In support of an articulated event-layer

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The goal of this talk is to argue, based on evidence from the Dravidian language Tamil, that the syntax and semantics of transitivity, 'get'-like middles, and passives is distributed across three distinct heads. These heads are contiguous and have the following rigid ordering: VOICE < 'GET' < PASSIVE, with VOICE being closest to the verb-root and PASSIVE being furthest away. Thus, event semantics is distributed across an articulated *v layer*, much like the articulated C layer proposed within cartographic proposals (Rizzi, 1997), than encoded on a single *v* head. Tamil is highly inflected and agglutinative; a finite verb consists of the verb-root + a sequence of functional morphemes which, furthermore, have a rigid relative ordering, thus transparently reflect the underlying clausal hierarchy above V. Transitivity alternations are typically marked by a systematic voicing distinction on the morpheme (boldfaced below) directly following the verb-root: thus, unaccusative (1) has voiced *-nɖʒ-* whereas transitive (2) has voiceless *-čč-*:

(1) Paanæ oɖæ-**nɖʒ**-adŭ/*oɖæ-**čč**-adŭ.
Pot[NOM] break-INTR.PST-3NSG/*break-TR.PST-3NSG
"The pot broke."

(2) Sri paanæ-jæ oɖæ-**čč**-aan/*oɖæ-**nɖʒ**-aan.
Sri[NOM] pot-ACC break-TR.PST-3MSG/*break-INTR.PST-3MSG
"Sri broke the pot."

Given that this morphophonological alternation directly tracks alternations in transitivity, I propose that it encodes a position related to the introduction of the external argument, very much like the Voice head in (Kratzer, 1996). (3) represents a more complicated variant of (1)-(2), showing evidence for further articulation above the verb-root:

(3) Paanæ Sri-aal oɖæ-**kk**a-paʈ-ʈ-adŭ/*oɖai-**g**a-paʈ-ʈ-adŭ.
Pot[NOM] Sri-INSTR break-TR-PASS-PST-3NSG/*break-INTR-PASS-PST-3NSG
"The pot was broken by Sri."

(3), the passivized variant of (2), shows that the passive has to be built on the transitive variant of the verb; it thus supports the view (Embick, 2004) that passives, while lacking a true external argument like unaccusatives, are more "agentive" in some sense. Crucially furthermore, (3) shows that the passive is a distinct morpheme added above the transitivity morpheme, a fact that is most straightforwardly captured by modelling the passive on a separate head from Voice. Now consider the reflexive structure below:

(4) Sri$_i$ tann-æ$_{\{i,*j\}}$ aɖi-čču-kko-ŋɖ-aan/*aɖi-čč-aan.
Sri[NOM] ANAPH-ACC hit-TR-*koɭ*-PST-3MSG/*hit-TR.PST-3MSG
"Sri$_i$ hit himself$_{\{i,*j\}}$."

In the typical case, co-argument reflexivity in Dravidian is only possible under the presence of a morpheme *koɭ* suffixed onto the verbal stem, as (4) shows for Tamil. *koɭ* also marks unaccusatives, lending apparent credence to the popular view that reflexivity is a species of voice phenomenon (see proposals in Alexiadou, Anagnostopoulou, and Everaert, 2004), based on the observation that reflexives and unaccusatives are crosslinguistically often identically marked. E.g. Lidz (2001) proposes a voice-based treatment of *koɭ* in the related Dravidian language Kannada. However, closer inspection reveals that *koɭ* (at least in Tamil) realizes a head distinct from Voice: I. *koɭ*-suffixation on unaccusatives is fully optional (compare (1) with (5)); II. the verb is marked as unaccusative even before *koɭ*-suffixation, as indicated by the phonological

voicing on the transitivity morpheme in (5); III. *kol* marks not only reflexives and unaccusatives but may also optionally mark a (non-reflexive) transitive, as in (6):

