ON SECOND-ORDER ASPECTUALS
WITH SPECIAL REFERENCE TO BURMESE

to. (ေ တာ့်) AND*thei:* (ေ သး) RECONSIDERED*

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0. INTRODUCTION. I shall remain content for the time being if I can deal just with the Burmese facts, and I shall go on at a later time to consider how the same account can be extended to account for the different ways various languages handle apparently similar aspect words and particles, e.g., how it is that, say, Standard English *any more/ any longer* is used in so-called negative polarity contexts (√'I don't know whether Peter is in London *any longer*') interchangeably with *still'*, whilst French and German restrict it to the scope of directly expressed negation (van der Auwera n.d.: 5, item 8); why recent American English allows in contexts other than negative polarity ones, as in 'I do that *anymore*', meaning to say that I have finally come to be in the habit of doing something[1], just as Burmese allows the use of postverbal *to.*, SUPPOSEDLY translatable in English as *anymore*, in the irrealis (future) and in the realis (past-present) in the affirmative (something neither Standard English nor German or French allows); how one deals with the still obscure relations between the uses of English *still* and *yet*, respectively (e.g., *not yet* = still *not*), so that *yet* is almost[2] to negative polarity scope, whilst *still* is never proper in such scope. I presume for the moment that in this instance *yet* is implicitly within some sort of negative polarity scope (and so is *still* postverbally), in the sense of an assertion being used pragmatically to deny an expectation to the contrary.

About these problems I have nothing systematic to say as yet. However, I am bound to make two obvious suggestions that I shall follow up at another time. First, it seems clear that a lot of this has to do with the interaction between negation and these aspectuals; and this turns on the difference between taking negation as simply a state of affairs and taking it as a denial of the opposite state of affairs (cf. the relation, mentioned above, between *not yet*—denying the expectation that something affirmative is true—and *still not*—asserting the continuing character of a negative state of affairs).

Secondly, and more importantly, some, and maybe all, of these problems arise because we have the habit of failing to discriminate between underlying conceptual notions,

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computationally understood, and the varying ways these can be superficially encoded in the lexicon. Or, in plain language, we start out supposing, for instance, that Burmese *to.* ought to mean English *any longer* just because it is often found in the same sorts of (negative polarity) contexts—we shall see, in the body of this paper, that they are really quite different sorts of words, with *to.* actually signifying something that English employs in its computations of semantic Event-time, but has no way of lexicalising directly. Likewise, we suppose that French *encore* ought to mean the same thing as English *still*, simply because it is easiest in many places to translate a French sentence using *encore* with an English one employing *still*, and we merely note in passing (as does even van der Auwera n.d.: 20, Section B.a) that *encore* can ALSO REFER to the iterative idea of English *again*.[3] May it not be, rather, that French uses this word once and for all with an iterative assignment, but permits the continuativeness denoted by *still* to be construed as applying to the iteration that in fact universally and necessarily underlies, in some sense, imperfectivity when Event state spaces are mapped with the real time line, as in Tense Logic (see Lehman 1992a)—something we understand perfectly well when it comes to the 'progressive' of so-called punctual Events, as in, say, 'Paul is hammering the nail'. We must not continue to do our linguistic analysis, either descriptive or comparative, on the basis of convenient glosses from one language into another—not because, as might be supposed, to do so overestimates underlying similarities but precisely because, on the contrary, it ends up masking real similarities at a deeper level! But let me now get on with my main argument and demonstration.

1. BURMESE ASPECTUAL *to.* AND *thei:* A FORMAL ANALYSIS. The concrete question I now address is 'What are the real meanings of the Burmese aspectual particles *to.* and *thei:* ?' I shall also say something about the particle *oun:*, but only later on. In the light of the references already adduced, I shall make no effort to set out in any detail at all the facts about these particles.

Consider the model of state-spaces with mode and aspect intersecting described in Lehman 1992a. Assume now basically two things: first, that any Event, E_i has a natural inertia. This is not hard to motivate. Many actions and states that verbs can describe have a natural completion, which is what the idea of a resultative is all about: you go up to your

arrival, and this is true even if the goal is indefinitely far away and quite unspecific; you eat until the food is gone. This intuition is so strong that we seem to have nearly insuperable problems coming to grips with the idea of the infinite. We feel that every Event continuum ought to have a conclusion, however arbitrary, and the fact that we seem to have no such intuition about Time itself only goes to confirm the suspicion that the relation is quite indirect between the time-line of Tense Logic and the representation of time in the ordinary language of mode and aspect, i.e., as applied to event predication. Any Event is conceptualised, then, to put it not all that oversimply, headed towards its culmination. Even the Universe, if understood as an Event (cf. the Big Bang theory of physical cosmology), i.e., as a state of affairs having a definite beginning, seems to make physicists more comfortable if it can also be seen as having a definite conclusion, even if it means coming to terms with the quite counter-intuitive notion of a finite end to time itself.

