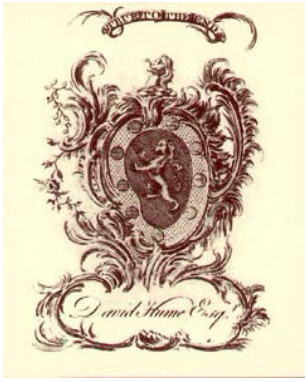

Time and the Idea of Time
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Hume entitled Part II of Book I of the Treatise "Of the Ideas of Space and Time." Students of this most obscure Part of the Book are aware, however, that he spends little time in it on time. The main reason for his concentration on space is polemical. In Part II his primary object is to exhibit the contradictions and absurdities implicit in the science of his day with its postulation of empty space and of the mathematics with its notion of infinite divisibility, and then to show how these difficulties can be overcome by the adoption and implementation of the theory of ideas he had developed in Part I. As a result, with the exception of a discussion that occupies approximately three pages in Section III,[1] most of his references to time in Part II are little more than brief appendages tacked on to his arguments concerning space. Hume commentators have generally taken their cue from him. Although the literature contains substantial analyses of his views about space, very little can be found on the subject of time. In this paper, I shall attempt to add something to that slim literature.

As its title indicates, this paper will be concerned with two subjects, time and the idea of time. Hume accepts the ordinary distinction between the two. Time and our idea of time are separate realities, the former being a part of the world independent of us and the latter being a part of the content of our consciousness. I shall observe this distinction, beginning with an account of what Hume means by time and following that with an explanation of his theory of the origin and nature of the idea of time. After finishing these two expository sections I shall devote

the remainder of the paper to a critical examination of Hume's views on both subjects, ending with a suggestion about a possible alternative route he might have followed in his argument about time and the idea of time in Part II.

A final preliminary point: Although Hume devotes most of his attention to space in Part II, he makes it clear that, because space and time (as well as our ideas of them) are analogous to each other in certain vital respects, his views concerning the former can easily be transferred and applied to the latter.

1. Time

Hume states or implies several things about the nature of time in Part II.

(1) He equates time with duration, treating the two terms as equivalent throughout his discussion.

(2) Time is an objective reality, or aspect of the external world. This interpretation may be questioned because Hume never asserts an objectivistic view of time unequivocally and in certain passages writes in a way that could be interpreted as implying that time is a characteristic of our conscious experience. "As 'tis from the disposition of visible and tangible objects we receive the idea of space, so from the succession of ideas and impressions we form the idea of time..." (T 35). But later he writes: "...time is nothing but the manner, in which some real objects exist..." (T 64). Also, in the titles of his first two sections he makes a clear distinction, labelling Section I "Of the infinite divisibility of our ideas of space and time" and Section II "Of the infinite divisibility of space and time." Since, in Section II, it is apparent that he is talking about space as a part

of the external world, the natural inference is that he is talking about time in the same way, as, for example, when he writes, "The infinite divisibility of space implies that of time, as is evident from the nature of motion" (T 31).

(3) Time is not infinitely divisible but is made up of parts Hume calls 'moments' (T 31). These moments are the 'building blocks' of time and are ultimate and indivisible. They are analogous to the ultimate, indivisible parts of space, which Hume labels 'mathematical points' (T 40).

(4) The moments of time are not co-existent but successive. In this respect time differs from space. "'Tis also evident, that these parts [of time] are not co-existent: For that quality of the co-existence of parts belongs to extension, and is what distinguishes it from duration" (T 36). The reason for this difference is clear; if the parts of time were co-existent they could never generate duration, or the passage of time.

(5) The moments of which time is composed are durationless. On this crucial point Hume does not make any positive statement. Yet it is clear from the nature of his argument in Part II, in particular his view that the mathematical points that are ultimate parts of space are extensionless, that he accepts this conclusion. To reconstruct his reasoning: Time, like space, is composed of ultimate parts -- its moments. He rejects the view that these moments are infinitely divisible. But might he not maintain, on the contrary, that they have duration-spans, although these are extremely short? The reason why he would not accept such an alternative can be gleaned from his rejection of the notion that space is made up of small, but

extended, physical points (see T 40). Any such entity, whether it be a physical point in space or a short space of time, is a compound, hence it can be broken up into smaller parts. Therefore, it cannot be an ultimate, irreducible part of either space or time. Such a part must, to satisfy the condition of ultimacy, be incapable of further division. If it is an ultimate part of space, it must be extensionless; if it is an ultimate part of time, it must be durationless.

(6) Time implies change, therefore an unchanging object does not exist through time. "...since the idea of duration cannot be deriv'd from such an [unchanging] object, it can never in any propriety or exactness be apply'd to it, nor can any thing unchangeable be ever said to have duration" (T 37).