(5) Paanæ oɖæ-**nɖʒŭ**-ko-ɳɖ-adŭ/*oɖæ-**ʧʧŭ**-ko-ɳɖ-adŭ.
Pot[NOM] break-INTR-*kol*-PST-3NSG/*break-TR-*kol*-PST-3NSG
"The pot got broken." (rough translation)

(6) Sri paanæ-jæ oɖæ-**ʧʧŭ**-ko-ɳɖ-aan/*oɖæ-**nɖʒŭ**-ko-ɳɖ-aan.
Sri[NOM] pot-ACC break-TR-*kol*-PST-3MSG/*break-INTR-*kol*-PST-3MSG
"Sri got the pot broken." (rough translation)

Sundaresan (2012) shows that *kol* introduces a "middle-like" semantics (one nevertheless divorced from Voice) similar to that of *get* in GET-passives (McIntyre, 2011) which, furthermore, is precisely what is needed to allow co-argument reflexivity to obtain in structures like (4). But at this juncture, it suffices to note that: (i) *kol* realizes a head that is projected above Voice; (ii) the semantics of reflexivity and middles is not (always) encoded on Voice but on a head above Voice. Now consider what happens when we string all these morphemes together:

(7) Paanæ Sri-aal oɖæ-ʧʧŭ-ko|læ-paʈ-ʈ-adŭ/*oɖæ-ʧʧŭ-paɖæ-ko-ɳɖ-adŭ.
Pot[NOM] Sri-INSTR break-TR-*kol*-PASS-PST-3NSG/*break-TR-PASS-*kol*-PST-3NSG
"The pot got broken by Sri."

(7) yields evidence for an even finer level of articulation, showing: (i) that the semantics of voice, middles, and passives are encoded on distinct, but contiguous, syntactic heads, and (ii) by the mirror principle, Passive is projected above the head *kol* spells out, which in turn is projected above Voice. The Tamil data thus presents crucial evidence that there isn't a single head (= *v* or Voice) responsible for encoding the semantics of transitivity, middles, and passives; rather, this is distributed across (at least) three distinct heads. Thus, it makes sense to think of *v* as a layer or domain (much like with C), consisting of different heads manipulating various aspects of the event semantics, as proposed e.g. in Adger (2007) and Ramchand and Svenonius (2013). An important question to be resolved is whether this is merely a property of Tamil and Tamil-like languages, i.e. whether languages are actually parametrized with respect to whether reflexivity, anticausativity and passivization are encoded in Voice, or represents a universal fact about UG. Evidence for the former would involve showing e.g. that passives, reflexives, and unaccusatives have systematically different meanings or have different possibilities for being combined with each other in the voice-based vs. Tamil-like languages. But the UG-alternative is stronger and perhaps more attractive. Potential empirical support for it even in languages like English and German (without clear morphological evidence for the distinct heads) comes from GET-passive structures, which show ambiguity between "agent"-like and "patient"-like readings (e.g. "Susi got her teeth pulled out."). Simple voice-based approaches must posit underspecification or syncretism to explain these facts but these fall out naturally under the current approach which divorces the semantics of Voice from that of GET. Adopting this alternative doesn't necessarily force us to posit a large number of null heads in languages like English either; since the relevant heads form a contiguous sequence, we could instead propose that the overt morphology that does appear in these languages "spans" (Ramchand, 2008) a range of these heads.

Selected references: Adger, D. 2007. Three domains of finiteness: a minimalist perspective. OUP. Alexiadou et al, eds. 2004. The unaccusativity puzzle. OUP. Embick, D. 2004. Unaccusative syntax and verbal alternations. In The unaccusativity puzzle, eds. Alexiadou et al, 137-158. OUP. Lidz, J. 2001. The argument structure of verbal reflexives. NLLT 19. McIntyre, A. 2011. English get-passives, middle voice and causative-passive ambiguities. Ms. University of Neuchatel. Ramchand, G, and P. Svenonius. 2013. Deriving the functional hierarchy. GLOW 36. Sundaresan, S. 2012. Context and (co)reference in the syntax and its interfaces. Doctoral Dissertation, University of Tromsø/Stuttgart.