Manners as particulars vs. manners as kinds

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- The following sentences contain examples of manner adverbs:

(1) a. Rebeka ran quickly.
    b. Noemi spoke softly.
    c. Thomas wrote illegibly.
    d. Rebeka danced beautifully.
    e. Noemi carefully spoke softly.

- Sentences with manner adverbs typically allow for paraphrases with the noun *way* in a PP (though these are often stylistically awkward). Consider the following such paraphrases of the sentences in (1):

(2) a. Rebeka ran in a quick way.
     b. Noemi spoke in a soft way.
     c. Thomas wrote in an illegible way.
     d. Rebeka danced in a beautiful way.
     e. Noemi carefully spoke in a soft way.
         Noemi spoke softly in a careful way.
         Noemi spoke in a soft way in a careful way.

▶ A similar kind of paraphrase consists in forming a relative
  clause headed by *way* (which we may call "relativizing the
  manner"):

(3) a. The way Rebeka ran was quick.
   b. The way Noemi spoke was soft.
   c. The way Thomas wrote was illegible.
   d. The way Rebeka danced was beautiful.
   e. The way Noemi spoke was carefully soft.
      The way Noemi spoke softly was careful.
      ?The way (.) the way Noemi spoke was soft (.) was careful.

► The next question is how to treat manner adverbs in the manners-as-particulars approach.

► Consider the proposed treatment of (1a), ignoring tense:

(4)   Rebeka ran quickly $\rightsquigarrow$
      $\exists e(\mathsf{running}(e) \wedge \mathsf{agent}(e) = \mathsf{rebeka} \wedge \mathsf{quick}(\underline{\mathsf{speed}(e)}))$

► speed in (4) is a partial function that applies to an event e and – if defined – yields the speed of e. The speed of e is a manner particular of e; speed is a manner function.

► By the way, notice that agent in (4) is also a partial function.

► speed is defined for events of physical or mental motion (cf. *Rebeka thought quickly*).

The manners-as-particulars approach: first analyses II

- ▶ If speed is not defined for a given event, the corresponding sentence with *quickly* is anomalous (cf. #*Rebeka slept quickly*).
- ▶ The treatment of (1b) is analogous, but now the manner is the intensity of the event:

(5) Noemi spoke softly $\rightsquigarrow$
$\exists e(\text{speaking}(e) \land \text{agent}(e) = \text{noemi} \land \text{soft}(\underset{\sim\sim\sim\sim\sim\sim}{\text{intensity}(e)}))$

- ▶ Since the values of speed and intensity are manner particulars, they are perceivable: speeds can be seen, intensities can be heard (though always in conjunction with the events of which they are manners). Consider:

The manners-as-particulars approach: first analyses III

(6) a. I saw how Rebeka ran. (*How?* Quickly!)
    b. I heard how Noemi spoke. (*How?* Softly!)

▶ If the noun *way* is used, as in (2) and (3), then variables for manners are explicitly introduced:

(7) a. Rebeka ran in a quick way $\rightsquigarrow$
       $\exists e(\textsf{running}(e) \wedge \textsf{agent}(e) = \textsf{rebeka} \wedge$
       $\exists m(m = \underaccent{\sim}{\textsf{speed}}(e) \wedge \textsf{quick}(m)))$

    b. The way Rebeka ran was quick $\rightsquigarrow$
       $\textsf{quick}(\iota m(\textsf{running}(e) \wedge \textsf{agent}(e) = \textsf{rebeka} \wedge$
       $m = \underaccent{\sim}{\textsf{speed}}(e)))$, for a given event e

▶ The interpretations given for (1a) (see (4)) and (2a) (see (7a)) are equivalent and are both entailed by the interpretation given for (3a) (see (7b)).

The manners-as-particulars approach: virtual manners I

▶ A virtual manner is a "manner" that is reduced to a particular aspect of an ordinary individual. This is arguably the case with *illegibly*:

(8) a. Thomas wrote illegibly ↝
$\exists e(\textsf{writing-by-hand}(e) \land \textsf{agent}(e) = \textsf{thomas} \land$
$\quad \textsf{illegible}(\underline{\textsf{orthographic-form}'(e)}))$

b. $\textsf{orthographic-form}'(e) \overset{\text{def}}{=}$
$\iota a(\textsf{writing-by-hand}(e) \land \exists x(x = \textsf{incr-theme}(e) \land$
$\quad a = \textsf{orthographic-form}(x))$

▶ The representation in (8a) says that the value of $\textsf{orthographic-form}'$ applied to e is illegible.

