

## BIG THINGS FROM LITTLE THINGS? THE PROBLEM OF THE COMPOUND INDIVIDUAL<sup>1</sup>

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**ABSTRACT:** This paper deals with work done last century and early this century on a problem of fundamental ontology from within the broad process relational ‘research program’. This is the problem usually termed in process circles ‘the problem of compound individuals’. The viewpoints taken by the following are outlined briefly: Whitehead and Donald Sherburne (all real entities microscopic); Hartshorne/Cobb (large events with regional inclusion); Joseph Bracken (equi-primordial fields); George Wolf (large events without regional inclusion: marbles in jelly); Lewis Ford both early (sub-occasions) and recent (included and inclusive occasions); and also some non-Whiteheadian and even anti-Whiteheadian process views (Ivor Leclerc, Nicholas Rescher, Reto Lezius Fetz, George Lucas, James Felt). It concludes, very provisionally, that events seem to be moving in the direction of a layered or multi-level ontology, to allow ontologically ‘equi-primordial’ realities of different levels and sizes with dependencies going in all directions. This seems to fit with some recent work done in process circles in Australia (esp. Gare and Douglas) and also Europe. Finally, there are some remarks on the importance of the question well beyond fundamental ontology, for application to the mind-body problem, in social and political theory and with respect to various questions in theology.

**KEYWORDS:** Compound individuals; Fundamental ontology; Whitehead; Hartshorne; Cobb; Bracken; Ford; Wolf

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## INTRODUCTION:

This is an exploration of some interesting philosophical work over the years on an important problem in fundamental philosophy, namely whether all bona fide real events are small, e.g. sub-atomic, with larger events as having only a derivative reality? Or if there are large events real in their own right, how are they related to the small events? What's really out there? Only little things? Or big things also? And if there are big things how are the big things related to the little things?

The research recorded on the problem here has been mainly but not only with Alfred North Whitehead derived or influenced process philosophies.<sup>2</sup> In spite of its sometimes marginal status, the Whiteheadian tradition has proved itself as a fairly productive 'research program' in metaphysics, which while sufficiently limiting to make for rather detailed proposals still allows for a good deal of variation. In practice the tradition has been far from totalizing or coercing. Like any good Whiteheadian or Hartshornean 'principle of limitation', its effect has been persuasive, not determinative, stimulating different people in different directions. I take this to be virtue rather than a vice, particularly within metaphysics. Some of this variation and hopefully some of its value will be illustrated below.

There is quite a literature on the subject, itself closely related to what is called, within process circles, the dispute about 'compound individuals'. This is what I've found so far:

1) *Whitehead/Sherburne*: there are different kinds of events, including sub-atomic, atomic, molecular, cellular, animal-mental, and they take different times, but they are all microscopic or sub-microscopic in size. The higher events take

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<sup>2</sup> With the exception of Whitehead himself, we are concerned in this paper with a research program in the second half of last century, with most of the players still alive or only recently dead (Hartshorne). Whitehead himself belongs to an earlier research program, which included also Bertrand Russell and C.D. Broad, "three Cambridge philosophers ... [who] became champions of event ontologies that were thought to be compatible with emerging relativity theory" and the still early quantum theory (McHenry, 1996, p. 90). In the main line of English speaking university philosophy this mostly pre-1930's program was of course soon cut short by the inroads of logical positivism. Meanwhile, there is no reason why there cannot nowadays be overlap between people coming out of the Whiteheadian tradition and hard analytic philosophy particularly of the 'revisionary metaphysics' Quine or Wilfred Sellars variety or at least some intensive dialogue – as is already happening, see later. (Cf. McHenry, 1996)

place in the 'empty spaces' between the lesser events. There is no regional inclusion, which is to say, no inclusion of one event in the space of another. This is the position of Prof. Donald Sherburne and according to some interpretations<sup>3</sup> probably of the Whitehead of *Process and Reality*. Every event may be construed as a more or less creative taking into account of its total past environment and a giving of itself to be taken into account by the future of that environment. Relying less on the analogy with the quintessential natural events which we are, every event is reception, transformation and transmission of something like energy and information from total past environment to the future of that environment. Events do differ in quality however, in range and intensity and degree of 'creativity' of reception, transformation and transmission from past to future. But they are all microscopic in size.

