

PROPERTIES, EXISTENCE, CHANGE

John C. Cahalan

I take it for granted that the existence of accidents requires efficient causality. Indeed the way in which we come to discover the need for efficient causality in any case is, first, to recognize that something is materially caused and is consequently a dependent thing, second, to recognize the insufficiency the material causality as such to account for the existence of this dependent thing. (See Simon, Freedom of Choice, pp. 129-134.) Whatever else we may or may not know about accidents, we know that they are materially caused; for to be an accident is precisely to exist in another as in a subject. That is what being an accident is all about, and that is what material causality is all about. So accidents must have efficient causes.

This is true of a substance's necessary accidents, its properties, just as much as it is true of its contingent accidents. While the existence of a property may be hypothetically necessary on the assumption of the substance's existence, the existence of the property is contingent in the absolute sense that the property is not identical with its existence. In any case, as an accident a property needs more than a mere subject in order to come into existence, for a receptive subject as such is only a capacity for that of which it is the subject.

How can a relation of efficient causality hold between a

substance and its properties. Causal action is itself an accident. Posit causal action between the substance and its properties and you simply make the action a new property which itself calls for an efficient cause; and so on ad infinitum. How can efficient causality be present if causal action cannot? It is often said that God's action is virtually transitive but formally immanent. God's action is transitive but transitivity is not present there under its own form; it is present there as enveloped in the power of a higher form. Similarly the vegetative form is present in the animal in the sense that the causality of the animal form can accomplish what can be accomplished by the causality of the vegetative form and more. Similarly all the perfections of creatures are present in the Creator, but those perfections which involve an essential relation to potency cannot be present in Pure Act under their own form. Rather they are present by means of the power of a higher form in the sense that God's essence includes all there is of act in such perfections (and infinitely more) while excluding whatever there is in such perfections that stems from their relation to potency. This is the sense in which efficient causality can hold between a substance and its properties. Causal action cannot be present in its own form, so it must be virtually present by means of some other formality.

In other words, the old problem of how a substance causes its necessary accidents if not by actual transitive action can be

solved by an application of the familiar distinction between formal and virtual presence. Nor is this an ad hoc solution; it is a conclusion necessitated by our knowing both that efficient causality must be present and that it cannot be present in its own typical state. But if some other formality includes causal

own typical state. But if some other formality includes causal virtually, what formality is this; what is its own identity?

A tempting reply would be that it is the formal causality of the substantial form which includes efficiency in a virtual state. The function of the substantial form as such is to cause prime matter to become a substance of a certain kind. In itself the matter is only potentially a substance of a certain kind; united with the appropriate substantial form, the matter actually is a substance of that kind. It is as important as it is rarely emphasized that being a particular substance can be predicated directly, by means of the copula signifying identity, of one part of the matter form union, the matter. We cannot say of something that it is potentially X unless we can say that the thing is X when that potency is actualized. If matter is potentially some substance, actualizing the potency brings it about that the matter now is that substance. Again we speak of the matter becoming a certain substance. How can it become it without being it when the becoming has ceased?

This may seem to contradict statements to the effect that natural substances are unions of matter and form. Can a union be

predicated of one of its parts? Not if the kind of union we are talking about is a physical whole made up of quantitative parts which are wholes themselves. But when we say that a substance is composed of matter and form, we are saying something quite different. We are saying that matter which in and of itself is only potentially a substance is made actually a substance because it is united with something distinct from itself, the form; the substance, in other words, is matter actualized by the form. So saying that the substance is the matter or is the union of matter and form come down to the same thing. Knowing that we can look at it from either point of view will be helpful in understanding how the formal causality can contain efficiency virtually.

I am suggesting that the substantial form has two really distinct kinds of effects, one by its proper causality and one by its virtual causality. It causes the matter to be a substance and it also causes certain properties to exist in the substance. Although these effects are really distinct, the form's proper and the form's virtual causality are not really distinct. That is the very point of the concept of virtual presence; if the efficiency were really distinct from the formal causality, efficiency would be present under its own identity rather than under an alias. Both of these effects, however, result from the form's causal relation to the matter. For to cause necessary accidents to exist in the substance is the same as to cause these accidents to exist in the matter since it is the matter that is

the substance. At one and the same time, in other words, the form causes the matter to be a substance, i.e., something existing in itself, and it causes certain accidental characteristics to exist in the matter (the matter which now is a substance.)

