On Nature of Time and Abhidhamma Concept of ‘Moment’ (*Khana*)

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During study of Abhidhamma it is possible that can arise a tendency to grasp the Abhidhamma idea of a “moment” (khana) in the same way as we know a small unit of ordinary conceptual time – a second (or any smaller time unit). In this case khana is taken as a smallest unit of this conceptual time, a certain kind of limit of time in microscopic direction, something like the limit of time in global cosmic direction (idea of finiteness of the world, which was silently rejected by the Buddha), but in opposite direction.

Any kind of time is always tied to, based and describes dynamics of something (some predominant object). This something can be either a concept or an ultimate reality. But time itself is always just a concept, it is never an ultimate reality. If time is tied to a concept, then we obtain conceptual time. The planet and its rotation is a concept which means that our clock-time is a conceptual kind of time.

The above suggests that the two times should be distinguished, and khana of the momentariness theory of Abhidhamma should be guarded and should not be automatically confused with something similar to a second (or a smaller unit like millisecond, etc.) on our ordinary clock which is the only available idea of a small unit of time which we have in our daily life. In fact, khana have nothing to do with our ordinary clock at all. Let’s elaborate on it more.

Conceptual time in our mind has such qualities as authoritative and regular flow, where each unit of time is (artificially made) equal to the same unit of time in the future or in the past. The duration of a second is always the same, there can not be two seconds with different durations. For our daily life this idea sounds obvious and automatically accepted as a basic quality of time itself. But this is so only because the object on which this particular kind of time is based assumed to have certain stable characteristics: the rotation of the Earth and the Sun is assumed to be stable, regular and monotonous.

But let us take a wider look on the situation. When in few billions of years (under influence of many conditions) all this system will be collapsing, this rotating speed will certainly change and will not be regular anymore, then the duration of one hour in the morning will easily able to be longer than the duration of one hour in the evening, for example. Why so? Because our clock-time represents rotation of Earth around its axis.

Even now science knows that the Earth is rotating around its axis irregularly, not monotonous! It means that under force of many conditions (on Earth itself and in the cosmos) the duration of one turn of the Earth around its axis is not always the same, but ±0.004 second. It means that 24 hours is not always of the same duration. For us it proves that our clock-time and its basic units is not something always absolutely identical to itself, but also subject to conditions!

All these reflections aimed to emphasize that:

1. Time as we know it is not necessary regular (i.e. its units are not necessarily having the same duration);
2. There is no any absolute time and that the concept of time can be applied only to a particular (usually predominant) object (process).

The letter point means that we can put aside our planet-clock and make clocks tied to and based on, for example, the process of life-cycles of some holly tree or anything else. In this change of object of our clocks we should completely give up the previous object on which the time used to be based. The planet is not more prior or privileged here than the holly tree in the previous example.

The momentariness theory speaks about khana as a unit of arising and ceasing of one state of mind which is a paramattha dhamma. If we automatically apply to it the idea of the same duration of each unit as we habitually do, then we grasp it as completely similar with our planet-clock, where seconds artificially made equal on our watch (what is very impermanent because the sun and all the planets are not eternal at all).

But how then can we understand khana? It is very subtle to see it directly from one side, and from the other side the planet-clock is the only analogy from our daily life (which is not suitable).

Let us consider another analogy. As an object of time we can take our process of breathing. Let one breath-in/breath-out be a minimal unit (like a khana). Here we can experience that breathing is not the same all the time. Sometimes it goes faster, sometimes slower. It means that our “breathing-khanas” are not equal and should not be so at all.

*Our ordinary planet-time is based only on temperature-produced matter (the planet). The above analogy with breathing is closer to the real khana of the momentariness theory because breathing is considered to be a kind of mind-produced matter.*

**The central point of all these considerations is that the theory of momentariness does not mean at all that khanas should be equal to each other in their durations.** Khana is just a designation of the duration of a mind-state as it factually arises (not abstractly theoretical) as a distinct event. It is not some external ideal standard unit of measurement. As long a duration of a particular mind-state is, so the khana is. The next moment it can be different (under influence of many conditions).

One of the reasons why the confusion and problems with momentariness theory arises is because we are very used to measure durations of some processes by the time which is based on some other process (object). For example, we measure time of our work by way of planet-based time. But in momentariness theory time is based exactly on what it is measuring, not on something else. And because of it, it is not obliged to any external rules such as equal duration of its elemental units.

Still another difference between khana and a unit of ordinary planet-time. Measurements of time always based on events. An event is a real measuring unit of time. Ideas of paramattha time and planet-time are differently constructed in respect to events. In planet-time one observable event is the full turn of the planet around its axis (we don’t really see it directly, though, but it is not the concern of the present investigation). This is a basic event here. But after that we take this one distinct event and artificially mathematically divide it by 24 (hours), 60 (minutes), etc. All this hours, minutes and seconds does not really represent any distinctly observable events of this temperature-produced object. But khana, from the other hand, is a unit of one distinct event, not an artificial mathematical division of some bigger event.

From the above, it can be seen, that the duration of units of the planet-clock time is not equal (just because the duration of 1 turn of the Earth around its axis is not always the same, it is a little bit different every time), but we (human beings) artificially make an attempt to make this units equal (by mathematically dividing basic event to equal parts giving names to these parts). If we do it for practical purposes – that is fine. But if we start really believing that every second is absolutely equal to each other – it will probably be ditthigatasampayutta lobhamulacitta. Even more if we blindly apply the same approach to paramattha dhammas and start believing that every khana of the momentariness theory has the same duration.

And the final point which it is necessary to mention in order to distinguish time of ultimate realities from conceptual time. Any concept can be only arammana (and upanissaya) in all nama-rupa process. It can never be on the subjective side of presently arising nama-rupa process, only as a later construction of mind. On the other hand, the momentariness theory refers to presently arising paramattha dhammas, before any concepts, so to say. It means that concepts and any time tied to a concept is something which uses ultimate realities as their basis and arise only from them. Any conceptual time is secondary later constructions which by no means cannot measure processes of ultimate realities. Otherwise it would be like paints drawing the painter who uses them. This is not possible.