The physical being of institutional facts

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Abstract

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Abstract: This paper argues that the physical being of one of John Searle's institutional facts is the totality of records of the fact, together with some very specific background activities and capacities.

On 19 January, 2001, Bill Clinton was President of the United States of America. On 20 January, Bill Clinton was ex-President of the United States of America. How did the physical world change?

Why do I think that the physical world would have changed? As a materialist and monist, I believe that there is nothing in the world except patterns of matter and energy, that the world is constituted by patterns of matter and energy. So if the world changes, then the patterns of matter and energy must have changed. I argue that the change in Bill Clinton from President to ex-President is a change in the world, so the patterns of matter and energy must have changed.

But what has changed, and where? Certainly, if one looks at Bill Clinton, say on his morning jog, he looks no different. If he went for a physical examination, his doctor would detect no difference. The search for an answer to the question what patterns of matter and energy have changed will take us through some recently opened territory in philosophy.

I will begin at John Searle's account of what sort of fact it is that Bill Clinton is ex-President of the USA, namely an institutional fact.[1] An institutional fact is a constituent of social reality in an institutional context. The fact that Bill Clinton is ex-President of the USA is how people view the man in the context of the workings of the institution of the United States government. Institutional facts are generally created by speech acts, utterances by authorized people in specific context which change social reality – in the present case most immediately by the swearing-in of George W. Bush as President by the Chief Justice of the Supreme Court of the United States.

This is a good place to start because Searle's work takes place within a materialist monist metaphysics

> Here, then are the bare bones of our ontology: We live in a world made up entirely of physical particles in fields of force.[2]

Hence the title of the present paper: "The physical being of institutional facts". The problem under investigation is far more general than the ex-Presidential status of Bill Clinton.

Searle certainly grounds institutional facts in physical reality, what he calls "brute facts". A brute fact is a fact which exists independently of any human society or even human cognition, for example the facts of the physical sciences. Bill Clinton became ex-President when the Chief Justice uttered certain words in a particular context. The utterance of certain words is a brute fact. The institutional fact came into being when the brute fact occurred in a particular institutional context. Searle's indicative shorthand is "(brute fact) X counts as (institutional fact) Y in context C". So the coming into existence of our institutional fact was partly a physical phenomenon.

Institutional facts generally persist. In some cases, the institutional fact is co-extensive with its associated brute fact. For example, in my building the sounding of an extremely annoying siren generally counts as a fire alarm. The fire alarm persists only so long as the siren is sounding. In former times, people executed for treason were sometimes left hanging at the city gate as a warning, which persisted so long as the body was left hanging. But in the present case, the speech act creating the institutional fact that Bill Clinton is ex-

president does not persist. Shortly after the Chief Justice finished uttering the certain words, the speech sounds died away and have now become so dispersed that no physical test can produce evidence that they were ever spoken. The question is how do institutional facts persist beyond the brute facts which create them.

That the physical basis for persistent institutional facts is a problem is shown by for example Searle's

> When I am alone in my room, that room contains at least the following 'social objects'. A citizen of the United States, an employee of the state of California, a licensed driver, and a taxpayer. So how many objects are in the room? There is exactly one: me.[3]

This quotation is actually part of an argument that one should make a distinction between objects and institutional facts. There are for Searle four institutional facts cited.

By the hypothesis of the present paper, there must be at least four physical objects, one for each of the four institutional facts. But obviously there is only one John Searle in the room, and the present investigation is into exactly what and where the other physical objects are.

The problem is not idiosyncratic to Searle. For example, Barry Smith writes in a critical survey of Searle's work

> President Clinton did not after all exist before his Inauguration on January 20, 1993 – but this new entity is from the physical perspective *the same old entity as before* (italics in original)[4]

This is the real point of departure. I am trying to figure out what institutional facts are as physical objects.

Before proceeding, a few comments.

I am not intending to give an account of institutional facts qua institutional fact. The issue is only how these facts exist physically.

Neither am I intending to attempt to reduce institutional facts to physics. Practically, many physical phenomena require much higher-level explanations than physics. I would think that there would be little disagreement that Bill Clinton as a human being is part of an extraordinarily complex physical process having proceeded continuously for billions of years, but no one would attempt to explain the Monica Lewinsky affair in terms of biochemical reactions that occurred in the Cambrian period in a predator that failed to eat one of his ancestors. The hope is that elucidation of the physical existence of institutional facts may sharpen our thinking about them.

