

Chances

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Limits

Position in sequence	1	2	3	4	...	Limit
Fractions	1/2	2/3	3/4	4/5	...	1

Limiting frequencies

Position in sequence	1	2	3	4		Limit?
Classes of smokers	1000	10,000	100,000	1,000,000	...	
Fractions who get cancer	0.22	0.17	0.21	0.18	...	0.20

Dispositions

- Anti-realist: *a* is fragile: e.g. it would break if dropped.
b is not fragile: e.g. it would not break if dropped.
a and *b* need not differ in any real property when not being dropped.
- Realist: *a* is fragile: e.g. it has a real (natural) property F^1 that makes it break if dropped.
(F is the *categorical basis* of *a*'s fragility.)
b is not fragile: e.g. it has a property G that makes it *not* break if dropped.
a and *b* differ in some real property when not being dropped.
- Objection: Dropping *a* may make it cease to be fragile and so not break.
Realist reply: *a* is fragile: e.g. it is F for an F such that *a* would break if dropped while F .

Propensities

- Realist: *a* has chance p_a of getting cancer: *a* has a property F and the HLF of cancer in F s is p_a .
(HLF = hypothetical limiting frequency)
b has a chance p_b ($\neq p_a$) of getting cancer: *b* has a property G and the HLF of cancer in G s is p_b .
 F and G are the categorical bases of *a*'s and *b*'s different propensities to get cancer.
a and *b* differ in some real property even if neither get cancer or both do.

'Realism' about dispositions?

Since dispositions may have different categorical bases in things of different kinds, they may not be identifiable with any of these, and may therefore not themselves be real properties of things.

'Realism' about propensities?

Since propensities may have different categorical bases in things of different kinds, they may not be identifiable with any of these, and may therefore not themselves be real properties of things.

Some dispositions are real?

Newtonian mass, a conjunction of dispositions to accelerate under different net forces, has the same basis in things all kinds, which it may therefore be taken to measure: some (conjunctions of) dispositions are real properties of things.

Some propensities are real?

The half-life of a radioactive atom, which entails all its propensities to decay in different time intervals, may be taken to measure an actual (e.g. nuclear) property of atoms: some (conjunctions of) propensities are real properties of things.

¹ F need not be a single natural property: it may be the negation of one, or a conjunction and/or disjunction of any number of such properties and/or their negations.