An Analysis of Transitive Resultatives

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In this squib, I propose an analysis for transitive resultatives (TRs) in Vietnamese. I then show that by extending this analysis to English TRs, we solve a number of analytic problems posed by this sentence type.

1.   Vietnamese

Basically, TRs are sentences in which the internal argument NP of transitive verb V is followed by an adjective phrase AP with AP denoting the state of NP as a result of the action described by V. Examples are given in (1).[1]

(1)   a.   no   dap   mieng   sat   bet
                he   pound   CL   metal   flat[2]
                'he pounded the metal flat'
        b.   no   lau   cai   ban   sach
                he   wipe   CL   table   clean
                'he wiped the table clean'

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[1] I follow Carrier & Randall (1992) in using the term 'transitive resultatives' to denote the specific type of secondary predicate sentences exemplified in (1). Transitive resultatives are to be distinguished from intransitive resultatives (i) and depictives (ii), two other constructions involving secondary predicates.

(i)   a.   John ran the pavement thin
        b.   John walked the shoes threadbare

(ii)   a.   John saw Mary naked
        b.   John drinks coffee naked

In intransitive resultatives, the verb is intransitive, and the NP following the verb is not its (internal) argument. This difference between transitive and intransitive resultatives is brought out clearly when the AP is omitted.

(iii)   a.   John pounded the metal flat
        b.   John pounded the metal
(iv)   a.   John ran the pavement thin
        b.   *John ran the pavement

The difference between transitive resultatives and depictives is (at least) twofold. First, the AP in depictives can be predicated of either the subject or the object. Second, the state that AP describes is not a result of the action denoted by the verb. Thus (iia) can imply that John is naked when he saw Mary, or that Mary is naked when John saw her. And (iib) does not mean that John becomes naked as a result of his drinking coffee.

Intransitive resultatives and depictives are not the subject of this squib.

[2] Classifiers are glossed as *cl*. For the purpose of this squib, they are translated as the definite article *the*.

When the sentence contains the future tense morpheme *se*, two different word orders are possible. *Se* can stand after the subject and before the verb, or after the object and before the resultative AP. Other linearizations are excluded.

(2)　a.　　no　　se　　dap　　mieng　sat　　bet
　　　　　　he　　WILL　pound　CL　　metal　flat

　　　b.　　no　　dap　　mieng　sat　　se　　bet
　　　　　　he　　pound　CL　　metal　WILL　flat

　　　c.　*se　　no　　dap　　mieng　sat　　bet
　　　　　　WILL　he　　pound　CL　　metal　flat

　　　d.　* no　　dap　　se　　mieng　sat　　bet
　　　　　　he　　pound　WILL　CL　　metal　flat

　　　　　'he will pound the metal flat'

The reason for the badness of (2c) seems immediate. Assuming that *se* is T, we say that Ts in Vietnamese bears [+EPP], just as in English. In other words, TP must have a specifier.[3] The ungrammaticality of (2d) is less obvious. We come back to it below.

We might ask whether the distributional restrictions in (2) have to do with a particular T head – in this case the future tense morpheme *se* – or they hold generally for Ts in Vietnamese. It seems the latter is the case. Vietnamse has another overt tense morpheme, *da*, which expresses past tense. In TRs, *da* patterns exactly with *se*.[4]

(3)　a.　　no　　da　　dap　　mieng　sat　　bet
　　　　　　he　　PAST　pound　CL　　metal　flat

　　　b.　　no　　dap　　mieng　sat　　da　　bet
　　　　　　he　　pound　CL　　metal　PAST　flat

　　　c.　*da　　no　　dap　　mieng　sat　　bet
　　　　　　PAST　he　　pound　CL　　metal　flat

　　　d.　* no　　dap　　da　　mieng　sat　　bet
　　　　　　he　　pound　PAST　CL　　metal　flat

　　　　　'he pounded the metal flat'

Another T head which behaves similarly to *se* and *da* is *co*, the yes-no question marker. Before I present the relevant data, a few preliminary words must be said about Vietnamese

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[3] See Chomsky (1981).

[4] In Trinh (2004), I show that *se* and *da* are base generated in T. I also show that there is another use of *da* in Vietnamese, namely as a perfect auxiliary, and that in this use, *da* shows the behaviour of a verb which moves overtly to T. I argue in that work for the existence of two separate homonymous lexemes, PAST and PERFECT, which are both pronounced [da]. In this squib, it does not matter to the argument whether [da] is PAST, which is T, or PERFECT, which is V moved overtly to T. According to my intuition, (3a-b) can mean either 'he pounded the metal flat' or 'he has pounded the metal flat'. I gloss *da* as PAST for simplicity.

yes-no questions. Let us start by looking at a declarative sentence and its yes-no question counterpart.

(4)   a.   no   doc   sach
           he   read   books
           'he reads books'
      b.   no   co   doc   sach   khong
           he   CO   read   book   C$_{[+Q]}$
           'does he read books?'

In Trinh (2004), I provide evidence showing that (4b) has the analysis in (5).

