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Facts, Formal Objects and Ontology

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FACTS, FORMAL OBJECTS AND ONTOLOGY[1]

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What is a fact ? Are there such things ? Three answers to the first questions are

> facts are true propositions;

> facts are not true propositions but rather obtaining states of affairs, atomic and non-atomic;

> facts are neither propositions, nor obtaining states of affairs, and are always atomic.

In order to understand the relation between the three answers it is useful to suppose that there are propositions, obtaining states of affairs and facts and then ask what relations there might be between such entities. One plausible answer to this question suggests that, if there are facts, then facts are obtaining states of affairs (§1). But are there such things ? One argument in favour of facts, the argument from knowledge, is presented (§2). Although no ontology should be incompatible with epistemology, a realist metaphysician will not attach much importance to an argument for facts from knowledge or from any other mind-dependent phenomenon. This is because such a metaphysician assumes that, if there are facts, then facts are ontologically basic. Perhaps he thinks that facts are ontologically basic and that all facts are atomic. I give some reasons for thinking that no fact is ontologically fundamental (§3). If this is correct, the argument that knowledge requires facts tells us nothing about what is ontologically basic. A further consequence of the view that no fact is ontologically basic is that the motivation for the view that facts are always atomic disappears. And that there are obtaining states of affairs of all types of logico-ontological complexity, if there are any obtaining states of affairs, is indeed suggested by the account of the relations between propositions, states of affairs and facts in §1.

§1   The Ontological Zoo

Propositions, states of affairs, facts, concepts, classes and properties clearly all belong together. They are creatures of a kind. Call them *formal objects*. Certain properties and relations borne by formal objects clearly also belong together: being true, obtaining or subsisting, falling under concepts, exemplifying properties. Call these *formal properties* and *relations*. Romanesque metaphysics and ontologies dispense as far as possible with formal objects, properties and relations. Baroque metaphysics and ontologies embrace them happily.

Much discussion of formal objects concentrates on the (in)eliminability of (apparent) reference to such objects or on their (in)dispensability. The interrelations between formal objects, properties and relations, on the other hand, are rarely attended to. In what follows, two types of interrelations will be important: equivalence and explanation. We suppose, to begin with, that there are propositions, facts, concepts and properties and ask what the relations between the species in our ontological zoo might be.

Consider

(1)   Sam is sad
(2)   The proposition that Sam is sad is true
(3)   The state of affairs that Sam is sad obtains
(4)   Sam falls under the concept of sadness
(5)   Sam belongs to the class of the sad
(6)   Sam exemplifies the property of sadness

If there are propositions etc., then the following seems very plausible:

(7)   (1) iff (2) iff (3) iff (4) iff (5) iff (6)

Consider now the relation of explanatory priority. Should we accept

(8)   If (1) & (2), (2) because (1)

or

(9)   If (1) & (2), (1) because (2) ?

There is one reason for thinking that we should accept neither. Instances of

(10)   p because p,

the "because" of the exasperated parent, are all false. So a philosopher who thinks that (1) and (2) are completely synonymous or that they express the same proposition, should reject both (8) and (9). But the fact that there are heated disagreements about the existence of propositions together with the fact that there is no such disagreement about the existence of creatures like Sam is reason enough to think that (1) and (2) are not completely synonymous. Of the two, (8) and (9), (8) is clearly more plausible than (9). There are certainly true instances of

(11)   If (1), (1) because p,

for example,

(12)   If (1), (1) because Sam has had some bad news,

the causal "because". But (9) is not a true instance of (11).

By the same token, we should accept

(13)   If (1), (3) because (1)
(14)   If (1), (4) because (1)
(15)   If (1), (5) because (1)
(16)   If (1), (6) because (1)

But one might accept (8) and (13) and think that propositions just are states of affairs and that being true is just obtaining. Similarly, one might accept (14) and (16) and think that concepts just are properties and that falling under a concept just is exemplifying a property.