By way of an aside, it is the recognition of differentiation in quality, repeated in all Whitehead derived process philosophies, which is the important move with respect to consciousness in humans and other higher animals or wherever else it occurs. Consciousness or 'mind' is a particularly high quality series of events which can be expected to arise naturally in certain rich environments. These environments include, so far as we know: a well connected brain in the midst of a body within a larger environment including a community of other such creatures, in the case of the adult human variety at least, endowed with culture and speaking a language. It is not something magical but merely another example of the kind of thing which might well arise in a Cosmos of our type.

Back to our specific problem: one value of the theory is that it makes space and time easy to define. Actual entities or bona fide events are non-spatial and non-temporal. Space and time are relational concepts defined by means of the relation of these events one to another. They are simply the basic level ordering principles of bona fide events, definable in terms of events and prehension, the process term for causality. (Cf. James Eiswert 1987, pp. 262, 275, 314.)

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<sup>3</sup> Lewis S. Ford has recently put together a characteristically very detailed exposition of the stages of development of Whitehead's metaphysical atomism (Ford 1999), which gives support to this interpretation. However, he comments in a footnote, "Were there an adequate theory whereby larger occasions might include smaller ones, then there could be occasions of any size. Whitehead excluded that alternative because he took it to mean that contemporary concreting occasions would have to prehend each other, which would be impossible. I think, however, his philosophy can be modified on this point to permit satisfactory relations between such occasions..."; which latter Ford himself has been trying to do since at least 1969.

This simplicity and uniqueness of definition of space and time however is purchased at the cost of counter-intuitive modes of relating higher and lower level events. Events relate directly to events next door, both temporally and spatially, so how do the higher level events relate to all the lower level events that they need to relate to? For example, how can a heavy atom relate to all the multitude of sub-atomic events going on within that atom? It appears it can only relate directly to some of them, i.e. the ones close by as it wanders through the empty spaces.

2) *Hartshorne/Cobb*: as with Whitehead interpreted by Sherburne, but events come not only in different kinds but in different sizes and the higher events spatially include (without being identical with) the lower events: the doctrine of regional inclusion. This is characteristic of Charles Hartshorne, and John Cobb and David Griffin from Claremont CA and people depending on them. Among other things, it explains how the higher event canprehend all the relevant lower events, e.g. in an atom, and not just directly the ones next to it.

This solves what we might call the 'space' problem. But there still remains a time problem. There can be no causation between contemporaries, prehension is only of the past. The atom or whatever gets toprehend the previous sub-atomic events, not the ones going on right now.

The best they can do to solve the time problem is give the higher events a 'bloc-ing' effect on lower events, e.g. an event which takes 1 sec. projects an intent for all the events in the following second, which then feed into the next plus one larger event, as in the following diagram:

large event: A-----A B-----B C-----C D-----D

small events:0-0 1-1 2-2 3-3 4-4 5-5 6-6 7-7 8-8 9-9 0-0 1-1.

A is prehendend by 3, 4 and 5, which C prehends, and C is prehendend by 9, 10 and 11.

B prehends 0, 1 and 2 and B is prehendend by 6, 7 and 8, which D prehends.

B also prehends A, C prehends B, D prehends C, and so on.

There would usually be numbers of series of smaller events, e.g. in all atoms above the Hydrogen ion (= the same as a lone proton series). This is solved by regional inclusion.