(5)
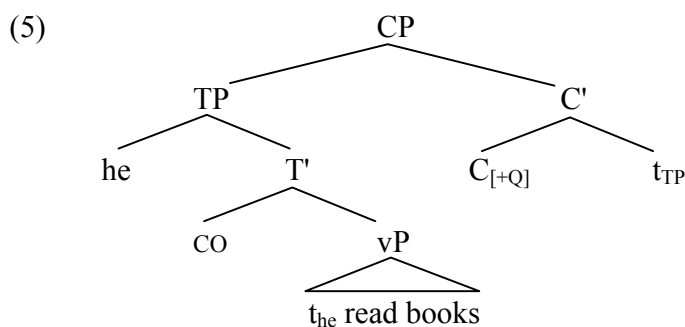
The derivation of a yes-no question such as (5) proceeds as follows. The vP is merged with CO, which is a T head with the feature [+Q]. The subject DP then moves to [Spec, T], satisfying the EPP. TP then merges with *khong*, which is a C head with the feature [+Q], hence C$_{[+Q]}$. Agree is established between C$_{[+Q]}$ and T. The [+Q] feature present on C and T types the sentence as a yes-no question. Finally, TP moves to [Spec, C] to satisfy [+EPP] on C.[5, 6]

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[5] This raises the question what a yes-no question whose TP is headed by PAST or WILL looks like. The answer is that there are no such questions. As CO, PAST and WILL are all overt T heads, and there is no affixation in Vietnamese, they are in complementary distribution.

(i)   a.   *no   co   se/da   doc   sach   khong
            he   CO   WILL/PAST   read   book   C$_{[+Q]}$
      b.   *no   se/da   co   doc   sach   khong
            he   WILL/PAST   CO   read   book   C$_{[+Q]}$

To effect the meaning 'will he read books' in an unambiguous way (see footnote 6), Vietnamese has to resort to embedding. Thus the meaning 'will he read books' will have to be expressed as 'is it true that he will read books'. The same is true for past tense yes-no questions. See Trinh (2004) for further details.

[6] The question arises as to what is the tense specification in questions like (4b). Or more generally, what is the tense of TPs without overt tense morphemes, of which there are only two in Vietnamese: WILL and PAST. In Trinh (2004), I argue that sentences without an overt tense morphemes are nevertheless TPs which are headed by an empty T, and that this T is a PF affix which merges with v/V in the PF component. Sentences with empty T are compatible with both future oriented adverbs such as *mai* ('tomorrow') and past oriented ones such as *hom-qua* ('yesterday'). This suggests that empty T might be interpretable but unvalued in the sense of Pesetsky & Torrego (2004), and that sentences containing it are unspecified for tense. This seems to accord with speakers' intuition.

It turns out that in yes-no questions involving TRs, the T head CO has the exact same distribution as WILL and PAST in (2) and (3): it can appear either after the subject DP and before the verb, or after the object DP and before the resultative AP. Other word orders are excluded.

(6) a. no co dap mieng sat bet khong
     he CO pound CL metal flat C$_{[+Q]}$
  b. no dap mieng sat co bet khong
     he pound CL metal CO flat C$_{[+Q]}$

'did he pound the metal flat'[7]

What is the right analysis for (2a-b), (3a-b) and the TP complement of C$_{[+Q]}$ in (6a-b). Let us start with the intuition on the semantics of TRs. Basically, TRs are about X causing Y to become Z, whereby X is an event and Y a participant of this event. For example, (1a), repeated here as (7), means that the salient man's pounding of the metal caused the metal to become flat.

(7) no se   dap mieng sat bet
   he WILL pound CL   metal flat

Assuming that UTAH is correct, the causer argument, which is a proto-agent, would be merged in [Spec, v], with v expressing the causative relation and its complement the thing that is caused, i.e. the resultative state.[8] In light of these considerations, I postulate the following underlying, i.e. first merge, structure for (7).

(8)
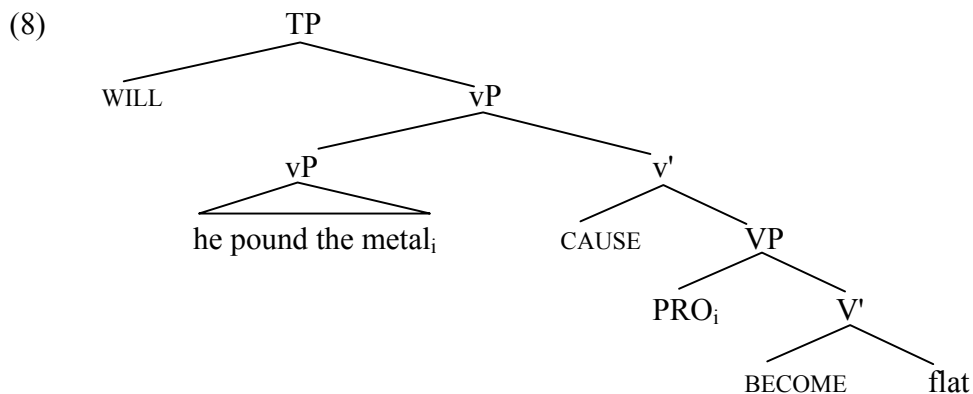
Thus (4b) can mean 'does he read books', or 'did he read books', or 'will he read books', depending on the utterance situation.