2. The Idea of Time

To explain the idea of time we must answer two questions: What is the nature of the idea? and How does the idea originate? To answer the first question it is necessary to begin with a negative note. We do not have an ordinary idea of time itself, or time alone, as we have, say, of a color or a sound. "[It is not possible] for time alone ever to make its appearance, or be taken notice of by the mind" (T 35). Hume's reason for denying that the idea of time can be accounted for according to his normal theory of ideas is apparent from this statement; we can have no ordinary idea of time, as we can of a color or a sound, because we have no sense impression of time of which it can be a copy. So time must be a different kind of idea from the normal. It is, Hume argues, an abstract idea. "The idea of time ... will afford us an instance of an abstract idea..." (T 34-35). But even such an

account is inadequate for the idea of time is not an abstract idea of the type Hume had described and explained in Section VII of Part I. There he had written: "Abstract ideas are therefore in themselves individual, however they may become general in their representation" (T 20). To illustrate, the abstract idea 'man' is the idea of some individual man, which represents or stands for men in general. The important thing to note, in the present context, is that such an abstract idea is tied directly to a sense impression because the idea of the individual man (who represents men in general) is a copy of a sense impression of that individual man. But, in the case of the abstract idea of time, the copy-tie with an impression is missing. We do not have a particular idea of time, derived from a sense impression of a particular time, which then represents time in general. The reason, of course, is that we have no impression of 'individual' time as we do have an impression of an individual man. So the idea of time, described as an abstract idea, is a peculiar and, were it not for the abstract idea of space, a unique kind of abstract idea.

We can best understand the type of abstract idea that time is by seeing how it originates. It is a composite made up of two component parts. The first consists of some contents of consciousness, which may be impressions of sensation or reflection or other ideas and the second consists of the succession of these perceptions. To repeat, Hume writes: "As 'tis from the disposition of visible and tangible objects we receive the idea of space, so from the succession of ideas and impressions we form the idea of time..." (T 35). An important point to note about Hume's explanation of the idea of time is that both of its

components are themselves perceived. That this is true of the various perceptions that provide its content is obvious; it is no less true, however, of the succession of these perceptions in our consciousness. "...time cannot make its appearance to the mind, either alone, or attended with a steady unchangeable object, but is always discover'd by some perceivable succession of changeable objects" (T 35). To make his account more understandable, Hume provides an example to illustrate the nature and origin of the abstract idea of time:

> The idea of time is not deriv'd from a particular impression mix'd up with others, and plainly distinguishable from them; but arises altogether from the manner, in which impressions appear to the mind, without making one of the number. Five notes play'd on a flute give us the impression and idea of time; tho' time be not a sixth impression, which presents itself to the hearing or any other of the senses. (T 36)

This illustration makes clear the kind of abstract idea time is. We have two kinds of impressions involved in our recognition of time. We hear the individual flute notes and we 'sense' their succession. This combination of impressions gives us an idea of time even though time itself is not directly sensed, in the way in which its components are.

Unfortunately, the illustration presents a difficulty that I am unable to resolve. The problem arises from Hume's statement that five notes played on a flute give us not only the idea but the impression of time as well. That they give us an abstract idea of time (which is what Hume is attempting to establish) is understandable. But that they give us an impression of time seems not only inconsistent with his claim that we have no impression of time but

impossible in itself. For how can we have an impression of time when time is not an object of any of our senses? This claim of Hume's is an enigma. I can offer no plausible explanation of it because it seems to be quite contrary to the course of the argument he is making. The best I can do is to suggest that Hume may have written loosely here and, when he said that we have an impression as well as an idea of time, he was thinking of succession rather than of time.

3. Difficulties in Hume's Theory of Time

That Hume's theories of time and the idea of time raise problems is evident. In the remainder of the paper I shall describe what I think the most serious of these problems to be, show why they are consequences of Hume's theories and suggest ways in which they might be resolved. I shall begin with his theory of time.

Time, as we saw, is composed of parts that are reducible ultimately to moments, which are themselves indivisible but have no duration. The reason why they lack duration we have already noted; if they occupied time they would themselves be made up of shorter parts so could not themselves be ultimate parts. The reason why they are indivisible is that, if they could be derived, there would be no ultimate parts of time at all and, if this were true, time, as duration, could not exist because the infinite number of moments into which it could be divided would co-exist rather than succeed each other.

