

Representation and intentionality: where intrinsicness/extrinsicness and non-/relationality crosscut

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SOPHA, Paris, 6 May 2012

If we know what shape is, we know that it is a property, not a relation.
(Lewis 1986: 203)

Intrinsicity

The ‘scare quotes’ approach: Intrinsic properties of a

1. are / account for / ground ‘how a is by itself’, are exemplified by a ‘in virtue of the way it is in itself’;
2. make for genuine similarity, are ‘non-disjunctive’, have ‘non-gerrymandered’ extensions;
3. are shared by a and its duplicates / replicas / perfect copies.

Theoretical roles: Intrinsic properties

1. are qualitative natures of combinatorial units;
2. make for real, as opposed to Cambridge change;
3. do not entail, nor are entailed by the existence of any other things wholly distinct from their bearers.

Definition 1 (Lewis₁-intrinsicness). *F is intrinsic iff for all x and y , if x and y have the same natural properties, then Fx iff Fy (Lewis 1983: 26).*¹

Definition 2 (Lewis₂-intrinsicness). *A property F is intrinsic iff for all x and y , if x and y have the same pure, non-disjunctive and non-co-disjunctive properties independent of loneliness and of accompaniment, then Fx iff Fy (Lewis and Langton 1998).*²

Definition 3 (Local version of Lewis₂-intrinsicness). *A property is intrinsic to a iff it does not differ between duplicates of a .*³

There are at least four main problems with the Lewis/Langton account:

1. haecceitistic properties (the exemplification of which implies the existence of particular individuals) are not independent of accompaniment (Dunn (1990: 186), Sider (1996: 4), Humberstone (1996: 240) and Yablo (1999: 487)): they are had in only one world if particulars are world-bound.

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¹Lewis (1986: 60) tentatively suggested that the natural properties could be characterised as a minimal supervenience base for any properties whatsoever.

²A property is pure iff its exemplification does not imply the existence of anything else than the thing exemplifying it. Something is accompanied iff it does not coexist with a contingent wholly distinct thing and it is lonely iff it coexists only with its proper parts (if it has any). A property is independent of loneliness (accompaniment) iff it is both possible that it is had and that it is lacked by a lonely (accompanied) thing. A property is *disjunctive* iff it can be expressed by a disjunctive predicate but is not natural and much less natural than either of its disjuncts. The pure, non-disjunctive and non-co-disjunctive properties independent of loneliness and accompaniment are called “basic intrinsic” by Lewis and Langton. Def. 2 says that a property is intrinsic iff it supervenes on basic intrinsic properties, or, equivalently, iff it never differs between duplicates (where two things are duplicates iff they have the same basic intrinsic properties).

³Not any property intrinsic to some thing is intrinsic *tout court*. *Being such that there is a cube*, e.g., is intrinsic to cubes, though certainly not intrinsic *tout court*. (Marshall and Parsons 2001: 349, n. 2). Properties intrinsic to a are closed under negation and conjunction (and hence disjunction). Properties that are had by a and are intrinsic to a are had by a *intrinsically*. As Dunn (1990: 183) urged, the class of properties had by a intrinsically is closed under implication. Properties intrinsic to all particulars or, equivalently, had intrinsically by all their exemplifications, are intrinsic *tout court*. If we imagine the realm of (actual and possible) objects partitioned in duplication classes, an intrinsic property is one that does not divide any duplication class. Properties intrinsic *tout court* are closed only under negation.

2. properties involving relations across possible world (*having a duplicate in the world in which one exists* and *being a duplicate of Kofi Annan's*) are independent of accompaniment and non-disjunctive and are falsely classified as intrinsic.
3. disjunctive properties: *being such that there is a cube* is independent of accompaniment and falsely classified as intrinsic (Marshall and Parsons 2001: 3) if it is non-disjunctive, i.e. not much less natural than either *being a cube* or *being accompanied by a cube*. But Lewis and Langton (2001: 354) bite the bullet.
4. maximal properties (Sider 2001): A property F is *maximal* iff, roughly, large parts of an F are not themselves F . If *being a rock* is maximal, it has intrinsic duplicates which fail to be rocks because they are parts of rocks. So *being a rock* is extrinsic. As it is independent of accompaniment, however, Lewis has to claim that it is disjunctive, which does not seem very plausible. He is, however, prepared to bite the bullet (Lewis 2001: 382).

