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## **How typology allows for a new analysis of verb phrase in Burmese**

*Alice VITTRANT*  
LACITO-CNRS  
Université d'Aix-Marseille  
*vittrant@vjf.cnrs.fr*

Description, classification, diversity and universality of languages are the key terms of linguistic typology, which first aims at answering the following question: what do languages have in common and in what ways do they differ?<sup>1</sup>

In other words, typology is concerned with finding properties that are shared by languages (invariants in Lazard terms)<sup>2</sup>, and has to do with cross-linguistic comparison. Its first task is therefore to describe languages in terms of pre-established features, leading to a classification of languages into different structural types according to the affinities that emerge from the descriptions. Typologists are also concerned with the areal [or geographical] distribution of structural features among the world's languages<sup>3</sup>.

In this article, I would like to emphasize the usefulness of typology and the notions developed within typological frameworks, for describing and analyzing little-known or undescribed languages. My claim will be illustrated by a new description of the Burmese verb phrase as a serial verb construction, a morpho-syntactic notion developed along with typological studies.

### **1. About Burmese verbal phrase or the origin of the new analysis proposed**

Burmese has been studied by Western scholars since the 18<sup>th</sup> century and recent works contain good descriptions of the language. However reviewing previous descriptions, such as those of Allott, Okell, Bernot, Bernot & al. and Wheatley, leads me to the following double observation.

First, as I examined previous analyses of the Burmese verb phrase, I noticed great variation in the definition of grammatical verbal morphemes, in particular the optional ones. The number and the functions of these optional verbal morphemes vary depending on the criteria used by the author for his analysis. For instance, the classification given by Okell & Allott (2001) based on semantic criteria, leads to a list of 60 verbal morphemes, whereas the classifications of Bernot (1980) and Wheatley (1982), which are based on phonological, syntactic and semantic criteria, distinguish between auxiliaries and verbal particles, although they do not list exactly the same morphemes.

The second point concerns verb phrases in other languages of the area. As noticed by, Matisoff 1986, 1991, Hansson 1985, Clark 1989, 1992, DeLancey 1991 and Bisang 1996, sequences of verbs without any connector between them are found in many other Asian languages, such as Lahu, Mandarin Chinese, Hmong, Thai and Tibetan. As expected, given the many features common to the languages of the area (Enfield 2005), these strings of verbs also exist in Burmese (Vittrant 2010), as illustrated by sentences (1) to (3), each of which contains a sequence of several verb roots that are not linked by any marker. However, the underlying structure of each string differs from the others, as suggested by the translation given, whereas the surface forms are identical.

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<sup>1</sup> See Croft (1990: 1), Lazard (2005), Van der Auwera & Nuyts (2007) for a more detailed definition of typology.

<sup>2</sup> See Lazard 2005, Lazard 2008.

<sup>3</sup> See Bickel & Nichols 2006, and Haspelmath & al 2005.

Two verbs (in bold) within the string of four verbs (underlined) that appears in (1), form a compound verb, an idiomatic form that is listed in bilingual dictionaries such as Bernot 1978-88 (VOL.7 p. 157) and the Burmese-English Dictionary published by the Burmese Ministry of Education in Yangon<sup>4</sup>.

- (1) တစ်နေ့မှာ ဆင်းရဲပြီး ထုံထိုင်းအနပုံ ရတဲ့ လူငယ်တစ်ယောက်ဟာ...  
 tə ne<sup>1</sup> = Ma<sup>2</sup> shiN<sup>3</sup>ye<sup>3</sup> = Pi<sup>3</sup> **thoN<sup>2</sup>-ThaiN<sup>3</sup>** ʔa<sup>1</sup> na<sup>1</sup>  
 oneday = LOC be poor = SUB be silly - be idiot be stupid be ignorant
- poN<sup>2</sup> ya<sup>1</sup> = Te<sup>1</sup> lu<sup>2</sup>-ŋe<sup>2</sup> tə-yaʔ = ha<sup>2</sup>...  
 SUB get =REL:R man-be young one-CLF(hum) =TOP

*One day, a young man, who was really poor and moreover who seemed really idiotic [... arrived at the wealthy man's place.]<sup>5</sup>*

In (2), however, the string of verbs constitutes a single predicate, i.e. the complex verb<sup>6</sup> of a single clause, and refers to a unique event; in other words, the string of verbs should be analyzed as a prototypical Serial Verb Construction (henceforth SVC).

