# Pragmatics of Location

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It has frequently been observed that meteorological predicates such as "rain" are regularly associated with locations. The standard explanation holds that this association occurs without exception, and postulates the presence of covert but mandatory location variables in the semantics of such predicates. If the location variable is filled explicitly, the association can be either specific, as in "It is raining in Paris," or indefinite, as in "It is raining somewhere." In the absence of an explicit location (i.e. simply "It is raining"), the argument slot demands that a specific location be contextually provided, with a default reading along the lines of "It is raining [here]."<sup>1</sup> In particular, the standard explanation holds that an implicit location cannot be indefinite.

In "It is raining (somewhere)," F. Recanati argues, against the standard view, that there is no semantically-encoded location slot in meteorological predicates. Instead, he proposes a pragmatic explanation for the process of location assignment, under which the phenomenon is one of free enrichment.

### 1 The Indeterminacy of "Rain"

Recanati's claim is two-fold, proposing both a revised semantic structure for "rain" and a pragmatic account of the frequently-observed location assignment for meteorological pred-

<sup>&</sup>lt;sup>1</sup>Similarly, "John is in Paris. It is raining," would provide "It is raining in Paris," contextually.

icates. These claims are interconnected, as his proposed semantic structure requires the provision of a non-semantic explanation for location assignment.

Recanati suggests that "rain," in a Davidsonian event-based semantics, is a zero-place predicate which takes "no other argument than the event argument."<sup>2</sup> In contrast to a predicate like "dance," which postulates a dancing event and has an argument slot for an agent (e.g. "Mary dances"), "rain" only postulates a raining event.<sup>3</sup> Although both can be associated with locations explicitly, neither "dance," nor "rain" carry a slot for a location argument. In this, Recanati proposes that they pattern together, against predicates like "arrive," which he claims, in agreement with the received view, must include argument variables in their semantics.

"Rain" and "dance" can also be associated with locations implicitly; Recanati argues that the process is pragmatic (and identical) in both cases. To be justifiable against the standard view, whereby an unstated location *demands* a contextually-supplied specific location, a pragmatic account of the location assignment process for "rain" must include a demonstration that this demand is cancellable. Recanati suggests that the following example renders a location-indefinite reading of "It is raining."

... imagine a situation in which rain has become extremely rare and important, and rain detectors have been disposed all over the territory... each detector triggers an alarm bell in the Monitoring Room when it detects rain. There is a single bell; the location of the triggering detector is indicated by a light on a board in the Monitoring Room. After weeks of total drought, the bell finally rings in the Monitoring Room. Hearing it, the weatherman on duty in the adjacent room shouts: "It's raining!"<sup>4</sup>

Recanati argues that the weatherman's utterance associates no definite location with the raining event, and, indeed, no location at all. This is demonstrated by the felicity of the

 $<sup>^{2}</sup>$ Recanati, p127.

<sup>&</sup>lt;sup>3</sup>This might seem odd at first, given that we cannot simply say "Raining," but must rather say "It is raining." However, the syntactic subject (or agent) in this case, Recanati points out, is not associated with any real semantic content, but rather serves as a syntactic dummy which allows the agentless predicate "rain" to be placed into syntactic structures in English.

<sup>&</sup>lt;sup>4</sup>Recanati, p127.

following exchange:

A (weatherman): It is raining!
B: Where?
A: I have no idea – let's check.

From this two things seem clear. First, the weatherman's "It is raining!" is locationindeterminate, and felicitously so. Second, we have no difficulty in understanding the weatherman's utterance, which is a strong indication that all available argument slots are saturated.<sup>5</sup> This second point supports the semantic structure proposed by Recanati; the first supports his claim that location assignment is a pragmatic process. The location assignment regularly associated with "It is raining," then takes place *via* pragmatic enrichment.