[7] The attentive reader might ask why the question is in past tense. In fact, it is ambiguous between present, past, and future reading. I choose past just because the translation sounds more natural in English. See footnote 6.

[8] See Baker (1996).

In (8), the phrase [$_{vP}$ *he pound the metal*], call it vP$_L$, is merged in the specifier position of *CAUSE,* an abstract v head that expresses causative relation, and receives the θ-role of causer. The complement of [$_v$ *CAUSE*] is [$_{VP}$ *PRO BECOME flat*], which receives the θ-role of causee. PRO is controlled by the object DP of vP$_L$.[9] The vP headed by CAUSE, call it vP$_H$, then merges with [$_T$ *WILL*].

The next step in the derivation is the satisfaction of [+EPP] on [$_T$ *WILL*]. Let us say that this can be done by by movement of any XP into [Spec, T].[10] The condition on this movement is that it be the shortest one possible. We thus assume the economy condition of Shortest Move, which I will formulate as follows.

(9)   Shortest Move[11]
        α can move to target K to satisfy a formal requirement F only if there is no β which is closer to K than α and which could satisfy F by moving to K

Closeness is defined as in (10).

(10)   Closeness[12]
        α is closer to K than β if K c-commands α and α c-commands β

What is the closest α that can satisfy [+EPP] on [$_T$ *WILL*] in (8). Clearly, α must be vP$_H$. We thus predict, incorrectly, that the sentence should come out as in (11).

(11)   *no   dap   mieng   sat   bet   se
        he   pound   CL   metal   flat   WILL

This prediction is wrong: (11) is ungrammatical. To rule out (11), we assume the generalization (12), which is independently established in Vietnamese.

(12)   T cannot be pronounced sentence-finally

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[9] We come back to the issue of Control below.

[10] Adverbs seem not to be able to function as sentential subjects.

(i)   a.   no   se   can-than   doc   quyen   sach
                 he   WILL   carefully   read   CL   book
                 'he will carefully read the book'
         b.   *can-than se no doc quyen sach

I ignore adverbs here. The problem is that it is an open question where adverbs originate in the tree, so we don't know whether (i-b) is bad because it violates Shortes Move or because EPP cannot be satisfied by an adverb.

[11] This definition is based on Chomsky (1995: 296), where it has the name of Minimize Chain Link (MCL) and is considered part of the definition of Move, not an economy condition.

[12] This is taken from Pesetsky & Torrego (2000: 5).

This is a fact about Vietnamese which for the purpose of this squib we will adopt as a given. Thus in Vietnamese, VP-elipsis is not possible when there is no modals intervening between vP/VP and T. In (13a), there is the modal verb *nen* ('should') in the second conjunct, and this license elipsis of vP in this conjunct. On the other hand, elipsis of the vP in the second conjunct of (13b) leads to $[_T WILL]/[_T PAST]$ being pronouned sentence-finally. This is the reason why (13b) is bad.

(13)   a.   no   khong doc   sach,   nhung no   nen
            he   not   read   books but   he   should
            'he does not read books, but he should'
       b. *no   khong doc   sach   bay-gio,   nhung no   se/da
            he   not   read   books   now,   but   he   WILL/PAST
            'he does not read books now, but he will/did'

Let us say that sentences which violate (12) are crashes. Shortest Move, being an economy condition, applies only to derivations that do not violate (12).
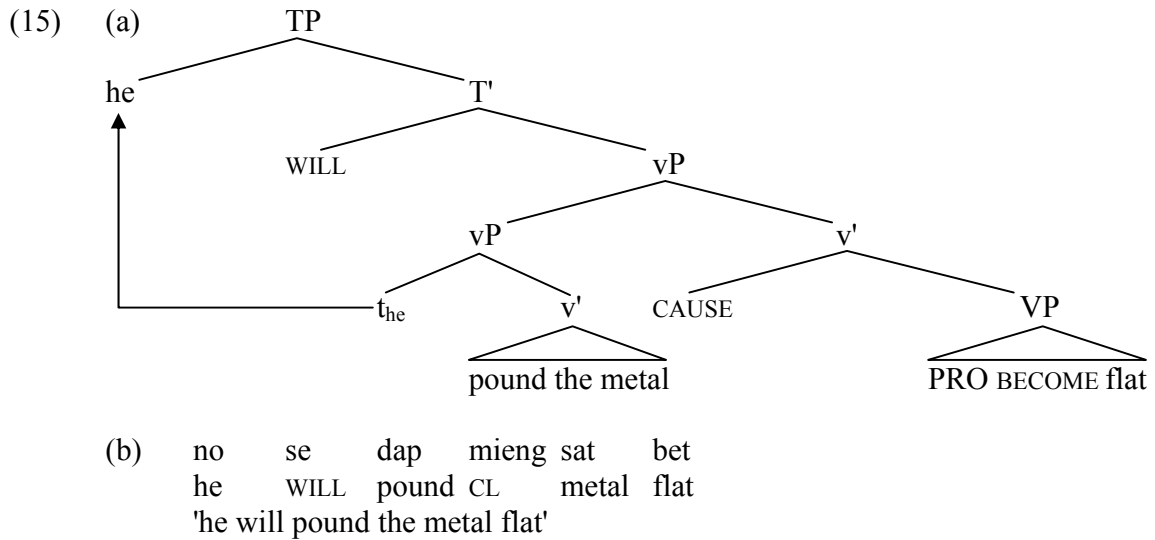
Coming back now to (8), we ask which XP is the one that moves to [Spec, T] to satisfy [+EPP] on $[_T WILL]$. We have ruled out the option of moving vP_H. The next closest XP to T is vP_L. In principle, nothing prevents vP_L to move to [Spec, T], and indeed nothing does. (14a) represents this derivation. (14b) is the string that is generated.