The formula brute fact X counts as institutional fact Y in a context C sometimes provides a physical basis for the institutional fact. Recall the examples of the workplace fire alarm and the traitor's body hanging at the city gates noted above.

But in the case of ex-President Clinton, the institutional fact persists well beyond the utterance of the Chief Justice which created it. Searle mentions the issue

> The secret of understanding the continued existence of institutional facts is simply that the individuals directly involved and a sufficient number of members of the relevant community must continue to recognize and accept the existence of such facts[5].

For my purposes, this simply says that institutional facts persist, but not how they persist physically beyond the persistence of the brute facts creating them.

Smith, in his exchange with Searle, refers[6] to the continued existence of institutional facts being underpinned by records, either written (title to a property, an IOU), or as "blips (memory traces, beliefs) in peoples' brains".

Smith goes further. In his critical survey of Searle, he claims that Searle is committed to the existence of what Smith calls "'free-standing Y terms', or in other words to entities which … do not coincide ontologically with any part of physical reality"[7] Smith gives many examples of free standing Y terms in the area of finance and securities, including loans, assets, debts, and savings; all of which look like objects since they can be manipulated in more or less mathematical ways: turned into securities, made into annuities, and so on. These free-standing Y terms depend on records

> [free-floating Y terms], such as debts, … exist only because they are reflected in records or representations (including mental representations).[8]

So the continued existence of institutional facts is underpinned by records, and some institutional facts exist only as reflected in records. A record is a physical object: ink marks on paper, magnetic domains on a computer disk, 'blips in peoples' brains'. Records therefore can be destroyed: paper can be burned or shredded, computer disks can be erased or corrupted, people die so their brains cease to be able to sustain 'blips'.

It is worth a digression to see what sort of physical objects records are. I argue that they generally, although not necessarily, have neither mass nor energy. Consider an inscription carved into stone, which is a sort of hole. A record on a computer disk is an arrangement of oriented magnetic domains. The energy expended in recording something is not stored in the disk, but is dissipated as heat. Brain states are likely to be something similar – patterns of activity with no significant change in mass or energy when something is learned. Even for ink on paper the mass and energy are not significant – the printed "lBli" has the same mass as the printed "Bill". The physics appropriate to these kinds of things would generally be the physics of entropy – the distribution of things – rather than the physics of mass and energy.

But records are nonetheless physical. The immediate question is what happens to an institutional fact when all the records representing it are destroyed?

All records of something being destroyed is precisely what we mean when we say that something is forgotten. Forgetting is not necessarily a simple event. The historical sciences are devoted to reconstructing records which have been partly destroyed. Something which appears to have been forgotten may in fact be able to be reconstructed by improved methods or by new discoveries (for example the Rosetta stone enabled the reading of records written in Egyptian hieroglyphics). But if ALL records are destroyed, the historical sciences are helpless.

I claim that if an institutional fact is forgotten, it ceases to exist. This is easiest to see if we take an extreme case. Stonehenge is a physical structure that appears to have been deeply involved with probably several complex institutions, each of which had its full panoply of types and instances of institutional facts. To my knowledge, no records of that time have survived. Let us assume that not even any stray fragments remain, so the historical sciences are of no help. The collection of Stonehenge-related institutional facts existing in the society using Stonehenge has been forgotten. It no longer exists.

Forgetting an institutional fact is something like extinction of a biological species. A biological species consists of a number of individual organisms. When the last organism dies, the species ceases to exist.

That an institutional fact has been forgotten does not mean that it never existed, nor does it mean that it has no effect on the present. It is conceivable, for example, that the name 'Clinton' derives from the name of a person who was a prominent official of one of the institutions interacting with Stonehenge in 3002 BC. There could be a continuous chain of people being named 'Clinton' stemming from that ancient, now forgotten, official. But not only is the official forgotten, but also most of the links in the naming chain are forgotten. Yet it would be a consequence of the one-time existence of that official that Bill Clinton has the name he does.

The same is true of Bill Clinton, the human being. Almost all of Clinton's ancestors were members of species which are extinct. Not only extinct, but almost all of the species have left no traces of any kind. They did exist but we can never know anything about them.[9] Yet they have had an impact on the present: Bill Clinton exists.

Moreover, once an institutional fact is forgotten, it is gone forever. Again, an extreme case will make this point clearer. Our hypothetical Stonehenge official would have had a title, but that title is of course forgotten. There are by definition no records. Further, to my knowledge we do not even know what language the people spoke. Let us assume that.