The manners-as-particulars approach: virtual manners II

- In (8b), the value of orthographic-form$'$ applied to an event e is defined as the value ($= a$) of orthographic-form applied to the incremental theme x of e, where e is a writing by hand. In other words, this "manner" ($=$ the "orthographic form prime") of the event e is reduced to an aspect ($=$ the orthographic form) of the incremental theme of e, where e is a writing by hand.

- On this view, then, the "orthographic form prime" of an event e is a virtual manner, because it is reduced to the orthographic form of the incremental theme of e. If correct, there is no real manner 'illegible' for events.

The manners-as-particulars approach: dancing beautifully I

- "Beautiful dance looks like flying, not like moving furniture."
  (From `https://fr-fr.facebook.com/notes/veronica-toumanova/why-your-dance-does-not-look-good-despite-all-the-practicing/10153203091317499`)

- As an evaluative, *beautifully*, just like *beautiful*, imports a host of difficulties associated with evaluation.

- Not pretending to address these difficulties, we can nonetheless venture to say that a dancing is beautiful if its movement form is beautiful:

The manners-as-particulars approach: dancing beautifully II

(9) Rebeka danced beautifully $\rightsquigarrow$
$\exists e(\mathsf{dancing}(e) \wedge \mathsf{agent}(e) = \mathsf{rebeka} \wedge$
$\mathsf{beautiful}(\underset{\sim\sim\sim\sim\sim\sim\sim\sim\sim\sim}{\mathsf{movement\text{-}form}(e)}))$

- According to the source quoted above, *embodiment*, *movement quality*, and *presence* all play a role in whether we judge an event of dancing as beautiful. We may think of these elements as constituting the movement form of an event of dancing.

The manners-as-particulars approach: carefully speaking softly I

- ▶ The treatment of *carefully* makes use of a manner function effort that has three arguments: an event, the agent of the event, and an event predicate. Consider the analysis of (1e):

(10) Noemi carefully spoke softly $\leadsto$
    $\exists e(\mathsf{speaking}(e) \wedge \mathsf{agent}(e) = \mathsf{noemi} \wedge \mathsf{soft}(\underset{\sim}{\mathsf{intensity}}(e)) \wedge$

    $\mathsf{careful}($
        $\mathsf{effort}(e, \mathsf{noemi}, \lambda e'.\mathsf{speaking}(e') \wedge \mathsf{soft}(\underset{\sim}{\mathsf{intensity}}(e')))))$

The manners-as-particulars approach: carefully speaking softly II

- ▶ The intuition behind effort is that the notion of effort depends on an agent x in an event e doing something, where "doing something" is represented by an event predicate.
- ▶ As a three-place (partial) function, effort is more complex than speed or intensity.
- ▶ The analysis in (10) correctly predicts that the truth of *Noemi carefully spoke softly* entails the truth of *Noemi spoke softly* but not the truth of *Noemi carefully spoke*.
- ▶ This analysis does not require an appeal to "big events," in contrast to an analysis proposed by [Schäfer, 2008].

The manners-as-particulars approach: three benefits

- The syntactic asymmetry of manner adverbs (adverbs modify verbs; verbs do not modify adverbs) is mirrored by a corresponding semantic asymmetry: manners are the values of manner functions applied to events (ontologically, manners depend on events).
- Manner functions fit naturally into a typology of event-related functions:
  - Participant functions: agent, incr-theme, etc.
  - Location functions: τ (temporal trace), σ (spatial trace)
  - Manner functions: speed, intensity, movement-form, effort, etc.
- The use of *way* (sometimes: *manner*) and *how* in manner-related paraphrases can readily be accounted for.

The manners-as-particulars approach: is there an allowance for "manner kinds"? I

- In addition to manner particulars, the manners-as-particulars approach already has a notion of manner kind, which is simply any one of the individual manner functions:

(11) Manner functions: speed, intensity, movement-form, effort, etc.

- For example, the individual manner function speed may be considered a manner kind, as illustrated in (12).

(12) a. Speed is a (kind of) manner.
      b. Speed is a (kind of) manner $\rightsquigarrow$ Manner(speed)

The manners-as-particulars approach: is there an allowance for "manner kinds"? II

- Manner in (12) is a second-order predicate, applying to manner functions.