Lewis (2001: 387) proposes a less permissive criterion for ‘bad disjunctions’ (properties expressed by disjunctive predicates which are not intrinsic): a property is (badly) disjunctive iff it is equivalent to a disjunction such that each disjunct is more natural (not: much more natural) than the whole disjunction. He also makes a new attempt to characterise bad disjunctions directly, thereby cutting down his reliance on contentious judgements of comparative naturalness. The new definition runs as follows:

Definition 4 (Lewis₃-intrinsicness). *A property P is intrinsic iff (i) P is independent of accompaniment, (ii) P is at least as natural as ($P \wedge$ being accompanied), (iii) P is at least as natural as ($P \wedge$ being lonely), (iv) $\neg P$ is at least as natural as ($\neg P \wedge$ being accompanied), (v) $\neg P$ is at least as natural as ($P \wedge$ being lonely).*

More general problems:

1. *having an F -part* (for things with proper parts that exemplify F intrinsically) are intrinsic only if duplication of wholes requires duplication of their parts, which is debatable;⁴
2. *being a proper part of an F* (for things which are proper parts of things that exemplify F intrinsically) come out extrinsic, if we accept the supplementation principle;⁵
3. *having a as a part*: a' is a super-duplicate of a iff a and a' are duplicates and any part of a has a (similarly located and qualitatively indiscernible) part of a' as its counterpart (Humberstone 1996: 242). But this does not allow for counterpart relations heeding extrinsic similarities. Alternative (Bricker 1993: 274): in order for a part b' of b to be a (a, b) -duplicate of a part a' of a , b' does not only have to be a duplicate of a' , but also be related to other parts of b in a way similar to how a' is related to the other parts of a .
4. No extrinsic essential properties.

In all Lewis-definitions, “how a thing is by itself” is translated into “how a thing would be if it were lonely”. This transition, however, is far from being mandatory: Another possible way to spell out the “by itself” clause, as Sider’s examples show, is to count those features of a thing as intrinsic that are determined by what goes on inside its borders, i.e. on how its parts are and in what relations they stand. This point is well made by Humberstone:

“...the idea of an intrinsic property is the idea of a property a thing has in and of itself: but *considering* a thing *in itself* is not the same as *supposing* the thing to be *by itself*.” (Humberstone 1996: 229)

Two concepts of loneliness:

loneliness as independence : x is lonely in this sense iff it exists all by itself, i.e. if nothing other exists than its (proper and improper) parts;

loneliness as interiority : x is lonely in this sense iff all things outside it are abstracted away and the thing is considered ‘in isolation’.

Achille Varzi (1997: 42) distinguishes (topologically) “open” and “closed” entities, i.e. entities which include their boundaries and those that do not. Houses and rocks, if *being a house* and *being a rock* are maximal, are closed – the open counterparts of a house which are embedded in a larger house are not houses, for they lack (counterparts

⁴Consider a parallel case with essential properties. Suppose I have a heart and it is organic. It may be essential to me that I have a heart and essential to my heart that it is organic, but not essential that I have an *organic* heart – I could have an artificial heart (though, this would not be a counterpart of my actual heart). In this case, I will have counterparts that have hearts that are not counterparts of my heart.

⁵I.e. that, if a is a proper part of b , then they have a mereological difference (the common part of all things overlapping b but not overlapping a).

of) parts the original house had, namely its boundary. The boundary of the house, however, is not a part of the house, but it is part of the house considered in isolation.

Turning the tables: A substance is something which has intrinsic properties – intrinsic properties are properties had by substances.⁶

a's *intrinsic nature* is the fusion of all those properties it has intrinsically. It is a (non-spatiotemporal) part of it; the intrinsic nature of a part is then 'included' in the intrinsic nature of the whole. We could even use inclusion of intrinsic natures to *define* what it means to say that *y* is part of *x*.

Definition 5. *A particular a is a substance iff it is a counterpart of a world.*

Any substance has intrinsic properties and thus an intrinsic nature:

Definition 6. *F is the intrinsic nature of a substance a iff it is the fusion of all universals that are part both of a and of all counterparts of a which are worlds.*

A substance is a maximal spatio-temporally interrelated whole; an intrinsic nature is a maximal nonspatiotemporal part of a substance.