Another way of putting this is that it is one and the same thing for the form to cause the matter to exist as a substance and to exist as a substance of a certain kind. Between the concept substance and the concept substance of this kind there is only a distinction of reason as there is between any genus and species; the figure is not one reality and the triangle another. Similarly a form cannot cause a substance to exist without causing a substance of a certain kind to exist. Distinctions of reason, on the other hand, must have a foundation in reality; when we construct different concepts to express the same thing, there must be some difference in reality which serves as the basis for the differing constructs. In the case of the causality of the substantial form, that basis in reality is the real distinction between its two kinds of effect. To cause matter to be a substance is the same thing for the form as to cause it to be a substance of a certain kind, otherwise there would be one form by which the matter is a substance and another by which it is a certain kind of substance. But the description "causing matter to be a substance" is taken from one effect of the form, and "causing it to be a substance of a certain kind" is taken

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The advantage of this account can be further appreciated from the deeper insight it gives us into two traditional problems. The first is the ignoratio enlenchi that in itself substance has no characteristics and nothing can be predicated of it directly. This hackneyed pseudo-problem is still raised even in sophisticated quarters. (See Urmson, Philosophical Analysis, p.58.) One does not have to give an account of necessary accidents to see the fallacy here. It is not the accident color to which we can attribute the predicates "is colored" or "has color". Possession of an accident can be predicated of a substance and only of a substance. And to make it clear that possession of an accident is not a mere extrinsic denomination, recall the fact that if an accident can receive existence, it cannot exercise existence. (See Maritain, Degrees of knowledge, Phelan trans., pp.435-439.) The exercise of its accidents' existence, and therefore the capability of doing so, are intrinsic characteristics of substance.

But in the case of necessary accidents we can go even further. The causal emanation of accident is an intrinsic characteristic of the substance, being formally identical with the causality of one of the substance's intrinsic principles, the form. For instance, to predicate rationality of a substance is to say that intrinsic to the substance as such is the real though virtual efficiency by which the power to reason is caused to exist as an accident of the substance. To predicate sensitive of a substance

is to say that prime matter has been united with a real though only virtual efficiency by which sense powers are caused to exist in matter (in matter that this same principle has constituted a substance.)

The second traditional problem on which we can shed some new light is the problem of how a substantial change can be brought about by a change in the substance's accidents. The direct result of the action of one physical substance on another is accidental change since physical agents act only on the potencies of already constituted substances. They cannot act on prime matter existing in a pure state for such a state never occurs. Therefore the direct effect of physical action can only be accidental change. Any change in substance must be the result of some change on the accidental level. This appears incongruous. How can a change in the lower, the accidental form, produce a change in the higher, the substantial form? The standard response to this problem has been to draw an analogy between the way in which the agent causes substantial change and the way in which the patient receives it. Only a substance can cause substantial change; otherwise the lower would be causing the higher. But action is an accident of the agent. If substantial change takes place, it is caused by a substance; but the substance causes it by means of, or through the instrumentality of, one of its accidents. And if an accident can be the means by which a substance becomes an

efficient cause of substantial change, why cannot an accidental change in the patient be the means by which a substantial change occurs in the patient?

This argument from analogy is perfectly good as far as it goes and succeeds in disarming the objection. It does not provide much positive understanding, however, of what goes on in substantial change. The theory of the virtual presence of efficient causality can enlighten us further. A physical agent brings about a substantial change by destroying a necessary accident of another substance. Destroying that property requires suppressing the efficient causality which causes that property to exist. That efficient causality is identical with the formal causality of the substantial form which in turn is identical with the substantial form itself. "Formal causality" simply expresses the being of a form in terms of its transcendental relation to its effects. Suppressing the efficiency by which a property comes to exist in its substance, therefore, is the same as suppressing the substantial form of that substance. Like all transitive action, the efficiency of the agent bringing about the change exists in the patient. There, in the matter which is undergoing the change, the efficiency of the agent exists counter-acting the efficiency which produces the property, and counter-acting it in the only way possible, namely, by causing it not to exist. And that is the same as causing the substantial form not to exist.

