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AGAINST MAXCON SIMPLES

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In a recent paper titled 'Simples', Ned Markosian asks and answers the Simple Question, which is, 'under what circumstances is it true of some object that it has no proper parts?' Markosian's answer to the simple question is *MaxCon*, which states that an object is a simple if and only if it is a maximally continuous object. I present several arguments against MaxCon.

I. The Maximally Continuous View of Simples

In a recent paper titled 'Simples', Ned Markosian raises what he calls 'the Simple Question', which is, 'under what circumstances is it true of some object that it has no proper parts?' [1998b: 214] Markosian's answer to the Simple Question is:

> The Maximally Continuous View of Simples (MaxCon): Necessarily, *x* is a simple if and only if x is a maximally continuous object.[1]

MaxCon entails that for any continuous shape you choose, if it is possible that some spatial region with that shape is filled with matter while not simultaneously being a proper sub-region of some larger (continuous) matter filled region, then it is possible that there be a simple that is that shape. According to one tradition, simples are thought to be zero-dimensional individuals. However, according to MaxCon, simples can be three-dimensional individuals.[2]

[1] Markosian employs the following definitions in the explication of his view. In order to avoid cumbersome terminology, I am leaving the temporal relativizations of the parthood and property instantiation relations implicit.

1. Object O *occupies* region R $=_{df}$ R is the set containing all and only those points that lie within O.
2. *O* is *spatially continuous* iff *O* occupies a continuous region of space.
3. R is *continuous* $=_{df}$ R is not discontinuous.
4. R is *discontinuous* = df R is the union of two non-null separated regions.
5. R and R' are *separated* $=_{df}$ the intersection of either R or R' with the closure of the other is null.
6. The *closure* of R $=_{df}$ the union of R with the set of all its boundary points.
7. p is a *boundary point* of R = $_{df}$ every open sphere about p has a non-null intersection with both R and the complement of R.
8. R is an *open sphere* about p $=_{df}$ the members of R are all and only those points that are less than some fixed distance from p.
9. The *complement* of R $=_{df}$ the set of points in space not in R.
10. *x* is a *maximally continuous object* $=_{df}$ *x* is a spatially continuous object and there is no continuous region of space, R, such that (i) the region occupied by *x* is a proper subset of R, and (ii) every point in R falls within some object or other.

Markosian borrows (2)–(9) from Richard Cartwright [1987]. (Cartwright uses 'connected' and 'disconnected' instead of 'continuous' and 'discontinuous'.)

[2] Moreover, MaxCon is consistent with the possibility of simples of any dimensionality. Suppose that matter fills *five* dimensions of space; then MaxCon might say that there are five-dimensional simples.

In what follows, I present a series of arguments against MaxCon.

We should note that Markosian presupposes a controversial view about how objects persist through time, *three dimensionalism* (3Dism). Roughly, 3Dism is the view that material objects persist through time by being wholly present at each instant at which they exist. Given 3Dism, both the parthood and the instantiation relation have an extra 'argument place' for times.[3] Accordingly, given 3Dism, the primitive parthood relation is '*x* is a proper part of *y* at *t*', while the primitive instantiation relation is '*x*1 . . . *xn* instantiate(s) *F* at *t*'.[4]

We should also note that MaxCon should not be interpreted as an answer to the Simple Question, since as it stands, MaxCon implies that an object is a simple only if it occupies a non-empty region of space.[5] This is surely unacceptable. It is not difficult to conceive of immaterial simples; God, Cartesian spirits, numbers, and unit sets are all excellent candidates for being immaterial simples. So MaxCon is really the answer to a different question: under what circumstances is an object a *physical* simple?[6]

MaxCon is not the only answer to the Simple Question discussed by Markosian. One of the answers worth mentioning is the *Pointy View of Simples* (PVS).[7] According to PVS, necessarily an object is a simple if and only if it is point-sized. The Pointy View may be the traditional view of simples. Finally, there is the view that I favour, which Markosian

[3] I ignore *presentist* versions of 3Dism, according to which there is no need to index parthood and instantiation to times. On presentism and persistence, see Hinchcliff [1996].

