

Serial Verbs, ‘Object Sharing’, and the Analysis of Dative Shift

0. Introduction*

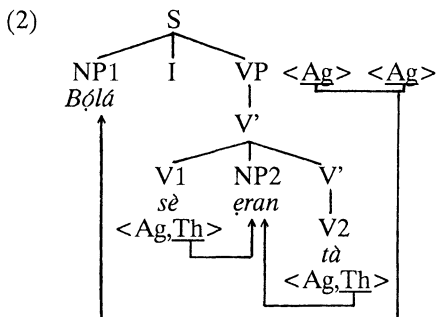
From the Caribbean via West Africa to the Far East, we find languages, creoles and pidgins featuring the so-called *serial verb construction* (SVC for short), illustrated by the example in (1), from Yorùbá, a Kwa language spoken in southwestern Nigeria:

- (1) Bólá sè ẹran tà (Yorùbá)
 Bola cook animal sell
 ‘Bola cooked some meat and (then) sold it’

Serial verb constructions pose a variety of analytical questions, one of them being the fact, noted by Stewart (1963:145), that ‘if two or more successive underlying sentences have the same direct object, this direct object is deleted in each of the sentences other than the first in which it occurs’. Baker’s (1989) recent study of serialisation is specifically aimed at capturing this ‘object sharing’ property of SVCs in *thematic* terms, arguing for a structure featuring a VP whose multiple heads each assign a Θ -role to the ‘shared object’. Baker’s (1989) approach to verb serialisation will be briefly reviewed in section 1. Focusing on the properties of *triadic* serial verb constructions, I shall subsequently show, in section 2, that a thematic account of ‘object sharing’ is incorrect. Instead, the word-order restrictions on triadic SVCs and the related V-V compounds of Igbo will be argued to fall out from a specific analysis of triadic constructions, generalising across serialising and non-serialising languages, according to which *Dative Shift* is a syntactic transformation deriving the double object construction from the dative construction. Spelling out this approach to Dative Shift will be the topic of section 3. A survey of our major findings in section 4 closes the paper.

1. A Thematic Approach to ‘Object Sharing’

In his account of serialisation, Baker (1989) argues that obligatory object sharing is a consequence of the structure assigned to serial verb constructions. Baker assigns a SVC of the type in (1) the structural representation in (2), according to which the ‘shared object’ is an immediate constituent of a one-bar level projection of both the first verb and the second verb. In conjunction with his formulation of the Projection Principle (reproduced here in (3)), the structure in (2) ensures that NP2, the ‘shared object’, must receive a Θ -role from both V1 and V2, given that NP2 is an immediate constituent of the first-bar projections of both verbs, and on the assumption, incorporated in (3a), that a Θ -marker must assign a role to an immediate constituent of its first-bar projection.



- (3) *The Projection Principle* (Baker 1989:517)
 Suppose α is a lexical category and β is a position of argument type.
 a. If β is an immediate constituent of a one-bar level projection of α at some syntactic level, then α Θ -marks β in α .
 b. If α Θ -marks β as a lexical property, then α Θ -marks β at all syntactic levels.

In serial verb constructions whose final verb is triadic (henceforth, triadic SVCs), the choice of arguments that can be 'shared' with the other verb(s) is not free. It turns out that in such SVCs it is always the Theme argument that is the 'shared object', never the Goal. The contrast between the Gokana (Benue-Cross) examples in (4a,b) bears this out:

- (4) a. mǐn è tú kpá nẹ pǎbia (Gokana; Wagner 1985)
 child PAST take book give woman
 'The child gave the book to the woman'
 b. *mǐn è tú pǎbia nẹ kpá
 child PAST take woman give book

Baker (1989) aims at explaining this restriction on argument sharing in triadic SVCs by appealing to a particular Thematic Hierarchy, given in (5) (cf. Carrier-Duncan 1985), also used by Larson (1988) in his analysis of the English dative alternation, in which the Theme is higher than the Goal Θ -role. The requirement that Θ -roles be projected into the syntactic D-structure in accordance with this Thematic Hierarchy (so that Themes should always occupy a higher D-structure position than Goals) will then ensure that only Themes can be shared objects in triadic SVCs.

