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The Need for Context in Event Identity

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The problem of event identity is the problem of determining whether two sentences describe the same event.

Recent discussions have suggested two possible criteria for determining event identity: (1) identical times, objects, and constituent properties; and (2) identical causes and effects. Both approaches can be shown to be subject to fatal exceptions. In everyday life, however, we have little trouble in determining what specific criteria would be relevant to determining event identity. I want to show that such criteria are heavily context-dependent, suggesting that event identity cannot be determined without consideration of the context in which the event occurs.

Here are some examples of the ways in which one event may be said to be identical to another:

A. Logical Entailment

A1. The plane flew over the UN Building, and the UN Building is in New York.

A2. The plane flew over New York.

B. Definitional

B1. Carol forced open the window, reached through the window, and removed the depression-glass vase, with the intention of appropriating it to her own use.

B2. Carol committed the crime of unlawful entry.

C. Conventional

C1. He shouted "Au secours."

C2. He cried for help.

D. Causal

D1. She struck her leg sharply against the fence rail.

D2. She broke her leg.

E. Accidental

E1. A hero of the Resistance was elected French president.

E2. A man with a big nose was elected French president.

F. Psychoanalytical

F1. A child dreamed of a dragon.

F2. A child dreamed of her father.

G. Theoretical

G1. The water boiled.

G2. The molecules moved rapidly.

H. Epistemic

H1. Spring is coming.

H2. Days are getting longer.

There is nothing particularly sacred about this set of categories, and you are welcome to expand, contract, modify, or otherwise mutilate the list at will. The important fact about the list is simply that it illustrates the variety of ways in which two sentences can both assert that the same event occurred.

The logical entailment in Category A is, of course, rather loose, but the point is simply that (given appropriate background knowledge) A1 provides completely conclusive evidence for A2; one cannot deny A2 without (implicitly) denying A1. We know this because we know the meaning of such words as "flies" and "over"; no searches for empirical evidence could possibly substitute for this elementary understanding.

In category B, Definitional, the meaning is scarcely part of our everyday knowledge of the language, but requires a search through a legal dictionary. To say that Carol committed the crime is to say that she performed a certain set of acts, and it is one of the purposes of the law to define these acts as precisely as possible.

Notice in particular that Carol's reaching through the window and appropriating the vase was not a different event from her committing the crime. We should scarcely want to say that she committed the crime and also reached through the window. Instead, what we say is that she committed the crime in reaching (or by reaching) through the window, where the reaching occurred within a particular context of property ownership and malicious intent. The criteria that identify the event as a crime are part of the context in which it occurs.

The next category, Category C, is full of interest for the philosophy of language, and I will only hint at it here. Suppose that at a private beach, a drowning person shouts "Au secours!" The lifeguard, not understanding, fails to respond. The bereaved family sues the beach, on the ground that the guard failed to perform his obvious duty. Let us suppose that the case resolves itself to the issue of whether the man did or did not call for help. Under what conditions would we decide for the lifeguard or for the family? The problem is (I think) extremely difficult and interesting, but it is not the sort of problem that can be solved by looking in the dictionary or by gathering evidence; it depends on how the language is to be used.

Category D is called "Causal," and I have included this example simply to show that causes are not always prior in time to their effects. She has broken her leg in the very act of hitting it against the fence rail; she did not hit the rail and then break her leg. Nevertheless, if asked, she would be likely to say, "I broke my leg by hitting it against the fence rail." (She certainly would not

say, "I hit my leg by breaking it.") Yet there is nothing to distinguish the hitting-event from the breaking-event; they are the same event as seen in two different ways.

Another category of interest, Category E, Accidental, shows the importance of context in determining how an event will be described. A reasonably patriotic French historian would surely choose E1 over E2 as a way of describing a certain French election. For the historian, E1 might be expected to function in an interesting way in the formulation of various generalizations about voting behavior. This historian might wish to formulate some general rule on the way in which former heroes tend to win elections. The description E2, however, seems totally devoid of interest for the historian, since it is unlikely that any generalization of the slightest historical interest can be derived from it.

On the other hand, we might imagine an overly self-conscious person with a large nose, who is preparing a history of the famous large-nosed people of the world, and who imagines that this election has elevated the status of big-nosed people everywhere. For such a person, description E2 is of the greatest importance.

But surely E1 describes the same event as E2. DeGaulle was a hero of the Resistance, and he was also a man with a big nose; he was not two persons. It was precisely the same election that elevated the hero and the big-nosed man; E1 does not describe a different election from that described by E2. In fact, the most useful way of characterizing the relationship between E1 and E2 is simply to say that they both describe the same event.

The following objection lies at the center of our problem, and it illustrates the confusion with which the problem has been enveloped. It will be objected that the consequences of E1 are obviously different from the consequences of E2.

What sort of consequences might we have in mind? The consequences of E1 would be those of electing a hero -- a surge of patriotism, resentment on the part of anti-war factions, and increase in the influence of the military forces. The consequences of E2 would obviously be quite different -- derision from unfriendly foreign powers, jubilation among political cartoonists, renewed literary interest in Cyrano de Bergerac. Yet the two events are one, because DeGaulle was just one person.

The identity in Category F suggests simply that a psychoanalytically-inclined interpreter might wish to say of the child that she was "really" dreaming of her father. The meaning of "really" will, of course, depend on how we interpret the claims of psychoanalysts and others who believe that our dreams are symbolic of our waking life.