[4] In 'Simples', Markosian merely presumes that 3Dism is the correct account of how a material object persists through time. However, there is nothing improper about Markosian's doing so for two reasons. First, I suspect that many philosophers who are interested in questions concerning material composition share Markosian's commitment to 3Dism. Second, by narrowing his focus on an unfortunately neglected question, Markosian raises important issues that would otherwise be clouded by drudging through the not inconsiderable literature on the controversial subject of persistence through time.

I do not share Markosian's commitment to 3Dism. It is important to note that although one can formulate four dimensionalist analogues of Markosian's answer to the Simple Question, they are not very plausible. However, I will, for the most part, ignore this worry, since I believe that those who endorse 3Dism should reject Markosian's answer to the Simple Question.

On 3Dism, see Hinchcliff [1996], Mellor [1998], Thomson [1983], van Cleve [1986], and van Inwagen [1990a]. On four dimensionalism, see Heller [1991], Hudson [2001], Lewis [1991; 1986; 1983], Sider [2001; 1997].

[5] Here is a quick argument for this conclusion. Markosian takes regions of space to be sets of points [Markosian 1998b: 216 n 16]. The set of points occupied by a non-spatially located object is the empty set. Does the empty set count as a region? If so, then given that there is at least one object that occupies a non-empty region, no object that occupies the empty set is a simple, since that object will not occupy a maximally continuous region. (Given that at least one object occupies a non-empty region R, the empty set cannot be a *maximally* continuous region, since the empty set is a *proper* sub-region of R.) This is an odd result. But if the empty set does not count as a region, then any object that 'occupies' the empty set is not a simple, for such an object does not even occupy a region of space, let alone a maximally continuous one.

[6] As I see things, given that all sorts of objects can have parts, we should not restrict our attention to the question of what it is for an object to be a physical simple.

[7] The other views mentioned by Markosian are the *Physically Indivisible View of Simples (PIVS)* and the *Metaphysically Indivisible View of Simples (MIVS)*. According to PIVS, necessarily an object is a simple if and only if it is physically impossible to divide it. According to MIVS, necessarily an object is a simple if and only if it is metaphysically impossible to divide it (without changing its intrinsic properties). Since I find Markosian's arguments against PIVS and MIVS persuasive, I won't bother to argue against them here. See Markosian [1998b: 220–2].

does not discuss: *the Brutal View of Simples*.[8] According to the Brutal View of Simples, there is no finite set of non-trivial necessary and sufficient conditions for being a mereological simple. Given the Brutal View, necessarily, for any simple *S*, it is a brute fact that *S* is a simple, i.e., there are no features such that it is in virtue of instantiating those features that *S* is a simple. This is not to say that if the Brutal View is correct, then there are no features that are contingently correlated with being a simple; it is consistent with the Brutal View that there is a feature that all and only actual simples have. However, if the Brutal View is true, having this feature does not account for the simplicity of the objects that have it, for nothing does. I suggest, although I cannot prove this here, that each of the rivals to the Brutal View faces objections serious enough to cast considerable doubt on it. This provides an indirect argument for the Brutal View, for if the most plausible accounts of the nature of simples fail, then a very reasonable hypothesis why they fail is that simples per se have no nature.

II. MaxCon and Special Relativity

The formulation of MaxCon given in the previous section employs the notion of a continuous region of space. But some scientists and philosophers have argued that one consequence of the special theory of relativity is that space and time as commonly conceived simply do not exist; there is no enduring manifold of spatial points. Strictly speaking, there are no *times* or *spatial points*; the zero-dimensional entities at our world are space-time points. If these scientists and philosophers are correct, how are we to understand MaxCon? And are there special difficulties facing the MaxConist that stem from special relativity?