- (5) *Thematic Hierarchy* (Baker 1989:541)
 Agent > Theme > Goal > Location (and other obliques)

Notice, however, that—as Larson (1990) duly acknowledges in response to a point raised by Jackendoff (1990)—an analysis of this type is compatible with a Uniformity of Theta Assignment Hypothesis (Baker 1988; cf. (6)) only to the extent that the *relative hierarchical* relationships between items are uniform at D-structure. Neither Larson nor Baker can require that the *absolute* structural positions of specific items be uniform at D-structure, and although Larson (1990) appears to be convinced that an absolutely uniform mapping of thematic structure onto syntactic D-structure is impossible to achieve, it is clear that, for instance from the point of view of language acquisition, this is precisely what one should aim for. Stating UTAH in terms of a Thematic Hierarchy effectively erodes much of the content (and hence the appeal) of claims regarding uniformity of Θ -role assignment, given that a hierarchical UTAH allows a particular Θ -role to be projected in a variety of different structural positions, so long as this role is structurally higher than all roles lower on the scale, and lower in the tree than all superior Θ -roles.

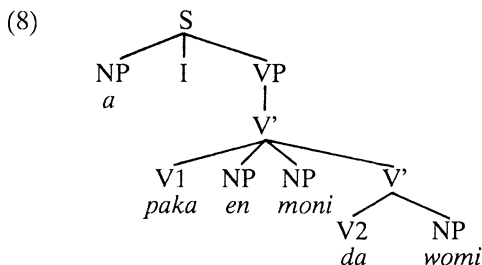
- (6) *The Uniformity of Theta Assignment Hypothesis* (UTAH)
 Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure (Baker 1988)

Ideally, we should interpret UTAH in a maximally absolute fashion, striving for analyses that comply with the original formulation of the hypothesis. Its irreconcilability with a strict UTAH constitutes a conceptual reason to be suspicious of Baker's (1989) analysis of verb serialisation. As an additional drawback of this account I could mention its unavoidable incompatibility with a strictly binary branching tree geometry (cf. Kayne 1984 for extensive discussion of the desirability of strict binarity). That Baker's analysis necessarily leads to flat, *n*-nary branching structures is due to the requirement that the 'shared object' be an immediate constituent of a one-bar projection of all verbs in a SVC.

In addition to these conceptual objections to Baker's (1989) analysis of verb serialisation, I would like to mention an empirical problem that it encounters. Consider the paradigm in (7), from Saramaccan, a Caribbean creole spoken in Surinam. The example in (7c) is of particular interest, uniting as it does the regular triadic SVC featuring Theme sharing in (7a), and the double object construction in (7b).¹

- (7) a. A paka di moni da en (Saramaccan; Byrne 1987)
 he pay the money give him
 'He paid the money on behalf of him'
 b. A paka en di moni
 he pay him the money
 'He paid him the money'
 c. A paka en di moni da di womi
 he pay him the money give the man
 'He paid him the money on behalf of the man'

The Thematic Hierarchy in (5), in which Theme is higher than Goal, prevents us from including V1's Theme argument inside the verb's first-bar projection while generating its Goal argument outside of this projection. In practice, then, the bearer of V1's Goal Θ -role, *en* 'him', will be a constituent of a one-bar level projection of this verb. Since the Theme argument *di moni* 'the money' is the 'shared object' of the two verbs, this NP must also be a constituent of V1's first-bar projection, so that we end up with a structure of (7c) as reflected in the tree in (8). This structure violates the Thematic Hierarchy in (5) because of the fact that the Theme argument of V1 is not projected higher in the tree than this verb's Goal argument. Moreover, the fact that in (8) *en* is generated within the first-bar projection of V1 automatically makes it an immediate constituent of a one-bar level projection of V2 as well, given the flat structure of V1's first-bar projection that Baker's (1989) account of SVCs entails. This in turn implies that V2 will have to Θ -mark *en*, in view of the fact that clause 'a' of the Projection Principle in (3) ensures that a head must assign a Θ -role to each immediate constituent of its one-bar level projection(s). However, V2 in (7c) already assigns a Goal Θ -role to its complement *di womi* 'the man', and it is not likely that this verb should be able to assign an additional Goal role to *en* 'him'. Hence, the structure in (8) violates the Projection Principle in (3) as well. And even if V2 somehow did have a Θ -role to assign to *en* 'him', we would end up having a structure in which a Goal argument is shared by the two verbs in a SVC, a situation which Baker specifically aims at ruling out in principle. Triadic SVCs whose first verb assigns a Goal Θ -role hence constitute an empirical problem for Baker's (1989) approach to argument sharing in SVCs, which adds to the conceptual problems noted above.