Relationality

The 'scare quotes' approach: Non-relational properties of *a*

1. do not 'essentially mention' other things than *a*;
2. do not 'stem from' metaphysically / conceptually / explanatorily prior relations *a* has;
3. are 'genuinely monadic';

Theoretical roles: Non-relational properties

1. are wholly qualitative: their nature is exhausted by how the things that have them are;
2. are non-haecceitistic: may be shared by distinct indiscernibles;
3. are pure, i.e. do not

Definition 7 (Implicational relationality). *P is impure iff $\exists R \exists y \forall x (Px \leftrightarrow Rxy)$.*

Problem (cf. Khamara (1988: 146) and Humberstone (1998: 218)): If we introduce the predicate "tinthree" by the following definition:

$$\forall x, y (x \text{ tinthrees } y \leftrightarrow (x \text{ is made of tin} \wedge y \text{ is the number } 3))$$

the property of being made of tin comes out as impure because, necessarily, something is made of tin iff it tinthrees 3.

Let us, following Humberstone (1996)'s rephrasing of Dunn (1987) and Dunn (1990), call a property "Dunn-pure" iff it is, whenever it is truly predicated of *a*, a relevant property of that individual, i.e. a property such that the hypothesis that an arbitrary *x* is *a* relevantly implies that *x* has the property.

Definition 8 (Dunn purity). *A property P of a is Dunn-pure iff for all x, if x is a, then x is P.*

The class of Dunn-pure properties is closed under negation, conjunction, disjunction, (relevant) implication and even under relevant implication of arbitrary formulae (e.g. if *a* is relevantly *F*, then it is relevantly *F* and such that ϕ , because any formula ψ relevantly implies $\psi \vee \chi$ in **R**) (Dunn 1987: 362–363). Let us say that a logic **L** has the *dummying-in property* iff, for every formula *A* and every any sentence letter *p* of the language of **L**, there is a formula *B*(*q*) such that $\mathbf{L} \vdash A \leftrightarrow B(p)$ (Humberstone 1996: 264, n. 45). Dunn's logic **R** and the disjunction-free fragment of Positive **R** have this property.

Dunn (1990: 185) objected to Lewis' account of intrinsic properties as those invariant under duplication that the property *being a duplicate of a* will come out intrinsic:

"...Lewis in conversation has responded to my complaint that *being a perfect duplicate of b* turns out to be an intrinsic property on his account. As best as I can recall his reply, he thinks that this is perfectly fine. Although the property is *identified* with reference to *b*, *in itself* it amounts to only an infinite conjunction of intrinsic properties of *a*, and hence is itself intrinsic." (Dunn 1990: 203, n. 7)

⁶Cf. Langton (1998) but also Rosefeldt (2001).

Relational properties are properties that are individuated with reference to relations (Hochberg 1988: 196): to say that, generally and as a matter of logical truth, if $a = b$, then $\lambda x(aRx) = \lambda x(bRx)$, we need to quantify over relations.⁷

Cross-cutting

Examples of the relational intrinsic:

1. *having a as a part*
2. the value of Diana's dress
3. *being of a crime* of some punishment

Examples of the non-relational extrinsic:

1. *not being accompanied by a unicorn*
2. *being all there is*
3. *being surprising* of an event

Massin (2010: 98)'s example: "being left" (as in "my left hand") expresses a extrinsic, non-relational monadic property, while "being to the left of" (as in "the tower is to the left of the house") expresses a relational monadic property.

The case of colours: intrinsic, relational

According to Massin (2010: 99), the "proper sensibles" (colours, sounds etc) are monadic extrinsic properties, because they both depend on our perceptual apparatus and qualify only their bearers.

Milieu dependence: Colour experiences have to be individuated relationally: individually indiscriminable stimuli look different (become distinguishable) if set against different backgrounds.