It is beyond my competence to answer the second question authoritatively. Here I present and discuss what I take to be the two obvious ways of formulating an analogue of MaxCon in a relativistic setting. Let us begin by asking what counts as a continuous region of space given special relativity. Nothing *simpliciter*. But there may be continuous regions of space *according to a reference frame*, where continuous regions of space may be thought of as follows. Relative to some reference frame, all points of space-time divide into equivalence classes that may be thought of as times (since simultaneity is a three-place relation between two events and a frame of reference). Any subset of any of these equivalence classes of space-time points (at some reference frame) may be thought of as a region of space (at that reference frame). A continuous region of space, relative to frame F, may then be thought of as any continuous region of space-time, such that every member of the region is simultaneous with every other, relative to F. We can now formulate a relativistic version of MaxCon:

> **SR-MaxCon:** Necessarily, *x* is a simple at *t* according to reference frame F if and only if *x* is a maximally continuous object at *t* according to reference frame F.

[8] It is surprising that Markosian does not mention the Brutal View [1998b], given that Markosian thinks that the Special Composition Question does not have a true, informative, and finitely expressible answer [Markosian 1998a].

This formulation of MaxCon seems consistent and available to the MaxConist. It is admittedly strange that *being a simple* (and accordingly, the parthood relation) is relativized to both a time and a frame of reference, but this is merely another consequence of grafting the three-dimensionalist perspective of persistence through time onto this philosophical account of the theory of special relativity. If the MaxConist is willing to go this route, I see no new objections that can be raised against SR-MaxCon over and above the objections that will be raised in the remainder of this paper.

The second way to modify MaxCon to accommodate special relativity is to take a maximally continuous object to be one that occupies a continuous region of *space-time*. We define what it is for an object to *occupy* a region of space-time and to be *maximally continuous* as follows:

> Object O *occupies* space-time region R $=_{df}$ R is the set containing all and only those points that lie within O.

> *x* is a *maximally continuous object* $=_{df}$ *x* is a spatiotemporally continuous object and there is no continuous region of space-time, R, such that (i) the region occupied by *x* is a proper subset of R, and (ii) every point in R falls within some object or other.

We now state the spatiotemporal analogue of MaxCon:

> **4DMaxCon:** Necessarily, *x* is a simple if and only if *x* is a maximally continuous object.

Although 4DMaxCon is the more natural way for the MaxConist to accommodate special relativity, it is also the more philosophically problematic. I have two worries about 4DMaxCon. First, let me introduce the concept of a *spanner*. Roughly, a spanner is a spatially continuous object that persists through a continuous interval of time. Less roughly:

> An object *x* is a *spanner* $=_{df}$ (i) for any reference frame F, the set of times at F at which *x* is present is a non-instantaneous continuous interval and (ii) *x* is a spatially continuous object at every time at F at which *x* is present.

My first worry about 4DMaxCon is that it may be that the fundamental physical particles studied by physicists, e.g., the electrons, quarks, etc, are spanners. Even if they are not, there clearly are possible worlds where the fundamental physical particles are spanners. According to 4DMaxCon, spanners are simples. Assume for a moment a generous mereology, such that for any collection of objects, the *xs*, there is a *y* such that *y* is the mereological fusion of the *xs*. Even granting such a generous mereology, there is no room for human persons in worlds in which the fundamental physical particles are spanners and have lifetimes relevantly similar to those in the actual world. There are only particles and fusions of particles; there are no particle slices, i.e., proper (spatio)temporal parts of particles, to compose shorter-lived human persons or persons relevantly similar to human ones in these worlds, since the temporally extended fundamental particles are simples. Since some of the close possible worlds containing spanners (perhaps including the actual world) also clearly contain human persons, 4DMaxCon must be false.

Here is my second worry about 4DMaxCon. Let us pick an arbitrary reference frame F according to which there are times t1 and t2. Imagine that at time t1, two homogenous portions of the same kind of matter fill continuous non-overlapping spatial regions. The two portions of matter move closer together until at t2, the union of the spatial regions occupied by the portions of matter is spatially continuous. After t2, the portions of matter go their separate ways, never to intersect again. Surely we would describe a possible world in which this occurred as one that contained (at least) two objects. However, if 4DMaxCon is correct then there is only one object in the story, since the spatiotemporal region occupied by the portions of matter in the story is continuous. Since this seems false, there is reason to worry that 4DMaxCon is not the correct account of what a simple is.[9]

