In their paper "Defining 'Intrinsic'" Rae Langton and David Lewis propose a definition of intrinsicality in terms of modality and naturalness. Their key idea, drawing on earlier work by Jaegwon Kim, was that an intrinsic property is one that is independent of accompaniment, which is to say that $P$ is intrinsic iff the following four conditions are all met:

1. It is possible for a lonely object to have $P$.
2. It is possible for an accompanied object to have $P$.
3. It is possible for a lonely object to lack $P$.
4. It is possible for an accompanied object to lack $P$.

Langton and Lewis say that an object is "accompanied" iff it coexists "with some contingent object wholly distinct from itself." (Langton and Lewis 1998, p. 333) A "lonely" or "unaccompanied" object is one that is not accompanied. We will also speak of an object being "accompanied by an $F$" iff it coexists with some $F$ wholly distinct from itself.

This works very nicely for the obvious examples. It works for being cubical, being 50 km from a capital city, and being lonely (intrinsic, extrinsic, extrinsic, respectively). But it doesn’t work for every property. Langton and Lewis note that disjunctive properties cause trouble: they give the example of being cubical and lonely, or else non-cubical and accompanied. This property is independent of accompaniment, but intuitively is extrinsic. Other disjunctive properties are intuitively intrinsic (the property of being cubical or spherical, for example), so a new test must be prescribed for them.

Thanks for comments on and discussion of this paper go to Toby Handfield, Lloyd Humberstone, Frank Jackson, Daniel Nolan, Michael Ridge, Peter Roeper, and Daniel Stoljar.
And that is, indeed, what Langton and Lewis do: they call the non-disjunctive intrinsic properties “basic intrinsic”, and apply the independent of accompaniment test to them. So, a property is basic intrinsic iff it is:

1. not a disjunctive property, and,

2. not the negation of a disjunctive property, and,

3. independent of accompaniment.

They then define the relation of intrinsic duplication as the relation that holds between two objects iff they share all their basic intrinsic properties, and an intrinsic property as one that can never differ between intrinsic duplicates (actual or possible). Equivalently, one could say that an intrinsic property is one that supervenes on the basic intrinsic properties of its object. Intrinsic in this sense is applicable to even disjunctive properties.

Unfortunately there is a problem that the Langton/Lewis analysis cannot deal with. It has to do with the way that Langton and Lewis use the notion of a disjunctive property. As they themselves point out, it is no trivial matter to define what it is for a property to be disjunctive. They offer the following analysis:

Given some or other notion of natural properties, let us define the disjunctive properties as those properties that can be expressed by a disjunction of (conjunctions of) natural properties; but that are not themselves natural properties. (Or, if naturalness admits of degrees, they are much less natural than the disjuncts in terms of which they can be expressed).

(Langton and Lewis 1998, p. 336)

Two presuppositions of this definition are worth mentioning here. First, it is presupposed that there is some distinction between natural and unnatural properties to be made. Lewis and Langton are explicit about this, and invite the reader to substitute in her favourite account of this distinction. They offer some examples of the sorts of accounts that they have in mind, including ontologies of sparse universals or tropes; accounts that posit an undefined naturalness of certain classes; and accounts that define naturalness of properties in terms of the importance of the role those properties play in our thinking. This will be important later, as we will argue that Langton and Lewis may be leaning too hard on this distinction; that not every account of it can do the work they need.

Second, it is presupposed that the individuation conditions for properties are coarser than the individuation conditions of predicates. There would be no point in speaking of “those properties that can be expressed” by disjunctive predicates unless it were possible that a property have multiple expressions, some disjunctive and some not. We take it that the intended individuation conditions of properties are along the extensional lines Lewis has endorsed.
elsewhere. (Lewis 1986, p. 50) Properties are construed as sets of possible individuals: same set of individuals, same property.

