store), but the part of the event that the progressive takes onward (the slice of running to the store). However, the progressive itself requires that slice to be holding throughout the topic time. The state of affairs changes after the topic

time, not during it. We therefore end up with an event that does not change during topic time, while AAD requires change during the topic time. AAD is not licensed.

The nature of the event does not rule out a proximity reading, so long as the event is not changing during the topic time. In this case, the modal in *almost* is superfluous, and does not interact with the modal of the progressive. Readings allowed with *almost*+progressive include those where there is an ongoing event whose description is almost the description used, as we saw in (42). We can say that Tom is almost running to the store if he is moving to the store at a near-run.

4.3 Present-tense statives

Another notable environment where at-a-distance readings are unavailable occurs with present-tense clauses with stative predicates. For instance, take (46), about the US state of Oklahoma. The proposition expressed here is false on the most salient proximity reading, because nothing of that sort is envisaged.¹²

(46) *Oklahoma is almost two states.*

It is also false on the at-a-distance reading, even though the facts of the world seem to support it. With the distance reading, (46) would be true if a small-enough set of conditions had occurred that, given a normal continuation, it would be split today. Such a scenario actually happened in 1905, when a convention proposed splitting the Oklahoma Territory into two future states, Oklahoma and Sequoyah. The Sequoyah group wrote a constitution and petitioned Congress for statehood. Congress declined, but had they simply agreed, then what is now Oklahoma would probably be two states. However, the modal condition requires the change to take place during the topic time, which is the present, and that is not the case.

The limiting effect of the topic time holds even when the proximity reading is true. In (47), the proximity reading is obvious— you live near San Francisco at the utterance time.

(47) *I almost live in San Francisco.*

But the at-a-distance reading is unavailable, for instance if the speaker was offered a job last year in Palo Alto with housing on site just a few miles from S.F. but declined it and stayed put thousands of kilometers away. Even if it's true that had the speaker accepted they would currently live near San Francisco, (47) is false on the at-a-distance reading.

The reason AAD is blocked here is simply that the modal condition restricts the continuation to the topic time, which is the present. The meaning of (47) is given in (48), with the topic time t_0 denoting the utterance time.

(48) a. $p(t_0) = \lambda w. I \text{ live in SF in } w \text{ at } t_0$

¹²It might be true on a metaphoric reading, where one describes two distinct cultural parts of the state as “almost two states,” but that depends on the selected necessary conditions.

$$b. \lambda w. \exists Z \left[(Z \subseteq_{SE} NEC(p(t_0))(w) \ \& \ w \notin \cup Z) \right. \\ \left. \ \& \ (\forall w' [w' \in Best_{NI}(R(circ(w), Z)) \rightarrow w' \in p(t_0)]) \right]$$

We predict that a topic time large enough to allow for the situation to unfold will allow AAD readings, and we get those with past tense. These examples gain AAD readings in that case, since the topic time can be significantly larger than the event time, and the event has time to continue within the topic time and still be in the past.

- (49) *Oklahoma was almost two states (but Congress said no).*
 If Congress had accepted Sequoyah’s proposal, the Oklahoma people had proposed statehood, and Congress accepted that proposal too, etc.
- (50) *I almost lived in San Francisco (but I didn’t take the job)*
 If I had taken that job, moved to SF, not lost my job, stayed in SF, etc.

— *Figure 4 is to be placed here* —

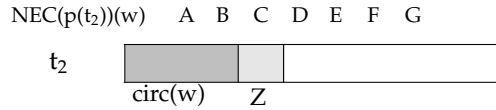


Figure 4: Unfolding after premises are added

4.4 Shifting creates room

Finding that AAD needs room in the topic time to be felicitous, and that the present tense doesn’t provide that room, we predict that any operator that shifts temporal interpretation away from the utterance time should allow AAD with present tense, and it does. The present perfect works well with AAD.

- (51) t_0 *I have almost met the President.*
- proximity:** I have achieved most of the steps
 - AAD:** I was going to meet him once, but I missed my bus to the event.