This explains how an accidental change can bring about the disappearance of a substantial form. How do we explain the appearance of a new substantial form? This is a more difficult problem and one which I shall attempt no resolution of here. But it is important to realize that this question can have no single answer. The presence in matter of a new substantial form will come about in different ways in different types of substantial change. Compare the assimilation of food on the part of a living plant to the death of the same plant. By transitive action on the food the living thing either destroys some of the properties of the food's own substance or induces new properties appropriate to the substance of the living thing. So the efficiency of the plant is first of all present in the matter of the food formally not virtually. At the end of the process, the efficiency of the plant is present in the matter virtually only, for now the matter has received the substantial form of the plant. There is no question where this substantial form can from. It was already there. In the process of losing its own form, the matter of the food became united with the already existing form of the plant.

Speaking now in the order of formal causality, the plant's form contains lower forms virtually; it contains virtually the forms of the elemental substances and the compounds making up the food the plant has assimilated. This means that the form of the plant can cause to exist in matter all that the lower forms contain virtually. When the plant dies, and agent suppresses some of the

efficiency, but not all of the efficiency, that is identical with the plant's form. That is, the agent destroys some but not all of the plant's properties. At the very least, many of the lower substantial forms will be formally present in the resulting corpse, for it was not the efficiency appropriate to them that was suppressed by the destroying agent. There is no reason for the efficiency proper to them to cease to be present in matter. And since the higher substantial form is no longer present, they are present formally. Where did these substantial forms come from? In a real sense they were already there, being virtually present in a form which was destroyed without the reality of their presence being destroyed.

Hence the question where the new substantial form comes from must be answered in different ways in different cases. What about the case in which chemical species act on one another to the point of destroying each other and producing a third chemical species? What about the case in which a change results from the action of several different agents on a single patient? What about the case of evolutionary change in which the higher emerges from the lower? If such examples are to be counted substantial changes, the explanation of how the action of the agents involved brings about the presence in matter of new substantial forms will vary with each case. Each will present its own problems, but there is no logical reason for considering any of these problems insurmountable.

I have been pointing out advantages to the theory that the formal causality of the substantial form includes in a virtual state the efficiency by which the substance's properties are caused to exist. I will now show that this theory is inadequate and that the adequate theory can preserve all of its advantages. In the case of a separated substance such as the human soul after death, there is form but there is no formal causality. There is no matter so there is nothing for the form to be the formal cause of. Since there is no formal causality, the efficiency by which the soul's properties are produced must be hiding under some other alias. What is it?

The only other principle available seems to be the existence. To say the least it would be awkward to make it the locus of the causality under consideration. The necessity of the property lies in its connection with the essence, not the existence. So the causality of the property must be found principally in the essence. If essence and existence exhaust the available principles, how are we to describe the incognito presence of the power by which properties are produced? Parenthetically we may note that this problem will not arise for someone for whom essence is not a reality but only some sort of limit on the only reality, existence. On this view there can be no problem about accidents since accidents are secondary kinds of essence. Being non-realities in the manner in which essences are, accidents need no efficient causes; mere limits do not need agents producing

them. And there is no union of matter and form on this view either; for they are supposed to be components of essence. This study assumes that essence is that by which things are intelligible or that by which they are what they are. If essence so defined is not a reality then either we do not know things as they exist outside the mind or, if we do know them accurately, their to be is to be perceived.

Getting back to our problem, since the causality of accidents cannot be assigned to existence, it should be assigned to the essence insofar as it exercises existence or, to vary the phrasing somewhat, to the exercise of existence on the part of the essence. Efficiency in its pure state is an act exercised by a substance, not merely received by it passively. The greater cannot come from the less. The existence of the substance from which action emanates cannot be a mere passively received act; it must itself be an exercised act. (In addition to the above reference to Maritain, see Sikora, Inquiry into Being, pp.30-31, 132-133, 146-147.) If essences merely received existence rather than exercising it as an act belonging to each of them uniquely and incommunicably, it would be possible for things to have their being as objects of the consciousness of some transcendental ego. This exercise of existence has been called subsistence or subjectivity; and that which exercises existence, taken as such, has been called the supposit or the subject. The subject, defined in reference to the act of existing, is to be logically

distinguished from the individual, defined in reference to the communicability of essence. But there is no philosophical reason to assume that the subject and the individual are ever really distinct. "Subject" and "individual" essence which, by receiving existence, is put into the state of exercising as its own incommunicable act.