On his view, the enrichment process is one that may occur with any location-indeterminate predicate. It is aided by a certain communicative presumption of relevance–if we are told that "It is raining," we are likely to assume that the utterance is relevant to us, and hence we frequently attach a contextually salient location.<sup>6</sup> Moreover, Recanati points out, events have to take place somewhere. Thus, he argues that "It is raining," *punkt* (i.e. with no attached location) is logically equivalent to "It is raining somewhere," since there can be a raining event if and only if there is a raining event at some location.

We have the possibility, then, of assigning a location to a raining event, either through contextual salience or explicit mention. Recanati explains the former through free enrichment; however, if "rain" is to be a zero-place predicate, a formal semantic mechanism will be required through which "It is raining in Paris," can be truth-conditionally interpreted. To achieve this end, Recanati introduces what he calls a "variadic operator,"<sup>7</sup> Loc, which,

<sup>7</sup>In Recanati's terminology, a "variadic operator" is one which increases or decreases the number or

 $<sup>^5\</sup>mathrm{As}$  opposed to an utterance such as "Dances," which leaves the agent slot unfilled and is thus uninterpretable.

<sup>&</sup>lt;sup>6</sup>While Recanati claims that this is the same process by which a location gets attached to a predicate like "dance," he notes that the higher frequency with which locations are assigned to meteorological predicates can be seen as a side effect of this "relevance" assumption: empirically speaking, we are more likely to be concerned with where a raining event is taking place than with where a dancing event is taking place. Crucially, however, this does *not* mandate its inclusion in the semantics of "rain."

when applied to "rain," adds an argument slot for location. The operation is triggered automatically by an utterance like "It is raining in Paris," in which case the location argument is supplied. Recanati further proposes to regard the operation as being pragmatically triggered in a case like "John is in Chicago. It is raining." The *Loc* operator, here, is adjusted to  $Loc_{Chicago}$ , and comes with a contextually-supplied location.<sup>8</sup>

This operational view of location assignment handles claims that a sentence like "It is raining," violates *full articulation*, a principle under which all contentful elements of an utterance are expected to correspond to some visible element of the syntax. On a locationfree reading, the semantics of "rain" are fully saturated by the above utterance, while on a reading bearing a contextual location assignment, RAIN is shifted, for instance, to RAIN-IN-CHICAGO, and the utterance is once again saturated.

### 2 Objections to the Weatherman

Recanati's ability to handle full articulation, his internally-consistent explanation of the explicit and implicit location assignment process, and the apparent extendability of this process to other location-free predicates (e.g. "dance"), are all clearly points in favour of his account of "rain." Nevertheless, it is clear that his proposal rests upon his interpretation of the weatherman scenario, in particular on the accuracy of the claim that the weatherman's "It is raining!" is location-free. It appears reasonable, then, to examine this example in further detail.

Perhaps the most immediate objection to Recanati's reading of the weatherman's "It is

argument slots of the predicate to which they are applied. Motivation for postulation of such an operator, in this case, is provided in part by previously established operators such as Quine's *Der* operator, which quantifies over the last argument slot of the predicate. This operator is discussed in greater detail on p126.

<sup>&</sup>lt;sup>8</sup>Evidence for such an operation is provided additionally by predicates like "dance," which do not include a location variable in their denotations, but can be paired with a location without causing interpretation problems. Both the explicit and pragmatic location assignment process for such a predicate can be explained by the process Recanati describes for "rain."

raining," is that it may be location-indefinite (i.e. "It is raining [somewhere]"), rather than location-free. On this view, Recanati's example does not provide evidence for a location-free denotation for "rain," but instead shows that the location variable can be implicitly (perhaps pragmatically) quantified over, to yield a reading of "somewhere" in place of the expected specific argument.<sup>9</sup>

Recanati presents two objections to this reading. The first is largely typological. He points out that overt variables (i.e. pronouns, to which postulated covert variables have been likened) cannot be quantified over in the way that a location-indefinite reading of the weatherman example suggests that covert variables can. This reading thus requires the introduction of a markedly different type of "optional variable," and Recanati argues that this will be justified only if such variables are found to be needed independently of the weatherman example.<sup>10</sup>

