Progressive Specificity

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1 Introduction

Viewpoint 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 yesterday.

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, falling asleep in the train, or climbing a mountain. We defend a new constraint on the progressive, a constraint that 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 either eating salmon or I am eating cod or I am eating some other kind of fish. Or suppose that I am driving to the Twin Cities (in Minnesota). Then, Progressive Specificity says, either I am driving to Minneapolis or I am driving to Saint Paul.

Many philosophers and linguists reject Progressive Specificity.[2] Indeed, Bonomi (1997) claims that the failure of the principle generates a paradox: the 'multiple-choice paradox'. He says:

> "[The multiple choice] paradox must be accounted for by any adequate theory of the progressive. The difficulty [is that] it can be true that a is going to b or c although it is not true that a is going to b and it is not true that a is going to c." (Bonomi, p. 183)

We deny that the paradox arises, because we endorse Progressive Specificity. If you are going to b or to c, then either you are going to b or you are going to c.

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[2] See Bonomi (1997), Szabo (2004), and Kroll (2018).

To our knowledge, we are the first to explicitly endorse Progressive Specificity. In §II–§III, we introduce Progressive Specificity and offer three arguments for it. In §IV, we explore the relationship between Progressive Specificity and the well-known principle of Conditional Excluded Middle.

2 Progressive Specificity

Contrast two kinds of verb phrases: 'activity' verb phrases and 'accomplishment' verb phrases.[3] 'Drive', 'paint', and 'eat fish' are activity verb phrases. They stand for activities—driving, painting, and eating fish—which do not have a built-in culmination point. 'Drive to the Twin Cities', 'paint a portrait', 'eat a fish' are accomplishment verb phrases. They stand for accomplishments—driving to the Twin Cities, painting a portrait, eating a fish—which do have a built-in culmination point: they have culminated when you are at the Twin Cities, when a portrait exists, 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 phrase, 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 painting if and only if you painted. 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, it follows that you were Xing or that you were Ying. Why? Return to the example of eating fish. Suppose you were eating fish. Since eating fish is an activity, it follows that you ate fish. If you ate fish, you ate a particular kind of fish: you ate salmon or cod or some other kind of fish. It follows that you were eating salmon or you were eating cod or you were 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 painting a portrait, it does not follow that you painted a portrait. 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, and moreover, when we look at particular examples featuring accomplishments, Progressive Specificity seems much less obvious. Consider the following example, adapted from Andrea Bonomi (1997).

> *Driving to the Twin Cities*
>
> Sally is driving west from Boston, and has decided to drive to either Minneapolis or Saint Paul, but hasn't decided which. She will decide once she reaches Chicago.

(3) is true in Driving to the Twin Cities.

(3) Sally is going to the Twin Cities.

[3] Vendler (1957).

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 the truth of (4). Suppose Sally dies in a car 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 possibly make it the case that Sally was going to Minneapolis rather than Saint Paul, or vice versa?[4] We will return to this objection in §V. But first we will give three arguments that (3) does indeed entail (4), and more generally, that Progressive Specificity is valid.

3 Three Arguments

First Argument
You cannot 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.

(5) is unacceptable—it sounds like a contradiction.

It is instructive to compare the infelicitous (5) with the felicitous (6).

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

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

Second Argument
If you know (3)—that Sally is going to the Twin Cities—then you know the conditional (7).

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

If Progressive Specificity holds in Driving to the Twin Cities, we can easily explain why this is so.

Here's how. Progressive Specificity says that (3) entails (4). If that's right, then if you know (3), you know (4). And standard theories of conditionals say that if you know (4), you know (7). (The inference from (4) to (7) is an instance of the well-known 'Or-to-If' Inference: if you know the disjunction ⌜A or B⌝, it follows that you know the conditional ⌜if not A, then B⌝.[5])

If Progressive Specificity fails in Driving to the Twin Cities—that is, if (4) is false—then (7) cannot be known. According to standard theories of conditionals, a conditional ⌜if A, then B⌝

[4] See Szabo (2004).

[5] Stalnaker (1975).

entails the disjunction ⌜not A or B⌝.[6] In particular, (7) entails the disjunction (4), and so if (4) is false, (7) is false, too. But then of course (7) cannot be known.

Third Argument
Suppose Sally will decide whether to go to Minneapolis or Saint Paul by flipping a coin. If heads, she will go to Minneapolis. If tails, she will go to Saint Paul. How confident should you be in (8) and (9), respectively?