> 'Tis a property inseparable from time ... that each of its parts succeeds another, and that none of them, however contiguous, can ever be co-existent.... 'Tis certain then, that time, as it exists, must be compos'd of indivisible moments. For if in

> time we could never arrive at an end of division, and if each moment, as it succeeds another, were not perfectly single and indivisible, there would be an infinite number of co-existent moments, or parts of time; which I believe will be allow'd to be an arrant contradiction. (T 31)

The first question one might raise about Hume's conception of time concerns his view that it is made up of discrete parts. It is true that our time-pieces divide time into parts -- hours, minutes, seconds -- but this is an artificial device for our convenience. To say that time itself is so divided is an assumption that can be questioned. Why, then, does Hume make it? The answer lies, I think, in his belief that if time is to be conceivable, it must be so divided. At the beginning of Part II he lays down two principles that limit the realm of the conceivable with regard to both space and time. The first is that, because of the limited capacity of the mind, we "can never attain a full and adequate conception of infinity" (T 26). The second is that, if something is capable of an infinite division, it must contain an infinite number of parts. It follows from these principles that we cannot conceive of anything that contains an infinite number of parts, therefore, since we do conceive of time, it must be reducible to ultimate parts that are capable of no further division.

Hume's analysis of time into indivisible parts does not in itself cause him any apparent trouble. The difficulty arises only when we appreciate an essential feature of these parts; namely, that they have no duration. What Hume is attempting to do with time is analogous to his analysis of space into mathematical points that are indivisible but have no extension. It is meant to achieve the same goal, that

of providing a conception that is a 'medium'[2] between the two unacceptable extremes of the infinite divisibility of parts and of parts that are not truly ultimate. Whether or not Hume's analysis of space in terms of mathematical points is viable, it is only too obvious that his reduction of time to durationless moments is not. Time is, to Hume, identical with duration. So it must be made up of the parts that, when strung together, constitute duration. But these parts have no duration. No matter how many durationless parts one tries to 'string together' he cannot ever produce the result of duration. Therefore, he can never arrive at time. On Hume's theory time cannot be a feature of the world.

What, then, might be done to avoid this consequence of Hume'a analysis of time? Since the problem arises from his view that time is composed of indivisible, durationless parts, the solution must lie in altering that assumption. For reasons we have already reviewed, eliminating either, or both, of the adjectives that characterize the ultimate parts of time will be fruitless because their elimination would force us into one or the other of the untenable theories Hume is attempting to avoid. We must, I think, go to a more central issue, the notion of time as being divided into parts itself. If we eliminate these parts, we can rid ourselves of the problems they generate. Furthermore, this seems not to be a radical departure from Hume for we could argue that time is a continuous flow that contains no parts in itself. Hume never entertains such a possibility. Could he? This is a difficult question to answer because it raises problems about the conceivability of time. To conceive of anything, including time, requires,

according to Hume's epistemology, that we have an idea of it. Hence, to conceive of time that has no parts, i.e., a 'flowing time', we should have to have a complex idea without any parts. As we have seen, an essential component of the abstract idea of time is derived from our impression of succession, as exemplified in the five flute notes. But this impression presupposes moments of sound following one after another; in other words, it presupposes parts. So the question becomes: Can we sense succession without parts? Within Hume's epistemology the answer is doubtful, because of what some commentators have called his 'atomism',[3] or the view that our impressions are individual entities separable from each other. On this atomistic epistemology, all of our ideas, as copies of our impressions must be individual, separate entities. To have an idea of succession that flows instead of having parts would appear to be impossible because such an idea could be broken up into the atomistic parts derived from its original, separable impressions so would itself be a complex idea composed of parts, hence would not be an idea of undivided succession or the unbroken flow of time. If this is correct, no attempt to make Hume's theory of time viable could succeed unless it included the abandonment of his atomistic epistemology.

4. Do We Have an Idea of Time?

Although the idea of time is an abstract idea, it must, like all ideas, be derived in some way from an impression or impressions. We have seen that the originating impression of the idea of time is made up of two components: (1) its contents, which are various perceptions, and (2) the manner of arrangement of

these contents, which is one of succession. There is no apparent difficulty with the first of these components; since a perception is an element of consciousness, to say that we perceive something is to imply that we are conscious of it. One might question Hume's contention that an idea must have its ultimate source in sense impressions but that would be to challenge his entire theory of ideas. So let us accept this component in the source of the idea of time and turn our attention to the other; i.e., the impression of succession. The best way to do that is to look more closely at the illustration Hume gives, of five notes played on a flute.

When we begin to analyze this example we encounter difficulties. I have already spoken of the 'impression of succession'. Hume explicitly affirms that we have a perception of succession. He writes that the idea of time arises "from the manner, in which impressions appear to the mind..." (T 36). This manner, one of succession, although different from the impressions of which it is composed, must, if it is to enter our consciousness, itself be something we perceive. As I noted earlier, Hume emphasizes this point in his statement that the idea of time requires for its origin a "perceivable succession of changeable objects" (T 35). At this point in the analysis Hume's theory can be interpreted in either of two ways. One might read him as holding that the perception of succession is not an impression but an idea. But if that line is followed we immediately run into the problem of accounting for the source of this idea of succession. Since it is an idea of succession it must be a copy of an impression, which would have to be an impression of succession. Or, if it is held to be a