2. Against a Thematic Approach to 'Object Sharing'

In my discussion of triadic SVCs so far, I have based myself on Baker's (1989) generalisation that in such constructions only Themes can be 'shared objects'. Is it really impossible, though, for a Goal argument to be the 'shared object'? Déchaine (1990) has recently challenged Baker's (1989) generalisation on the basis of such Yorùbá constructions as (9), which she claims feature Goal sharing.

- (9) Olú b̀un mi ní owó (Yorùbá; Baker 1989:541)
 Olu present me Prt/have money
 'Olu presented me with money'

- (14) a. *Emil pran bay Mariz liv la
 Emil take give Mariz book Det
 b. Emil pran liv la bay Mariz
 Emil take book Det give Mariz
 ‘Emil gave the book to Mariz’

Put in general terms, Déchaine’s (1990) appeal to an extraposition rule for (11a) seems an entirely *ad hoc* move, no mention being made of extraposition in other contexts in Igbo or for that matter in the analysis of double object constructions in languages other than Igbo.

To me, the Igbo triadic V-V compound in (11a) (which is derived by V-incorporation from an underlying serial verb construction) lays bare the inadequacy of a generalisation about word order in triadic SVCs cast in *thematic* terms (such as Baker’s), and indicates that such a generalisation is of a much more surfacy nature than Baker takes it to be. What we should account for is that once the second verb moves, the Goal phrase also moves. Such an account of surface word order can, of course, never be formulated in terms of Θ -role hierarchies. Accordingly, the restrictions on word order in triadic SVCs cannot be looked upon as conditions on argument sharing, as a result of which the whole concept of argument sharing in SVCs is rendered dubious. In what follows, I outline an account of triadic constructions and Dative Shift which captures the word-order difference between Igbo on the one hand, and Yorùbá/Haitian on the other.

3. On the Analysis of Triadic Constructions and Dative Shift

Let me start out by repeating what I take to be the generalisation emerging from the difference in word order between Igbo and Yorùbá/Haitian, given in a somewhat generalised form in (15):

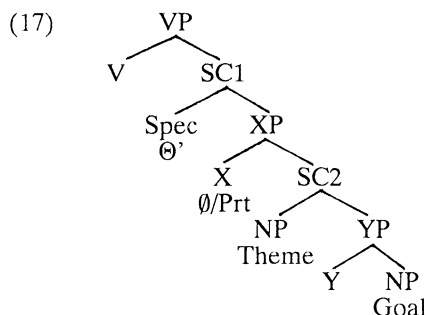
- (15) In triadic constructions, whenever incorporation of the embedded predicate takes place, the underlying Theme-Goal order is reversed

This generalisation reminds one of a parallel observation made for *applicative constructions*, which, following Baker (1988), I shall analyse in terms of preposition incorporation. In languages featuring a dative/applicative alternation such as Chichewa, we find that whenever, in a dative construction such as (16a), the preposition is incorporated into the verb (in the form of the applicative morpheme *-ir-*), the Goal phrase, which in the base structure finds itself to the right of the Theme, surfaces right in front of the Theme, as (16b) shows:

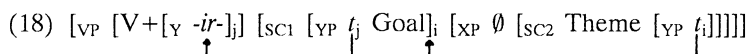
- (16) a. Ndi-na-tumiz-a chipanda cha mowa *kwa* mfumu (Chichewa)
 1sgS-Pst-send-Asp calabash of beer to chief
 ‘I sent a calabash of beer to the chief’
 b. Ndi-na-tumiz-*ir*-a mfumu chipanda cha mowa
 1sgS-Pst-send-Appl-Asp chief calabash of beer
 ‘I sent the chief a calabash of beer’

The difference between Yorùbá and Igbo with respect to word order in triadic SVCs can now be seen to be entirely analogous to the difference between the dative construction in (16a) and the applicative construction in (16b). In both cases, incorporation of the embedded predicate (V2 in Igbo, and the applicative morpheme in Chichewa) leads to a reversal of the relative order of the Theme and Goal NPs.

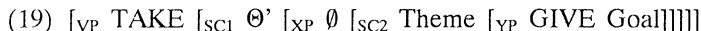
In Den Dikken (1991) an analysis of triadic constructions and Dative Shift is put forward which captures the generalisation in (15) on the basis of the underlying structure in (17). According to this structure, the verb selects a small clause (‘SC’) whose ergative head may either be empty or (in English complex particle constructions like *They sent a package off to Bob*) lexicalised by a particle, and in its turn selects a SC accommodating the Theme and Goal arguments (cf. Den Dikken 1990; 1991 for more details).