Under an extended now model (Iatridou et al. 2001), the perfect, situated between tense and aspect, introduces a ‘perfect time span’ leading up (\mapsto) to the topic time. This time span fills *almost*’s time argument. Since this time span starts in the past and leads up to the present, the event can unfold within this time span, giving room for AAD.

$$(52) \quad \llbracket (51) \rrbracket^u = \lambda w. t_0 \circ \tau(u) \ \& \ \exists t' [t' \mapsto t_0 \ \& \ \llbracket almost \rrbracket ([I \text{ meet the president}](t'))(w)]$$

— Figure 5 is to be placed here —

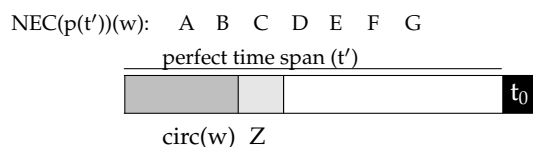


Figure 5: Unfolding of event under the perfect

One reviewer notes misgivings about the AAD judgment with the present perfect in (51), but this construction does occur naturally, as in the tweet “i have almost gone to this same frat about seven times but chickened out every time.”¹³ Our account predicts that AAD only occurs with the experiential reading of the perfect, because the universal reading (53) does not involve change over the time span, and the recent present reading (54) does not give enough time for the event to culminate by the topic time. This prediction holds.

- (53) *I have almost lived in San Francisco for 10 years.*
 = (prox.) I have lived near SF for 10 years, or I have lived in SF for nearly 10 years.
 ≠ (AAD) For the last 10 years, I have nearly chosen to live in SF.
- (54) *I have almost met the President!*
 = (prox.) I just had an encounter where I nearly met the president
 ≠ (AAD) I just missed the bus to go to the exclusive presidential event where he was going to meet everyone.

The auxiliary *will* involves temporal displacement into the future, whether it is modal or not (Klecha 2013). This displacement shifts forward from the topic situation, enough to provide room for *almost* at-a-distance. Imagine that a baseball player asks a fortune teller about a possible heroic play he might make in the future. The soothsayer’s reply (55) can express AAD, where a fielder catches the ball in flight (55b). This use of *almost* is visually represented by Figure 6.

- (55) *You will almost hit a double.*
- a. λw . In all future worlds w' there’s a time t' that follows the current topic time, such that there is a set of small enough conditions Z for an event in t' of you hitting a double, which do not hold of t' , and in all worlds w' where Z holds and normal uninterrupted outcomes ensue, you hit a double.

¹³Tweet from 9 Feb 2019. https://twitter.com/_g.a.b.y/status/1094407630393626624.

- b. $\lambda w. t_2 \circ \tau(u) \ \& \ \forall w' [\text{future}(w)(w') \rightarrow \exists t' [t' \succ t_2 \ \& \ \llbracket \text{almost} \rrbracket ([\text{you hit a double}](t'))(w)]]$

— *Figure 6 is to be placed here* —

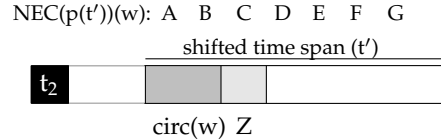


Figure 6: Unfolding of a future event

4.5 A further blocking effect

In this section we have shown several contexts that systematically block AAD. All of these involve the inability of the modal continuation to lead to the event's completion during the topic time. We have also shown how temporal shifting operators introduce a time span that allows the continuation to complete in time, thereby unblocking AAD.

Other factors can rule out AAD as well. One interesting case involves crossing the street. Imagine a friend Julie taking one step into the street before the crossing event was cut short. *Almost* fails, even though AAD is predicted.¹⁴

- (56) *#Julie almost crossed the street, but a cyclist hit her.*

The proximity reading is false in (56), and AAD is blocked. Our account's prediction is that something must be blocking AAD. It is not normality, because the progressive works; she was crossing the street. However, something must interfere with AAD, because similarly cut accomplishments do allow it.