In the absence of records as I have assumed, the historical sciences can do nothing. The only way I can think of to re-create that institutional fact is to guess it correctly. (Of course even if we did guess it correctly we wouldn't know that we had done so, but I will yield this point.) It is vastly improbable that we would guess correctly. Not improbable in the sense that buying a winning ticket in a national lottery is improbable. The odds against that are perhaps 1 in several hundred million, in scientific notation say 10^{-8}.

By vastly improbable I mean improbable in the sense that the laws of gasses entail a probability that the air in my room will all gather spontaneously in the half of the room away from my desk, leaving me to die of asphyxiation. This latter event is so improbable that many times the history of the universe would have to pass before it happened.

Let us look at guessing the title of our official. One way to do this is to generate a random string of phonemes of an appropriate length. We know nothing of their language by assumption, and there are many phonemes in the world's languages. Let us say that we can restrict our choice to a very conservative 100 phonemes for each position in the string. Some officials have very long titles, e.g. Queen Victoria was "Queen of Great Britain and Ireland and Empress of India", but such long titles are unwieldy in everyday use, so let us assume that the everyday title of our official had 10 phonemes. In making our random choice, we have one chance in 100 of getting each of 10 phonemes right, for a total of one chance in 100^{10}, or 10^{-20}. For comparison, there are about 3×10^7 seconds in a year, and the Universe is about 10^{10} years old. So even if we made one guess every second for the entire age of the Universe, we would still have less than one chance in 300 to get the right title. This is an example of the vastly improbable.

Biological extinction is similarly forever. It is possible, though vastly improbable, that an Ostrich might lay an egg that hatches into an Allosaurus. We can, without the slightest risk, plan for it never to happen.

What I have been doing so far is to agree with Smith that the existence of institutional facts depends on the existence of brute facts in the form of records. However, Smith goes on to make a distinction between the existence of records and the existence of institutional facts:

> It seems wrong, also, to suppose that by destroying such blips [mental records of a debt] we would thereby succeed in destroying the debt[10]

The present analysis should make it clear that in the circumstance of a debt being forgotten, it no longer exists. There would have been many instances of debts whose records were held exclusively among the 500,000 people killed in the recent genocide in Rwanda. These debts no longer exist, even if there are potential heirs still alive. The debts were destroyed along with the people who knew about them, so the potential heirs have, and can have, no idea that there might be anything to inherit.

Immediately after the passage cited, Smith gives an example which he interprets as showing that an institutional fact can persist "in the absence of all pieces of paper and in the absence of all blips … and of records in any form"[11] I owe an alternative explanation of that example, which concerns a valuable Dutch painting. This painting is said to be now owned by a certain family, in whose cellars the painting has been stored for 100 years. Their claim has been recently judged (by a court, presumably) valid after a 10-year investigation on the basis of a record of a meeting 100 years earlier at which only the then owner of the painting and representatives of the family were present. Smith claims that this story shows the persistence of an institutional fact (ownership of the painting) in the absence of documents underpinning the fact.

First, there is generally redundancy in records, especially of complex institutional facts. Besides the possible existence of many copies of a given record, a record can often be reconstructed by a procedure from other related records. This is the function of the historical sciences referred to above. In particular, this phenomenon is common in computerized information systems. It is usual for backup copies of important databases to be routinely made. When the main copy fails, it is restored from one of the backup copies using a standard procedure supplied by the vendor of the database management software. If the computerized system fails altogether, there are often paper records kept which can be used to reconstruct the official records in the computerized database, using a procedure provided by the organization's accountants under the supervision of their auditors.

On a simpler, more concrete level, say that a man and his father are traveling together on a plane. The plane crashes, both the men are killed but the son's passport survives. Based on evidence from the ground staff at the airport at which the two boarded the plane, the younger man frequently referred to the older as 'father'. The surviving passport has the name 'Louis Digby, Junior'. In the absence of any competing claims, the officials responsible for identifying those killed could pretty reliably infer that the father's name was 'Louis Digby'.

So we can interpret the Dutch painting example as a court reconstructing a record from other related records according to a procedure. The example is of course confused by the complex nature of ownership, which is an issue in law and ethnology. My naïve understanding is that simple possession counts as

evidence of ownership in almost all situations. If the valuable object found in the cellars of the family had been the first issue of Superman comic in mint condition kept among memorabilia of the 1930s, chances are nobody would challenge the ownership. The reason for having a 10-year investigation and a court determination would probably have been because ownership had been called into question for some reason, and the fact of possession was deemed insufficiently authoritative. If the tribunal had been called in 50 years earlier, it might have made a different determination.