(14)   a.

       b.   no   dap   mieng sat   se   bet
   he   pound   CL   metal   WILL   flat
            'he will pound the metal flat'

We thus derive the word order observed in (2b). If instead of $[_T WILL]$, $[_T PAST]$ or $[_T CO]$ is selected into the numeration, (3b) or (6b) would be generated.

Let us now consider (2a), (3a) and (6a), sentences in which T is preceded by only the DP which we have been calling the subject of the sentence but which is actually the subject of the subject of the sentence, i.e. the DP in Spec of vP_L. These sentences are good because they represent another option of satisfying [+EPP] to T which is as economical as (14a).

According to the definition of closeness in (9), Spec of vP_L is equally close to T as vP_L itself, because the latter dominates the former and does not c-command it. Thus in addition to (14a), we can have the derivation in (15a). The surface string is (15b).[13]

(15) (a)

  (b) no se dap mieng sat bet
      he WILL pound CL metal flat
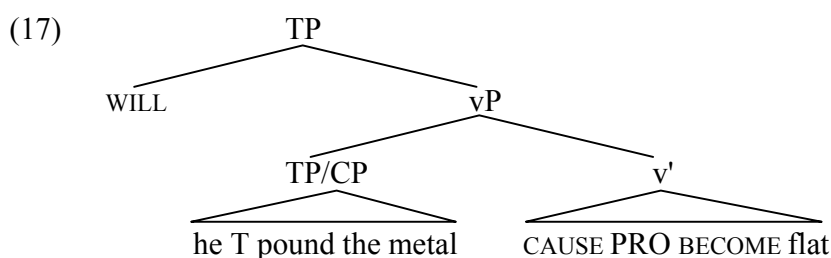   'he will pound the metal flat'

What about TRs without an overt tense head such as (1a-b)? It is natural to assume that they have the same analysis as do TRs headed by overt Ts. Thus (1a) would be ambiguous between analyses (16a) and (16b).

(16) a.

   b.

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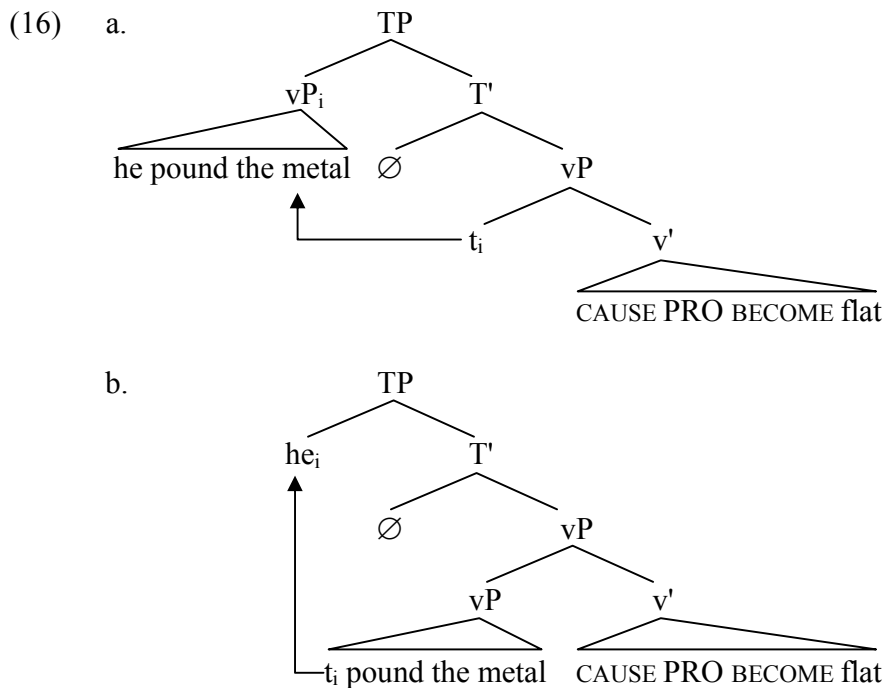
[13] I assume that extraction out of underived subjects is possible.

We see that the theory developed so far for TRs in Vietnamese generates all the grammatical word orders. That it generates only the grammatical ones is also evident: movement to [Spec, T] of anything other than vP$_L$ or its Spec would either violate (12), or Shortest Move, or would be movement of intermediate projections or movement of non-constituents.

