Progressive Specificity

Nathaniel Baron-Schmitt and Ginger Schultheis

1 Introduction

Aspect is concerned with how events unfold over time. Compare:

(1) Matt walked to the park yesterday.

(2) Matt was walking to the park yesterday.

(1), which features perfective aspect, says that a walk of Matt's to the park was completed yesterday. (2), which features progressive aspect, says that a walk of Matt's to the park was in progress.

More generally, perfective aspect tells us that an event of the type denoted by the sentence's main verb phrase was completed. Progressive aspect tells us that an event of the type denoted by the sentence's main verb phrase was in progress.

This paper is about progressive aspect: it is about what it is to be doing something, such as walking to the park or falling asleep on the train. We defend a new constraint on the progressive, which says that what you are doing is always specific in an important sense. This principle is:

> **Progressive Specificity**
> If you are Ving and to V is to X or to Y, then you are Xing or you are Ying.

For example, suppose that I am eating fish. Then, Progressive Specificity says, I am eating salmon or eating cod or eating some other kind of fish. Or suppose I am driving to the Twin Cities (in Minnesota). Then, Progressive Specificity says, I am driving to Minneapolis or I am driving to Saint Paul.

Several theorists—such as Bonomi (1997), Szabó (2004), and Kroll (2018)—have discussed cases like these, but they reject Progressive Specificity's verdicts about them. To our knowledge, we are the first to take Progressive Specificity seriously. In §II–§III, we introduce Progressive Specificity and offer six arguments for it. In §IV, we suggest that these arguments extend to the futurative progressive. In §V, we explore the relationship between Progressive Specificity and Conditional Excluded Middle.

2 Progressive Specificity

Contrast two kinds of verb phrases: 'activity' verb phrases and 'accomplishment' verb phrases.[1] 'Drive' and 'eat fish' are activity verb phrases. They stand for activities—driving and eating fish—which do not have a built-in culmination point. 'Drive to the Twin Cities' and 'eat a fish' are accomplishment verb phrases. They stand for accomplishments—driving to the Twin

[1] Vendler (1957).

Cities and eating a fish—which do have a built-in culmination point: they have culminated when you are in the Twin Cities and when a fish is in your stomach.

The distinguishing feature of activity verb phrases is that their progressive form is equivalent to their perfective form: if 'V' is an activity verb, and Ving is an activity, then you were Ving if and only if you Ved. You were driving if and only if you drove. You were eating fish if and only if you ate fish.

Activities satisfy Progressive Specificity: if Ving, Xing, and Ying are activities, and to V is to X or to Y, then if you were Ving, you were Xing or you were Ying. Why? Suppose you were eating fish. Since eating fish is an activity, you ate fish. If you ate fish, you ate a particular kind of fish: salmon or cod or some other kind of fish. So, you were eating salmon or eating cod or eating some other kind of fish.

The distinguishing feature of accomplishment verb phrases is that their progressive form does not entail their perfective form. If you were driving to the Twin Cities, it does not follow that you drove to the Twin Cities. If you were eating a fish, it does not follow that you ate a fish. For this reason, our argument that activities satisfy Progressive Specificity will not work for accomplishments. Moreover, when we look at particular examples featuring accomplishments, Progressive Specificity seems less obvious. Here's one, adapted from Andrea Bonomi (1997).

> *Twin Cities*
> Sally is driving west from Boston. She has decided to drive to Minneapolis or Saint Paul, but hasn't decided which. She will decide in Chicago.

(3) is true in *Twin Cities*.

(3) Sally is going to the Twin Cities.

To go to the Twin Cities is to go to Minneapolis or to go to Saint Paul. So Progressive Specificity says that (3) entails (4).

(4) Either Sally is going to Minneapolis or Sally is going to Saint Paul.

Many will be skeptical of (4). Suppose Sally dies in a crash before deciding whether to drive to Minneapolis or Saint Paul. Progressive Specificity says that (4) was still true before the crash. But skeptics will worry: what could make it the case that Sally was going to Minneapolis rather than Saint Paul, or vice versa? We return to this objection in §V. But first we will argue that (3) does indeed (4), and more generally, that Progressive Specificity is true.

3 Six Arguments

First Argument
It sounds contradictory to assert (3) while denying (4).

(5) #Sally is going to the Twin Cities, but she is not going to Minneapolis and she is not going to Saint Paul.

It is instructive to compare (5) with (6).

(6) Sally has decided to go to the Twin Cities. But she has not yet decided which. She has not yet decided to go to Minneapolis and she has not yet decided to go to Saint Paul.