Context: Julie was working on her roof when her foot slipped and she started to lose her balance. At the first step she took, her foot caught a shingle and stopped her from leaning over enough to fall.

- (57) *Julie almost fell off her roof, but her foot caught a shingle.*

What might distinguish these cases, if not normal outcomes? We suspect it actually is an effect due to the sense that the description of falling off the roof is the 'main event' of the utterance, while crossing the street is not.

Essentially, when we recount an event as part of a discourse, we have certain 'main events' that include a number of intermediate event. AAD seems to work better with the main events. If crossing a street is the main event, the AAD reading is easier to obtain.

¹⁴We thank an anonymous reviewer for bringing up this kind of example.

Context: Julie was visiting Paris and window-shopping along the Champs-Élysées. She saw a movie theater across the street and decided to check it out. One step in, she was hit by a cyclist and had to go to the hospital.

(58) *Julie almost crossed the Champs-Élysées, but a cyclist hit her.*

People cross streets to get to the other side for a reason, and AAD works better when modally projecting the success of the motivating event.

(59) *Julie almost crossed the street to see a movie, but a cyclist hit her.*

(60) *Julie almost went to the theater, but a cyclist hit her.*

We only have space to sketch out what we observe here, but further exploration seems fruitful. Perhaps the necessary conditions for *almost* are affected by a question under discussion, or a main event under discussion. Or maybe crossing the street with an idea in mind requires that idea to be involved in the necessary conditions. What we can say with certainty is that AAD's availability depends on a number of factors, some of which are difficult to ascertain. In the next section we will discuss more factors, by extending our account to *almost* in other projections and seeing how they systematically block AAD.

5 *Almost* at other projections

In this paper we have focused on what we call “verbal *almost*,” which is the use of *almost* in the extended verbal projection above aspect and below tense. However, *almost* is routinely found at other points in the structure— with DPs, NPs, VPs, PPs, and so forth. Our denotation fits all of these without requiring the type-shifting or ambiguity in Morzycki (2001). In addition, we make a novel observation: *Almost* at-a-distance is always blocked with these complements. Only the proximity reading can hold.

5.1 Blocking the at-a-distance reading

A minimal pair reveals this fact well. If you are invited to a gala where ten heads of state are attending, the necessary conditions for meeting all ten unfold over the life of the party, so AAD is possible with a verbal complement (61). You might not have met any, but if things had gone a little differently, you would have met all ten.

(61) *I almost [met ten heads of state].*

proximity TRUE if you only met nine, because one left early.

AAD can be TRUE if your cab broke down on the way and you didn't meet any.

On the other hand, if *almost* directly takes *ten heads of state* as its complement, AAD is not allowed— you must have met nearly all ten.

(62) *I met almost [ten heads of state].*

proximity TRUE if you only met nine, because one left early.

AAD always FALSE if your cab broke down on the way and you didn't meet any.

The effect with non-verbal complements is pervasive, no matter which category the complement belongs to.

- (63) a. NP complement: *Johanna was an [almost [_{NP} doctor]], #but failed to get into medical school.*
 b. AP complement: *We gave the story an [almost [_{AP} happy]] ending, #but decided not to give it a clear ending at all.*
 c. PP complement: *Becky arrived in Rome [almost [_{PP} at 3 pm]], #but her flight was cancelled and she never left London.*
 d. AdvP complement: *The CEO prattled on [almost [_{AdvP} non-stop]], #but in the end decided not to say anything.*

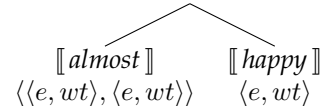
This effect undermines the common assumption in the literature of *almost* as a proposition-level operator no matter where it occurs in the sentence (Penka 2006; Amaral & Del Prete 2010; Kilbourn-Ceron 2017). Instead, this effect supports the findings of Rapp & von Stechow (1999) and Morzycki (2001) that *almost* is interpreted *in situ*.