The complexity of this kind of issue is illustrated by examples given by Smith later in the same paper, involving multiplicity of claims to ownership of property in former East Germany stemming from expropriation by the government both in Nazi and Communist times. As Searle says in his reply to Smith,

> The difficulties … are real life disputes among people competing for the right to assign status functions to objects. … they are real life problems to be settled by judges and lawyers, and in the end perhaps by armies and political movements[12]

So the alternative interpretation of the Dutch painting example is that there was continuity of record of ownership in the form of possession. The challenge was due to the provenance of the record, not to the lack of existence of any record. The possibility of a different tribunal coming to a different determination shows that an institutional fact can change along with changes in its institutional context. An institutional fact can persist only if its representations persist. Forgetting is forever.

I claim now to have established that the continued existence of institutional facts depends on the continued existence of records of the facts, which must have a physical existence (records are brute facts). Assuming this claim is valid, the question now is what other brute facts are necessary.

Searle says that institutional facts are often spoken of as institutional objects which are social objects which have agentive functions.

> What we think of as *social objects* … are in fact just placeholders for patterns of *activities*. … the whole operation of agentive functions and collective intentionality is a matter of ongoing activities and the creation of the possibility of more ongoing activities. (italics in original)[13]

So the meaning of institutional facts is based on actual or potential activities. The object can be factored out. A “convicted murderer” is a person (brute fact) who has been the subject of a trial (activity) with a verdict of “guilty”, and who will be the subject of punishment (further activities).

Further on, Searle brings in what he calls the background

> Intentional states function only given a set of Background capacities that do not themselves consist in intentional phenomena.[14]

And

> By capacities I mean abilities, dispositions, tendencies and causal structures generally.[15]

Activities and capacities are aspects of human behavior, which has physical manifestation in physical acts, brain states, and the creation of artifacts. If the capacities for activities relating to a record of an institutional fact are lost, then the record becomes inoperative and the institutional fact itself is lost. In particular, one essential capacity is that of being able to read the record. We have a number of examples of documents written in languages or scripts which can no longer be read. Whatever institutional facts might be recorded in those documents are just as lost as if the records themselves had been destroyed.

Note that some of the activities and capacities needed for the continued existence of institutional facts are those related to reproduction of the records and the capacities needed to read them. The records can decay, and people die. The records must be copied, new people must be taught.

So we have that the existence of institutional facts depends not only on brute facts as records, but brute facts which are activities and capacities. But this second category of brute fact is not specific to a particular institutional fact in the same way as records of it are. We can think of them as generic factors rather than specific.

In fact, the existence of institutional facts depends on many factors of varying generality. A very general factor is that institutional facts depend on the continued existence of human beings, which depend on the

continuing habitability of the planet. A very specific factor is that there must not only be records, the capacities to read them and the capacities for relevant activities, but the records must be believed. After all, forgeries exist, and even responsible government officials lie. Belief has physical realization as brain states.

This paper began with the question as to what is the physical difference between President Clinton and ex-President Clinton. How and where is the physical universe different. We must turn from the question what, physically, do institutional facts depend on to the question what institutional facts ARE as physical objects.

The question is somewhat strange since we are used to discussing what ARE fairly concrete physical objects. The question "what is Bill Clinton" seems less strange than the question "what is ex-president Clinton". However, there are many entities popularly spoken of as if they were things which are also strange in that they are widely distributed (biological species, an epidemic) or vaguely distributed (the climate). These entities often are the object of particular ontological discussions, and it is not my intent to either summarise these or to pre-empt any possible conclusions. The point of raising them is simple to underline that we are prepared to think about entities which are not concrete physical objects.

I claim to have established that an institutional fact depends for its existence on necessarily physically existing records and on capabilities and activities which in turn depend for their existence on physically existing records and brain states. Since our analysis includes Smith's free-floating Y terms, there is not necessarily any specific localizable physical object associated with the institutional fact. Perhaps it is a failure of imagination, but I cannot see any plausible candidate for the physical reality of institutional facts outside this realm of records and brain states. I will proceed on this hypothesis, and see where it takes us.