A more compelling rebuttal is provided by the "negative" version of the weatherman example: Instead of a drought, the "territory" is faced by unending rain, and the bell rings to indicate a cessation at any location. When the bell rings now, the weatherman says "It is not raining!"<sup>11</sup>

In this case, Recanati argues, the weatherman's utterance is infelicitous, because it conveys that it is not raining anywhere, rather than that the rain has stopped at some particular unknown location. The location-indefinite reading, he feels, cannot account for this: if "It is raining," in the weatherman example, contains an implicit existential quantifier, then "It is not raining," in this example, ought to contain the same existential quantifier, in addition to the explicit negation. Due to scope ambiguity, these two elements would be expected to interact to produce both the interpretation that there is somewhere where it is not raining,

<sup>&</sup>lt;sup>9</sup>This view is supported by work done by Barbara Partee, which demonstrates that implicit variables can, in some circumstances, be quantified over. See p125, and pp138-140.

 $<sup>^{10}</sup>$ He does not rule out this possibility, although he argues strongly against it (pp139-140).

 $<sup>^{11}</sup>$ Recanati, p141.

as well as the interpretation that it is not raining at *any* location; the former, however, is unaccountably unavailable. On a location-free interpretation, on the other hand, "It is not raining," can only mean that no raining event whatsoever is taking place, which accounts for the apparent infelicity of the weatherman's utterance. In the absence of a compelling explanation for the unavailability of one expected interpretation on the location-indefinite account, Recanati prefers his account.

Another alternative reading of the weatherman example also argues against a locationfree reading, and for the inclusion of a location slot in the semantics of "rain." This view suggests that in the absence of a specific location, the slot is filled by the entire domain (in this case, the whole "territory").<sup>12</sup> Thus, the weatherman example demonstrates that the place of rain may either be interpreted broadly or narrowly, where a broad location may be any region which contains the actual narrow place of rain as a sublocation. The weatherman's "It is raining!" then, means that it is raining in the "territory," which is both true and relevant.

The problem with this reading, for Recanati, is that it loses sight of the original intuition which associates a *specific* location with "rain." In particular, it provides no reason why we cannot simply postulate a similar location variable for "dance," which may be filled broadly in a number of contexts. Just as on Recanati's account, then, "rain" on this view patterns with "dance," and not with "arrive," for which the broad assignment is unavailable. Moreover, once the semantic view has discarded its stipulation of specificity for an implicitly-supplied location argument, its points of disagreement with Recanati's proposal become relatively trivial, as the weatherman example now demonstrates that the choice between a broad and narrow reading can be triggered pragmatically.

<sup>&</sup>lt;sup>12</sup>This view is proposed by Luisa Marti and Paul Elbourne, independently. See p137.

#### **3** Extending the Pragmatic Account

While Recanati's proposal and defense are largely satisfactory, a few points appear to go by unremarked. The first of these involves a possible reconciliation of his theory with the indefinite reading of the weatherman example.

On a view which identifies semantic meaning with truth conditions, the truth-conditional equivalence between "It is raining" *punkt* and "It is raining somewhere" suggests that there is no formal difference between the two. If we choose, then, to postulate a location slot in the denotation of "rain," the weatherman example provides evidence that this slot can be quantified over; moreover, that quantification is pragmatically triggered in being brought on by the weatherman example. Such an account represents a compromise between Recanati's theory and the standard semantic account—it retains Recanati's intuition that "It is raining" can pragmatically do away with the need for location-specificity, while retaining the standard view's covert variable.

Such an account, however, must deal with the objection raised by Recanati's negative weatherman example, and, to a certain extent, with his typological objection as well. The latter can be done by considering a possible extension of the location-indefinite reading, which is in fact suggested by Recanati himself. Based on his argument that it is simply a metaphysical property of events that they must happen somewhere, "Mary dances" is equivalent to "Mary dances somewhere." Thus, we may as well postulate a hidden, quantifiable location variable in the denotation of "dance" as in that of "rain." At the same time, if "arrive" requires a contextually specified location, then "John has arrived," certainly entails "John has arrived somewhere," but is never entailed *by* it. Thus, "rain" and "dance" pattern together, as Recanati argues, while "arrive" patterns separately.