By way of another aside: 'compound individuals' are possible on either

hypothesis so far, and can be of any size. So also the distinction between *compound individuals* and *aggregates*. The argument is about the size of the constituent occasions, including the so-called 'presiding' or 'dominant' occasions, e.g. the mind in case of human beings. The first hypothesis has all events microscopic, including the presiding events, and denies regional inclusion. The second Hartshorne/Cobb hypothesis allows for events of various size and allows regional inclusion of one lot of events inside another. But even here, it should be clear that while they often do, there is no necessity for the region of the dominant events to coincide with the whole of the region of a particular compound individual. In the case of human beings, an extended area of the cerebral cortex will do nicely. Back now to our main game.

3) **Joseph Bracken** at least in his earlier work has reverted to 1), all events microscopic but he complements this with the idea of 'fields' = the combined effect of the events in the immediate environment, and then thinks in terms of fields within fields within fields etc. The higher event draws on and affects the fields in which it occurs, as do the lower events, so the higher event does not have to be in direct contact, either spatially or temporally, with all the lower events.

The usual question raised here is whether the introduction of the word 'field' really helps much: isn't a 'field' just another name for a determinate environment?? And isn't my environment just events in my vicinity in the immediate past??

However, I think Bracken is on to something here, particularly in his more recent versions, and we will come back to it.

4) The marbles in jelly theory of **George Wolf**. Wolf postulates larger as well as smaller events, but not actual regional inclusion, like marbles in jelly, the marbles consisting of marbles in jelly and so on, or honey-comb, the holes themselves consisting of honey-comb with smaller holes, and so on. The region of the smaller event is not part of the region of the bigger event: the bigger event takes place around it.

The problem with regional inclusion has to do with the criteria for identity of events. How to distinguish part of the large event and the small event happening in the same place at the same time? How comes it that these are not identical? Besides, regional inclusion is not needed: spatial contiguity of the kind allowed

by a marbles in jelly theory will do fine.

5) *Lewis Ford (early)*: the idea that the smaller events when inside atoms or molecules or cells etc. are in fact to be regarded as 'sub-occasions' rather than occasions or fully fledged events in their own right. You go ahead and make the little events happening in the same space part of the bigger events. They are not prehended by the bigger events, but are elements within the happening which is the bigger event and contribute to its concrescence or coming together. With the collapse of the bigger event, however, some of them are capable of becoming events in their own right. This doctrine is or was characteristic of Lewis S. Ford, who saw it as the only way of solving both the temporal and the spatial problem alluded to above, among other things.

It does solve the time problem as well as the space problem. Also, it deftly outflanks the problem of regional inclusion. However, according to John Cobb, among others, 5) is very un-Whiteheadian. It involves a collapse of the distinction between transition between events and concrescence of events. This is to say, it collapses the distinction between bona fide individual processes or events and the succession of such processes or events. Pretty much everything that happens between events can, it seems, happen inside events, and parts of events can turn into fully fledged events.

However, Lewis Ford has recently (1997) developed a rather more sophisticated position, which we will come back to later.

6) The fairly early non-Whiteheadian view of *Ivor Leclerc*, offered in criticism of Whitehead. Fully reciprocal interaction between membership of series of smaller events can effectively bring into existence a series of larger events with agency in their own right, and so on up and down the scale. It is not then the case that unitary events only can be actual entities or that all composites have to be accorded a derivative ontological status. If there is unity of action we have every right to talk of genuine units.

This also involves not being very picky as to what constitutes a bona fide event. But the main problem is that it introduces fully reciprocal interactions. Prehension is always one way, always of the past, that is of something else than what one gets prehended by. So for Whiteheadians it cannot be fully reciprocal.

7) The more recent anti-Whiteheadian positions of *Nicholas Rescher* and also *Reto Luzius Fetz*, given credence also by *George Lucas* (cf. Lucas 1989, pp. 160-161), and that of the Bergson-dependent *James W. Felt* (Felt 1988). There are no irreducibly atomic units of process, serving as building blocks out of which all larger processes are then constituted. That was Whitehead's mistake. (Cf. Rescher, 1996, pp. 88-89) Reality is processual all the way through, all the way down. "Nothing is more natural than that micro-processes should join and combine into macro-processes, and a process metaphysics that does not commit itself to a Whiteheadian atomism needs no special machinery to accommodate this fact..." (Rescher, 1996, p. 55) There are no fundamental units, no tiny primitives. Get rid of Whitehead's process atomism of ultimately undissolvable processual units and the problem of how there can be big events and how big and small fit together solves itself.

