

## Reading Seminar Handout (Chapter 3, Dispositions: an Alternative Conception)

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### 3.1. A fresh start

Standard (Conditional) conception of dispositional properties:

- (1) A disposition is individuated by the pair of its stimulus condition and its manifestation.
- (2) Its modal nature is, in some way or another, linked to or best characterized by a counterfactual conditional.

Alternative (Vetter's) conception of dispositional properties:

- (1) A disposition is individuated by its manifestation alone.
- (2) Its modal nature is that of possibility, linked to or best characterized (to a first approximation) by 'x can M'.

### 3.2. Modal semantics

Three dimensions of modal expressions:

- (1) Modal force: the kind of quantification that is applied to the possible worlds, e.g. universal and existential quantifications.
  - (2) Modal base: the set of worlds that is relevant or accessible in the context. Modal bases are divided into circumstantial type (e.g. a botanist) and epistemic one (e.g. a detective).
  - (3) Ordering source: it ranks the worlds of the modal base according to how close they come to a certain ideal. Ordering sources may be deontic, bouletic or stereotypical.
- (i) Kratzer considers 'fragility' to be something like 'breakable', so that the modal force for it is simple existential quantification and the ordering source is empty. Vetter objects to her that even if there is a possible world in which a bridge is broken, we do not regard it as fragile.
- (ii) How, then, can we distinguish between a non-fragile thing and a fragile one? Kratzer explains graded modality only by appealing to some ordering source, e.g. how close the world in question is to the ideal world. This cannot be right, Vetter says, because there should be a world in which a block which has a weak spot like Achilles breaks through the most normal course. That world is one of the worlds close to the ideal but we do not think of the bridge as fragile.
- (iii) It is then concluded that in order to understand this kind of graded modality we need rather to alter the modal force to a more complex, proportional nature: x is more fragile than y in case x breaks in more of the relevant worlds than y; x is fragile in case x breaks in a sufficient proportion of worlds.

### 3.3 Modal semantics, continued

- (i) If we assume that dispositions are intrinsic, Vetter's proposal is not dismissed by the presence of their extrinsic circumstances such as styrofoam and bulldozers. For those cases are only a small

proportion of (or not included in?) the modal base, which is the set of worlds in which the object in question has the same intrinsic features.

(ii) David Lewis suggests that abilities and possibilities are of the same kind but different only in the kind of restriction imposed on the relevant possibility. Vetter proposes that we extend this treatment of abilities to disposition ascriptions; namely, disposition ascriptions are really expressions of possibility.

(iii) We also need to quantify not only worlds but cases, which are the number of individual instances of a disposition across the relevant worlds.

(iv) Some might object that a subset of the set of possible worlds, which is non-denumerably infinite, might well be considered to be also non-denumerably infinite; but the subset could be a maximally varied finite subset.

#### 3.4 A background for context-sensitivity

The claim: possibility provides no more than an approximation, though the best approximation we have, to dispositions; or dispositions are the truthmaker, or otherwise provide for the truth, of the relevant possibility claims.

(i) Disposition terms such as ‘fragile’ are context-dependent, but reality is not. So we need to provide a metaphysical background, a context-insensitive metaphysics from which, by the right semantic mechanisms, the semantic value of the context-sensitive expressions is selected. For example, the term ‘tall’ is context-sensitive, but a height property (say, 170cm) is not; and ‘tall’ is then specified in the way that 170cm is taller than 165cm. And this comparative disposition ascription is connected to the possible-world semantics.

(ii) It is not so easy to find a context-insensitive element in the case of fragility as in the case of ‘tall’. But the comparative ‘more fragile than’ can be applied up to what barely counts as breakable, which we do not call, in the ordinary context, fragile.

(iii) We do not wish to call the property which is possessed all the way down the spectrum a disposition. The proposal is therefore that we call potentialities those properties which form the metaphysical background for disposition ascriptions.

#### 3.5 Maximal dispositions

Maximal dispositions: the modal force which is applied to them is universal quantification, i.e. they manifest in all the relevant worlds or cases. Examples are nomological dispositions such as electric charge.

(i) actuality conception of maximal dispositions: something manifesting its disposition possesses that disposition to the maximal degree. But this implies that someone who seldom gets angry but happens to do so in an exceptional circumstance is also considered to be irascible, which is absurd.

(ii) Disposition ascriptions provide explanations, and comparative disposition ascriptions provide comparative explanations. E.g. Betty more often gets angry than Ann. Why? Because Betty is more irascible than Ann. Dispositional explanations are not the only available explanations but they are a particularly useful kind of explanation.

(iii) Two claims about comparative dispositions:

(a) Comparative regularities—y's being F more often than x *ceteris paribus* provides good evidence that y is more disposed to F than x is.

(b) If x is disposed to F and y is more disposed to F than x is, then y is disposed to F.

(iv) The necessity conception of maximal potentiality is such that an object possessing a disposition to F to the maximal degree lacks the potentiality not to F. This enables us to treat potentiality and necessity together in one form.

(v) A side issue: the discussion so far has considered the maximal and minimal degrees but not the degrees in between. But the present concern is only with those two extremes alone. But there seems to be a problem with the minimal degree. For some might think that a thing's potentiality to have any of the determinable Q which is continuous is to zero degree.

(iv) three worries: (1) some might argue that dispositionality is incompatible with necessity because a disposition could always be prevented from manifesting, (2) Vetter's view itself seems to imply that dispositionality is incompatible with necessity, because she claims that disposition ascriptions are akin to possibility statements but not to statements of necessity, and (3) assuming the maximal disposition whose possessor permanently Fs or necessarily Fs seems to make disposition ascription simply sound out of place.

### 3.6 Taking stock: from dispositions to potentiality

(i) A champagne glass and a diamond both possess the potentiality to break but to different degrees; but a quantity of water does not possess that potentiality because there is a categorical difference between having and lacking a potentiality.

(ii) The relation between height and the particular heights is that between a determinable and its determinates. With this terminology, an object can be said to possess a determinable potentiality by having a given (degree-) determinate, or to possess a different determinate of the same determinable potentiality than another object.

(iii) The notion of a potentiality has been introduced as the metaphysical background to the context-dependent notion of a disposition.

(iv) Change is not essential to dispositions. For objects which possess the potentiality to F to the maximal degree can be already F-ing. Potentialities therefore need not be potentialities to change.

(v) Causation is also not essential to dispositions. On the proposed view, causation is not built into the disposition qua disposition; though it may be built into its manifestation. The point is that there

are some dispositions which have uncaused manifestations, e.g. a uranium atom's disposition to decay, an electron's disposition to exert a force which stands in a certain mathematical correlation to surrounding charges and their distance (no inner causal structure), irascibility (someone sometimes gets angry spontaneously). It is an interesting fact, but not one of metaphysical import, that most of our disposition ascriptions do involve causation, in one way or another, in their manifestation.