These worries are reasons to prefer SR-MaxCon to 4DMaxCon. However, given that I do not see any serious worries for SR-MaxCon over and above the worries that I will raise concerning MaxCon, I will henceforth ignore the more complicated relativistic formulations of MaxCon and instead address their simpler and more intuitive cousin.[10]

III. What is the Matter with MaxCon?

As Markosian acknowledges, MaxCon is incompatible with so-called *perfect contact* between non-identical objects. *x* and *y* stand in *perfect contact* when there is a part of *x, w*, and a part of *y*, *z*, such that the union of the spatial regions occupied by *w* and *z* is continuous. Given MaxCon, at the moment two maximally continuous objects touch, at least one of these objects is destroyed.[11] Suppose that two cubical simples, A and B, are steadily approaching each other. Let us assume that these simples are perfect duplicates and that both simples have a topologically open side and a topologically closed side.[12] The two simples approach until at time *t* the union of the spatial regions they occupy is continuous. Given MaxCon, there is a simple, C, occupying that region at *t*. If either A or B survive, then the survivor must be identical with C. It is not the case that both A and B survive for their doing so would imply that identity is not transitive. But given that A and B were duplicates, it would be very arbitrary for the MaxConist to claim that one survives and not the other.

Could the MaxConist claim that A, B, and C each exist at *t* but that C does not have A and B as parts? This seems highly implausible. First, if either A or B exists at *t* (and is not identical to C), then given MaxCon, they now have an infinity of parts.[13] Second, the stuff that constitutes C just is the sum of the stuff that constitutes A and B. Consider the following principle:

[9] I owe this suggestion to Hud Hudson.

[10] I thank Ted Sider for help with this section.

[11] Two objects *touch* if and only if they are in perfect contact with each other.

[12] I acknowledge that it is somewhat controversial whether objects that are partially open and partially closed are possible. However, Markosian seems to agree that these sorts of objects are possible [1998b: 226]. For worries about the possibility of open and closed objects, see Zimmerman [2000]. For a response, see Sider [2000b].

[13] Consider A. Given that the region occupied by A is not a maximally continuous region, it must have proper parts. Now consider any proper part of A; it also does not occupy a maximally continuous region, so it also must have proper parts. How can bringing two simples into contact create an infinity of material objects?

> **The Portion-Parts Principle (PPP):** Necessarily, for any material objects x and y, x is a part of y if and only if the matter that constitutes x is a portion of the matter that constitutes y.

PPP is extremely plausible.[14] More importantly, PPP implies that if A and B exist, then A and B are parts of C since the matter that constitutes A and the matter that constitutes B are proper portions of the matter that constitutes C. Accordingly, the MaxConist should say that in the case just described, neither A nor B survives and that C is a new object.

Markosian agrees but tries to sweeten the pill by claiming that

> the matter that constitutes each of the original [maximally continuous objects] does not go out of existence simply because the two [objects] have bumped up against each other. Thus here . . . it will be important for the MaxConist to distinguish talk of objects from talk of matter, and appeal to the latter in satisfying certain intuitions that cannot otherwise be reconciled with them.
>
> [Markosian 1998b: 226][15]

An object exactly occupies some region of space. Some matter exactly fills that same region of space. What is the relationship between the matter that fills a region and the object that occupies that region?

I say that the object just *is* the matter that exactly fills the region it occupies. (On this issue, see Quine [1976].) Matter as Markosian conceives it seems to be very thing-like; it can fall under different kinds, instantiate properties, change position in space, persist through time, and undergo change; moreover, matter always comes in *thing-like* portions. In order for talk about matter to do the work that Markosian wants it to do, we need the resources of quantification over portions of matter. Why don't they count as *things*?

Moreover, denying that a material object *just is* the material content of the region of space exactly occupied by the object seems to commit oneself to an unpalatable and implausible dualism of dubious coherence between things and stuffs. However, a thing/stuff dualism is exactly what the MaxConist is compelled to endorse. We have seen

[14] Moreover, PPP is *not* incompatible with the 'standard account' of the problem of co-located material objects, e.g., statues and lumps of clay, persons and their bodies, etc. According to the standard account, a statue is not identical with the lump of clay that is co-located with it. Given the standard account, the statue is a part of the clay (and vice-versa). According to PPP, the matter that 'constitutes' the lump of clay is a portion of the matter that 'constitutes' the statue. This seems to be the correct result.