There are good reasons for thinking that concepts and properties are quite different creatures. We understand concepts but not properties; concepts, unlike properties, are clear or unclear[2]. We perceive properties but not concepts. Concepts are expressed by predicates and properties are the semantic values of predicates. We understand a predicate if we understand what concept it expresses. Philosophers sometimes talk of our grasp of properties and of concepts. But to grasp a concept is to understand it or to understand which concept a predicate express. To grasp a property, on the other hand, is to perceive it or to know which property is the semantic value of a predicate or concept.

If concepts and properties are quite different creatures, then there is a good reason for thinking that propositions and states of affairs are in their turn very different creatures. Propositions contain concepts, only concepts, simple and complex. States of affairs, on the other hand, contain properties, simple and complex.

If we continue to suppose that there are propositions, states of affairs, concepts and properties and suppose that propositions are not states of affairs and that concepts are not properties, then we may ask whether we should accept

(17)   If (2) & (3), (2) because (3)
            If the proposition that Sam is sad is true & the state of affairs that Sam is
            sad obtains, the proposition that Sam is sad is true because the state of
            affairs that Sam is sad obtains

or

(18)   If (2) & (3), (3) because (2) ?

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[2] Cf. Strawson 1987 404, Schnieder 2004 55-6.

And similarly we may ask whether we should accept

> (19)   If (4) & (6), (4) because (6)
>> If Sam falls under the concept of sadness and exemplifies the property of sadness, Sam falls under the concept of sadness because Sam exemplifies the property of sadness

or

> (20)   If (4) & (6), (6) because (4) ?

One good reason for preferring (17) to (18) is the widespread intuition that truth is truth *in virtue of* something. It is true that not all philosophers share the intuition. But that is because these philosophers deny the existence of states of affairs, facts or properties or deny that facts differ from true propositions or concepts from properties. We are supposing that there are facts and properties and we have seen that are reasons for thinking that these are distinct from true propositions and concepts.

One reason for preferring (19) to (20) is that in order to find out whether Sam falls under the concept of sadness we try to see whether he exemplifies the property of sadness. We make estimates about the exemplification of the property of sadness not about falling under concepts. We formulate the results of our estimates in sentences containing the predicate "is sad" which expresses the concept of sadness.

(1) is an atomic sentence. The state of affairs that Sam is sad is an atomic state of affairs. (17) is an instance of the completely general claim:

> (21)   If the proposition that p is true and the state of affairs that p obtains, the proposition that p is true because the state of affairs that p obtains.

In order to defend (21) an argument must be given to show that there are obtaining states of affairs. Further, some reply must be given to the objection that there are indeed facts but they are one and all atomic. In §2 I give an argument for states of affairs. In §3 I give one reply to the objection.

§2   An Argument for Facts from Knowledge

Does intentionality require us to accept facts ? An account of the intentionality of belief and of judgement, as we shall see, does not seem to require us to accept facts. They seem to be merely an option. An account of the intentionality of a type of mental act, state or attitude should indicate whether the type has conditions of correctness and conditions of satisfaction and, if so, state these. The conditions of satisfaction and the conditions of correctness for beliefs and judgements may mention facts and propositions but need not do so.

Consider

(1) x judges that p
(2) x judges correctly that p
(3) The proposition that p is true
(4) The state of affairs that p obtains
(5) p

If we already have reason to believe that there are propositions and facts, we may assert

(6) If (2), then (3)

and

(7) If (2), (2) because (3)
(8) If (2), (2) because (4)

But whether or not we endorse propositions and facts, we should accept

(9) If (2), then (5)
(10) If (2), then (2) because (5)

But then, for the purposes of an account of the correctness conditions of judgements, facts and propositions are superfluous to requirements. The same is true of accounts of the satisfaction conditions of judgements. Consider

(11) x's judgement that p is satisfied
(12) If (11), then (3)
(13) If (11), (11) because (5).

