

SENSATIONS AND PROCESSES - A REPLY TO MUNSAT

In arguing against what he calls "the identity thesis" Munsat¹ has selected for special consideration the thesis that sensations cannot be shown by logical argument not to be, what the empirical evidence by itself would lead us to suppose that they were, namely processes in the brain. As he points out the thesis in the form in which he discusses it was originally proposed by J. J. C. Smart.² Smart's thesis, however, as he himself acknowledges, was based on a thesis which I had proposed some years earlier³ to the effect that consciousness could not be shown on logical grounds alone not to be a brain process. As Munsat correctly points out, the term 'consciousness', as I used it, was intended to embrace sensations. It was also intended to include certain other mental phenomena such as after images, mental images, dreams and trains of thought, while at the time *excluding* other kinds of mental phenomena, mental events like noticing, recognising, remembering, and comprehending, mental states like being pleased, angry, unhappy, afraid, embarrassed or confused or like wanting, intending and expecting, mental capacities like understanding and knowing, and a wide range of mental attributes from intelligence and stupidity to arrogance and humility. The mental phenomena which the term 'consciousness' was intended to embrace were those mental phenomena and only those which, in my view, could be properly described as processes. It was precisely for this reason that I proposed the identification of this group of phenomena with processes in the brain rather than with brain events, brain states or with performance characteristics of the cerebral machinery.

I have thus no hesitation in agreeing with Munsat when he says that I need "to show that sensations and brain processes are of similar or the same logical type" (i.e. that they are both processes) if I am to sustain my particular form of identity thesis. Munsat tries to ensnare me at this point, however, (a) by purporting to show that sensations are not processes and (b) by trying to close the only escape route open to me, were I to concede that sensations are not processes, by arguing that sensations are not events or states either, but fall into a unique logical category of their own of which there are no examples in the world of things physical and physiological. This stratagem fails in my view, because the reasons Munsat gives for thinking that sensations are not processes do not carry conviction.

In order to decide whether or not sensations are processes we need to begin by

¹ S. Munsat "Could Sensations be Processes?" *Mind* lxxvii (1969) 247-251.

² J. J. C. Smart "Sensations and Brain Processes" *Philosophical Review* lxxviii (1959) 141-156.

³ U. T. Place "[Is consciousness a brain process?](#)" *British Journal of Psychology* xlvii (1956) 44-50.

agreeing on a logical taxonomy, a set of logical criteria [p. 107] which will enable us to decide whether something is or is not a process, and, if it is not a process, to what other logical category it belongs.

The logical taxonomy which I am accustomed to using when discussing mental concepts is one which derives, as does that which Munsat uses, from Ryle.⁴ The fundamental distinction is between occurrences on the one hand and states on the other. A state is something that is the case for a specific period of time, but which cannot like an occurrence be said to occur at a specific point in time. The onset and termination of a state are, however, occurrences in this sense. The onset or termination of a state is an event, and events together with processes make up the category of occurrences. Events are distinguishable from processes by the fact that though they can be said to occur at a particular point in time, they are not, unlike processes, extended in time. By these criteria therefore a process is an occurrence which is extended in time, something of which it makes sense to say *both* that it occurred, or more correctly, that it was occurring at a specific point in time, *and* that it was the case (was going on) for a specific period of time.

Corresponding to this distinction between states and two types of occurrence, events and processes, which applies equally to things inorganic and things organic, we have a distinction between three kinds of verbs expressing three kinds of things that a person or personalised agency can be said to do for a period of time but cannot be engaged in doing at any one moment of time. Corresponding to events we have act verbs, of which Ryle's 'achievement verbs' are a sub-class, where one can say of someone that he did it at a specific point in time, but not that he did it or was doing it for a period of time; and corresponding to processes we have activity verbs where one can say of someone that he was doing something both at a particular point in time and for a period of time.