So also Reto Luzius Fetz. The equating of entities with microscopic events is not only inadequate with regard to higher forms of unity but introduces an inconsistency into Whiteheadian process thinking. The inconsistency is that the model of an actual entity, the guiding model or analogue for constructing a theory of events, is the human experience of self in its fullness. However, in accordance with the theory as it plays itself out, the self is then reduced to a multiplicity of inexperience-able actual entities hypothetically assumed. "But why could actuality not be conceived as a gradation of more and more complex beings that include less complex subordinate units without our ever being able finally to specify what are the ultimate units." (Fetz 1991)

Thus also James W. Felt, but arguing from a Bergsonian perspective. Whitehead makes the mistake of "confusing the result of conceptual, intellectual analysis with reality itself", particularly the reality of ourselves as given in the ongoing immediacy of our concrete experience. It is in fact a rather "extreme case of what Whitehead dubbed 'the fallacy of misplaced concreteness'". When we do pay attention to the ongoing immediacy of our concrete experience, "we recover the unbroken unity of our selves, a unity which seems hopelessly atomized by intellectual analysis. We also put the conceptualizations of our intelligence into their proper metaphysical place." (See Felt 1988, pp. 149-150.)

So, should we get rid of Whiteheadian actual entities altogether? This would solve our problem. And it would certainly simplify the metaphysical discourse. No more complicated and confusing theory of concrescence, initial aims,

subjective aims, physical prehension, conceptual prehension, hybrid physical prehensions, complex pure physical prehensions, complex pure conceptual prehensions, impure prehensions, etc. etc., all heading towards something called a satisfaction.

On the other hand, the problem of criteria for identification of genuine non-derived events or processes now becomes rather extreme. It is not solved but ignored. The main problem for a Whiteheadian, however, is that going this way would mean giving up on most of what Whitehead is about in PR and beyond. Including, among other things, the naturalising of consciousness which his system in all its variants makes for. For a Whiteheadian, as already stated, consciousness is no big deal, just a high grade natural event.

It might be too early in any case, as it may well be possible to solve the problem within a somewhat renovated Whitehead inspired conceptuality. There are at least two candidates working at the cutting edge in the developing Whitehead inspired process research project, namely Joseph Bracken and Lewis Ford. Both go some way to solve the problem, though in different directions. They have indeed recently been in vigorous dialogue in a Process Philosophy mailing list.

8) *Joseph Bracken (more recent)*: For Bracken, all actual entities are microscopic. However, theyprehend and put themselves together on the basis of the "structured fields of activity" within which they find themselves. These 'fields' are equi-primordial with actual entities. They may be produced and added to by actual entities but it goes the other way around as well, just as much. Sub-atomic particles etc. are 'ordered field entities'. More importantly even, the fields mediate between past actual entities, perished, finished, gone, done for, and the present. Fields indeed are a little like the ancient void, real though not atoms or actual entities - except that they are shaped and bear the traces of what happens in them and convey these shapes and traces through time. Or perhaps they are more like a renovated Platonic 'Receptacle', which bears the traces in it of what becomes or has become.

What is also interesting is the mention of "structure". Environments do seem to come already structured, prior to getting prehendend. They are not just a



dispersion of events which get structured in our experience, or at least it does not seem so. Structures and forms of organization do seem to have a life of their own - as the forms that they are. Some are more adapted to survive than others, as the forms that they are. They have a bulkiness, a momentum of their own at every level which tends to coerce events more than the other way around. Even people tend to fit into structures and forms of organization and stories already going. Giving ontological weight to 'structured fields of activity' in addition to 'actual entities' would make sense of such features as well as making an easy way with the influence of the past. Order is inherited in spite of the perishing of the actual entities because it belongs to the fields.