By attributing the virtual production of the accidents to the essence's exercise of existence, we accomplish several things. It is of the essence, once it has received existence, that the state of exercising existence is predicable; therefore the principal role of the essence in the causing of the property is preserved. Also the hidden reality whose virtual presence we are trying to locate is, in its natural state, an exercised act. We need an exercised act on the part of the essence to account for the emanation of properties from the essence, and the only such act available is existence. Finally, this solution preserves everything that was accomplished in our formal causality solution as a little reflection will show.

Instead of saying that the substance's formal cause is the virtually efficient cause of its properties, we are saying that the substance's exercising of the act of existing is the virtually efficient cause of its properties. This solution clearly allows us to attribute predicates directly to the substance as descriptions of its intrinsic character, something we manifestly could not claim to have justified if the existence



rather than the essence were the locus of the causality. But to say that a substance is of such a nature that physical or vegetative or animal or rational properties emanate from its exercise of existence is to say something about the substance in itself. It is the intrinsic nature of the substance which determines what set of properties will be caused to exist in it. To bring about maximum precision in our expressions we can draw on the distinction between an operative potency and the causal action which emanates from this potency and constitutes the actualization of this potency.. These concepts refer to efficiency in its typical state. Looking at efficiency in its virtual state, we find something corresponding to each member of this pair. The substantial essence, considered apart from its existence, is the real though virtual operative potency for the production of its properties. The exercise of existence on the part of the substantial essence is the real though virtual actualization of the operative potency for the production of the properties. So instead of saying vegetative properties, taking "cause" in the sense of a power which is not in the state of actual operation when referring to the substance considered in itself or in the sense of a power in the state of actual operation when referring to the substance as exercising existence.

How this way of looking at things allows us to handle the problem of the causing of substantial change should be just as

obvious. Previously we pictured the agent destroying the substance by suppressing the substantial form. Now we must say that it suppresses the very exercise of existence on the part of the substance. The agent accomplishes this as a result of its destruction of the accident that the existing substance would necessarily produce. Therefore we do not have to postulate immediate contact between the causality of the agent and the act of existence itself. that would amount to granting divine powers to physical agents. The agent directly causes the property to cease existing and as a consequence prevents the substance from exercising existence any longer.

Nor does the theory now proposed diminish the importance, which was stressed above, of the form's causal relation to the matter. It is only through its union with form that matter becomes a substance capable of exercising existence and at the same time a substance of a specific nature so that it is virtually productive of certain accidents and not others.

In conclusion it will be helpful to pursue the comparison mentioned earlier between the causing of properties and creation. It is not entirely accurate to describe God's action as virtually transitive but formally immanent, this implies that immanent action can be predicated of God in the formal, as opposed to the merely pre-eminent, sense. But action implies emanation from a power (see Simon, Introduction a l'ontologie du connaitre, pp.89-92), and this cannot be true of any of God's formal attributes.

What the statement that God's action is not formally transitive tries to express is the following. Although God's causality accomplishes everything that can be accomplished in transitive action, between the divine nature and its effects there is no intermediary whatsoever. Other than the creature itself, nothing emanates from the divine nature, nothing either intrinsic or extrinsic to God.

Like creation, the coming into existence of necessary accidents is not a change. A substance does not exist at one time and acquire its properties at another. Therefore the causing of the properties involves no transitive action in the formal sense, only virtual transitive action. So as in creation, there is no intermediary whatsoever between the substance exercising existence and the accidents which it causes. No causal emanation is present formally for this would be an exercised act really distinct from the existence. We must not even conceive the emanation of the accident on the pattern of an immanent action since immanent action is formally action, being identical with the productivity by which its agent brings it into existence. (See Simon, pp.93-95.) If we claim that the property itself is identical with the efficiency bringing it about, we would have formal not virtual efficiency; for when the causal emanation is an act really distinct from its source, we have causal production in its formal state. As argued earlier, to avoid infinite regress there must be some point at which there exists efficient

causal emanation in a virtual sense only. Unless that point occurs in the production of properties, there is no place where it can occur.