Now at last we are in a position to state the problem. We think that Langton and Lewis were mistaken to identify the properties that cause problems—that is, the properties that are capable of being extrinsic even though they are independent of accompaniment—with the disjunctive properties. We have a counterexample: a property that is extrinsic, independent of accompaniment, and not, we think, disjunctive in Langton and Lewis’s sense. (Nor is it the negation of a Langton and Lewis disjunctive property). It is the property of being such that there is a cube.¹

This is, to be sure, a silly property that only a metaphysician would ever think of. But the same is true of the example that motivates Langton and Lewis to deal specially with disjunctive properties. If the aim of the game was to deal only with non-silly properties, the independent of accompaniment test would suffice. Moreover, it would become crucial to have an account of which properties are silly, and our point could easily be restated as the point that not all of the silly properties are disjunctive. And finally, as an ad hominem point, notice that there is such a property according to the second presupposition of the Langton/Lewis analysis. It is the set of all the members of all the possible worlds that contain a cube.

We think that it is as obvious as anything in this area could be that our property is extrinsic.² Nevertheless it is independent of accompaniment. All the required possibilities are there, realised by the following possible worlds:

1. A world containing nothing but two cubes.
2. A world containing nothing but one cube.
3. A world containing nothing but two non-cubes.
4. A world containing nothing but one non-cube.

And we do not think it is disjunctive either. It does have a disjunctive expression: “being either a cube or accompanied by a cube”. But it is not

¹ As with many counterexamples, once you see how to do it, they’re easy to make up. Other examples include: being such there is an electron; being holy, where to be holy is to be such that God exists (Rudolf Otto may have had such a view of the holy—thanks to Winifred Lamb for this point). There are also relational variants: touching a head; being within 5m of a philosopher. One important feature of these is that, unlike the original counterexample, they are possessor-dependent—they can be had by some actual thing without being had by every actual thing.

² If it is possible to make sense of local intrinsicality (Humberstone 1996, pp. 206, 227–28)—of a property being intrinsic-to this object, but extrinsic-to that one—then being such that there is a cube is intrinsic-to some things, namely, the cubes. But it is extrinsic-to all the non-cubes, and, plausibly, the intrinsic properties are those which are necessarily intrinsic-to all their instances.
obvious to us that this is a disjunction of natural properties. *Being a cube* is a natural property (let's suppose), but we have simply no idea whether *being accompanied by a cube* is natural. Even if it is, it seems no more natural than *being such that there is a cube*. (Though both are, we suppose, less natural than *being a cube.*) So our property is not disjunctive, by the lights of the definition above.

Even putting our intuition that the counterexample property is no less natural than its supposed disjuncts aside, there is a deeper problem here than a mere counterexample. For Langton and Lewis to defend their analysis, they need to appeal to fairly obscure judgements about the relative naturalness of properties—but they don't have the resources to make these judgements. One of the virtues of their account is meant to be its robustness in the face of different ways of drawing the distinction between natural and unnatural properties. Langton and Lewis assert that most philosophers will be willing to help themselves to some or other version of the distinction, and that any such version will work when substituted into their account. But not every such distinction will provide what they need—the relative naturalness of *being accompanied by a cube* and *being such that there is a cube* are not among the Moorean facts of naturalness that we expect any account of natural properties to explain.

Nor do the needed facts about relative naturalness obviously fall out of the types of theories of naturalness Langton and Lewis suggest. If the sharing of natural properties makes for resemblance, for example, (as is suggested by at least one of the candidate theories of naturalness, Armstrongian realism about universals), neither property is any more or less natural than the other. Two things that are both accompanied by a cube don't seem to be any more or less objectively similar in virtue of that than two things that are both such that there is a cube.

Alternatively, if the naturalness of properties is grounded in the importance of the role those properties play in our thinking, again the needed judgements about relative naturalness are unforthcoming. There seems to be no reason to hold that *being accompanied by a cube* plays a more important role than *being such that there is a cube*.

So, the Langton/Lewis analysis of "intrinsic" faces two problems. The first is a straight counterexample—if you believe our weak intuition that *being accompanied by a cube* is no more natural than *being such that there is"
a cube, their analysis will make the latter intrinsic. The second is that there doesn't seem to be any particular theoretical reason to overthrow that intuition. If the Langton/Lewis analysis of "intrinsic" is to resist our counterexample, it will need supplementation with a theory of naturalness that is, as yet, unarticulated.

References