The only question is: why would e.g. a human event or an electronic event clue into one level in a nested field rather than another? Our prehension of atomic and sub-atomic fields of activity is so vague that it takes quite a sophisticated science to tell us about them. Whereas we readily apprehend structures and forms of organization and ongoing stories in our moderate sized environments and fit ourselves into them only too neatly.

One hypothesis which readily comes to mind is that it depends on the size of the event. We are not microscopic after all. This would introduce big things as well as small things once again, as well as structured fields of activity nested inside each other with different sized events clue-ing more easily into different levels in the nested fields. However, I'm not sure of this. Bracken probably has thought of this and has a neat solution already waiting. Also, Bracken would lose the metaphysical advantages of Whitehead/Sherburne which he has so far retained.

Bracken has also effectively mounted what seems to be a coherent response to attempts on Ockhamist grounds for dispensing with his extra ontological apparatus of equi-primordial structured fields (Bracken 1994). Giving reality to structured fields, while complicating the metaphysics at one point, simplifies it at others, and also adds to its explanatory potential. Newly condescending occasions have a lot less work to do making sense of their environment, needing now to clue only into the structured fields out of which they are emerging, rather than all the individual events in their vicinity, which events no longer exist anyway (1994, pp. 12-13). We can now once again have something like a persisting self with the present occasion as its here and how self-expression or manifestation, rather than have the present occasion by itself carry the whole ontological burden of human

and other persons (1994, pp. 12-13). We can now make some sense of the unity of the universe in its own right, rather than allow the consequent nature of God the whole responsibility for carrying this burden. Nor do we need God any more to be calculating a precisely relevant initial aim for each and every one of the trillions of actual occasions in which the universe consists. (1994, pp. 14-16) Finally, Christian theologians get a quite nifty theology of the Trinity, which by making fields of activity ontologically *equi-primordial* with occasions manages to chart a position which seems to avoid both tri-theism and modalism. Beyond this, they may even get a coherent way of thinking of life after death (Bracken 2001, pp. 149-150).

9) **Lewis Ford (recent)**: Ford has recently come up with two additions to his metaphysical apparatus. There is a new way of doing included occasions (versus sub-occasions).<sup>4</sup> There is also a new way of doing successive occasions, where the successor starts before the predecessor is finished, this making for a stronger process theory of personal identity among other things. Only the first is our concern however.

Firstly, then, there is a different way of doing included and inclusive occasions. Included occasions derive creativity and aim from the larger occasion already begun. That is to say, effectively, they clue into and get their initial direction from the way the larger occasion is going. The larger event is already on its way, after all. But from that point on, the included occasion becomes autonomous, effecting its own concrescence in independence from the larger occasion. However, once completed, the smaller occasion is prehended by a subsequent phase of the larger occasion and in this way influences its continuing concrescence. There is no regional inclusion however: that goes with the notion of sub-occasion.

This solves most of the difficulties, I think. There are bona fide little things and bona fide big things. The big things contribute to the happening of the little things, but the latter still remain little things of that kind in their own right, doing their own thing once they get going. The little things do contribute to the big

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<sup>4</sup> Lewis is probing towards this second theory of included occasions already in Lewis 1988, including a partial overview of the dispute up to that time, an exposition of his first theory now applied to molecular and sub-molecular occasions, followed by an earlier version of the theory to be exposed below. The final version of this second theory, however, seems to have been developed only in the second half of the 1990's.

things without meaning that the big things have only a derived reality. The little things contribute to the very same big things happening in their region, not to the next lot along. There is no prehension of contemporaries. The difficulty is whether one can buy into Lewis Ford's very original and intriguing rendition and renovation of Whiteheadian metaphysics, where all kinds of things can happen that most Whiteheadians don't know about. Like prehension happening inside events and not only between events, and the future affecting the present.