5.2 Applying the denotation across categories

Our denotation in (15) works with non-verbal constituents as well. Here are just two examples, with quantifiers and adjectives, which show how the composition works. Let us begin by recapitulating the denotation of *almost*.

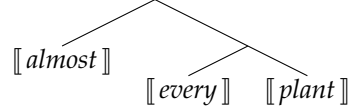
$$(64) \llbracket almost \rrbracket = \lambda\phi\lambda\alpha\lambda w. \exists Z \left[\left(Z \subseteq_{SE} NEC(\phi(\alpha))(w) \ \& \ w \notin \bigcup Z \right) \ \& \ (\forall w' [w' \in Best_{NI}(R(circ(w), Z)) \rightarrow w' \in \phi(\alpha)]) \right]$$

The meaning of *almost happy* becomes: There is a small-enough set of missing conditions Z for x to be happy in w , such that in worlds w' you assume Z along with the conditions that were actually met in w , then x is happy in w' .

- (65) a. $\llbracket happy \rrbracket = \lambda x\lambda w. happy(x)(w) : \langle e, wt \rangle$
 b. $\llbracket almost \rrbracket(\llbracket happy \rrbracket) : \langle e, wt \rangle$

 c. $\llbracket almost happy \rrbracket = \lambda x\lambda w. \exists Z \left[\left(Z \subseteq_{SE} NEC(\llbracket happy \rrbracket)(x)(w) \ \& \ w \notin \bigcup Z \right) \ \& \ (\forall w' [w' \in Best_{NI}(R(circ(w), Z)) \rightarrow happy(x)(w')]) \right]$

With a quantifier complement, the preadjacent is just the quantifier itself. The second argument of the quantifier becomes the second argument of *almost*.

$$(66) \quad \llbracket \textit{every plant} \rrbracket = \lambda Q \lambda w. \forall x [\textit{plant}(x)(w) \rightarrow Q(x)(w)] : \langle \langle e, wt \rangle, wt \rangle$$



$$(67) \quad \llbracket \textit{almost every plant} \rrbracket = \lambda Q \lambda w. \exists Z \left[\left(Z \subseteq_{SE} \text{NEC}(\llbracket \textit{every plant} \rrbracket(Q))(w) \ \& \ w \notin \bigcup Z \right) \ \& \ (\forall w' [w' \in \text{Best}_{NI}(\text{R}(\text{circ}(w), Z)) \rightarrow \llbracket \textit{every plant} \rrbracket(Q)(w')]) \right]$$

The meaning of *almost every plant* in (67) becomes: There is a small-enough set of missing conditions Z for Q to apply to every plant in w , such that in worlds w' you assume Z along with the conditions that were actually met in w , then Q applies to every plant in w' .

5.3 Understanding why AAD is blocked

Why is AAD blocked in these contexts? At first we could imagine that these versions of *almost* lack the counterfactual condition. However, this denotation would simply hold when there is a small enough set of necessary conditions missing for the property to hold, and that is equivalent to negation. Instead, we can keep the modal condition and rely on kinds of restrictions we have already seen on necessary conditions and modal circumstances.

We have seen that *almost* at-a-distance is blocked when the necessary conditions involve a sort of counting up after the fact, like the league standings at the end of the season. If we assume that quantifiers' necessary conditions always involve this kind of 'counting up', we can capture the restriction. That assumption raises the question of why it holds. The reason may be related to the meaning of generalized quantifiers. As a generalized quantifying determiner, *every* denotes a subset relation between its arguments such that the first is a subset of the second. As Barwise & Cooper (1981/2002) point out, we judge the truth of such a relation by pairing the members of the witness set offered by the first argument to the members of the set offered by the second. Applied to *almost*, if the first argument ϕ of *almost* denotes a quantifier, each necessary condition must apply the second argument α to a distinct member of the witness set in ϕ in w .¹⁵

For instance, imagine a context where members of a band of 10 fugitives tries to climb Mount Everest to raise awareness to prison conditions (68). If 8 or 9 of them succeed, *Q-almost* holds on the proximity reading.