Whereas in example (3), some of the verb roots have undergone semantic and structural changes: they have either been grammaticalized (and become auxiliaries such as [ne<sup>2</sup>], 'to stay > inaccomplished aspect in (a)), or else lexicalized (becoming a compound verb as [ʃiN<sup>3</sup>.liN<sup>3</sup>] in (b)).

- (2) ဦးဖြူစင်ဟာ ခပ်ဝေးဝေးတစ်နေရာကို ပြောင်းရွှေ့နေထိုင်ခဲ့တယ်။ ။  
 ʔu<sup>3</sup>phyu<sup>2</sup>siN<sup>2</sup> = ha<sup>2</sup> khaʔ-we<sup>3</sup>-we<sup>3</sup> tə ne<sup>2</sup>ya<sup>2</sup> = Ko<sup>2</sup>  
 U Phyu Sin = TOP rather-be far (x 2) one place = OBJ

**pya<sup>3</sup>-ʃhwe<sup>1</sup>** **ne<sup>2</sup>-ThaiN<sup>2</sup>** = Khe<sup>1</sup> = Te<sup>2</sup>  
 to move out to live = SPT = REAL.ASS  
*U Phyu Sin moved out to live in a far-off place.*

- (3) a. ... ပြောဆိုနေကြတဲ့ စကားကို (...) ပုန်းနေတဲ့ ဦးဖြူစင်က ကြားသွားတယ်။ ။  
 ... **pya<sup>3</sup>** **sho<sup>2</sup>ne<sup>2</sup>** Ca<sup>1</sup> = Te<sup>1</sup> zəKa<sup>3</sup> = Ko<sup>2</sup> (...)  
 ... talk say stay/INACC PLUR= REL:R words = OBJ (...)

poN<sup>3</sup> ne<sup>2</sup> = Te<sup>1</sup> ʔu<sup>3</sup>phyu<sup>2</sup>siN<sup>2</sup> = Ka<sup>1</sup> **ca<sup>3</sup>** **θwa<sup>3</sup>** = Te<sup>2</sup>  
 hide stay/INACC = REL:R U Phyu Sin = S. hear go/PERF = REAL.ASS  
*U Phyu Sin, who was hidden, heard the words said by [the blacksmiths].*

- b. သူတို့ ဧည့်ခန်းလေးက ရှင်းလင်းနေတာတဲ့။ ။  
 θu<sup>2</sup> = To<sup>1</sup> ʔe<sup>1</sup>-khaN<sup>3</sup>-le<sup>3</sup> = Ka<sup>1</sup> **ʃiN<sup>3</sup>.liN<sup>3</sup>** ne<sup>2</sup> = Ta<sup>2</sup> = be<sup>2</sup>  
 3P = PLUR host-room-DIM= S. clear.bright stay/INACC= REAL=DM  
*Their little living-room is tidy!*  
 \* *Their little living-room is bright and clear!*

<sup>4</sup> Notice however that the compound does not appear as such in unilingual Burmese dictionary.  
<sup>5</sup> About examples: Our phonemic transcription roughly follows Bernot (1980)'s proposal, with minor changes for tones and diphthongs. Thus tones are indicated by superscript numbers at the end of the syllable. [1] stands for brief, high and creaky tone ; [2] stands for long, low (and breathy) tone; [3] stands for long, clear, high-falling tone. The fourth tone corresponds to a glottal stop. Atonal (and unmarked) syllables may appear in bisyllabic words with [ə] as vowel. Capital letters stands for stops that can be realized as voiced or unvoiced depending on the phonological (and syntactical) context. Most of the grammatical morphemes start with a capital letter, given that they are usually (but not always) syntactically closely related to the preceding morpheme.  
<sup>6</sup> The term *complex verb* ('complexe verbal' in French) refers to a combination of bare verbs (with or without verbal morphemes) into a morpho-syntactical unit and does not comprise any nominal phrase such as the object's constituent. In that sense, it has to be distinguished from *verb phrase* ('syntagme verbal' or 'constellation verbale'), of which it could be seen as the core. It also has to be distinguished from '*complex predicate*' ('prédictat complexe' in French), that contains verbs with different status, i.e. head verb plus dependant verbs. The *complex verb* notion is first found in Hagège (1975) and his study of Chinese prepositions that originate from verbs.

