

Potentiality Chapter 2 (Vetter)

2.1 Introduction

The aim of the chapter: to question the standard conception of dispositions [35]

Standard Conception of Dispositions: [34]

- Individuated by S-M Pairs
- Link between S & M: approximated by counterfactuals

Vetter's Conception of Dispositions: [35]

- Individuated by Manifestation *only*
- Modal Nature of D: licenses \diamond ("x can M")

2.2 Dispositions & Conditionals: State of the Debate

Problems with the SCA: "x has D *iff* were x to S, then x would M"

- (1) Standard problems: masks (non-monotonicity), finks, etc. [36]
- (2) Fails to capture nature of dispositions:
 - a. **Gradability:** objects can be *more* or *less* disposed
 - b. **Context-Sensitivity:** objects might be considered *disposed* in one causal context, and *not* in another
 - c. **Non-Specific Stimuli:** dispositions like 'irascibility' may have multiple 'triggers'

Attempts to *fix* the SCA cannot deal with these *structural* problems – we need dispositions linked to multiple counterfactuals [37-38]

2.3 The Problem of Qualitative Diversity

All Dispositions are Multi-Track: characterised by more than one subjunctive conditional [39-41]

Multi-Track Dispositions can't be avoided:

- (1) Picking one stimulus: discounts objects thought to be disposed in other way [41]
- (2) Generalising stimulus: dispositions defined by generalized, multi-realizable stimulus may encounter *general* state, and yet not manifest [41-42]

2.4 The Problem of Quantitative Diversity

The quantitative nature of stimulus conditions also comes in degrees: one can strike a fragile vase with varying degrees of force [43-44]

The two previous strategies won't work here either: a specific stimulus degree gives us false negatives (1), and a generalized stimulus will not be discerning enough (2) [44-45]

One strategy is to define a context-dependent threshold value in the quantitative gradient of stimulus conditions: "if x were struck with force of at least N_c , x would break" (where 'c' picks-out a context) [45]

However: thresholds function as *determinables*, and this encounters the previous problems associated with (2) – either the right objects turn out to not be fragile, or breakings turn out not to be manifestations [46-47]

- In general, other more complex ways of fixing threshold values aren't going to work [47-48]

The Lesson: we need more than one conditional to characterise dispositional properties [49-50]

2.5 Nomological Dispositions

Nomological Dispositions: fundamental dispositions which "encode laws of nature": these are multi-track, and have quantities as stimuli and manifestations, and are described mathematically [50-53]

2.6 Multi-Track Dispositions and Realism

Three tenets about dispositions don't look co-tenable: (1) realism about dispositions, (2) all dispositions are multi-track, (3) standard conception of dispositions (from §2.1)

Which are *more* fundamental – generalised multi-track dispositions, or the various specific tracks? It looks like multi-track dispositions are just conjunctions of specific, single-track ones. Thus, they look less fundamental [55-56]

But: multi-track dispositions are more complex (and so, less fundamental) *only if* their nature *really* consists in a collection of single-track dispositions [56]

The most fundamental laws look to relate determinables – they describe a functional relationship between determinable qualities

- These laws don't relate very specific, determinate quantities of mass, charge, etc. – they wouldn't have wide explanatory power.
- The *regularity* of the laws consists not just in specific instances always following other specific instances, but in their functional relation of determinables: describing changes in quantities, etc. [56-57]

If the determinable-level laws are more fundamental than the determinate-level ones, then so are the properties they describe – that is, the determinable (multi-track) dispositions [57]

Theoretical Consideration: we should prefer having *one* disposition at the more fundamental level rather than having an infinity of dispositions which do the same work [57]

Theoretical Consideration: if an infinity of single-track dispositions are fundamental – how can we explain their interrelation: their continuous changes in values described by a function, etc. [58]