Granting the infinite difference between them the intimacy of the substance with its properties is an analogue of the Creator's immediate contact with His creatures. What makes it difficult to appreciate the analogy is that when we think of God's action we think in terms of existence whereas when we think of the connection between a substance and its properties we think in terms of essence. Because God's essence is an act of existing, we realize that no dynamism is denied to Him when it is said that action can be present in Him only in a virtual state. Taken in itself, on the other hand, the essence of a creature gives the appearance of being something static; how can causal action be present there in any form? At the same time we know that we cannot attribute the causing of properties to the existence of the creature since that would cancel their necessary connection with the essence and would deprive the essence of much of its intrinsic content. If we grasp what is meant by the exercise of existence, however, we see that it can supply essence with the dynamism necessary for the virtual presence of causal action.

To sum up: I have argued that an explanation of the efficient causing of necessary accidents requires an application of the familiar distinction between the formal and virtual presence or a reality. Efficient causality is not present in its typical state

but under some other form. The problem is to determine the formal identity of that reality in the power of which the efficient causality is enveloped. Of the two possibilities open to us, namely, the formal causality of the substantial form or the substance in its actual exercise of existence, the second is to be preferred since it explains more cases and preserves all of the first's advantages. Those advantages are the deeper insight offered into two traditional problems: the problem of what intelligible characteristics a substance possesses in itself and the problem of how a substantial change can result from a change in the substance's accidents.

- END -

7-20-82

Why are the ontological concepts of substance and substantial form so hard to relate to empirically known facts about the complex structure of physical things, especially, living things? It is through the substantial form that a thing exists, exercises existence. Empirical concepts, on the other hand, bear on that which exists, essence, although not conceptualized in relation to existence, as relations to existence. Between higher and lower substances, that which exists is in great part the same, and from the epistemological point of view of empirical knowledge, they are reductively the same. That is, the same molecules that were in the food are now in me. So what now makes me up is exactly the same as what once made the food up. But it does not follow that the ontological principal through which the higher exists is the same as that through which the lower existed.

5-16-82

When a living thing digests food, maybe the molecules in the food do not lose their substantial forms. The old form is there, but nothing subsists through, by means of, that form; nothing exercises existence through that form. The union of that form with matter does not produce an essence that exercises existence. Instead, a higher substantial form produces an essence that exercises existence. The higher substantial form does not suppress the lower, it suppresses or suspends the exercise of existence on the part of the lower by rendering that exercise superfluous.

The higher form further fulfills the potency of matter, the matter to which the lower form remains united. The lower form does not absorb the full potency of the matter. The matter retains reserves of potency that are actuated by the whole to which it belongs. The whole equals matter plus the lower form, and then equals that union plus a higher form thorough which a new supposit subsists.

5-18-82

I suggest multiple substantial forms but only one through which the unit subsists. Check Aquinas's arguments against multiple substantial forms to see if one subsistence will satisfy them.

There are two kinds of substantial change: one moving the actuation of matter up; one moving it down. My idea is that in moving up nothing lower is lost. What was at one time a lower substantial form is still there, adsorbed into the higher. The earlier actuation of matter is still there but now is part of a higher actuation of matter. Do we call that actuation still a substantial form (so that there are many substantial forms) or do we say it is now part of a higher substantial form? At the end, a higher unity subsists. The old substantial form is not destroyed (except when moving down), that is, the old actuation of matter is not lost. (But what about the old cause of that actuation of matter?)

5-28-84-1

The human substantial form is the only one that has its own subsistence. Therefore, we can have a universe with one substantial change, from the subhuman to the human. But in that change, the old

substantial forms are not destroyed. The result of the change has unity, however, because the subsistence of the whole is the subsistence deriving from one of the substantial forms, the human substantial form.

This theory could come in the last section of the article after you return to Maritain's theory of subsistence and offer an argument for the real distinction of existence and subsistence based on causality. Once a real distinction is established, this account of upward substantial change may work.

5-10-84

If a cause is not producing its effect, then either the matter needs further actuation to be suitably disposed or the cause needs further actuation. Existence is analogous to the ultimate actuation disposing the cause to produce its effect. Once essence has this actuation, the properties occur in it. Essence as actuated by existence is their efficient cause; essence as a passive potency for the properties is their material cause. Being actuated by existence is really distinct from being a passive potency, since existence is really distinct from the passive potency for accidents.