$$(68) \quad \textit{Almost every fugitive climbed Mount Everest (in } w_0 \text{)}.$$

It does not hold on the proximity reading if only 4 of them climb the mountain. It also does not hold on the at-a-distance reading, so in the case where only 4 climb the mountain, (68) is simply false. Crucially, it is false even if the

¹⁵The nature of the complement of *almost* also governs the selection of scale selection in scalar accounts in similar ways—the scale of *almost every plant* will involve the plants, and so forth.

remaining six had begun climbing the mountain when they got caught. It is true that each of the six fugitives almost climbed Mount Everest on the at-a-distance reading (but they got caught). Thus, the blocking cannot be due to the way the event could or could not unfold. Instead, the assumed restrictions on necessary conditions forces them to apply the expression [$\lambda x \lambda w. x$ climbed Mt Everest in w] to each member of the set of fugitives.

- (69) $\text{NEC}(\llbracket 68 \rrbracket)(w_0) = \{$
 A: $\lambda w. \text{Amy climbed Mount Everest in } w,$
 B: $\lambda w. \text{Beth climbed Mount Everest in } w,$
 C: $\lambda w. \text{Catherine climbed Mount Everest in } w,$
 D: $\lambda w. \text{Dana climbed Mount Everest in } w,$
 E: $\lambda w. \text{Eliza climbed Mount Everest in } w$
 $\dots \}$

One can envisage a context that should obtain AAD via normal outcomes of adding the premises, but the normal outcomes do not have this effect, because the subset relation expressed by *every* requires the necessary conditions to be counted up after the fact. Even if we add premises, there is no room for the event to change after the fact when the counting up is conducted. If the premises we add do not suffice to entail p , *almost* fails.

In this section we have applied our cross-categorial version of *almost* to some other categories. We have also shown that the at-a-distance reading is not available with these other categories, and propose that the complements themselves impose necessary conditions that must be counted up after the fact, like the standings in the playoff example (31).

6 Avoiding the pitfalls of the polar condition

The polar condition of *almost* expresses that p doesn't hold. In doing so, it triggers a number of unwelcome consequences considering the negative operator it contains. It does not license NPIs (70), is immune to evaluation (71), and often seems to express an implicature (72, 73).

- (70) a. *Becky almost saw someone/*anyone.*
 b. **Becky almost played with Tom at all.*
- (71) *Amazingly, I almost met 10 heads of state at the party*
 \nrightarrow *It's amazing that I did not meet 10 heads of state at the party*
- (72) *We didn't ALMOST win, we DID win.*
- (73) *To pass, you have to get almost all the answers right*
 \nrightarrow *If you get them all right, you fail.*

The antecedent condition we propose involves an existential quantifier which obviates the first two consequences. For the third, we discuss how *almost* is sometimes subject to negation, and for the fourth we suggest that the pragmatics can apply on the modal base rather than the scale involved with *almost all*. We now address each of these in turn.

6.1 Existential quantifiers are upward-entailing

Negation downward-entails and licenses NPIs, but *almost* upward-entails and licenses PPIs (74), posing a major obstacle for a polar condition.

- (74) a. I almost saw a dog $\not\Rightarrow$ I almost saw a green dog (no DE)
 b. I almost saw a green dog. \Rightarrow I almost saw a dog (UE)
 c. *I almost saw anyone. *We almost went at all. (no NPIs)
 d. I almost saw someone. I almost believed him somewhat. (PPIs)

Penka (2006) suggests that this effect results from an intervention effect triggered by a higher focus operator, but incompatibility with NPIs applies even without one. Our denotation of *almost* in (15)/(64) predicts incompatibility with NPIs. Its antecedent condition (75a) contains an existential quantifier: Its domain is a set of missing conditions. The modal condition is in the nuclear scope of that existential quantifier, which is an upward-entailing environment (75b). The prejacent is in the nuclear scope of the universally quantified modal, and that is also an upward entailing environment.