Munsat appears to be employing a similar logical taxonomy when he argues, if I have understood him correctly, (a) that the noun 'sensation' is the noun of the verb 'to feel' and (b) that the verb 'to feel' in the sentence "He felt the blood starting to circulate" is an achievement verb. Clearly, if I were to accept his initial premiss that the noun 'sensation' is the noun of the verb 'to feel' as it is used in the sentence "he felt the blood starting to circulate", I would have to concede by the logical criteria I have stated that the verb 'to feel' in that sentence is an achievement verb and thus a variety of what I call an act verb, and that the act referred to is an event and not a process. For while it makes sense to say "he felt the blood starting to circulate at 3.51 p.m.", it does not make sense to say "he felt the blood starting to circulate for half an hour". If I want to maintain, as I do, that sensations [p. 108] are processes, I should have to say that in so far as the noun "sensation" is the noun of the verb 'to feel', whatever that may mean, it is the noun of the verb 'to feel' as used in sentences like "he felt a tingling" where it makes good

⁴ G. Ryle *The Concept of Mind*, London, Hutchinson, 1949.

sense to say both that he felt the tingling continuously for half an hour and that he was feeling it at 3.51 p.m. In this case the verb 'to feel' is operating, on the logical criteria I have stated, as an activity verb, and by those criteria an activity referred by such a verb qualifies as a process.

The word 'sensation' as used by Smart is, like my own term 'consciousness', a technical philosophical term, and, as such is susceptible to different interpretations by different philosophers. Munsat's interpretation of it as the noun of the verb 'to feel' is one such interpretation, which is not, he assures me⁵, the interpretation intended by Smart, and is certainly not the way in which I would use the term. Nevertheless we can probably all agree that whatever technical use we choose to give to the word 'sensation', any technical use of the term must embrace the sort of thing that we refer to as sensations in ordinary language, namely things like pains, itches, throbbings and tingling. Thus it can hardly be denied that the sentence "he felt a tingling", for which we can substitute quite idiomatically and without change of meaning the sentence "he felt a tingling sensation" is a much stronger candidate for the status of a sentence referring to a sensation than is the sentence "he felt the blood starting to circulate". Consequently, provided I stipulate that when I use the term 'sensation' I am referring to what is referred to by sentences like "he felt a tingling sensation", which contains what, by the criteria I have stated, is an activity verb, and am not referring to what is referred by sentences like "he felt the blood beginning to circulate", which contains what by my criteria is an act verb, my contention that sensations in this criteria I have suggested for identifying activity-verbs and process-nouns are unacceptable.

Munsat does not in his paper give any reasons for rejecting the logical criteria I have stated here for determining whether or not something is a process, since he does not consider them. He does, however, offer some alternative criteria of his own which merit some consideration. "Processes", he says "unlike sensations, 'go on' and things of various kinds can undergo them. Processes or at any rate particular examples of them, can only cease (or stop or go away) or come back or continue ... Processes, usually, if not always, have a direction, whereas sensations do not, at least not in the same sense".⁶ To what extent do these features form an essential part of the concept of 'a process'? It is, I suppose, inevitable that the answer [p. 109] I am inclined to give to this question should be determined by the logical criteria I have already given for distinguishing processes from other ways in which things can occur or be the case. I shall try nevertheless to support my contention that some of the criteria which Munsat has suggested are not as he himself partly concedes, essential characteristics common to all processes by means of examples of processes which are not sensations, but nevertheless fail to exhibit the characteristics in question. In those cases where I am compelled to concede that the characteristic is an essential feature of a process on the

⁵ Personal communication.

⁶ Munsat *op. cit.* p. 250.

other hand, I shall try to show that Munsat is mistaken in thinking that they do not apply in the case of sensations.