Events, then, have inertia, and I call it that because it has at least formal properties quite like the inertia of ordinary mechanics—an Event goes on towards its culmination inexorably unless something intervenes either to extend its span or to terminate it prematurely, as it were. If I am going to some definite goal, my going is naturally complete if I reach the goal, but of course I can quit going, or be forced to quit, long before reaching the goal; alternatively, I can go on beyond the goal, never pausing in my progress, or else I can be so slowed down that my progress towards the goal goes on beyond all expectation.

Secondly, it seems to follow that there must be what, for lack of any better name, I shall call the inertial moment of an Event. This is the change of state that van Baar, Wheatley and many others have remarked upon in dealing with aspectuals.

Having regard to these two parameters of the space of the dynamics of Events in State Space, we can go on to consider our aspectuals. Any Event (any State of Affairs whatsoever) can be retarded in its inertial moment. This can come about in exactly two ways: the transition from the presumptive, Inchoative, transition from irrealis to realisation may be postponed or blocked, or its progress towards culmination and/or termination (the presumptive transition from perfectivity of Aspect to Perfectivity—from being [+perfect, - perfective] to [+perfective]) may be held up. This, and just this alone, is the cognitive universal underlying the

overlap between otherwise diverse, lexico-semantic meanings of words such as English *still*, German *noch*, French *encore*, Burmese *-thei:* and so on.

To say *thu thwa:thei: te* (သူ သွား:ေ သာ:တ ယ်), 'he/she is/was still going', is to mark the event as more than merely imperfective; it is now marked as (say at least mnemonically) [-inertial], in the sense of failing, in the obvious way, to achieve its expected temporal point of inertial moment transition to perfectivity. If, on the other hand, I say *thu*

mathwa:thei: hpu: (သူ မ သွား:ေ သာ:ဘ:), 'he/she is not

yet/still not going', (m\ ... hpu: /မ ... ဘ) the same abstract computational idea is at work. One expects the inchoation of the Event of going, but it is blocked. And so the Event[4] remains in irrealis mode, and hence also (see Lehman 1992a for the complicated way Mode and Aspect interface) [-perfect]. But this is also true of a simple negation, without *thei:* . With this particle, the Event is additionally marked [-inertial].

Suppose, now, we want to make explicit that an Event's threshold Moment of Inertia has been achieved. Why do this? Clearly because UP TO NOW this has not been the case even though one may have expected it. Intuitively at least one expects, by default, Events not construed in one's Knowledge-structures as in the realm of Imaginaries (e.g., conditionals, hypotheticals, impossibles, fictions and the like), to come to pass, and that is exactly why, in a language like Burmese for instance, the unembelished irrealis ending (colloquially *-me* /

−မ ယ်) on a verb serves to mark to future.[5] In this case, then,

we want to mark the Event as [+inertial], meaning that it has, at long last, so to speak, achieved its inertial moment.

So, if I say *thwa:to.me* သွား:ေ တာ့ မ ယ်, I signify

not just that I will go, nor even just that I am on the very point of going [+Inchoative], but that I have virtually already begun the transition to actually being on my way. If I say, however,

mathwa:to.hpu: မ သွား:ေ တာ / ဘ:, I intend you to understand that I am *no longer* going.

Now why is it that the last mentioned Burmese expression cannot mean that I have not even begun going? After all, that would be a perfectly good instance of negation-denial of the marked [+ inertial] *-to.*. And why is it that

mathwa:thei: hpu: (မ သွား ေ သာ း ဘူ း) cannot mean 'not yet going?'

2. EXTENSIONS AND CONCLUSIONS.

I submit that this is all because out two particles are not aspectual particles in the usual way. For one thing, of course, they are properly understood as second order aspectuals, in precisely the sense of performing second-order quantification over State Spaces of Events: they are functions over pairs of alternative aspectual partitions of the Space, the expected and the actual, rather in the way qualifiers like English *even* are second order quantifiers, comparing alternative partitions of a set.[6] For another, they mark a whole Event/predication, and it follows that, in spite of their morphological placement with the ordinary aspectuals, after the verbs proper and before the modal desinences—understandable if only because the indeed refer to Aspect anyhow, they are not to be understood as ever in the scope of negation in the intended semantical sense. This is too complicated to explicate and motivate fully here. However, two considerations bear positively on this assertion. First, that Negation is a particle and not an independent word that can take scope in terms of, say, C-command. If we want to say the equivalent of 'he is nót still going', with the equivalent of *still* in the scope of the denial, we must negate the whole predication, thus: *thi thwa:thei:te mahou ÷ hpu:* (သူ