And what holds for judgement holds, too, for belief. Indeed, it may seem that in the case of judgement and belief there is no difference between conditions of correctness and conditions of satisfaction. Whether or not this is true, there is a clear difference between conditions of correctness and satisfaction in the case of attitudes or states other than judgement and belief. Consider

(14) x desires to F
(15) x correctly desires to F
(16) x's desire to F is satisfied
(17) x ought to F
(18) Fx because$_{causal}$ (14)

(14) has both a correctness condition,

(19) If (15), then (17)

and a satisfaction condition:

(20) If (16), then (18)

Oughtness, like being true and obtaining, is formal property; it is a property which (here) takes a property to make a property. No formal property is attributed in the satisfaction condition for desires.

Emotions and sentiments, on the other hand, have correctness conditions:

(21) x prefers y to z
(22) x correctly prefers y to z
(23) y is better than z
(24) If (22), then (23)

but no satisfaction conditions. And betterness, like exemplification, is a formal relation.

An account of the intentionality of belief and judgement, then, apparently does not require us to accept facts. Does any type of intentionality require us to accept facts ? Here is an argument to show that a plausible account of one type of knowledge requires facts.

Knowledge or epistemic contact with the world comes in at least four distinct kinds. There is knowledge that p, which is no episode, and there is coming to know that p (“*erkennen, dass p*”), which is an episode. There is acquaintance with objects, which is no episode, and there is coming to be acquainted with (seeing, hearing) objects, making their acquaintance, which is.

Philosophers sometimes mention, alongside the distinction between cognitive episodes and cognitive states or dispositions a distinction between propositional and non-propositional knowledge. This distinction may be understood as a grammatical distinction between uses of “know” where the verb takes sentential complements and uses where it does not. But it may also be used to mark a distinction between propositional and non-propositional acts or attitudes, where a propositional act involves thinking a thought and so conceptual representation. I shall assume that there are cases of coming to know that p where the subject does not think any thought – Erna sees that Sam is smiling but she thinks no thoughts. And I shall call only cases where one comes to know that p by having the thought that p “propositional coming to know that p”.

The different European terms for what is supposed to be one and the same philosophical discipline highlight different members of the knowledge family – “*Erkenntnis*lehre”, “*Wissen*schaftslehre”, “théorie de la *connaissance*”, “theory of *knowledge*”. One trait common to all four kinds of epistemic contact with the world is identification. In visual, non-propositional perception identification and reidentification of one and the same object or property goes on continuously. Similarly, in coming to know that p and in propositional coming to know that p there is a process of identification. The visual acquaintance which is the result of coming to be acquainted with an object inherits the result of the process of identification. Similarly, the state or disposition which is knowledge that p, the result of coming to know that p, inherits the result of a process of identification.

How, then, does identification work in the case where one propositionally comes to know that p ? Consider

(35)   x perceptually and propositionally comes to know (*erkennt*) that Sam is smiling

According to the theory of identification,

(36)   x comes to know ➔ x identifies y and z

What, then, is it to identify and what is identified ? The psychological process of identifying is the psychological counterpart of the binary predicate of identity although it is not any judgement or thought of identity. Just as the binary predicate cannot be flanked by sentences, so too, identification identifies objects. It is thus unlike judgings and beliefs, which connect animate beings and non-objects. What objects are identified in identification ? One bad answer is

(37)   *x identifies that Sam is smiling, what x sees, and that Sam is smiling, what x represents

There are, of course, true instances of

(38)   x identifies Sam's smile, which x sees, and Sam's smile, which x represents, perhaps by judging that this is Sam's smile

But these identifications are not examples of coming to know *that* Sam is smiling but are peculiar to one type of coming to be visually acquainted with something, one which involves "simple seeing" and demonstrative judgements of identity.

An alternative to (37) is:

(39)   x identifies the obtaining state of affairs that Sam is smiling, which x sees, with the obtaining state of affairs that Sam is smiling, which x represents

(40)   (35) ➔ (39)

Since I cannot think of any alternative to (39) as an account of propositionally coming to know that p , I conclude that propositional coming to know that p requires obtaining states of affairs, that is, facts.