This suggests that we might regard the difference between "rain" and "arrive" to be that the location variable in "rain" is one which bears quantification, while the variable in "arrive" does not. Any potentially location-indefinite event can simply be regarded as having a quantifiable covert variable. These "optional variables," then, extend to the denotations of non-meteorological predicates, and Recanati's argument against positing a new class of variable to handle a single example can be passed over. It seems to be likely as well that a robust description of such a class of variables might well prove to include idiosyncrasies. For instance, careful consideration might show that quantifiable covert variables cannot take wide scope over negations or overt quantifiers, thus explaining the oddity of the negative weatherman example. Intuitively, it does not seem unreasonable that an overt quantifier be precluded from taking narrow scope under a hidden variable, ostensibly an inseparable part of the underlying sentence.<sup>13</sup>

The indefinite account of "It is raining," at this point appears close enough to Recanati's that choosing between the two is more or less an aesthetic point. In either case, a new concept must be accepted: the *Loc* operator on Recanati's account, and the class of "optional variables" on the indefinite reading. Both preserve a pragmatic dimension to location assignment for potentially location-indeterminate predicates, and both appear to be in agreement with Recanati's central claim that "rain" patterns with "dance," rather than with "arrive." In order to adjudicate between the theories, let us consider this last commonality.

In maintaining that "arrive," contains an argument slot for location, Recanati aligns with the standard view of such predicates. He bases his claim, in passing, on the perceived infelicity of the following exchange:

(2) A: John has arrived.B: Where has he arrived?A: \*I have no idea.

It is not clear, however, that this is necessarily infelicitous. Suppose that A has just

<sup>&</sup>lt;sup>13</sup>The idea that the lack of scope ambiguity is simply a feature of a robust class of "optional variables" is supported by the following brief example: Just as "It's not raining," does not allow the reading "There is some location where it is not raining," in the negative weatherman example, "Mary is not dancing," cannot be interpreted as "There is a location where Mary is not dancing," but must instead be interpreted as "Mary is not dancing anywhere."

received an email from John, saying "Got here safely. Having lots of fun," but that A has forgotten where John was going (or perhaps knew that John was going on vacation, but never knew where). In this case, (2) appears to be a reasonable exchange—that is, the need for a specific location assignment for "arrive" has been cancelled.<sup>14</sup> "Arrive," then, can be seen to pattern with "rain" and "dance," suggesting that our account of location-assignment for the latter two may be extended to any predicate which usually takes a location-specific reading but, crucially, is *not* ungrammatical without explicit mention of location.

Recanati's work eliminates the special status of meteorological predicates as predicates requiring a specific (often hidden) location assignment, and this account of "arrive" extends his claims to a point at which the intuitive distinction between location-specific and locationindeterminate predicates appears to have been lost entirely. Indeed, in the example above, we may just as easily take a location-free reading of "John has arrived," as a location-indefinite ("John has arrived [somewhere]") one. It thus appears to be the case that the locationassignment process for all three of "rain," "dance," and "arrive" may be unified under either the pragmatic or semi-pragmatic account. At this point, Recanati's proposal appears to have a slight edge over "optional variables," in that it handles the question of full articulation not just for meteorological predicates, but for implicitly-located readings of "dance" and "arrive" as well. This extension of Recanati's account must of course be subject to further examination before it can be accepted or rejected. Such examination, however, seems well warranted for an account which proposes to eliminate altogether the need for a locational class of hidden semantic elements, and which, moreover, proposes to shift entirely the burden of such hidden information to a more typically covert aspect of meaning—pragmatics.

<sup>&</sup>lt;sup>14</sup>One might argue that there is a location specified here, to the effect of "the place John was going for vacation," or "the place where John is," but such an assignment is at best vacuous, and at worst circular.

# References

[1] Recanati, Francois. "It is raining (somewhere)." *Linguistics and Philosophy* (2007) 30:123–146.