- (75) a. $\exists Z [(Z \subseteq_{SE} NEC(p(t))(w) \ \& \ w \notin \cup Z) \dots$
 b. $\dots \forall w' [w' \in Best_{NI}(R(circ(w),Z)) \rightarrow w' \in p(t)]]$

6.2 Immunity to evaluative adverbs

Nouwen (2006) makes a novel observation about *almost*: Evaluative adverbs ignore the polar condition, despite taking scope over it.¹⁶ For instance, *Amazingly, we almost won* can mean that it's amazing that we nearly won, but it cannot mean that it's amazing we didn't win. This asymmetry is not predicted by a simple polar condition in conjunction with a proximal condition. Nouwen therefore suggests that the polar condition is not part of the assertion. However, the antecedent condition's existential quantifier offers a reason why this information is non-asserted: Existential quantifiers behave this way routinely.

- (76) $\llbracket \textit{Amazingly, we almost won in } w \rrbracket = \lambda w. \text{ It's amazing that [there's a small enough set of missing conditions for us winning such that in all the modal worlds } w' \text{ where that set holds, we win]}$

Amazingly, a dog bit me cannot mean that it's amazing that a dog existed. Likewise, (76) cannot mean it is amazing that there is a small enough set of missing conditions. What is amazing is the nuclear scope of the existential— if that small enough set had held, we would have won.¹⁷

¹⁶Horn (2011) offers further examples.

¹⁷A reviewer asks if the location in a domain restrictor makes this condition presupposed, but existential quantifiers are generally weak, so their domain can be empty under negation (*I didn't see a unicorn*) and easily new to the discourse.

6.3 The negation is truth-conditional

Alternatively, several accounts have proposed that the polar condition fails to behave like asserted negation because it is not asserted. [Sadock \(1981\)](#) claims it to be an implicature, [Nouwen \(2006\)](#) suggests a presupposition, and [Horn \(2002\)](#) lands between, as a proposition lacking assertoric force. However, negating an *almost*-clause is possible. The meaning of *almost* contains a conjunction between antecedent and modal conditions, so we predict two possibilities for readings of negation with *almost*, and both can occur (77), showing that negation poses no necessary problems for the antecedent condition of *almost*.

- (77) *We didn't almost win.*
- a. = We did win
(false antecedent condition: There are no small-enough subsets of missing conditions)
 - b. = We weren't even close
(false modal condition: Any small enough subset fails to entail)

Many people (including reviewers) have indicated to us that (77a) involves metalinguistic negation. Following ([Horn 1985, 1989](#)), metalinguistic negation negates not the proposition, but rather an implicature already in the discourse. *We almost won* would implicate that we did not win, and the negation negates that. These indications depend on the assumption that the implicature is present, which itself rests on the idea that negating *almost* behaves like other cases of metalinguistic negation with scalar interpretation. However, it differs in two important ways.

The first involves direction on the scale. Scalar metalinguistic negation only takes us higher on the scale ([Moeschler 2018](#)), since it negates the implicature that the higher points on the scale don't hold.

- (78) a. *Some dogs aren't cute; all of them are.*
b. * *Some dogs aren't cute; none of them are.*

Going lower on the scale is a sign of truth-conditional negation.

- (79) a. *He's not KINDA tall, he IS tall.* [metalinguistic]
b. *He's not KINDA tall, he's short.* [# on metalinguistic]

Likewise, 'not almost' can go lower on the scale at least some of the time, so it has truth-conditional effects.

- (80) *You didn't almost win; you got clobbered.*

The second difference from metalinguistic negation involves scalar entailment. Quite generally, the meta-negated proposition is actually true. This is especially true when replacing terms: *We don't BURY the DEAD here, we INTER the DEPARTED*. The proposition is still true with scalar metalinguistic negation, entailed as a corollary of how scales are interpreted. If all dogs are cute,

some of them are. If negating *almost* were always metalinguistic, we would predict this entailment property to apply in all cases, but that prediction does not hold.