Two comments on the identification theory of knowledge are in order. First, the locution

the obtaining state of affairs that Sam is smiling, which x represents

is ambiguous. It might be read as referring to a judgement or belief of x. Then the identification theory is committed to the view that propositionally coming to know that p contains, as a proper part or component, a belief or judgement, which is formed on the basis of perception. But the locution may also be read as referring simply to a propositional representation of an obtaining state of affairs. Then the identification theory is not committed to the view that propositionally coming to know that p contains belief or judgement. On each reading of the locution, the identification theory is committed to the view that propositionally coming to know that p is

complex. But on the second reading, propositionally coming to know that p involves no doxastic complexity. In favour of the second reading is the fact that one may wonder whether Sam is smiling and then see that he is and so come propositionally to know that this is the case, a process which involves neither belief nor judgement.

Secondly, as we have seen, judgements and beliefs have correctness conditions and, so it seemed, we *may* but *need not* say that these refer to facts. Knowledge, on the other hand, has neither correctness conditions nor satisfaction conditions. Knowledge is, so to speak, already correct and self-satisfied[3]. One very good reason for thinking that knowledge does not contain belief is the fact that our beliefs and convictions are reactions to our coming to know that p or to our apparently coming to know that p and have degrees. Reactions are positive or negative and belief, too, is positive or negative (belief and disbelief). Knowledge is never a reaction and is never either positive or negative, nor does it come in degrees.

If our beliefs are reactions to propositional knowledge ("*Erkenntnisüberzeugungen*") or to apparent knowledge, rather than components of knowledge, and if such knowledge requires facts, then it is apparent why we *should* indeed say that a belief that p is correct if the state of affairs that p obtains and because of this. Belief is a reaction to knowledge that or apparent knowledge that and knowledge that involves identifications of facts.

§3   Facts are not Ontologically Fundamental

In §1 we considered

If the proposition that Sam is sad is true, the proposition that Sam is sad is true because Sam is sad
If the state of affairs that Sam is sad obtains, the state of affairs that Sam is sad obtains because Sam is sad
If the proposition that Sam is sad is true, the proposition that Sam is sad is true because the state of affairs that Sam is sad obtains

These are instances of purely general claims, of, respectively,

(41) If the proposition that p is true, the proposition that p is true because p
(42) If the state of affairs that p obtains, the state of affairs that p obtains because p
(43) If the proposition that p is true, the proposition that p is true because the state of affairs that p obtains.

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[3] I believe that the argument for facts from knowledge presented here is, at the very least, in the spirit of Husserl's account of knowledge. Certainly, Husserl clearly argues that identifying is central to knowledge and that identifying is not to to be confused with judgements of identity (LI VI §47, LI p. 790). Perusal of what Husserl says at LU VI §8, LI p. 696 (cf. VI §7 LI p. 691), however, will make clear why I hesitate to attribute the view presented here to Husserl. It is also true that many, although not all of Husserl's formulations, suggest that he thought that propositional knowledge contains belief.

(41) is uncontroversial, if there are propositions. (42) is highly controversial and so is (43), which is one version of truth-maker maximalism. One reason for rejecting (42) is the view that assertions, or propositions to the effect that, for example, Sam is sad, represent or depict or are in some other way "about" the state of affairs that Sam is sad. But the assertion or proposition that Sam is sad is about Sam, it contains no representation, nominal, predicative or sentential, of any state of affairs. The fact that the state of affairs that Sam is sad is mentioned in the correctness condition for the judgement that Sam is sad does not entail that the judgement or the proposition are "about" any state of affairs.

Perhaps the main reason for rejecting (43) is adherence to

(44) Every obtaining state of affairs is ontologically fundamental

Some friends of facts have occasionally accepted negative and disjunctive obtaining states of affairs or facts and taken these to be as ontologically fundamental as atomic facts. But most philosophers who have been prepared to accept facts have denied that non-atomic facts could be fundamental and so have denied that there are such things. Thus friends of facts who endorse (44) typically accept only those instances of (43) which countenance atomic facts.

In order to decrease the implausibility of (43) I propose to argue that no fact is ontologically fundamental. Answers must therefore be given to the following three questions. What does it mean to say that something is ontologically fundamental ? What are the most plausible candidates for the role of what is ontologically fundamental, if facts cannot play this role ? How are the ontologically fundamental and the ontologically non-fundamental related to one another ?