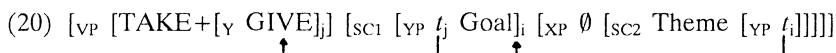
From this structure, which straightforwardly yields the Chicheŵa prepositional dative construction in (16a), the corresponding applicative construction in (16b) is derived by *movement* of the constituent labelled 'YP' in (17) into the Θ' -specifier position of the higher SC, after which the head of YP (*i.e.* the applicative morpheme *-ir-*) is incorporated into the verb. This is illustrated in (18):



The analysis of triadic constructions sketched out above carries over immediately to serialising languages. All we need assume as a basic premise is that V2 in triadic SVCs is base-generated under 'Y' in (17), and that hence triadic SVCs involve embedding, not (covert) conjunction (*cf.* *e.g.* Stewart 1963) or adjunction (*cf.* Bickerton & Iatridou 1987; Déchaine 1990). With V1 under the V node in (17), we then immediately derive the correct word order for Yorùbá/Haitian, as depicted in (19) (where I assume that the Theme subject of SC2 undergoes no NP-movement into SpecSC1, at least not in Yorùbá, which, as pointed out by Manfredi 1989, features no NP-movement at all):



On the analogy of the derivation of applicative and double object constructions, the Goal-Theme order of Igbo triadic V-V compounds can now be viewed as a corollary of the incorporation of V2 into V1, which proceeds via prior movement of YP in (17) into the specifier position of SC1. Since movement of YP immediately transfers the Goal NP into a position to the left *cf.* the Theme, the surface word order of an Igbo triadic V-V compound is directly accounted for, as the S-structure corresponding to such a V-V compound, given in (20) (*cf.* (18)), bears out:



From this analysis of triadic serial verb constructions the conclusion seems to emerge that the difference between serialising languages and non-serialising languages lies in the base position of the *give*-type verb: under the Y-node in the former, and under V in the latter. If this were the right conclusion to draw, it would imply a head-on collision with Universal Alignment or Uniformity of Theta Assignment. It should be borne in mind, however, that the second verb in triadic SVCs (commonly translated as *give*) and the main verb in Chicheŵa or English type triadic constructions are quite distinct. As V2 in a SVC, this verb performs the role of the dative preposition in languages like English, and assigns the Theme and Goal Θ -roles. In many serialising languages, *give* may also occur as V1 in a triadic SVC (*cf.* the Saramaccan example in (21a), below). In such cases, it is analogous to English type *give*, and assigns the Agent Θ -role to the subject and a propositional internal Θ -role to its SC complement (which is really all that the main verb in triadic constructions does, given the structure in (17)). In both language types, these latter roles can be assigned by a variety of verbs. Consider, for instance, the Saramaccan paradigm in (21), and the English glosses corresponding to the examples:

- (21) a. A *da* di moni da di mujee (Saramaccan; Byrne 1987)
 he give the money give the woman
 'He gave the money for the woman'
 b. A *paka* di moni da di womi
 he pay the money give the man
 'He paid the money for the man'
 c. A *sei* di wosu da di womi
 he sell the house give the man
 'He sold the house for/to the man'
 d. Magda *konda* di oto da di basi fu Samo
 Magda tell the story give the boss of Samo
 'Magda told the story to Samo's boss'

With respect to the possible fillers of the V-node in the tree in (17), then, serialising languages are basically similar to Chicheŵa or English. The principal difference between the two language types lies in the fact that in Chicheŵa and English, the element responsible for the assignment of the Theme and Goal Θ -roles is a preposition (*kwa*, *to*), while serialising languages employ a verb of the *give* type for this purpose. Uniformity of Theta Assignment hence in no way endangers the approach to triadic serial verb constructions put forward here. On the contrary, in view of what was argued in the foregoing, it in fact seems to force this analysis upon us.

Summing up so far, let me emphasise once again that the difference between Yorùbá/Haitian triadic SVCs and Igbo triadic V-V compounds with respect to the relative order of the Theme and Goal NPs argues strongly against an approach to word order in triadic SVCs in terms of restrictions on argument sharing cast in *thematic* terms (such as Baker's 1989). Rather, this difference falls out straightforwardly from the fact that in Igbo but not in Yorùbá/Haitian, V2 must be incorporated into V1, given independently motivated assumptions concerning the cross-linguistic analysis of triadic constructions, in conjunction with the assumption that in SVCs of the type 'Agent *take* Theme *give* Goal', *give* is like a dative preposition in being base-generated as the head of SC2 in (17).