The included occasions in this new scheme are not sub-occasions, but fully fledged occasions happening in a certain context, because of which they get their creativity and aim mediated to them from a larger occasion inside whose space they happen. With regard to the problem of regional inclusion: it's swiss cheese or marbles in jelly. Nor do little occasions prehend the big occasion: that would involve prehension by contemporaries. But subsequent phases of big occasions can well prehend already finished little occasions happening inside them.

If the big occasion provides a directedness and a lure for the little occasions which gets little occasions going, then God is the lure or the drawcard which gets the whole cosmos going and everything in it. In so far as God is lure or drawcard which works by attraction onwards, from the viewpoint of the universe God is future, indeed always future. From a recent email: "The world is the past, the self is the present, God is the future." Only God is always future: big occasions are future to their included occasions, as mediating creativity and aim from God. Also, in this scheme, the divine lure and all lure is in the direction of a certain set of not fully determined possibilities, not as in Whitehead focussing on one and only one ideal solution. God as a kind of future actuality is a single everlasting concrescence that never results in being, a kind of qualified indeterminacy. Finite occasions receive both creativity and guidance from this future activity. God is transcendent, but 'inside time', as future, not outside time. (For the last three sentences, cf. Lewis Ford 2000, pp. 301-302.)

#### TOWARDS A DIFFERENTIATED ONTOLOGY AND SOME CONCLUDING COMMENTS:

There seems to be a felt need recently for the development of a 'layered' or multi-level or differentiated ontology, to allow ontologically 'equiprimordial' realities of different levels and sizes, with dependencies going in all directions, interweaving

with each other. This is evident not only in the above but also in certain cross-disciplinary working groups both overseas (esp. the Low Countries, around Leo Apostel until recently and Jan Van der Veken)<sup>5</sup> and in Australia (esp. Arran Gare at Swinburne), and again in some contemporary attempts to push the Whiteheadian project in a Deleuzian direction (esp. Peter Douglas from Griffith). But these latter people can speak for themselves and are mentioned here for the sake of bringing the lines of the project up to date.

#### THE IMPORTANCE OF THE QUESTION:

Which way we go determines the flavour of the relational side of process-relational metaphysics. It also determines different possibilities for application to e.g. the mind-body problem or the relation between God and the Universe. Is mind nothing more than brain events in their togetherness, which by their interaction make for a unity of effect? Is mind a stream of microscopic events wandering around the brain (Sherburne)? Or is it a series of larger events of its own, though needing a rich environment to support it in the first place, 'prehending' and 'being prehended' by brain and bodily events (Hartshorne)? Is God like the Soul of the World (Hartshorne), a more radical version of the relation between soul and body? Or is the world rather the 'field of the divine activity' (Bracken)? And where is God, everywhere or in one particular spot or like the final honey-comb or jelly or swiss cheese wherever there is nothing else? Or, as with Sherburne, is there no room at all for God? Or is God not anything to do with these: not actual entity, not series of actual entities, not the final Field, not Lure, not Creativity even but the primordial qualification of Creativity which modulates the whole of the process (Van der Veken and Cloots), or something like that?

Closer to home, meditation on this issue in process perspective may also give ideas for application in sociology, or politics, or even in theological ecclesiology. For example, what kind of reality do institutions and churches have? How to

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<sup>5</sup> See esp. The Worldviews Group: *Perspectives on the World: an interdisciplinary reflection*. V.U.B. Press, Brussels, 1994, summary by Leo Apostel pp. 223-227 "2B: The layered and hierarchical structure of reality", recording basic agreement reached on a layered, hierarchical anti-reductionist world view, in spite of differences among the group. "Even so, these differences did not detract from the global orientation of the seven authors towards a universe that demonstrates a great and ordered qualitative diversity of systems and 'layers', diversity that cannot be made redundant by reducing it to a smaller number (or even to one single) class of entities.", from p. 227.

relate individual and local church, local church and universal church? Or individual and community, individual and state? Do all big things have only a derived reality? Or are they like 'structured fields', equiprimordial with the things they contain? Or even things, entities in their own right?

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