Unlike (5), (6) does not sound like a contradiction. That is because, unlike the progressive 'going', 'decide to go' does not obey a specificity principle: if you have decided to V, and to V is to X or to Y, it does not follow that you have decided to X or that you have decided to Y.

Second Argument

If we tried to make sense of why a speaker would assert (5), we would be inclined to conclude that the speaker does not know that the Twin Cities includes only Minneapolis and Saint Paul. (Maybe they think that a certain neighboring suburb is part of the Twin Cities.)

This inference makes sense if Progressive Specificity is true, and we know the speaker knows that it is. Why? The speaker said that Sally is going to the Twin Cities. They also said Sally is not going to Minneapolis and is not going to Saint Paul. It follows from Progressive Specificity that the Twin Cities includes more than Minneapolis and Saint Paul.

Similar things can be said about other cases. Consider:

(7) #I am drawing a triangle. But I am not drawing a scalene triangle, and I am not drawing an isosceles triangle, and I am not drawing an equilateral triangle.

Like (5), (7) sounds like a contradiction. If we tried to make sense of why a speaker would assert (7), we would be inclined to conclude that the speaker believes there is a fourth type of triangle. This inference makes sense if Progressive Specificity is true, and we know the speaker knows that it is.

Third Argument

If you know (3)—that Sally is going to the Twin Cities—then you know (8).[2]

(8) If Sally is not going to Minneapolis, then she is going to Saint Paul.

Progressive Specificity explains this. Here's how. Progressive Specificity says that (3) entails (4).

(3) Sally is going to the Twin Cities.

(4) Either Sally is going to Minneapolis or Sally is going to Saint Paul.

So if you know (3), you know (4). And standard theories of conditionals say that if you know (4), you know (8). (This is an instance of the 'Or-to-If' Inference: if you know ⌜A or B⌝, you know ⌜If A, then B⌝.[3])

If Progressive Specificity fails, then (8) cannot be known. (8) entails the disjunction (4), and so if (4) is false, (8) is false. But then (8) cannot be known.

[2] Or you are in a position to know it, given that you know Progressive Specificity.

[3] Stalnaker (1975).

Fourth Argument

If you know (3), your credences in (9) and (10) should sum to one.

(9) Sally is going to Minneapolis.

(10) Sally is going to Saint Paul.

Here is one way to illustrate this. Suppose Sally will decide whether to go to Minneapolis or Saint Paul by flipping a coin. If heads, Minneapolis. If tails, Saint Paul. She flips the coin, and you and she are about to see how it landed. How confident should you be in (9) and (10)?

If you think the coin is fair, you should be 50% confident in each. Now suppose you learn that the coin is three times as likely to land heads than tails. Then you should decrease your confidence in (10) to 25% and increase your confidence in (9) to 75%. If you learn the coin is four times more likely to land heads, you should decrease your confidence in (10) to 20% and increase your confidence in (9) to 80%.

A pattern is emerging: even as your credences in (9) and (10) change, you remain certain of their disjunction, (4). Progressive Specificity explains this. You remain certain of (4) because you remain certain of (3)—which is true by the setup of the case—and, according to Progressive Specificity, (3) entails (4).

If Progressive Specificity fails and you know that it fails, then it should be rational for you to be sure that (3) is true and, at the same time, sure that (9) and (10) are false. But this would not be rational.

Fifth Argument

Progressive Specificity explains why certain 'wish' reports and certain counterfactuals sound bizarre in *Twin Cities*.

Begin with wishing. Before Sally has decided where to go, it would be strange for me to say either of these:

(11) ?I wish Sally were going to Minneapolis.

(12) ?I wish Sally were going to Saint Paul.

Progressive Specificity explains why. You can wish that p only if you believe that p is false. If I know that Progressive Specificity is true, I know that Sally is going to Minneapolis or going to Saint Paul. So I cannot wish that Sally were going to Minneapolis and that she were going to Saint Paul.[4] On the other hand, if Progressive Specificity failed in *Twin Cities*, (11) and (12) would not be inappropriate. If (9) and (10) were both false, then I could know that they are false and wish for them to be true.

Turn to counterfactuals. Suppose that if Sally goes to Minneapolis, she will have to buy a gift for her nephew, and if she goes to Saint Paul, she will have to pay a toll. I cannot say either

[4] Why are (11) and (12) *both* infelicitous if Sally is going to only one of the two cities? Answer: neither (9) nor (10) is knowably false. In §V we suggest that although it is determinately true that Sally is going to exactly one of Minneapolis and Saint Paul, it is indeterminate which of the two cities Sally is going to.

of these before Sally has decided where to go:

(13) #If Sally had been going to Minneapolis, she would need to think about what to buy for her nephew.