This approach to triadic SVCs implies that constructions of this type in which no incorporation of the embedded verb takes place (as in Yorùbá or Haitian) are structurally analogous to prepositional dative constructions in languages like English. One empirical observation corroborating this conclusion comes from the following examples from Saramaccan, made available to me by Tonjes Veenstra (p.c.):³

- (22) a. Mi da tu womi teni buku (Saramaccan)
 I give two men ten books
 'I gave two men ten books'
 b. Mi da teni buku da tu womi
 I give ten books give two men
 'I gave ten books to two men'

Just like its English translation, (22a) is ambiguous between a reading in which a total of ten books is distributed among two men, and a reading in which there is a total of twenty books being given to two men. By contrast, (22b), like its translation, can only convey that a set of ten books is distributed among the two men. These scope facts (which, it should be noted, are the reverse of Aoun & Li's 1989 data with existential and universal quantifiers) thus show that, as predicted by the analysis, triadic SVCs pattern with prepositional dative constructions in languages like English.

Further support for this corollary of the analysis seems to come from Bickerton & Iatridou's (1987:6) example in (23):

- (23) Di mii da *mi* di sopu wasi *miseei* (Saramaccan)
 the child give me the soap wash myself
 'The child gave me the soap to wash myself with'

In (23), *mi* 'me' functions as the binder for the VP2-contained anaphor *miseei* 'myself'. Consonant with Barss & Lasnik's (1986) observations with regard to English type prepositional dative constructions, (23) thus shows that an NP between the two verbs in a SVC c-commands the NP following V2.

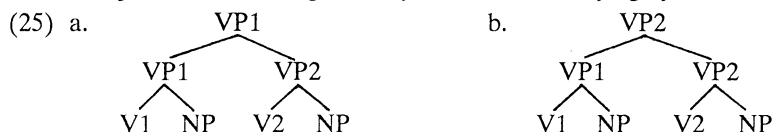
A problem about (23), however, is the fact that (like Byrne's 1987 example in (7c), repeated below as (24)) it involves two NPs between the two verbs. If the analysis of examples of this type should be modelled on the tree in (17), above, it would appear that we have no room for two NPs between the two Vs and an additional Θ -role bearing expression following V2.

- (24) A paka en di moni da di womi (= (7c); Saramaccan)
 he pay him the money give the man
 'He paid the money on behalf of the man'

Let me emphasise that throughout this paper, considerations of cross-linguistically uniform mapping of thematic structure onto syntactic D-structure (codified in Baker's 1988 Uniformity of Theta Assignment Hypothesis) have played a guiding role. Thus, if for a language like English a case can be made for an analysis of dative and double object constructions based on the tree structure in (17), such an analysis should form the basis for triadic constructions in languages other than English as well. This led me to devise a structure for triadic SVCs that runs parallel to that of English type triadic constructions. The examples under current investigation, however, although containing a triadic structure, also include information which, in languages like English, would be expressed with the aid of an adjunct which is not thematically related to the main predication. In English, *to wash myself with* and *on behalf of the man* in (23) and (24) clearly are not part of the argument structure of any of the Θ -assigners in the sentence. From the point of view of a cross-linguistic Uniformity of Theta Assignment Hypothesis, it would then be quite surprising if in serialising languages, these constituents *are* to be generated in argument positions.

The common-sense conclusion emerging from the foregoing, then, is that not all serial verb constructions are structurally alike. Since SVCs can be invoked to convey a wide variety of semantic structures, they should accordingly be assigned a wide variety of different syntactic D-structures as well. While a triadic SVC of the type 'Agent *take* Theme *give* Goal' is assigned a complementation analysis consonant with that of English-type triadic constructions, as dictated by thematic uniformity, the VPs headed by *wasi* 'wash' in (23) and *da* 'give' in (24) will be treated as (parts of) adjoined constituents. Once we look upon the examples in (23) and (24) in this way, the apparent problem posed by them vanishes, adjunction possibilities being freely available in the tree in (17).