Revelation: "The intrinsic nature of canary yellow is fully revealed by a standard visual experience as of a canary yellow thing. [...] It is just this idea that visual experience is transparently revelatory which Descartes denied when he wrote of our visual sensation as arbitrary signs of the properties that cause them, employing the analogy of the sensations which a blind man receives of texture as a result of using a cane to "see"." (Johnston 1992: 223,223-224)

Colours don't look like dispositions: "When one enters a dark room and switches on a light, the colours of surrounding objects look as if they have been revealed, not as if they have been activated." (Boghossian and Velleman 1989: 86)

Representational properties are intrinsic, but relational

Many things may be said to have content, but most of them do so indirectly: they have content in virtue, for example, of having been produced in a certain way or with certain intentions, or of standing in some relation to other things that have content. The most important such relation is that of some things expressing other things. It is in virtue of expressing my beliefs that my utterances have content, and – subject to certain constraints – the beliefs expressed determine what content they have.

Most contentful things thus have their content extrinsically: they mean what they do in virtue of other things having a certain content. At some point, however, the bucket must stop: if there are any representational properties at all, some things must have them intrinsically. Because they are representational, however, they are relational even when exemplified intrinsically: they represent something other than themselves, creating a relation between their bearer and the things they make their bearer be about.

Representational properties like *meaning that*, *Fa*, *representing a to be F* or *thinking of a as F* are intrinsically exemplified by some thing x iff x exemplifies the property independently of how matters stand with respect to other things than x – no further properties have to be exemplified for other things for my thought, e.g., to represent a to be F . That some representational properties are exemplified intrinsically by some things follows from the following argument:

⁷The reason why loving-Superman and loving-Clark-Kent is one and the same property (and Lois Lane, as a matter of logic, exemplifies one iff she exemplifies the other), is that Superman is Clark Kent; therefore, the properties are not atomic, but derelativisations of the prior relation of loving.

- (i) Some things have representational properties.
- (ii) If something exemplifies a representational property extrinsically, it does so in virtue of there being something else that bestows it with this representational property.
- (iii) In order for something to bestow something else with a representational property, the first thing needs to exemplify this representational property itself.
- (iv) The transmission of representational powers can neither go on forever, nor go in circle: it must be started by something.
- (v) A thing that has a representational property that is not bestowed upon it by something else exemplifies it intrinsically.

Even when they are exemplified intrinsically, however, representational properties are still relational: they connect their bearers to the things they are about. If my thought, for example, represents *a* to be *F*, it stands in the relation of aboutness to *a* and in the predication relation to the universal *F*. It is in virtue of these relations that my thought can stand in for *a*'s being *F*, and be in some sense further to be specified a substitute of this external fact.⁸

Intentional properties are extrinsic, but non-relational

According to what Chisholm (1952: 56) calls “Brentano’s Thesis” – that intentionality is the mark of the mental – intentional properties are extrinsic, but non-relational. They are extrinsic, because they are signs, but non-relational, because they are characterised by “intentional inexistence”: psychological states may exist even in the absence of what they are about.

The representationality of some properties has to be sharply distinguished from their intentionality. A property of something is intentional iff it is *taken to be* about something else than itself. It is so taken to be if we attribute to it conditions under which it may be said to be correct. Correctness conditions specify the intentional content, but – being conditions – do not themselves require this content to be satisfied. If I am looking for the Holy Grail, for example, my activity is directed towards, and rationalisable only with respect to the Holy Grail, which, or so let’s assume, does not exist. I am intentionally directed towards the Holy Grail, without standing in a relation to it: there is nothing, after all, for me to stand in a relation to.⁹

Because they are outward-directed, and cannot be accounted for without reference to their intentional objects, intentional states are extrinsic: they are what they are in virtue of participating in a complex process, which not only involves their objects, their bearer, but also a process of interpretation or understanding.¹⁰

⁸Different accounts of this relation of standing-in have been proposed, from Aristotle’s ‘being-a-token-of’ – “It is not possible to converse by bringing in the objects themselves, but instead of the objects we use words as tokens”, *Sophistici Elenchi* 1, 165a6-8 – to the scholastic modes of objective existence.

⁹It is only as an analysis of intentionality, not of representationality, I think, that Aristotle’s theory of thoughts being likenesses of objects has any plausibility.

¹⁰This has been made particularly clear by Charles W. Morris, one of the founders of the theory of signs: “The properties of being a sign, a designatum, an interpreter, or an interpretant are relational properties which things take on by participating in the functional process of semiosis.” (1939: 82)

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