I have suggested that the defining characteristic of a process is that it is something that can be said both to occupy a period of time and to be occurring at any point of time during the period of its operation. If we now compare processes with states which also occupy periods of time but which cannot be described as occurring at any particular point of time during that period, it must be conceded that processes are distinguished by the fact that there is something going on throughout the period during which the process is in operation. It must also be conceded that if it is the case that there is something going on throughout the period during which a process is in operation, it must also be the case that a process is something that is subject to continuous change or movement during the period of its operation. Furthermore if continuous change or movement is an essential feature of a process there must always be something that undergoes the change or movement in question, and it must always make sense to ask of a process how fast it is changing or moving. Any change or movement must also be in a particular direction. In the case of movement this must be in a particular direction. In the case of movement this must have a direction in the literal spatial sense. In the case of processes involving some change in the properties of something without any change in physical location, e.g. the process whereby the colour of something gradually changes, the change involves direction only in the metaphorical sense in which changes of intensity, for example, must be in the direction of greater intensity or in the direction of lesser intensity.

Apart from this qualification with respect to the application of the concept of direction to processes, it is clear that I, compelled by my own logical criteria of what constitutes a process to accept all the characteristics listed by Munsat as essential features of a process with one exception, namely, the stipulation that it must always make sense to talk of a process being interrupted or completed where this more than is implied by saying simply that it has ceased or stopped. As I see it, this stipulation applies only to a special variety of processes namely those which involve a change or transformation of something from one state to another. Such processes, which we may call 'productive', are certainly very common. They include such processes as chemical reactions, biological processes like growth and digestion and processes controlled by human agency [p. 110] such as the processes involved in manufacture. But there are other processes, those involved in maintenance rather than production, like vibration, rotation or the negative feed-back process whereby a system is maintained in a state of equilibrium, where there is no end state whose attainment marks the completion of the process. In such cases, as in the case of sensations, to say that the process has been interrupted says no more than is said by saying that it has stopped.

Since I accept most of the features mentioned by Munsat as essential features of a process, and since I remain convinced despite his arguments that sensations are processes, it follows that in my view it makes perfectly good sense to talk of a sensation going on, being undergone by something or rather by someone, changing at a certain

rate, and changing in a specifiable direction such as intensity. What makes Munsat think that it does not make sense to say these things?

My diagnosis is that he is misled by two logically incompatible conceptions of what constitutes a sensation based on the naive assumption that the word 'sensation' is to be understood as the nominalisation of the verb 'to feel' in all uses of that verb regardless of the fact that this verb is used in two logically quite different ways in the two sentences he takes as examples of its use. If a sensation is something like 'feeling the blood starting to circulate', it clearly does not make sense to talk of someone's feeling the blood starting to circulate as going on, nor is it something that someone can properly be said to undergo; nor yet is it something that can change whether in rate or direction. If, on the other hand, we consider the case of feeling a tingling, it makes perfectly good sense to talk of the tingling going on. A tingling sensation is something that someone can quite properly be said to be undergoing. It can be said to increase or decrease both in its intensity and, I suspect, in the firing rate of the individual 'pin pricks' that go to make up this particular variety of sensation. There is also a perfectly good, if metaphorical sense in which such changes can be said to occur either in one direction or the other.

From what he says one can perhaps anticipate an objection that Munsat might raise to this answer, Munsat might argue that in comparing 'feeling the blood starting to circulate' with 'feeling a tingling sensation' I am comparing the feeling in the first case with what is felt in the second. Now although it may be conceded that what is felt in the second case (the tingling) is a process, feeling it is an achievement and therefore an event. There are, of course, plenty of cases where the object of an achievement verb is a process. We can generate such a case from Munsat's first example by substituting 'the blood circulating' which is a process for 'the blood starting to circulate' which is an event thus deriving the sentence 'he felt the blood circulating' or, in order to emphasise the achievement character of the verb, 'he noticed the blood circulating'. [p. 111] Similarly, one might argue, the verb 'to feel' sometimes functions as an achievement verb in the sentence 'he felt a tingling sensation', as shown by the fact that in some contexts one can substitute the undoubted achievement verb 'notice' for the verb 'feel' in this sentence without changing the meaning, viz: 'he noticed a tingling sensation'. On the face of it the conclusion that the verb 'to feel' in the sentence 'he felt a tingling sensation' is sometimes an achievement verb and therefore an event rather than a process would not seem to have much bearing on the thesis that sensations are processes. For as we have seen there is no reason why an achievement verb should not have a process as its object and therefore no reason why the tingling, which has a much better claim to the title of 'sensation' than has the feeling of it, would not be recognised as a process, as all other criteria suggests it is. However as Munsat points out there are good reasons for thinking that in cases like 'he felt a tingling', the verb and its object do not refer to two separate things in the way that the circulation of the blood and someone's feeling it or noticing it refer to two separate things in sentences like 'he felt his blood circulating'. For whereas in the blood circulation case the blood continues to