(14) #If Sally had been going to Saint Paul, she would need to look for cash for the tollbooth.

Once again, Progressive Specificity explains this. In general, you can rationally believe a counterfactual only if you believe its antecedent is false.[5] If I know Progressive Specificity is true, I know that Sally is going to Minneapolis or going to Saint Paul. So I cannot rationally believe both (13) and (14).

Sixth Argument
Suppose Sally says:

(15) I am going to Saint Paul or Minneapolis.

Progressive Specificity explains why (15) doesn't have certain implicatures. To see why, we will contrast (15) with (16), which concerns where Sally has decided to go.

(16) I have decided to go to Saint Paul or Minneapolis.

(16) typically implicates that Sally, the speaker, has not decided to go to Saint Paul and that she has not decided to go to Minneapolis. Why does it carry this implicature? According to the Gricean story, the hearer reasons as follows:

> Sally did not say either of (17) or (18).
>
> (17) I have decided to go to Minneapolis.
>
> (18) I have decided to go to Saint Paul.
>
> Both (17) and (18) are more informative than (16). Sally is obeying the Maxim of Quantity: if she knew (17), she would have said (17). If she knew (18), she would have said (18). So, Sally must not know (17) or (18). But surely Sally knows whether she has decided to go to Minneapolis and whether she has decided to go to Saint Paul. That is, if (17) were true, Sally would know (17). If (18) were true, she would know (18). Since she does not know either, (17) and (18) must both be false.

Return to (15). An assertion of (15) never implicates that Sally is not going to Saint Paul and is not going to Minneapolis. Of course, this is what we would expect if Progressive Specificity were true. If (15) entails that Sally is going to Saint Paul or going to Minneapolis, it cannot

[5] There are exceptions to this generalization (Anderson 1951). Sometimes speakers use counterfactuals to argue that their antecedents are true. (Investigating Jones' death, a doctor says: 'if Jones had taken arsenic, he would be showing these very symptoms. So he (probably) took arsenic.') We are supposing that (13) and (14) are not being used like this.

implicate that she is not going to Minneapolis and that she is not going to Saint Paul. But if Progressive Specificity were not true, we would expect 'going' to work like 'decide to go': we would expect hearers to reason about (15) in exactly the same way as they reason about (16), resulting in an implicature that Sally is not going to Minneapolis and not going to Saint Paul.

Taking Stock

Those who discuss cases like *Twin Cities* reject Progressive Specificity's verdicts: although it is true that Sally is going to the Twin Cities, it is false that she is going to Minneapolis and false that she is going to Saint Paul.[6] We have given six arguments against this view.

But there is a way to accommodate some of our arguments without accepting Progressive Specificity. According to the view we have in mind, the disjunction (4), 'Either Sally is going to Minneapolis or Sally is going to Saint Paul,' is indeterminate in truth-value before Sally reaches Chicago—not determinately false (as is usually thought), and not determinately true (as we have argued). On this view, Progressive Specificity itself is indeterminate. Call this view the 'indeterminacy view'.[7]

The indeterminacy view escapes some of our arguments. For example, in our first argument, we say that (5) is infelicitous. The indeterminacy view can accommodate this point. It says that (5) is indeterminate (because its second conjunct is indeterminate). And in general, if you know that a sentence is indeterminate, it is not acceptable to assert it. In our fifth argument, we say that certain 'wish' reports, such as (11) and (12), and certain counterfactuals, such as (13) and (14), sound bizarre. The indeterminacy view can accommodate these points. In general, 'wish' reports are infelicitous when their prejacents are known to be indeterminate. Likewise, counterfactuals are infelicitous when their antecedents are known to be indeterminate.

However, some of our arguments do tell against the indeterminacy view. Consider our first argument. We say that (5) seems contradictory (not merely infelicitous). The indeterminacy view cannot accommodate this point. If (5) is a contradiction, then it is determinately false.

Consider our second argument. We say that if we tried to make sense of why a speaker would assert (5), we would conclude that she believes that the Twin Cities includes more than Saint Paul and Minneapolis. The indeterminacy view cannot accommodate this point: the inference makes sense only if Progressive Specificity is true, and we know that the speaker knows this.

Consider our third argument. We say that if you know the setup of *Twin Cities*, then you know this conditional: if Sally is not going to Minneapolis, then she is going to Saint Paul. The indeterminacy view cannot accommodate this point. This conditional entails (4), and so if (4) is indeterminate, the conditional is too. But if it is indeterminate, it cannot be known.