သွား တ ယ် မ ဟု တ် ဘူ း), where we are using the negative form of the verb *hou ÷*, 'to be so'. Second, that, in actual usage, the relationship between preverbal *ma-* and postverbal *-hpu:* is rather like that between French *ne* and *pas*, respectively. If indeed, as Burmese baby-talk like French is any evidence (the unstressed clitic *ma-*, like French *ne* is commonly dropped), these particles are all the more outside the scope of negation. The common absence of *-hpu* in this function in Literary Burmese, and even in some very colloquial usage does not count against this line of argument because its slot, or position

remains always defined, and in Older and Literary Burmese is not uncommonly filled by the particle *-hci* (ချင်).

In order to know what we are attempting to account for at this point it is important to understand the following. Morphologically, the particles in question, *thei:*, and *to.* (and also, *oun:*) are inside the scope of negation, whilst semantically the are outside of the scope of negation. There are at least two ways to show this. First, we must understand that in spite of the comparison of the Burmese negative morphology with the French, above, in the final anlysis we have to conclude

that the real negative formative is *ma-* (မ) because in adult speech one can readily dispense with the postverbal *hpu:* (ဘူး), as in *mahou+pa* (မ ဟုတ် ပါ) 'not so!' or postnominal *mahyi. hpe:* (မ ရှိဘဲ) *without*, where *hpe:* (ဘဲ) is a logical quantifier meaning *just*, or *exactly*, more precisely 'neither more nor less than', and *pa* (ပါ) is the quasi-nominalising marker of the scope of a first-order predication discussed in Lehman (1978). Secondly, assuming *either* that

ma- or that *hpu:* (ဘူး) primarily marks negation, it is easy to see that the feature of negation extends, say by the sort of feature percolation that is normally held to account for the way syntactic agreement works (roughly, a feature will pass upwards to the maximal X-bar phrase category immediately dominating the source of the feature, from which it will trickle down to all the other available elements in the same X-bar phrase—see Lehman 1990) to all the elements bracketed morphologically by *ma-* on the left and *hpu:* on the right.

It is also readily seen that there is indeed a sort of scope ambiguity as between negation on the one hand and our three partciles on the other. That is the chief subject of Lehman (1978), where it is shown that precisely these three particles, though with varying degrees of markedness of expression, have privileges of occurrence either before the predication-scope marker *pa* (ပါ) or following it. In particular, in unmarked usage, both *thei;* and *to.* precede *pa*, they come after *pa* in negative verb phrases, again in unmarked usage, e.g., *thwa: ba-*

to.me (သွားပါေတာ့မယ်) 'I'll be going now', but

mathwa:to.pa-hpu: (မသွားေတာ့ပါဘူး) '[I'll] not go any longer'.

It follows from these considerations that *mathwa:thei:hpu:* and *mathwa:to.:hpu:* respectively, have got to mean what in fact they alone do mean, namely, '...still not-going', and 'finally not-going' (cf. no-longer going), respectively.

Now the arithmetic on the proposed binary features is sufficiently revealing to ensure that the proposed binary feature notation is not merely an ad hoc device. It is that of either a Klein Group or an Inversion Group. Thus, [-]*[-] = [+], [-]*[+] = [-], and [+]*[+] = [+]. Then, if indeed *mathwa:thei:hpu:* is marked [- inertial], and if (questions of scope aside) Negation is a [-] operator, we should expect some sort of [-] result. Our deduction is in fact confirmed, when we consider that to say '...still hasn't gone' is tantamount to saying, and entails, and indeed produces the net result of negative inertiality: one expects the going to come about, and it has not done so up to the moment. Similarly, *mathwa:to.:hpu:* is a combination of negation and a [+ inertial] marking, and it indeed produces a net [-] result semantically, by entailment, since if one is 'no-longer going', then the Event of going has no further inertial moment; there is only, as pointed out above, a state of affairs of not-going left.