- Strictly speaking, since manner functions may be of different logical types (cf. speed vs. effort), Manner in (12) is one of several (manner) predicates that apply to manner functions of different logical types.

- Aside from manner functions, the manners-as-particulars approach does not allow for any other notion of manner kind.

- In particular, there is no notion of manner kind as an abstract individual that has concrete realizations (i.e., kinds à la Carlson).

- ▶ Do the following examples provide an argument for manners as kinds?

(13) a. Rebeka ran quickly. Thomas also ran like that. (*Like what?* Quickly!)   (anaphoric)

      b. Thomas ran like that[☞].   (deictic)

- ▶ If we allow for a similarity relation, such examples do not provide an argument for manners as kinds:

(14) Thomas ran like that$_i$ $\rightsquigarrow$
$\exists e(\mathsf{running}(e) \land \mathsf{agent}(e) = \mathsf{thomas} \land \mathsf{sim}(\underline{\mathsf{speed}(e)}, m_i))$

Manners as kinds? A first challenge II

- In (14), "$\mathsf{sim}(\mathsf{speed}(e), m_i)$" means that the speed of e ($=$ a running event by Thomas) is similar to the speed m_i ($=$ a particular speed manner) anaphorically or deictically referred to.

- See [Umbach and Gust, 2014] for an extensive discussion of the similarity relation – the application of similarity in (14) is simple-minded.

- Compare the analysis in (14) with the analyses that [Landman and Morzycki, 2003] and [Anderson and Morzycki, 2015] would propose, which appeal to an event kind k:

Manners as kinds? A first challenge III

(15) (Thomas) ran like that$_i$ $\rightsquigarrow$

    a. $\lambda e.e$ is a running $\wedge\ e$ realizes k_i

                                     [Landman and Morzycki, 2003]

    b. $\lambda e : \mathbf{dist}(e, {}^{\cup}k).\mathbf{ran}(e, \mathbf{Thomas}) \wedge {}^{\cup}k(e)$

                                       [Anderson and Morzycki, 2015]

- ▶ A worry about the analyses in (15) that deictic reference (recall (13b)) to an event kind k should not be possible, precisely because kinds (also event kinds) are abstract individuals.

- ▶ Notice also that since the event kind k in (15) is "lowered" (via the application of a cup operator) to an event predicate, there seems to be no crucial reference to event kinds here – an event predicate could also do the job.

Manners as kinds? A first challenge IV

- The presupposition given in (15b), "**dist**$(e, {}^{\cup}k)$," means that ${}^{\cup}k$ (an event predicate) is a "distinguished property" of e, which [Anderson and Morzycki, 2015] hope will help constrain the possible values of k, which is a free variable. (But this does not affect the previous two points.)
- In sum, the examples in (13) do not provide an argument for manners as kinds (nor for events as kinds, for that matter).

Manners as kinds? A second challenge I

- ► [Moltmann, 2015, p. 833], in a paper commenting on [Anderson and Morzycki, 2015], agrees with the latter that manners act as kinds: "Manners do in fact act as kinds, [. . .]."
- ► [Moltmann, 2015] offers the following type of example in support of her claim (the particular example is mine):

(16)   The way Rebeka danced is widespread.

- ► At first glance, (16) seems to be an argument for manners as kinds, because a manner particular could not be widespread.

Manners as kinds? A second challenge II

- ▶ Recall, though, that since manner functions can play the role of manner kinds, a manner function can be used (together with the similarity relation) to yield an appropriate argument to *widespread*:

(17) The way Rebeka danced is widespread $\rightsquigarrow$
   $\mathsf{widespread}(\lambda m'.$
       $\exists e'(\underline{\mathsf{movement\text{-}form}(e')} = m') \wedge$
       $\mathsf{sim}(\iota m(m = \underline{\mathsf{movement\text{-}form}(e)} \wedge \mathsf{dancing}(e) \wedge$
           $\mathsf{agent}(e) = \mathsf{rebeka}), m')),$ for a given event e

- In (17), widespread (which is a second-order predicate) applies to the set of manner particulars m' such that m' is the movement form of some event e' and the movement form m of a given dancing event e by Rebeka is similar to m'.

- If the meaning of widespread were further analyzed, it would distribute the set of manner particulars m' spatially.

- It seems, then, that examples like (16) do not provide a strong argument for manners as kinds.

Conclusion

- Manners as particulars may be unavoidable; manners as kinds may be avoidable.
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