In the pair of examples G1 and G2, the boiling of the water was said to be identical with the movements of its molecules. The type of identity suggested is what I will call "physical" identity, since we would scarcely want to say that the boiling of a pan of water was a different event from the rapid movement of its molecules. At the same time, the context in which a cook is watching the pan of water, to determine when to add the noodles, is quite different from the context in which an early physicist might have watched it, to determine the local turbulence that reveals the molecular agitation. Thus the event in the physicist's context is conceptually quite different from the event in the cook's context.

The goal of the seventeenth-century physicist was to establish that the boiling event (as observed by the cook) was identical to the molecular-agitation event (as predicted by the theory). Since the latter event could not be observed directly, it was necessary to develop techniques for inferring the molecular motions from observable events, such as local turbulence in the water. The reason for doing so was that a great many interesting consequences could be derived from the general theory of molecular motions, which could not be derived from the cook's account. We may say, then, that boiling is physically identical with molecular agitation, but that it is conceptually different from it. This distinction is one which points a way to a solution.

Category H, Epistemic, contains an interesting type of identity which could not conveniently be fitted into any of the others. We know that spring is coming, in the same way that we know that the days are getting longer -- by looking at the calendar or by timing the sunsets. Evidence for H1 is the same as evidence for H2.

But there is no simple way in which H1 can be said to imply H2, or vice-versa. There seems to be no logical relationship between them, as there is between A1 and A2. At the same time, we could hardly say that the approach of spring is different from the lengthening of days; H1 and H2 represent two ways of looking at the same set of happenings.

Thus we have eight different ways of determining the identity of eight different sorts of events. How much do they have in common? I want to give a brief answer to a complex question, with the assurance that a great deal remains to be said.

An event -- like a thing or an item -- is defined within a given context of discourse. We count the items on my bookshelf in one way if we are book dealers, in other ways if we are wastepaper collectors or interior decorators. We count the things

in a field in one way if we are farmers, another way if we are botanists. Similarly, we count events in one way if we are interested in aircraft flights, another way if we are concerned with noise pollution or destruction of the ozone layer.

Puzzles occur when we cross the boundaries that separate contexts -- when Eleanor suddenly discovers that the intruder at whom she's been aiming the pistol is really her husband. The event -- his coming into the room unannounced -- is an intrusion in one context, a homecoming in another. Was his entry into the room one event or two? In some sense, it seems possible to say that it was both.

Consider:

- J1. B
 R A T
 T
- J2. D
 4 0 7
 G
- J3. A
 7 13 4
 E
- J4. C
 T A E
 T

In J1, the center symbol is unambiguously an "A". In J2, the "0" is a figure in which ambiguity depends on whether it is interpreted as a numeral or as a letter. When we read left-right, it is a zero; when we read top-down, it is an oh. In J3, the center figure is either one letter or two numerals, and again the ambiguity is resolved as we read top-down or left-right. In J4, the center symbol is hopelessly ambiguous in isolation. It can be either an "A" or an "H". Ambiguity is resolved as we read top-down or left-right.

We can say that "A" (i.e. the token) in J1 is the same letter (i.e. the same token of the letter "A") whether read top-down or left-right; in either word, the center "A" is numerically identical with the center "A" of the other.

But in J2, it seems strange to say, analogously, that the central numeral "0" is identical with the letter "O", since a numeral is not the same as a letter. The puzzle is not a paradox, however, since we can resolve it by saying something like: "The letter 'O' has the same shape as the numeral '0'." (I do not mean to claim that this is really a very satisfactory resolution of the puzzle; I want only to emphasize that there must be some way of resolving it.)

In J3, the situation seems a little stranger, since one letter appears to be identical to two numerals. Finally, in J4, a token of a letter which we identify as an "A" is identical to a token of a letter when we call an "H", yet we do not want to say that an "A" is identical with an "H".

By insisting that various kinds of identity must be separated out, I have tried to suggest that the problem of event identity is not as difficult as it appeared at first. This approach means that the very nature of an event depends on the context in which it occurs (just as the shape 13 may be either a "B" or a "13", depending on its context).

One way of emphasizing the context-dependency of events is to consider non-events -- that is, those occasions on which an event fails to occur. The watchman fails to make his rounds. The bridegroom does not make it to the altar. There is (I think) a scene in Chekhov in which the young man has been expected to propose to the daughter. His proposal is extremely important to the family, because it promises them a way out of their poverty and debts, thanks to his money and status. He appears at their home, and he plays cards with the family. This is the only event that happens on the stage -- the actors play a perfectly ordinary game of cards. But the family -- and the audience -- know that he has failed to propose. His failure, his cowardice at the crucial moment, means bankruptcy and disgrace for the family, and it is this knowledge that gives the scene its emotional significance.

But a non-event like this is literally nothing. No relevant physical events occur; yet (in another sense) a disaster has occurred for the family. The non-event is like the null set, in that it cannot be distinguished from any other non-event, if they are considered out of context. A small blank area on a sheet of paper may be physically identical with that same blank area when the paper is filled with writing; but it will serve different functions, depending on where the blank space occurs in that writing. The context makes all the difference.

In the series of stories and analogies that I have presented here, I have suggested that ordinary people have rough-and-ready ways of answering questions about event identity, and that we can make some operational sense out of their rough-and-ready methods. The primary method that I have recommended is to draw a sharp distinction between physical identity and conceptual identity, rather than treating event identity as though it were a single type of identity. I have also suggested that conceptual identity will depend on the context in which the event occurs.

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