We have been assuming that the subject of a TR in Vietnamese is a vP, but this assumption could be questioned. Specifically, could the subject be a TP or a CP? In other word, maybe we should posit (17) instead of (8).

(17)

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                        TP
              ┌─────────┴─────────┐
            WILL                  vP
                         ┌────────┴────────┐
                      TP/CP               v'
                   ┌────┴────┐        ┌────┴────┐
            he T pound the metal   CAUSE PRO BECOME flat
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There is syntactic evidence showing that (8) and not (17) is the correct underlying structure for TRs in Vietnamese. If the subject is a TP/CP, we would expect that it can contain an overt tense head such as *se* (WILL) or *da* (PAST), and consequently, that TRs can contain two overt Ts, the matrix T and the T inside the subject. However, this is not the case, as the ungrammaticality of the sentences in (18) shows. (18a-b) would be cases where the whole subject constituent moves to matrix [Spec, T], and (18c-d) would be cases where only the DP in Spec of the subject moves.

(18)	a.	*no	se	dap	mieng	sat	se/da	bet
		he	WILL	pound	CL	metal	WILL/PAST	flat
	b.	*no	da	dap	mieng	sat	se/da	bet
		he	PAST	pound	CL	metal	WILL/PAST	flat
	c.	*no	se	se/da	dap	mieng	sat	bet
		he	WILL	WILL/PAST	pound	CL	metal	flat
	d.	*no	da	se/da	dap	mieng	sat	bet
		he	PAST	WILL/PAST	pound	CL	metal	flat

Looking at yes-no questions, we find confirmation of the same conclusion. Yes-no questions of TRs cannot contain any overt tense morpheme, just as yes-no questions not involving TRs, as the data in (19) show. Again, (19a-b) would be generated by movement of the whole subject, and (19c-d) by movement of the Spec of the subject.

(19)	a.	*no	se	dap	mieng	sat	co	bet	khong
		he	WILL	pound	CL	metal	CO	flat	C$_{[+Q]}$
	b.	*no	da	dap	mieng	sat	co	bet	khong
		he	PAST	pound	CL	metal	CO	flat	C$_{[+Q]}$
	c.	*no	co	se/da	dap	mieng	sat	bet	khong
		he	CO	WILL/PAST	pound	CL	metal	flat	C$_{[+Q]}$

	d.	*no	co	se/da	dap	mieng	sat	bet	khong
		he	CO	WILL/PAST	pound	CL	metal	flat	$C_{[+Q]}$

In short, with respect to the number of tense heads per sentence, TRs behave exactly like normal non-resultative sentences. This suggests that TRs have only one T, and that the subject of TRs is vP, not TP or CP. With respect to interpretation, we expect that TRs can have one and only one tense, and this seems to accord with speakers' intuition. Take (1a), repeated in (20), for example.

(20)	no	dap	mieng	sat	bet
	he	pound	CL	metal	flat

As empty T is unspecified for tense in Vietnamese, i.e. it can be interpreted as past, present or future,[14] if there were two empty Ts in (20), one inside the subject, one heading the matrix clause, we would expect to be able to interpret the sentence as past with respect to the pounding of the metal, and future with respect to the metal's becoming flat, for example. Concretely, let us say there is some kind of metal which becomes flat only two days after one pounds on it. John pounded the metal on Monday. We expect the metal to become flat on Wednesday. If there are two Ts in (20), we should be able to say (20) on Tuesday. But the fact is that we cannot. Whatever the time of the pounding, that must be the time of the metal becoming flat. This interpretational fact is compatible with the assumption that a TR contains only one T, and the subject of a TR is a vP. It is not compatible with the assumption that the subject of a TP is a TP/CP.

Granted that the subject of TRs is not a TP or a CP, the question is whether it must be be a vP, or it can be something larger than a vP but smaller than a TP? Specifically, can it contain a modal (M) or a sentential negation (Neg)? The answer is no. A TR can contain only one instance of any M, and only one Neg. Furthermore, syntactic and semantic evidence shows that both M and the Neg must belong to the matrix clause, i.e. they must c-command vP_H.

Syntactically, T precedes Neg, and Neg precedes M. If any combination of these, call it C = (T)(Neg)(M), is present in a TR, C behaves in exactly the same way as T does in (2), (3) and (6), namely, it can immediately preceed the resultative AP, or it can immediately follow the DP subject, which again is not really the subject but the subject of the subject. Any other word order is ungrammatical. (21) – (23) are all and only the grammatical strings consisting of the words present in them.