[15] I am dubious about certain applications of this strategy. Given MaxCon, not only is it possible that there be simples of strange shapes and sizes (imagine a planet-sized simple), but there can be simples of terrific complexity as well. Not mereological complexity, since simples have no proper parts, but MaxCon does not rule out the possibility of a simple exactly occupying a region filled with a vast multitude of stuffs of various kinds. Consider: although persons are not constituted by continuous stuffs, surely such persons are possible provided the arrangement of the matter that fills the regions occupied by such persons is suitably complex and functionally integrated. Thus, given MaxCon, it is possible that there be persons who are mereologically simple. Suppose that two of these simple people come into contact. Given our earlier discussion, we should believe that at least one of these persons is destroyed (perhaps both are). I find that my intuition that such persons are not destroyed by contact to be so strong that it is not satisfied with the claim that the matter that formerly filled the regions occupied by them is not destroyed. Perhaps the two persons are concluding what has been a heated philosophical debate; surely, these persons could safely shake hands and say 'good bye' without also saying their last good-byes.

that the MaxConist is committed to claiming that talk about matter is not always translatable into talk about things [Markosian 1998b: 225 n 27]. But if the truth-value of statements about the persistence through time of matter can vary independently from the truth-value of statements about the persistence through time of the objects that exactly occupy the same region filled by the matter, then it must be that the reason that talk about matter is not translatable into talk about things is that *matter* and *thing* are independent ontological categories, irreducible to each other.

But if the relationship between a thing and the matter that exactly fills the region of space occupied by the thing is not identity, then what is it? Markosian calls the relationship 'constitution'. This is an odd relation, for the relation does not relate things to things, but rather things to *matter*.

When does some matter constitute an object? I say that the following condition must be met by a relation in order to deserve the name 'constitution': just as it is the case that necessarily, if some *xs* compose some *y*, then any qualitative duplicates of the *xs* compose a qualitative duplicate of *y* (provided that the same relations obtain between the duplicates of the *xs*), it is the case that the constitution relation supervenes on the qualitative character of its relata. That is:

> **The Supervenience of Constitution (SoC):** Necessarily, for any portion of matter that constitutes some object *z*, any qualitative duplicate of that portion of matter constitutes a qualitative duplicate of *z*.

SoC is extremely plausible. Consider some collection of objects that you believe compose a whole. Surely whatever factors determine that these objects compose something have nothing to do with what occurs outside of the region occupied by the objects in question; instead, whether composition obtains is entirely a local matter determined (in so far as it is determined) by the intrinsic properties and relations instantiated by those objects. Note that I am not claiming that what *kind* of thing a collection of objects compose is determined solely by the intrinsic features of its parts, since, e.g., whether an object counts as a statue is determined by factors extrinsic to its parts. But clearly whether there is a composite object at all, regardless of what kind or sortal it may fall under, is determined solely by the nature of its parts and the relations that they stand in to each other.

Likewise, if there is some stuff that constitutes an object, then that it does so has nothing to do with what goes on outside of the region the stuff is located at, whether that region be Hoboken or the object's immediate surroundings. The constitution relation, in order to deserve the name 'constitution', must be intrinsic to its relata.

Endorsing SoC proves tricky for the MaxConist. Imagine two disjoint continuous regions exactly filled with homogenous stuff of the same kind. The first region is spherical with a radius of one meter; call this region 'Sphere'. The second region is a semi-sphere one-half the size of Sphere; let's call this region 'Semi'. We have at least two objects in this story: one that exactly occupies Sphere—let it be named 'Ball'—and one that exactly occupies Semi—let it be named 'Drum'. According to SoC and the claim that there is matter occupying the bottom half of Sphere, there is a third object which occupies the bottom half of Sphere—let it be named 'Bottom'—that is a qualitative duplicate of Drum. Given our allegiance to PPP, it follows that Bottom is a proper part of Sphere. But if