And finally, consider our fourth argument. We say that your credences in 'Sally is going to Minneapolis' and 'Sally is going to Saint Paul' should sum to one: you should always remain

[6] See Bonomi (1997), Szabó (2004), and Kroll (2018).

[7] We are grateful to an anonymous referee for suggesting the indeterminacy view. Boylan (2022) develops a similar indeterminacy view of ability.

certain of their disjunction, (4). The indeterminacy view cannot accommodate this point: if (4) is known to be indeterminate, you should not be certain that it is true.

4 Futurative Specificity

Contrast these sentences.

(19) Arnold is signing the form (right now).

(20) Arnold is signing the form tomorrow.

(21) Arnold is signing the form sooner or later.

So far we have focused on sentences like (19). (19) displays the standard progressive. By contrast, (20) and (21) display the futurative progressive. (19) says that Arnold is in the midst of action. (20) and (21) do not: though they are in the present tense, they are about future action.

Progressive Specificity concerns the standard progressive. We endorse an analogous principle for the futurative progressive, stated below.

> **Futurative Specificity**
> If you are Ving sooner or later, and to V is to X or to Y, then you are Xing sooner or later or you are Ying sooner or later.

For an example, let's look a bit more closely at Arnold's situation.

> *Signing the Form*
> Arnold has decided to sign the form tomorrow. To sign the form is to sign it electronically or to sign it physically. He has not decided which he will do, but he will definitely sign it.

(22) is true in Signing the Form:

(22) Arnold is signing the form tomorrow.

Futurative Specificity says that (22) entails (23).

(23) Either Arnold is signing the form electronically tomorrow or he is signing it physically tomorrow.

Our six arguments for Progressive Specificity carry over, mutatis mutandis, to Futurative Specificity.

5 Progressive Specificity and Conditional Excluded Middle

Progressive Specificity is a close analogue of the following principle about conditionals:

> **Conditional Specificity**
> If ⌜if A, then B or C⌝ is true, then ⌜if A, then B, or if A, then C⌝ is true.

Given minimal background assumptions, Conditional Specificity is equivalent to the more familiar:

Conditional Excluded Middle
⌜Either, if A, then B or if A, then not B⌝ is always true.

Though it is not universally accepted, there is an emerging consensus that Conditional Excluded Middle is valid.[8]

We think that anyone who accepts Conditional Excluded Middle should accept Progressive Specificity for two reasons. First, many standard arguments for Conditional Excluded Middle can be turned into arguments for Progressive Specificity. We have already seen one of these: the credence-theoretic argument for Progressive Specificity (our Fourth Argument) parallels a well-known credence-theoretic argument for Conditional Excluded Middle.[9]

Second, we can argue from Conditional Excluded Middle to Progressive Specificity by exploiting the close connection between the progressive and counterfactuals. Recall Sally's death in the crash, before she has a chance to decide whether to go to Minneapolis or Saint Paul. Conditional Excluded Middle says that (24) is true.

(24) Either, if Sally hadn't died in the car crash, she would have gone to Minneapolis, or if she hadn't died in the crash, she would have gone to Saint Paul.

But surely if (24) is true, so is (25).

(25) Either Sally was going to Minneapolis or Sally was going to Saint Paul.

If Sally would have gone to Minneapolis if she hadn't died in the crash, then she was going to Minneapolis; if she would have gone to Saint Paul, then she was going to Saint Paul.

We have argued that anyone who accepts Conditional Excluded Middle should accept Progressive Specificity. Not everyone accepts Conditional Excluded Middle, however. Why not? Fans of Conditional Excluded Middle say (24) is true in *Twin Cities*. But it is natural to worry: if we say that (24) is true, aren't we forced to say that exactly one of (26) and (27) is true?

---

[8] For defenses of Conditional Excluded Middle, see Stalnaker (1980), Bacon (2015), Cariani & Goldstein (2018), Dorr & Hawthorne (ms), Khoo (2022), Mandelkern (2019, 2024), Santorio (2022), Schultheis (2023), and Williams (2010).

[9] Other arguments for Conditional Excluded Middle have analogues supporting Progressive Specificity. Higginbotham (1986, 2003) observes that Conditional Excluded Middle is needed to explain the equivalence of:

(i) No one passed if they goofed off.

(ii) Everyone failed if they goofed off.

A similar argument can be given for Progressive Specificity. Suppose that a class of students is going to the Twin Cities. Progressive Specificity is needed to explain the equivalence of:

(iii) Everybody is going to the Twin Cities, but nobody is going to Saint Paul.