(21)	a.	no	phai	dap	mieng	sat	bet
		he	must	pound	CL	metal	flat
	b.	no	dap	mieng	sat	phai	bet
		he	pound	CL	metal	must	flat

'he must pound the metal flat'

(22) a. no   khong dap   mieng sat   bet
        he   not   pound CL   metal flat
    b. no   dap   mieng sat   khong bet
        he   pound CL   metal not   flat
        'he did not pound the metal flat'
(23) a. no   se   khong phai dap   mieng sat   bet
        he   WILL not   must pound CL   metal flat
    b. no   dap   mieng sat   se   khong phai bet
        he   pound CL   metal WILL not   must flat
        'he will not have to pound the metal flat'

These facts are predicted if we assume that the subject of a TR is a vP, and does not contain any tense, modal or negation head. These latter merge with vP_H, which contains the subject of TR, i.e. vP_L. They are not inside vP_L.

We also have evidence from semantics that vP-external elements such as Neg cannot be inside the subject of TRs. Suppose there is some kind of metal with the strange property that when one does not pound it, it gets flat. That is, one can make it flat by not pounding it. If Vietnamese is such that an XP which contains vP and a Neg head can merge in the subject position of $[_v$ *CAUSE*$]$, we expect to be able to say (24a) with the meaning in (24b), since it would be possible for (24a) to have the underlying structure (25).

(24) a. no   khong dap   mieng sat   bet
        he   not   pound CL   metal flat
    b. 'his not pounding the metal made it flat'

(25)
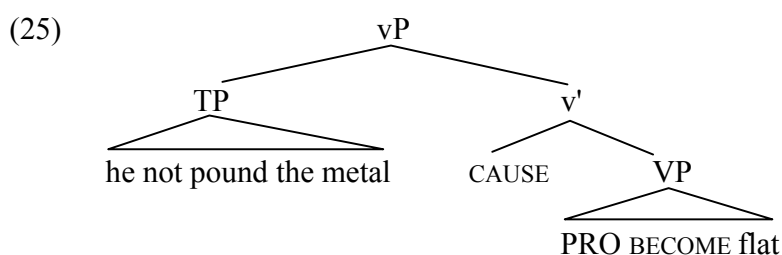
But (24a) cannot mean (24b). Its only available reading is 'it is not the case that he pounded the metal flat'. This means that (25) cannot underlie (24a), i.e. that the subject of TRs cannot include within it the negation head, thus must not be anything larger than vP.

One question left open in the discussion so far is why the PRO subject in the VP must be controled by the object of vP_L and not the subject. Thus (26) cannot mean that as a result of the man's pounding the metal, he became tired.

(26) *no   dap   mieng sat   met
     he   pound CL   metal tired

Elaborating the theory of Control to derive this fact would take us beyond the scope of this paper. For this reason, I will adopt the Direct Object Restriction (DOR) of Levin & Rappaport (1995: 34), given in (27), as a primitive, and reformulate it as in (28) to fit the present framework.[15]

(27)   A resultative phrase may be predicated of the immediately postverbal NP, but may not be predicated of a subject or of an oblique complement

(28)   The PRO subject of the VP complement of $[_v\ CAUSE]$ in a TR must be controled by the direct object of vP_L

We have seen evidence, both syntactic and semantic, for a specific analysis of TRs in Vietnamese. This analysis says that all TRs in this language have one of the two following structures. Between T and its vP complement there can be Neg and modals.

(21)   a.
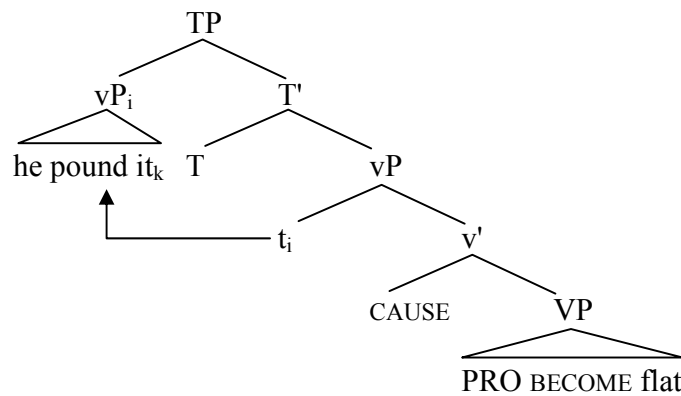
b.

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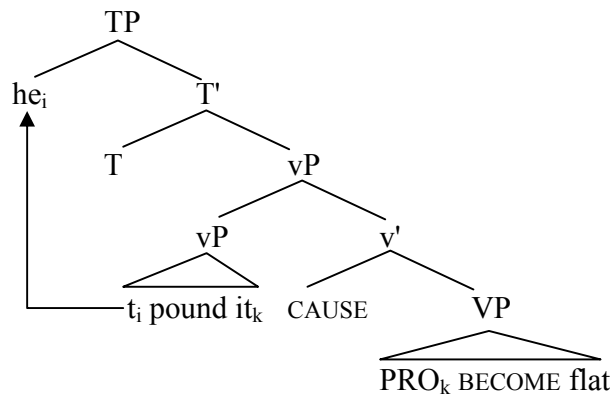
[15] Note that (27) and (28) also correctly rule out sentences such as (i), in which the controler of PRO is an oblique complement.

(i)   no   dap   len   mieng   sat   bet
      he   pound   on   CL   metal   flat
      ('his pounding on the metal made it flat)

2.   English

I now turn TRs in English. Two examples of these are given in (22).