MaxCon is correct, Sphere has no proper parts. So from the claim that the bottom half of Sphere is filled with Matter and SoC we can infer the falsity of MaxCon.[16]

Perhaps the MaxConist should deny that the bottom half of Sphere is filled with matter, just as the MaxConist denies that there is a thing exactly occupying that region. After all, the MaxConist is already committed to denying *the Doctrine of Arbitrary Undetached Parts*, which can be stated as follows:

> **The Doctrine of Arbitrary Undetached Parts (DAUP):** For every material object, M, if R is the region of space occupied by M, and if sub-R is any occupiable sub-region of R whatever, then (i) there exists a material object P that occupies the region sub-R and (ii) P is a part of M.[17]

Perhaps the MaxConist could also deny the corresponding *Doctrine of Arbitrary Undetached Portions*, which can be stated as:

> **The Doctrine of Arbitrary Undetached Portions (DAUPO):** For every material object, M, if R is the region of space occupied by M, and if sub-R is any occupiable sub-region of R whatever, there is a portion of matter that exactly fills the region sub-R.

However, DAUPO is extremely plausible, so if the MaxConist is forced to deny it, then the cost of MaxCon is extremely high. But perhaps the MaxConist can offset this cost somewhat by claiming that sub-R is *filled* in the following fashion.

> A region of space R is *filled* $=_{df}$ R exactly contains a material object or R is a proper sub-region of a region that exactly contains a material object.

In this fashion the MaxConist can claim that the bottom half of Sphere is filled even if it fails to contain a material object or a portion of matter. Perhaps this goes someway towards satisfying the intuition that the bottom half of Sphere differs from an empty region of space. And dropping DAUPO will allow the MaxConist to endorse SoC.

MaxCon, SoC, and DAUPO are inconsistent with each other. Since SoC is extremely plausible, the MaxConist should give up DAUPO. (But either way is trouble!)

Suppose that the MaxConist does give up DAUPO. She then faces a very serious difficulty, which I call *the Problem of Spatial Intrinsics*. Let us now attend to this problem.

IV. The Problem of Spatial Intrinsics

Suppose that there is nothing special about the time that is *now* any more than there is anything special about the place that is *here*. On this supposition, the future is as real as the present, just as Bellingham, Washington is as real as Amherst, Massachusetts. If we were to make a complete inventory of all of the things that there are, we would have to

[16] Note that this line of reasoning tells us that there are uncountably many semi-spherical parts of Ball.

[17] See van Inwagen [1981]. The version of DAUP presented here is slightly different from the version presented by van Inwagen. In the original statement of DAUP, it was not explicitly stated that the material object that occupied sub-R was a part of M.

include past objects, such as Socrates, and future objects, such as the first fully manned station on Mars, as well as present objects. Let us call this position *Eternalism*.[18]

Many philosophers have argued from the conjunction of Eternalism and the claim that objects persist through time and undergo change to the conclusion that objects have temporal parts [Lewis 1986: 202–5; Sider 2000a]. Suppose that Bill is square Monday night and circular Tuesday morning. Since Eternalism is true, Monday night is just as real as Tuesday morning, and consequently 'Bill is square at *t'* is not analysable into the timeless 'Bill is square'. However, being square is an intrinsic property, not a disguised relation between a thing and a time. Consequently, 'Bill is square at *t*' must be analysable[19] into a statement in which the temporal index, 'at *t*', does not appear, i.e., into a statement of the form, [*x* is square]. Since according to the four dimensionalist's metaphysic, Bill has a temporal part whose lifetime is *t*, the proponent of temporal parts proposes the following analysis of 'Bill is square at *t*': 'Bill's temporal part at *t* is square.'

Note that the 'at *t*' clause in 'Bill's temporal part at *t* is square' is not playing the role of a temporal index on Bill's instantiation of the property of being square; rather, the 'at *t*' clause functions as part of a definite description of one of Bill's temporal parts. Moreover, it is completely eliminable. Let 'Sam' name the temporal part of Bill whose time span is *t*. The four-dimensionalist analysis of 'Bill is square at *t*' can now be stated as simply 'Sam is square', which is an instance of the schema [*x* is F].