(iv) Everybody is going to Minneapolis.

(Thanks to an anonymous referee for suggesting we include this point.)

(26) If Sally hadn't died in the crash, she would have gone to Minneapolis.

(27) If Sally hadn't died in the crash, she would have gone to Saint Paul.

But surely any choice between these two counterfactuals would be objectionably arbitrary: what could favor (26) over (27) or vice versa? The classic answer to this objection—given by Stalnaker (1980)—is that nothing could, and nothing does. This is not to say that one of these two counterfactuals is a brute, unexplained determinate truth. Rather, nothing determines that (26) is true rather than (27) or vice versa because neither (26) nor (27) is determinately true. Both are indeterminate.

The charge of arbitrariness applies equally to Progressive Specificity. We say that the disjunction (25) is true after Sally's death in the crash. But skeptics will worry: if (25) is true, aren't we forced to say that exactly one of (26) and (27) is true?

(28) Sally was going to Minneapolis.

(29) Sally was going to Saint Paul.

But any choice between these sentences would be objectionably arbitrary: what could favor (28) over (29) or vice versa? Our answer is the same as Stalnaker's. Nothing could, and nothing does. This is not to say that one of (28) and (29) is a brute, unexplained determinate truth. Nothing determines that (28) is true rather than (29) or vice versa because neither is determinately true. Both are indeterminate.[10]

6 Conclusion

Although Progressive Specificity has been widely rejected, the case in its favor is strong. It is intrinsically plausible and ought to be accepted by anyone who accepts Conditional Excluded Middle. A further question is how it should be integrated into a theory of the progressive. Certain modal theories—such as that of Landman (1992)—have been rejected on the ground that they validate Progressive Specificity (Bonomi 1997, Szabó 2004). In our view, that very feature is a virtue. Similarly, counterfactual theories of the progressive validate Progressive Specificity, so long as the counterfactual obeys Conditional Excluded Middle. This is auspicious for the prospects of a counterfactual analysis of the progressive.

[10] We leave open the exact sense in which (26) and (27) and (28) and (29) are indeterminate. As a referee points out, how we understand indeterminacy may matter for some of our arguments. We suggest that one's credences in (28) and (29) should sum to one. Some—like Stalnaker (1981)—understand counterfactual indeterminacy as a kind of vagueness, but it is not clear that we can assign non-zero credences to vague claims. One alternative approach would be to understand indeterminacy epistemically. (See Blumberg & Holguín (forthcoming) on these issues.)

References

Bacon, Andrew. 2015. 'Stalnaker's Thesis in Context.' *Review of Symbolic Logic*, 8(1): 131–163.

Blumberg & Holguín (forthcoming). 'Fictional Reality'.

Bonomi, Andrea. 1997. 'The Progressive and the Structure of Events.' Journal of Semantics, 14(2): 173–205.

Boylan, David (2021). 'Does Success Entail Ability?' Noûs 56 (3):570-601.

Cariani, Fabrizio & Simon Goldstein. 2018. 'Conditional Heresies.' *Philosophy and Phenomenological Research* (2): 251–282.

Dorr, Cian & John Hawthorne. Manuscript.. *If...: A theory of conditionals.*

Dowty, David. 1979. *Word Meaning and Montague Grammar*. Dordrecht: Reidel.

Khoo, Justin. 2022. *The Meaning of 'If'.* Oxford University Press.

Mandelkern, Matthew. 2018. "Talking About Worlds." *Philosophical Perspectives*, 32 (1): 298–325.

Mandelkern, Matthew. Forthcoming. *Bounded Meaning: The Dynamics of Interpretation*. Oxford University Press.

Santorio, Paolo. 2022. 'Path Semantics for Indicative Conditionals'. Mind 131 (521): 59-98.

Schultheis, Ginger. Forthcoming. "Might' Counterfactuals.' *Linguistics and Philosophy*.

Stalnaker, Robert. 1975. 'Indicative conditionals.' *Philosophia* 5, pp. 269-286.

Stalnaker, Robert. 1980. 'A Defense of Conditional Excluded Middle.' In William L. Harper, Robert Stalnaker and Glenn Pearce (eds.), *Ifs: Conditionals, beliefs, decision, chance, and time*, 87–105. Dordrecht: Reidel.

Szabó, Zoltan. 2004. 'On the progressive and the perfective'. *Noûs* 38, 29–59.

Vendler, Zeno. 1957. 'Verbs and times.' *Philosophical Review* 66 (2):143-160.

Williams, J. Robert G. 'Defending Conditional Excluded Middle'. *Noûs* 44 (4): 650–668.