If Ted is home, ‘Ted is home’ does not entail that ‘Ted is almost home’ at the topic time. Saying *Ted is almost home* would be plainly false. If a healthy man named Ted dies instantaneously, ‘Ted died’ does not entail the truth of ‘Ted almost died’ for same time interval. Or consider the game of Quidditch from the *Harry Potter* series, which has been adapted for earthbound play. You can score points mainly in 10-point chunks, but the game ends when one team grabs the snitch, which earns them 150 points. If a team is losing 120-0 and a player grabs the snitch, they win 150-120, but it isn’t clear that they ever almost won on the scoreboard reading. On other readings, they may have almost won (e.g., the player had almost grabbed the snitch at one point), but if negating *almost* were always metalinguistic, we would predict it to apply to all readings and that prediction does not hold.

Ultimately, scalar metalinguistic negation is not applying to *almost* the way we expect it would. We either have to conclude implausibly that *almost p* is not available to be placed into a scale with other modifiers, or conclude that it is not generating the implicature that metalinguistic negation targets. The second is plausible and it is supported by the data shown. It is just as well, for negating verbal *almost* is sometimes clearly truth-conditional. We saw this already in (32), when the proposition that New York made the playoffs was true or false depending on NEC. We can also generate more playoff cases with negation where the participants do share necessary conditions, and the result was lower than the threshold for *almost*.

- (81) A: *Look at that, we almost won!*
B: *No we didn’t. We were six places out of first.*
- (82) Context: Chicago finished in 9th, far from the 3rd place playoff cutoff
A: *Chicago almost made the playoffs, right?*
B: **Looks at standings* No.*

If negating *almost* is naturally truth-conditional, why does it seem so metalinguistic? Barring uses where it actually is metalinguistic, we suspect that this effect results from contrastive focus on *almost*, accompanied by a prominent intonation. If focus is elsewhere, or the intonation is flat on *almost*, the negation can be truth-conditional. We will not detour from our main discussion to try and work out the details of this suspicion, since our point is to demonstrate that negating *almost* has truth-conditional effects. This demonstration suffices to show that the antecedent condition is asserted.¹⁸

¹⁸This effect also suggests that *almost* is not always a PPI, contrary to claims in the literature (Spector 2014). We do not pursue this suggestion, in part because it strays from the topic at hand, and in part because our examples and Spector’s are different. Our examples are generally echoic in nature, since *not almost p* is usually degraded out of the blue. Spector sets aside echoic examples aside to focus on PPIs. It is true that *not almost p* is degraded without a lead-in, although it may be blocked by the availability of *p* for one reading and not *p* for the other. Not to mention, PPI claims

This assertion entails the content of a polar condition, but that entailment does not get involved in the pragmatics. Spector (2014) points out that *almost* is felicitous under a negated factive verb, but the polar condition does not contribute to the factive attitude as we should expect if it is asserted. However, the antecedent condition does contribute as an asserted condition should. Here is a novel example of this sort to illustrate the point.

Context: Mary was married to a fisherman, but in 1850, her husband was lost at sea in a gale. 150 years later, divers found the wreck of his ship just 10 miles off shore.

(83) *Mary never found out that her husband almost made it home that night.*

If the classic polar condition is asserted, then it must be the case that Mary never found that her husband didn't make it home. However, she obviously did find that out, so the classic polar condition isn't asserted. However, our antecedent condition contributes something different: Mary never found out that there was a small enough set of missing conditions such that, had they occurred with what did happen, he would have made it home that night. This is compatible with her finding out that he didn't make it home, which is only entailed.

6.4 *Almost* in 'at least' contexts

Nouwen (2006) pointed out that asserting 'not p ' is precluded by the 'at least' reading, as in (84), where you can still pass if you answer them all.