(8) Sally is going to Minneapolis.

(9) Sally is going to Saint Paul.

If you think the coin is fair, you should be 50% confident that (8) is true and 50% confident that (9) is true. Now suppose you learn that the coin is three times as likely to land heads than tails. Then you should decrease your confidence in (9) to 25%, and correspondingly, increase your confidence in (8) to 75%. Similarly, if you learn the coin is four times as likely to land heads than tails, then you should decrease your confidence in (9) to 20% and, correspondingly, increase your confidence in (8) to 80%.

A pattern is emerging: even as your credences in (8) and (9) change, you should remain certain of their disjunction, (4).

With Progressive Specificity, it is easy to explain why this is so. You should 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).

On the other hand, if Progressive Specificity fails in Driving to the Twin Cities, and if 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 (8) and (9) are false. But this would not be rational.

4 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 a more familiar principle, namely:[7]

[6] This principle is equivalent to Modus Ponens.

[7] Conditional Specificity straightforwardly entails Conditional Excluded Middle. Conditional Excluded Middle entails Conditional Specificity, given:

> **Agglomeration**
> If ⌜If A, then B⌝ and ⌜If A, then C⌝ are true, then ⌜If A, then B and C⌝ is true.

> **Vacuity**
> If A is impossible, then for any B, ⌜if A, then B⌝ is true.

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 among philosophers of language that Conditional Excluded Middle is valid.[8]

We think that anyone who accepts Conditional Excluded Middle should also accept Progressive Specificity. Why? Two reasons.

First, many of the standard arguments for Conditional Excluded Middle can be turned into arguments for Progressive Specificity. We have already seen one of these arguments: the credence-theoretic argument for Progressive Specificity (our Third Argument) parallels a well-known credence-theoretic argument for Conditional Excluded Middle.[9]

Second, we can argue from Conditional Specificity—and thus, from Conditional Excluded Middle—to Progressive Specificity by exploiting the close connection between the progressive and counterfactual conditionals. Recall Sally's untimely death in a car crash, before she has a chance to decide whether to go to Minneapolis or Saint Paul. Conditional Specificity says that (10) is true.

(10) 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 (10) is true, then so is (11).

(11) 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? Proponents of Conditional Excluded Middle say that (10) is true in Driving to the Twin Cities. But it is natural to worry: if we say that (10) is true, aren't we also forced to say that exactly one of (12) and (13) is true?

Non-Contradiction

If A is possible, then ⌜if A, then B⌝ and ⌜if A, then not B⌝ are not both true.

Suppose ⌜if A, then B or C⌝ is true. Suppose, for contradiction, that ⌜if A, then B or if A, then C⌝ is false. There are two cases: A is impossible or A is possible. If A is impossible, then by Vacuity ⌜if A, then B, or if A, then C⌝ is true. Contradiction. Now suppose A is possible. Since ⌜if A, then B or if A, then C⌝ is false, it follows that ⌜if A, then B⌝ and ⌜if A, then C⌝ are false. By Conditional Excluded Middle, ⌜if A, then not B⌝ and ⌜if A, then not C⌝ are true. By Agglomeration,⌜if A, then not B and not C⌝ is true, and hence that ⌜if A, then not (B or C)⌝ is true. But then by Non-Contradiction, ⌜if A, then B or C⌝ is false. Contradiction.

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

[9] See Bacon (2015), Santorio (2017), Mandelkern (2019), and Dorr & Hawthorne (ms).

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

(13) 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 (12) over (13) 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 (12) is true rather than (13) or vice versa because neither (12) nor (13) is determinately true. Both counterfactuals are indeterminate.

The charge of arbitrariness applies equally to Progressive Specificity. We say that the disjunction (11) is true after Sally's death in the crash. But skeptics will worry: if (11) is true, aren't we forced to say that exactly one of (8) and (9) is true?

(14) Sally was going to Minneapolis.

(15) Sally was going to Saint Paul.

But surely any choice between these sentences would be objectionably arbitrary: what could favor (14) over (15) or vice versa?

Our answer is the same as Stalnaker's. Nothing could, and nothing does. This is not to say that one of (14) and (15) is a brute, unexplained determinate truth. Nothing determines that (14) is true rather (15) or vice versa because neither is determinately true. Both are indeterminate.

5 Conclusion

Though it has been widely rejected, the case for Progressive Specificity is strong. It is intrinsically plausible and ought to be accepted by anyone who accepts Conditional Excluded Middle.

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