It should be obvious that the realm identified is very likely to contain far more than the physical reality of a given institutional fact. To more closely identify our target, I propose the following test. If we replace one institutional fact by another incompatible institutional fact, what changes IS the physical existence of the new institutional fact.

As it happens, our initial example of President Clinton changing to ex-President Clinton has the right property. If for the sake of simplicity we include the auxiliary axiom that an ex-President re-elected President is no longer an ex-President (so Grover Cleveland in his second term was not ex-President Cleveland), then the two institutional facts are logically mutually exclusive.

What changes? Let us assume for the sake of simplicity that Bill Clinton is asleep when the speech act making him ex-president, so is not aware of it. And further, that he sleeps for some time after the act is no longer physically detectable, and that our analysis applies to this period. Clearly Bill Clinton the person does not change, neither in his bodily makeup nor in his brain state. This suggests that Bill Clinton is not part of the physical existence of the institutional fact ex-President Clinton (I will return to this point). Very general existence conditions like the habitability of the planet do not change. Neither do the background activities and capacities associated with the language, workings of the US government, the publishing and educational institutions and so on. What does change are the records of the institutional fact, so the totality of the records must under the test be part of the fact as a physical object. Some very specific background activities and capacities also would seem to change, such as belief in the records. Nothing else.

I propose therefore that the institutional fact as a physical object is the totality of the records of that fact, direct and indirect, together with some brain states and records which are the physical existence of background activities and capacities which are specific to the fact and the records. The proposal is for the totality of records and the relevant brain states because these can be reproduced. A large number of copies can be produced from a minimal set.

So observing Bill Clinton on 19 January, 2001, one would see hardly any of either the institutional fact President Clinton nor the institutional fact ex-President Clinton. The only physical parts of the fact present would be in his brain state (once he wakes and learns of the speech act). In the room with John Searle are parts of four different institutional facts, consisting of aspects of his brain state and possibly some documents. The remainder of all these institutional facts is spread around the world in brain states and records.

Earlier, I made the perhaps startling claim that Bill Clinton the person was not part of the institutional facts President Clinton nor ex-President Clinton, except for aspects of his brain state. As an alternative, we might want to explicitly re-introduce the X term from the X counts as Y in context C formula. Which choice we make is not essential, since the present analysis is intended to include free-floating Y terms for which there

is by definition no X term. Free-floating Y terms are collections of brute facts consisting of records and brain states. The physical difference between performing and non-performing loans is entirely in records and brain states.

One might object that a given institutional fact is one thing, but the collection of records and brain states is many things. This objection has already been pre-empted to a degree with the mention that biological species and epidemics are respectable entities, even though what they might be is contentious. The objector would have to argue that a species or an epidemic was many things. The same objection would apply to the claim that philosophy was one thing, or truth. Since the issue is so general, the objection loses force in this particular case.

One might also object that the notion "an institutional fact IS as a physical object the collection of its records and some records and brain states which are the physical existence of some specifically related activities and capacities" does not exhaust the meaning of the institutional fact. Of course it does not. I have explicitly not attempted to reduce institutional facts to physical existence. In the same way as an institutional fact IS a collection of records, my body IS a complex chemical reaction, and my writing this sentence IS a pattern of neural and muscular activity. In none of these cases does the latter exhaust the meaning of the former.

The value of the reductive analysis in all these cases is that we can see how the object in question is sustained in existence. We know that anything that disrupts neural activity prevents my writing this sentence, and that steps taken to improve neural activity might allow me to write a better sentence. We know that it the conditions for the chemical reactions in my body are not present, my body will die and be dissipated, and that steps taken to change the conditions for the chemical reactions may enhance the abilities of my body. In the same way, we know that if records are not preserved, institutional facts are lost, and that if we improve our record-keeping ability and our access to records, we might be able to improve the functioning of our institutions.

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[1] CSR
[2] CSR p 7
[3] RBS p 2 provisional
[4] RBS p 2 provisional
[5] RBS p 2 provisional
[6] OSR p 4 provisional
[7] JS p 24 provisional
[8] JS p 25 provisional
[9] Perhaps this is a little too strong. We can infer for example that they would have had bilateral symmetry, a physiology based on glucose and did not contain chlorophyll, but there are no paleontological remains.
[10] OSR p 4 provisional
[11] OSR p 4 provisional
[12] RBS p 5 provisional
[13] CSR p 57
[14] CSR p 129
[15] CSR p 129