(84) *If you want to pass the exam, you have to answer almost all questions correctly.*

Cases like this have led to accounts that propose that *almost* implicates the polar condition. To capture *at least* readings most of the time, (Spector 2013, 2014) proposes an exhaustivity operator. Essentially, *almost p* means '(at least) close to p ' on a scale, and the operator closes off the higher points on the scale. Exhaustification-based accounts allow for the modal in cases like this to block an exhaustification operator from applying to *almost*, allowing the 'at least' reading to surface.

We are not sure how that account would work with *almost* at-a-distance, where closeness does not hold and a modal is required for the higher points on the scale. However, in this section we do want to point out that in some cases we can derive the pragmatic effect here without a separate operator. Consider the following example, based on Nouwen's.

Context:

You will be taking an exam that has ten questions, where getting 8 correct is required to pass.

tend to involve quantifier-almost, which we have already shown to differ in significant ways from verbal-almost, and that difference leads us astray again.

- (85) a. *To pass the test, you have to get almost every answer right.*
 b. *To pass the test, you have to get eight answers right.*

Spector noticed that ‘at least’ readings are easily obtained when modality is involved, and proposes that the modal blocks exhaustification. However, the premise semantics of modals can do this work just as well without extra operators. The modal base provides the goal that defines the worlds where the obligation needs to be met. If the goal is to pass or do better, then in all those worlds, you get exactly eight answers right. That is, almost every answer but not every answer.

The ‘at least’ reading can also be attained pragmatically from the modal’s premises. In (85b), one seems to imply that the goal is to pass or perhaps do better. But if one makes that implicature overt with a verb meaning ‘get every question right’, the consequent no longer holds.

- (86) (same context: 10-question test)
 a. *#To pass or ace the test, you have to get eight answers right.*
 b. *#To pass or ace the test, you have to get almost every answer right.*

Instead, the goal can be always the minimum to pass: exactly 8. In that case, the best ordered worlds in the assertion will be those where you score 8, but not 9 or 10. These “8” worlds work with *almost*, too, because in all those worlds, you almost score 10. Now, the pragmatics can still provide an ‘at least’ reading through a scalar implicature on the *domain*. If “8” worlds meet the minimum, we can infer that in “9” worlds or “10” worlds we pass, too, whether the prejacent still holds or not. This implicature is cancelable (87). Similar pragmatics work with *almost*. The nuclear scope is false in worlds where you score 10, but those are not at issue in the modal domain when you score 8, except by cancelable implicature.

- (87) a. *To pass, you have to get 8 questions right. But watch out: If you get more than 8 right, they’ll actually fail you.*
 b. *To pass, you have to get almost every question right. But watch out: If you get them all, they’ll actually fail you.*

This discussion obviously cannot substitute for a full contribution to the debate on at least/exactly readings, or on the nature of exhaustification operators, which have proven useful in many domains. However, it does show how the ‘exactly’ reading is compatible with the pragmatics of premise-based modals, and that compatibility permits an antecedent condition that is not implicated. It seems to us that a synthesis of exhaustification operators with the modal premises of *almost* offers a promising line of future research; indeed, perhaps such an operator is creating the effect on the modal restrictor.

7 Conclusion

In this paper we have demonstrated that the meaning of *almost* requires an expression of scalar proximity and a modal expression for cases when proximity fails. We argue that this modal employs the non-interrupting ordering source found in the modal progressive, but differs from the progressive with respect to temporal interpretation. Our approach distinguishes proximity readings from at-a-distance readings, and we see that the at-a-distance readings show the kinds of contextual variability we expect from premise-based modals with circumstantial modal bases.

Moreover, our re-orientation offers solutions to many of the mysteries concerning the nature of *almost*, which arise from a polar condition that negates the prejacent. Our antecedent condition instead entails the negation without its problematic aspects with respect to entailment, polarity, and implicature.

Looking more broadly, we have seen that modality plays an important role for formulating a sense of proximity, at least when we discuss the completion of eventualities. Our account also adds to the growing list of modal expressions used throughout the semantics, and lends further support for the use of non-interrupting ordering sources in determining the probable outcomes of incomplete events.

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