It is, of course, not a novel insight that not all serial constructions are the same. Awóyalé (1988) and, following him, Déchaine (1990) make essentially the same point, but choose to work it out in a rather different fashion. On their view, the various types of SVCs are differentiated according to whether the first verb or the second verb of a SVC is the *head* of the construction, triadic/locative/resultative SVCs belonging to the former group, and instrumental/manner/comitative SVCs to the latter.⁴ However, the notion of 'headedness' which these scholars appeal to remains rather intuitive and ill-defined. Moreover, it should be stressed that the kinds of syntactic structures that this approach to serialisation gives rise to (illustrated in (25), below, where (25a) is headed by V1, and (25b) by V2) stand in no comparison to the familiar structures that English-type languages would employ for semantically parallel constructions. On an analysis of this type, then, serialising languages are basically unrelated to more familiar languages as far as the syntactic structures they employ are concerned, whereby the clearly desirable prospect that thematically identical constructions correspond to cross-linguistically identical underlying syntactic structures is crushed.



4. Conclusion

Serial verb constructions in general are subject to the requirement that, if they contain more than one transitive verb, all these verbs share an argument which is present only once in the entire construction. For triadic SVCs in serialising languages such as Yorùbá or Haitian, it turns out that only the Theme argument, not the Goal, can be shared. Baker (1989) proposes an account of this restriction on 'object sharing' in triadic SVCs in *thematic* terms, basing himself on a multi-headed VP analysis of serial constructions, a specific formulation of the Projection Principle, and a Thematic Hierarchy according to which Themes must be projected onto a structurally higher position than Goals. My major objective in this article has been to show that a thematic approach to 'object sharing' (which, if the present analysis is correct, is really a misnomer) is untenable, and that the word-order restrictions on Yorùbá type triadic SVCs and Igbo V-V compounds fall out straightforwardly from a general analysis of triadic constructions and Dative Shift which postulates a transformational relationship between dative and double object constructions.

Notes

- * The research for this paper, parts of which were presented at the annual meeting of the Dutch Linguistic Society (Utrecht, January 1991) and in talks at the University of Massachusetts at Amherst, the University of Maryland and the Université du Québec à Montréal (February 1991), was part of the Leiden University research programme 'Structural Properties of Language and Language Use', financed by the Dutch Ministry of Education. I am grateful to Mark Baker, Rose-Marie Déchaine, Teun Hoekstra, Claire Lefebvre, Victor Manfredi, Rint Sybesma and Tonjes Veenstra for comments and discussion.
1. I thank Tonjes Veenstra for drawing my attention to the example in (7c).
 2. Also note Awóyalé's (1988:6) observation that 'transitivity alternations like [(i)] are reminiscent of ... the "locative alternation"' (e.g. *I loaded the hay onto the wagon ~ I loaded the wagon with hay*), to which the alternation between dative constructions and *with*-constructions such as (10) is fully analogous.
 - (i) a. Ajé wọ Olú ní aṣọ
Aje wear Olu NI clothing
 - b. Ajé wọ aṣọ fún Olú
Aje wear clothing give Olu
both: 'Aje wore an outfit for Olu'
 3. Apart from lending support to the present approach to triadic SVCs, Saramaccan also poses an apparent problem for it, concerning the Case of the 'shared object'. Bickerton & Iatridou (1987:8, 22-3) claim that Saramaccan has no Exceptional Case-marking. In contexts in which English would feature ECM (perception verb complements, causative complements), the corresponding Saramaccan constructions have a nominative Case embedded subject:
 - (i) mi sii /mbei a /*en go (Saramaccan; Bickerton & Iatridou 1987)
I see/make he/ him go

In triadic SVCs, on the other hand, the Theme NP does receive objective Case, which, on the present analysis, is assigned under ECM. Notice, however, that the fact that in (i) no ECM occurs is probably due to the fact that the complement of verbs of perception and causation are *tensed clauses* in Saramaccan (cf. Bickerton & Iatridou 1987:23). Hence the occurrence of nominative Case embedded subjects in such constructions comes as no surprise. What (i) does not show is that ECM is altogether absent in Saramaccan: it only shows that the complements of perception/causative verbs in Saramaccan are tensed. That Saramaccan does in fact feature ECM is shown by (ii) (due to Tonjes Veenstra), in which the subject of the verb's SC complement, *en*, receives objective Case, assigned by the verb:

 - (ii) mi feni-en sikisiki (Saramaccan)
I find-him ill
 4. In this paper, I have confined myself to a discussion of *triadic* SVCs, for which a complementation analysis of the type in (17) seems well motivated. Locative and resultative SVCs should probably be assigned a similar analysis, in view of the fact that constructions of this type in non-serialising languages arguably involve complementation of a SC as well (cf. e.g. Hoekstra & Mulder 1990, and references cited there, for discussion). Instrumental, comitative and manner SVCs, on the other hand, are likely to feature an analysis in terms of adjunction.

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