(22)   a.   John pounded the metal flat
       b.   John shot the leader of the gang dead

There are a number of clear intuitions about the sentences in (22) that an analysis of them should account for. First, it seems clear that the sentence-final AP is predicated of the postverbal NP. Thus in (22a), it is the metal that gets flat, not anything else. In other words, (22a) cannot describe the situation in which John pounds a piece of metal which lies on top of a clump of clay and the piece of clay becomes flat as the result. It is to do justice to this intuition, and to Williams (1980)'s analysis of predication which says that the subject and its predicate must mutually c-command each other, that Kayne (1985) as well as Hoekstra (1988) proposed (23) as the underlying structure of the VP of a TR such as (22a).

(23)   VP
             ⟋   ⟍
       pounded   SC
                    ⟋   ⟍
              the metal   flat
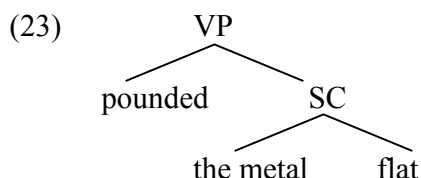
In (23), [NP *the metal*] and [AP *flat*] make up a small clause (SC). As the NP and the AP stand in a mutual c-command relation, the AP can be predicated of the NP. This analysis implies that [V *pounded*] does not θ-mark, thus does not lexically govern [NP *the metal*], and that (22a) means that the flatness of the metal comes about through John's activity of pounding, not necessarily through his pounding of the metal in particular.[16]

This view of the semantics of (22a) does not seem right, however, and we can use the thought experiment with the clump of clay again to demonstrate that it is wrong. Let us say that John made a piece of clay flat by placing a piece of metal on top of it and pounding on the piece of metal. In that situation, we still cannot say (24).

(24)   John pounded the piece of clay flat

This means that no matter what the pragmatic situation is, the post verbal NP must denote the entity that receives the action denoted by V.

We also have evidence from syntax that the post verbal NP in English TRs is indeed the direct object of the verb, i.e. it is θ-marked and lexically governed by the verb. It is not the subject of an SC complement of the verb. The data in (25) show that extraction out of the post verbal NP in TRs is possible, whereas extraction out of SC subjects is not.

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[16] In fact, Kayne (1985) argues that the interpretation of the metal as the thing that gets pounded in (22b) is a result of pragmatic inference, not argument structure.

(25) a.   [which gang]$_1$ did John shoot [the leader of t$_1$] dead
      b.   * who$_1$ did John consider [$_{SC}$ [a friend of t$_1$] intelligent]

It seems that not only the postverbal NP but the AP also behaves like a selected argument of a lexical head. Specifically, wh-movement of AP out of wh-islands induces a much milder violation than long-distance wh-movement of adjucts.[17]

(26) a.   *[how severely]$_1$ do you wonder whether he punished these boys t$_1$
      b. $^{??}$[how flat]$_1$ do you wonder whether he pounded the metal t$_1$

If we assume that the AP in (26b) is lexically governed, whereas the AP in (26a) is not, we can derive the difference in grammaticality between (26a) and (26b) from whatever is responsible for the difference between ECP and Subjacency violations.
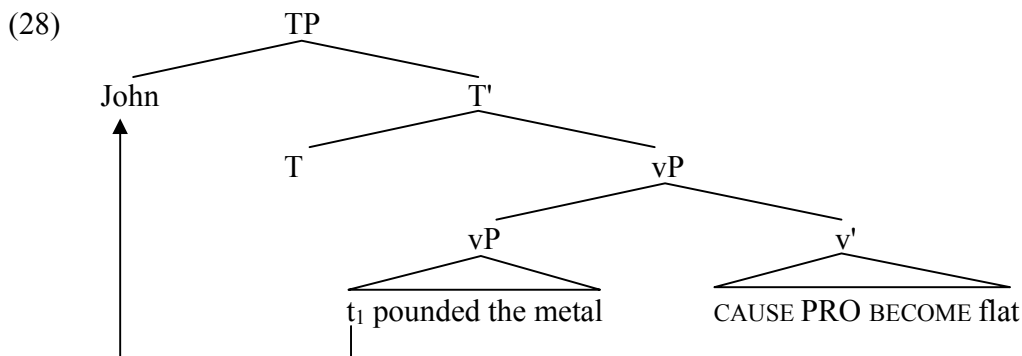
Carrier & Randall (1992) propose an analysis which does justice to all the facts mentioned above. In this analysis, the postverbal NP is a sister of the verb, and the AP is a sister of the NP. Thus lexical government of both the NP and the AP is possible, and so is predication between the NP and the AP. According to this analysis, the VP of (22a) is (27).

(27)
```
              VP
        _____|_____
       /      |      \
  pounded  the metal  flat
```
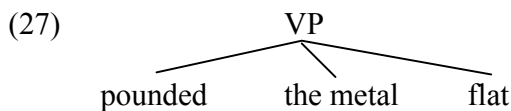
This analysis entails two deviations from the received version of syntactic theory: it assumes that ternary branching is possible, and it relaxes the θ-criterion to allow more than one θ-role to be assigned to a given chain.[18]

What I will do in the following is to try to apply the analysis of Vietnamese TRs to English TRs, and see which problems it solves and also which it gives rise to.