I find this argument persuasive. However, perhaps a theory that claims that what we would off-hand call properties, such as shapes, masses, etc., are really disguised relations between a thing and a time is not so absurd that it should not be taken seriously. My purpose here is not to press that point. I just want to point out that even those philosophers who think that shapes, masses, etc. are disguised relations between things and times do not also think that they are disguised relations between a thing, a time, *and a region of space*.[20] Such philosophers may resort to a relational view of these features in order to resist the argument for temporal parts, but they do not balk at accepting spatial parts. Yet, as I will now argue, the MaxConist is committed to taking '*x* is F at region R', where F stands for some alleged intrinsic property, as unanalysable into statements free of the spatial index 'at region R'. Given that there is no such thing as an irreducible spatial index on the instantiation of monadic properties, MaxCon must be false.

Suppose that I have before me two quantities of matter that occupy disjoint maximally continuous spatial regions. One of the quantities of matter is a homogenous blue-coloured substance; the other is a homogenous gold-coloured substance. Let's assume that being blue and being gold are fundamental properties. According to MaxCon, I have before me two simples, which I will call 'Blue-Eye' and 'Golden-Eye'. I now grab both Blue-Eye and Golden-Eye, moving them closer together until they come into contact. At that very moment Blue-Eye and Golden-Eye are destroyed and a new simple comes into existence, which I will name 'Multi'.[21]

[18] I recognize that this account of Eternalism is somewhat unclear. For a more adequate statement of Eternalism, see Sider [2001: 11–12].

[19] Note that 'analyzable' is not to be equated with 'translatable'.

[20] Well, most philosophers resist indexing property instantiation and parthood to regions of space. But see Hudson [2001].

[21] Recall our earlier discussion about MaxCon and perfect contact.

Multi is blue at region R1 and gold at region R2. But since there is no such thing as a colour-relation between a thing and a place, 'Multi is blue at region R1' must be analysable as 'Multi has a part that is located at R1, and that part is blue'. But if MaxCon is correct, then Multi has no parts. Hence, MaxCon is incorrect.

The MaxConist might resist the above argument as follows. Although 'Multi is blue at Region R1' must be analysable into a statement in which the spatial index 'at region R' does not appear, it is not analysable in terms of parts of Multi, for there aren't any. Instead, it is to be analysed in terms of the portions of the matter that constitute Multi. The proposed analysis would then be, 'Some of the matter that constitutes Multi is located at R1 and is blue'.[22] However, a consistent policy of following this procedure would commit the MaxConist to DAUPO, which is, as we have seen, inconsistent with MaxCon and SoC. Consequently, this way of avoiding the argument from Spatial Intrinsics is unavailable to the MaxConist.

At this point, the MaxConist may wish to reject SoC, which would allow the MaxConist to endorse DAUPO. Taking this route would allow the MaxConist an analysis of [*x* is *F* at region R] in cases where *F* denotes an intrinsic property; it should be noted, however, that the analysis will attribute intrinsic properties to *stuff*, not things. In a very strict sense, there will be no *things* that are the basic bearers of intrinsic properties. Accordingly, it seems that these properties are free-floating entities. They are neither had by the simple nor by parts of the simple; moreover, they are not *parts* of the simple. This is extremely odd.

The MaxConist must offer an analysis of [*x* is *F* at region R] in cases where *F* denotes an intrinsic property. A theory that accepts an irreducible spatial index on the instantiation of fundamental properties is hard to believe; it seems to make intrinsic properties into extrinsic properties. But as we have seen, the MaxConist cannot offer such an analysis. MaxCon is refuted by the argument from Spatial Intrinsics.[23, 24]

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[22] This suggestion seems in line with comments made by Markosian [1998b: 225].

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[24] Note added in proof. I have recently discovered a paper by Josh Parsons that addresses the problem of spatial intrinsics [Parsons 2000]. Unfortunately I lack the space to respond to his paper here. I hope to do so in a future work in which I defend the Brutal View.

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