circulate whether or not the individual concerned happens to feel it or notice it, there is something decidedly odd about the notion of an unnoticed or unfelt tingling sensation.

These considerations lead Munsat, as I have been led myself in the past⁷ to conclude that a sensation and the feeling of it are one and the same thing, that the distinction between the verb and its object in this case is a matter of grammatical form with no substance in the reality to which the phrase refers. But if this is so, how do we account for the fact that whereas the noun 'tingling' has all the logical features of a noun referring to a process, the verb 'to feel' in the same sentence can have the characteristics of an achievement verb. The resolution of this difficulty that Munsat proposes, is that the sensations, by which, I take it, he means what is referred by portmanteau phrases like 'feel a tingling', fall into a special bastard category of their own, being neither events nor processes, but something in between the two.

I confess that I find this notion of a logical category intermediate between an event and a process, quite unintelligible. If something occurs it must either occur at a specific point in time without being extended in time, in which case it is an event, or it occurs for a period of time, however short, in which case it is a process. There is no room for a third intermediate possibility.

The resolution of this difficulty which I favour rests on the observation that any process, like any state, entails at least two events, its beginning and its end. The event referred to by the achievement verb 'notice' in the sentence 'he noticed a tingling sensation' is the onset of the tingling process. It does not make sense to say [p. 112] 'he noticed the tingling continuously for five minutes'. On the other hand it does make sense to say that the tingling persisted continuously for five minutes after he first noticed it, though not that the tingling had been going on for five minutes before he noticed it.

The reason why it does not make sense to say that the tingling had been going on for five minutes before he noticed it, whereas it does make sense to say that the blood had been circulating for five minutes before he noticed it, is that the achievement referred to by the verb 'to notice' is the attainment of the ability to report the occurrence or presence of what is noticed, and sensations are the sort of thing that can only be said to occur or to have occurred when their owner is in a position to report their occurrence. As things stand now, the only evidence we have or can have for the nature and occurrence of a sensation is the report of the individual in whom it occurs taken in conjunction with whatever circumstantial evidence is available to confirm or disconfirm the hypothesis that he is telling the truth. Consequently the existence of unreported or unreportable sensations is something that cannot in the nature of things be confirmed or denied and is therefore without meaning.

If, however, I am right in thinking that sensations are processes in the brain, and

⁷ U.T. Place "[The Concept of Heed](#)" *British Journal of Psychology* xlv (1954) 243-255. The reference is to pp. 250 & 252.

if we know which particular brain processes they are, it might be possible to show that there are processes similar in all respects to those that have been identified as sensations apart from the fact that the individual in question did not and was not in a position to report them. If such were found to be the case, it might then become sensible to talk of unnoticed sensations; but only because and in so far as we would then have evidence of their occurrence which is independent of the individual's self report.

Since it appears possible to account both for the use of achievement verbs like 'notice' in statements about sensations and for the fact that there cannot be unnoticed or unfelt sensations without in any way compromising the claim that sensations have all the essential characteristics of processes, I conclude that Munsat has failed to show, what he set out to show that they are not processes; and if he has failed to show that they are not processes, he has also failed to show that they are not, what I still believe them to be, namely processes in the brain.

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