We already possess the beginnings of an answer to the first question. Consider again

(1)   Sam is sad
(2)   The proposition that Sam is sad is true
(3)   The state of affairs that Sam is sad obtains
(8)   If Sam is sad and the proposition that Sam is sad is true, then the proposition that Sam is sad is true because Sam is sad
(9)   If Sam is sad and the state of affairs that Sam is sad obtains, then the state of affairs that Sam is sad obtains because Sam is sad
(17)   If the proposition that Sam is sad is true and the state of affairs that Sam is sad obtains, then the proposition that Sam is sad is true because the state of affairs that Sam is sad obtains

The "because"s in (8) and (9) tell us that (1) is more fundamental than (2) and more fundamental than (3). The "because" in (8), (9) and (17) is the essential "because", not any causal "because"[4]. As far as I can see, there is no true instance of

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[4] The essential "because" is essential to a correct formulation of truth-maker maximalism. But it is not enough. The truth-maker principle itself holds *because of* the nature of truth and of propositions. This "because" is the "because" of essence. On this view and its history, cf Mulligan 2006, 2006a, 2006b.

(45) (1) because$_{essential}$ p

If that is right, then not only is (1) more fundamental than (2) or (3), it is fundamental. But what does it mean to say that something is *ontologically* more fundamental than something else and that something is ontologically fundamental *tout court* ?

The answer to our second question will help to provide an answer to this question. The second question was: What are the most plausible candidates for the role of what is ontologically fundamental if facts cannot play this role ?

Sam is ontologically more fundamental than any proposition and ontologically more fundamental than any fact. Now there are two rival views about just what ontological category Sam belongs to. For a very long time, it has been thought that Sam and his ilk are enduring things or substances. A more recent view has it that Sam is in fact a rather long process. The categories of substance and process are good candidates for the role of what is ontologically fundamental. To these two categories we may add that of states, such as states of sadness. It is true that if there are both substances and processes, then we may want to argue that processes are less fundamental than substances. And if we add to the list of what is ontologically basic space-time itself, then we may want to say that space-time is more fundamental than any thing, if space-time is no thing. Our candidates, so far, for the role of what is ontologically fundamental or at least relatively fundamental are all acceptable to the nominalist ontologist or metaphysician. An anti-nominalist list of candidates would add the category of kinds – kinds of things, kinds of processes, kinds of states.

If substances, processes, states and kinds are ontologically fundamental or ontologically more fundamental than facts, properties and relations, then (a) nothing on the list of what is fundamental is identical with anything on the list of what is not fundamental and (b) nothing on the first list is such that it can be constructed out of what is on the second list.

Let me briefly sketch how one might begin to argue for such claims.

Ad (a)

(a) implies all of the following: States and processes are not properties, neither multiply-exemplifiable properties nor unit-properties. Relational states, processes and events are not relations, neither multiply-exemplifiable relations nor unit-relations. Admiration, collisions and fights are relational or relation-like but are not relations. It is perhaps preferable to talk of one-legged states, processes and events, two-legged, three-legged…. states and processes. Kinds are not properties.

Sam's property of barking is either a unit-property (a bearer-specific property) or a multiply-exemplifiable (bearer non-specific) property. In neither case is it identical with his barking, which is a process. The process of barking has temporal parts. Properties have no temporal parts. Properties, it may be thought, are always determinable or determinate properties. Processes and states are neither determinables nor determinates.

Sam's property of being sad is not identical with his state of sadness. His state of sadness

lasts for a period of time. Sam has or exemplifies the property of being sad for a period of time. His state of sadness has boundaries. Properties have no boundaries.

Things, states and processes and events all exist or do not exist in the sense of the existential quantifier. They also have modes of being. Things and states endure. Processes go on. Properties perhaps enjoy a mode of being, too; they obtain, like states of affairs and numbers. But properties neither endure nor do they occur.

Binary relations have order properties and converses; two-legged processes and states have no order-properties and no converses.