By hypothesis, then, (22a) has the following structure.

(28)
```
                    TP
             _____|_____
            /                 \
         John                  T'
          ▲            _____|_____
          |           /                 \
          |          T                  vP
          |                      _____|_____
          |                     /                 \
          |                   vP                   v'
          |             _____|_____      _____|_____
          |            /             \    /                 \
          |     t₁ pounded the metal    CAUSE PRO BECOME flat
          |_____|
```

_____

[17] The data are based on data from Carrier & Randall (1992: 185).

[18] See Carrier & Randall (1992: 180).

Besides the fact that (28) does not require ternary branching or relativization of the θ-criterion, it also accounted for the extraction facts seen in (25)- (26). In (28), the postverbal NP [NP *the metal*] is θ-marked by [v *pounded*], and the reultative AP [AP *flat*] is θ-marked by [v BECOME]. Both are thus lexically governed, and extracting them out of islands induces subjacency violations, not ECP violations.

In addition, (28) also promises to account for a number of other properties of English TRs, one of which is the fact that the resultative AP cannot be headed by a past participle.

(29)   *John pounded the metal flattened

We can account for this fact by saying that *flattened* is actually [BECOME+flat], so that when it merges with BECOME, uninterpretability results.

Another fact that (28) might explain has to do with VP-elipsis. In English TRs, the sequence [*V NP AP*] can elide, but not the sequence [*V NP*] to the exclusion of AP.

(30)   a.   John pounded the metal concave, and Bill did so too
       b.   *John pounded the metal concave, and Bill did so convex

We can account for this by saying that the pronominal *so* can only replace the whole complement of T, not a subpart of it. Thus it can replace the vP_H *pounded the metal concave*, but not the vP_L *pounded the metal*. There is independent evidence for this assumption.[19]

(31)   a.   John put the book on the table, and Bill did so too
       b.   * John put the book on the table, and Bill did so on the floor

A question which arises at this point is why English does not have the choice of moving vP_H to [Spec, T] to satisfy the EPP.

(32)   a.   John will pound the metal flat
       b.   * John pound the metal will flat

A tentative answer to this question might be that in English, the EPP must be satisfied by a DP. That is, [+EPP] on T is actually strong [+D] on T. This is basically what is proposed in Chomsky (1995: 232).

Another question we have to address has to do with languages in which there is V-to-T raising. We have been assuming that in (28), T agrees with both [v *pounded*] and [v BECOME]. What if Agreement between T and v/V is followed up by movement of v/V to T?

I will not be able to offer an answer here. I will, however, consider one language that has V-to-T movement, which is German. At first sight, German looks as if it has TRs.

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[19] Again, I am ignoring adverbs here.

(33) a.   Hans   hat   den   Raum hell   beleuchtet
                 John   has   the   room bright lit
         b.   Hans   hat   den   Laster schwer beladen
                 John   has   the   truck heavy loaded

But as Kratzer (2004) shows, (33a-b) are of a different species than TRs. Specifically, they are normal transitive sentence with an adverb. Since adverbs in German are not overtly marked, i.e. they look like adjectives, the sentences appear to be TRs. But the following data show that it is likely that they are not.[20]

(34) a.   *How did John pound the metal? Flat
         b.   Wie   hat   Hans   den   Raum beleuchtet?   Hell
                 how   has   John   the   room lit?   Bright

In German, the "resultative" phrase can be questioned by *wie* ('how'), where as in English, it cannot. This suggests that in German, the "resultative" phrase is actually and adjunct of adverbial category, and that German does not have TRs.

Can it be that if a language has V-to-T movement, it cannot have TRs of the form (28)? Maybe. French is another example. It has V-to-T movement and does not have TRs. If V-to-T movement excludes structures such as (28) in a language, we might ask why. Again, I will not be able to give an answer, but just a speculation. It seems to me that the issue of distance might play a role here. Specifically, in (28) the two v's that agree with T are equally close to T. If head movement is adjuction to H of the X° which is closest to H, than technically, adjunction to T cannot happen in (28), since in that structure there is no X° that is closest to T, i.e. closer to T than any other X°.[21]

3.   Conclusion

In this squib, I propose an analysis for transitive resultatives in Vietnamese. I then extend this analysis to English, and show that by doing so, we can account for some properties of English TRs. I suggest that a major difference between English and Vietnamese reduces to the fact that in English, [+EPP] on T must be satisfied by a DP, whereas in Vietnamese, an XP of any category can satisfy this feature. I also suggest that in languages which differ from English and Vietnamese in having overt V-to-T movement, TRs are ineffable.

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[20] The data are taken from Kratzer (2004).

[21] Fanselow & Fery (2002) presents cases where lexical realization of abstract syntactic structures cannot happen, i.e. is ineffable, because there are more than one candidates that are equally good, or bad, and so no best candidate can be found. Understood abstractly, their theory can apply here as well.

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