Notes

* This paper brings together considerations and motivations from four main sources. Most immediately, there is my own work on the conceptualisation and semantics of time and Event state spaces (1992a), and my earlier work on Burmese aspectual morphology and semantics (1978). Second is the paper (1992) 'Perfect, Prospective and Perspectivity', by Tim van Baar, and the associated long questionnaire about how various sorts of languages handle what English expresses with *still* and *any longer*, which made me see that I had to bring together my work on linguistic time and Event structure with my work on the Burmese aspectuals, and advance the former beyond where I had left off. Third is John Okell's paper of 1973, '"Still" and "anymore" in Burmese: another look at /thèi/, /oùn/ and /tó/'—the first attempt to give an explicit account of these Burmese aspectual particles in a framework of theoretical

syntax and semantics. And finally, there is the thorough survey of the way these particles are used and what they appear to mean, in Julian Wheatley's (1982) Ph.D. thesis—in particular, VIII, 1.1.1, 'The Verb Phrase—The aspectual pv's [post-verbal particles], /-thèi/, /-òun/ and /tó/'. The last named work is inspired in good measure by Okell's paper, and it seems to me that there is a good deal of similarity between what Wheatley says about these aspectuals and the analytical categories proposed by van Baar for talking about such matters; likewise between all these and my own work on these Burmese particles and aspect/Event logic. It has therefore seems both appropriate and necessary for me to try and formalise the insights of Okell, Wheatley, and van Baar in my more computational framework of conceptual analysis as applied to Event structure, especially in view of the fact that I was first led to the ideas that have surfaced in Lehman 1992a by my earlier work on just these Burmese aspectuals. In this very preliminary draft of my ideas on these matters, I shall ask the reader to look at the work referenced hereinabove, and I shall attempt to develop my formal treatment without much, if indeed any, explicit presentation of the details of usage of the relevant Burmese aspectual particles. In Part, this decision is motivated by the fact that the facts are readily got from the works referenced and from my answers to the APCC Questionnaire (van der Auwera, n.d.) having regard to Burmese; in part, it is motivated by the fact that my proposals are intended to relate the particular Burmese way of handling the aspectual distinctions in question to a perfectly general framework for the semantics of the conceptualisation of time as a system of modal-cum-aspectual state spaces for Events.

[1]van der Auwera takes note of this in the APCC Questionnaire.

[2]*Pace* van der Auwera (n.d.), p. 14, item 39, you can properly say 'Peter is in London *yet*', meaning 'still in London', though it may be becoming somewhat old fashioned usage— and note that √' ...going yet/still', but '...still/*yet going. There is some lingering uncertainty about the last starred expression for earlier varieties of the language, and certainly we can get '... has yet to go'.

[3]No doubt a similar remark is in order about the apparent problems in the APCC Questionnaire with the use of German *immer*. This word is commonly rendered in its simplex usage with English *always*, but that is impossible when *immer* co-occurs with *noch* ('yet/still'), as in (APCC p.6, item 12) '... *noch immer* in London', meaning to say something like 'still and yet

again still' in London. But *immer* has another ordinary English gloss, ever, surfacing in '*für immer*', for ever, which is more suggestive for the proper construal of *noch immer*, which then is seen to convey the idea of 'on and on'. If so, the *always* is a thoroughly misleading meaning even if often a good translation gloss; German conveys the idea of English *always*, by saying, in effect, 'for ever', which is also acceptable English for the same idea, as in 'He is forever arguing about his matter'.

4 It is necessary for me to point out that I take an Event as an Intensional Description only. There are realis mode Events, of course, for which, uniquely, Truth Conditional instantiation tests are meant to apply, but there are also irrealis Events, imaginary or expected (e.g., future) Events, and for these, which have just as much meaning or sense as the former, clearly Truth Conditionality cannot apply save by way of the somewhat controversial move of postulating Possible Worlds or their equivalents in Modal Logic. For these considerations see especially Lehman 1992b. In addition, it should be re-emphasised that I am subsuming under the name *Event* both things that are predicated with action verbs and those predicated with statives. This extension of the ordinary meaning of English Event is in itself harmless, and it has the distinct advantage of not invoking the expression 'State of Affairs' here, as in the ACCP Questionnaire, since that evokes the idea of the different modal-aspectual *States* an Event may be *in*.

5*hwa:me* = '...will go', more exactly still '... may go', in the sense that either [see work elsewhere on evidentiaries] *thwa:melou*. '...intends to go', or *thwa:lein.me* '...is expected, supposed to go'. Note, for instance, that obviously irrealis modal modifiers such as *must* are strictly tied to the modal final -*me* . Thus, ...*thwa:ya.me* '...have to/has to go, but *thwa:ya.te* (-*te* the realis modal desinance, indifferently past, present or generic) '... get/got to go', in the sense of opportunity. The same sorts of observations could equally be made of most Tibeto-Burman languages, and Tai languages as well.

6Thus, 'Even Einstein couldn't solve the problem'. compares his failure to solve it with the expectation that Einstein, and indeed anyone in the set of persons, partially ordered in terms of intelligence, above a certain degree of intelligence would be able to solve the problem. For the argument that quantification is properly reducible to set partition functions, see F. K. Lehman (1985).

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