Kinds are instantiated by instances. Sam, if he is a man, instantiates *homo sapiens*. His state of sadness instantiates Sadness. His jump instantiates the kind Jump. Properties are exemplified, if they are multiply-exemplifiable; they inhere if they are bearer-specific. Instantiation is not exemplification. Instantiation is always an internal relation. Exemplification may be an external relation. Kinds, like properties, may be understood in Aristotelian or in Platonistic fashion. An Aristotelian kind is always instantiated, unlike a Platonic kind. There are kinds of properties but no kind is a property.

Properties are predicable. Kinds are not predicable. Man cannot be predicated because "man" is a singular term. We can of course predicate the property of being a man. On the standard view, "is a man" has no internal structure.

It has been claimed that things or particulars are identical with facts[5]. But this view is somewhat unclear and is most plausible as a claim to the effect that we can *consider* things by themselves and as parts of states of affairs.

Ad (b)

It has been claimed that processes and states can be constructed out of properties, objects and intervals. But the many reasons for thinking that there are neither properties nor relations, for endorsing the nominalist view that there are processes and perhaps states and things but no propositions, facts, properties or relations, are presumably available also to the metaphysician who wants to distinguish between what is ontologically basic and what is ontologically secondary. According to such a metaphysician, there are propositions, facts, properties and relations but these entities are not ontologically basic. After all, there are social entities but social entities are not ontologically fundamental.

The picture we have arrived at is this:

Logical level: propositions, concepts

Logico-ontological level : objects, properties, relations, facts

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[5] Cf. Johansson 2004.

Ontological level : space-time, things, states, processes, – and kinds thereof

Our third question was: How are the ontologically fundamental and the ontologically non-fundamental related to one another ? How is the logico-ontological level related to the ontological level ? Suppose that Sam is an enduring substance. Then although it is wrong to say

(46)   *Sam makes Sam exist,

the following are all plausible:

(47)   Sam makes the state of affairs that Sam exists obtain
(48)   Sam's sadness makes the state of affairs that Sam is sad obtain
(49)   Sam's jump makes the state of affairs that Sam jumps obtain
(50)   Sam's jump over the fence makes the state of affairs that Sam jumps over the
        fence obtain

Suppose, now, that Sam is a process. Then (46) is still unacceptable or false and (47)-(50) still hold.

The least ambitious version of *truth-maker maximalism*, the one which involves no toil at all (because it is a simple, a priori truth),

(43) If the proposition that p is true, the proposition that p is true because the state of
affairs that p obtains,

looks much more plausible, I suggest, when we drop the assumption that obtaining states of affairs must be ontologically fundamental. But *fact-maker maximalism*

(51) If the state of affairs that p obtains, something makes the state of affairs that p
obtains

is obviously false. Nothing makes the state of affairs that there are neither witches nor genders obtain although this state of affairs certainly obtains. Friends of truth-making who reject truth-maker maximalism should really endorse (43) and reject (51).

Many friends of truth-making have repeatedly asserted that truth-making is *really* a relation (an internal relation). Is it ? Nominalisation of part of (43) yields

(52) If the proposition that p is true, the obtaining state of affairs that p makes the
proposition that p true

In (52) "makes" is elliptic for "because", the binary functor. A binary functor, in particular a functor that takes two sentences, is not a relational expression. Nor is its semantic value, if it has one, a relation[6]. However, "makes" in (47)-(50) is *not* elliptic for the binary connective

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[6] The causal "because" which takes two sentences to make a sentence may be thought to entail that a causal relation between, say, events, holds. But the causal relation is not the semantic value of the "because".

"because". Fact-making really is a relation when the maker is ontologically basic. It is this relation and its relata that friends of truth-making should be toiling over.

I have given an argument for facts from knowledge and tried to explicate and make plausible the claim that no facts are ontologically fundamental. The two projects are complementary in a way which should be attractive to all metaphysical realists. The facts which are the objects of propositional coming to know that p are, like all facts, ontologically secondary. They are the tips of icebergs. Knowledge is always given as knowledge of the tip of an iceberg. We know that there is more to what we know than what we know.

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