copy of another idea of succession, we have to account for the origin of that idea in an impression of succession. Given Hume's theory of ideas, eventually we must appeal to an impression of succession to account for any perception of succession we have. We are thus led to the second interpretation -- that the original perception of succession is an impression rather than an idea. But with this interpretation we find ourselves confronting a different difficulty. If it is an impression it must come to us through our senses. But which one? We hear the flute notes but Hume would surely not say that we hear the succession of flute notes, for that makes no sound. No more do we see, touch, taste, or smell this succession. Thus we find ourselves with an impression which, according to Hume's epistemology, we cannot have. Since our awareness of succession is a necessary condition for our having an idea of time, if we have no impression of succession, we are left with nothing from which an idea of time can be gained. As a result time becomes inconceivable.

A closely related difficulty arising from Hume's attempt to generate the idea of time from the notion of succession can be seen from viewing his flute example in a slightly different way. We can infer from this example that Hume held that a person, who had no conception or idea of time, would be able to generate it from hearing five notes played successively on a flute. Although it might be difficult to imagine a person with no idea of time first gaining that idea by listening to a flute, the general point of Hume's argument is clear enough. We all have the idea of time, therefore, since we have no direct or separate impression of time, this idea must have grown

up in us through our awareness of events, like the five flute notes, appearing before our mind in succession.

So let us consider an individual who, for the first time, is conscious of events that occur in succession, like the five flute notes. He has no conception of time. What exactly can he hear and, hence, be conscious of? The answer must be: flute note -- flute note -- flute note -- flute note -- flute note. He certainly can hear these sounds. But he cannot hear, or in any other way sense, the fact that the second note succeeds, or comes after the first or that the third succeeds or comes after the second. To such a person the concept of succession could never arise. Instead he would hear each note as a discrete sound with no relation of before or after to any other.

It might be held, although Hume does not make the point here himself, that the person in question can recognize that the notes succeed each other because, when he hears the second, he remembers that he has heard the first, and so on. It is, I think, correct to conclude that, if we had no memory, we could have no idea of succession and, hence, of time, but the point that is crucial in this situation is that, if the person is to remember that the first note preceded the second note, and therefore, that he can count the notes at all, he must have the awareness that each note (except the first) has <u>followed after</u> a note that has <u>preceded</u> it and that each (except the fifth) <u>precedes</u> a note that <u>follows after</u> it. But these concepts -- 'follow after' and 'precede' -- are temporal concepts. To one who had no consciousness of time they would be meaningless. In other words,

Hume's account, with his illustration of the five flute notes, which is meant to explain how we acquire the idea of time through our awareness of succession, must, if it is to be viable, assume that we already have the idea of time. Thus his attempt to explain how we come to have an abstract idea of time even though we have no impression of time is necessarily question-begging.

Can this deficiency be ameliorated? Not easily. The root difficulty with Hume's account of the idea of time lies in his trying to generate an idea for which there is no adequate source in our impressions. While still remaining true to his epistemological assumptions, in which some impression must be found to account for every idea we have, he tries to overcome the problem that arises over providing an acceptable explanation of how we gain an idea of time by introducing the 'impression' of succession, as a vehicle that will carry us to the idea of time. What he fails to realize is that, in order to possess the concept of succession, which is simply not something we directly sense, we must already possess the idea of time. As a result his explanation is not successful. Having accepted the theory of ideas he has developed in Part I, Hume, in consistency, must conclude that we can have no idea of time.

One final comment. I have argued in this paper that, on the basis of his philosophical assumptions, Hume cannot legitimately conclude either that time is a feature of the external world or that we have an idea of time. His mistake in claiming the first can be traced back to his epistemological atomism and in claiming the second to his phenomenalistic theory of ideas. But this leaves us with a

question: Why did Hume insist that time is real and that we have a real idea of time when, on his own assumptions, neither claim can be supported? It seems to me that in this case, as in the parallel case of space and the idea of space, his natural inclination to believe in a common-sense world overcame his attempt to produce a consistent philosophy. Maybe that is as it should be, but, had he been more bold in following out the implications of his own assumptions, he would have denied both the existence of time and the idea of time. Had he done so he would have given us a more daring, even though more paradoxical philosophy. Moreover, he would have added to his stature, at least in the eye of one of his admirers.

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1. David Hume, A Treatise of Human Nature, ed. by L.A. Selby-Bigge, 2nd edition, revised by P.H. Nidditch (Oxford: Clarendon Press, 1978), pp. 34-37. Further references will be cited as 'T' followed by the relevant page number(s).

2. Hume's discussion of mathematical points as a 'medium' between two extremes appears on T 40.

3. See, for example, R. Newman, "Hume on Space and Geometry," Hume Studies, VII (1981), pp. 8ff.