Given the identical surface forms of these verb phrases that differ structurally and semantically, I looked for a framework that could reveal the relationship between these phenomena, which are traditionally analyzed separately in Burmese linguistics. In other words, I looked for a cross-linguistically valid model that would allow me to deal simultaneously with compound verbs, pre-verbs or “versatile verbs”<sup>7</sup>, and auxiliaries.

The notion of Serial Verb Construction (SVC) have been used first to describe morphosyntactic phenomenon in African languages (Bamgbose 1974, Givon 1975). Then extended to other languages (Sebba 1987), it was generalized more recently by authors such as Lord (1993), Déchaine (1993), Durie (1997) and Aikhenvald & Dixon (2006) among others. The notion proved to be useful for building an adequate framework for a more global approach to the verb phrase in Burmese.

## 2. Serial Verb Constructions (SVC): a theoretical reminder

### 2.1. Definition

The term “Serial Verb Construction”, or verb serialization, has been applied to different types of construction. However, most of the definitions reviewed characterize the SVC as a string of verbs or verb phrases (i) that are not separated by a connector, (ii) that share the same grammatical information and sometimes the same arguments, and (iii) that describe a single event (cf. Vittrant 2006). For instance, Dechaine (1993:799) writes that: “A serial verb construction is a succession of verbs and their complements (if any) in a single clause with one subject and one tense or aspect value.”, Bisang (1995:138) defined verb serialization as “the unmarked juxtaposition of two or more verbs or verb phrases (with or without subject and/or object) each of which would also be able to form a sentence on its own.”, and Durie (1997: 290) insists on the ‘uniqueness’ of the event: “The archetypal serial verb construction consists of a sequence of two or more verbs which in various (rather than strong) senses, together act like a single verb.” See also Bril & Ozanne-Rivierre (2004:2), Aikhenvald & Dixon (2006:1)<sup>8</sup> and Vittrant (2006:309)<sup>9</sup>.

Moreover, in languages that possess SVCs, these constructions generally exist along with other structures of dependency, i.e. such as coordination, complementation and subordination. Most studies of SVCs distinguish between serialization, clause-chaining<sup>10</sup> (complex predicates) and sequence of clauses. These distinctions are mainly based on the criterion of monoclausality, a syntactic criterion that needs to be formally defined for every single language (Foley 2010).

In Burmese, the difference between subordinate or coordinate clauses, clause chains, and verb serialization is illustrated by examples (4) to (6).

In (4), the two clauses are linked by the temporal subordinator [pi<sup>3</sup>] that indicates the end of the dependent clause. The end of the head clause, on the other hand, is marked by a final verbal particle conveying realis modality, considered as evidence of finiteness in Burmese.

The sentence in (5) contains two verbs that are separated by the object of the second one, i.e. ‘hand’ [lɛʔ]. As suggested by the translation, we have here two clauses that are chained and not subordinated as in the previous example, while example (6) illustrated a SVC.

<sup>7</sup> The term *Versatile verb* has been coined by Matisoff (1969: 70) to refer to dependent verbs, that have undergone a semantic bleaching, that could precede or follow the head verb. In our usage, *versatile verbs* differ from auxiliaries as for their syntactic position: the former precede the head verb whereas the later follow it.

<sup>8</sup> Aikhenvald & Dixon (2006:1): “A serial verb construction is a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination or syntactic dependency of any sort.”

<sup>9</sup> Vittrant (2006:309): “Une construction de verbes en série (CVS) est une séquence de verbes qui ne sont syntaxiquement ni coordonnés ni subordonnés. Elle a d’autre part, la forme de surface d’un syntagme verbal unique.”

<sup>10</sup> Clause-chaining may be defined as a sequence of one fully finite verb and one (or more) less finite medial verb(s). Clause-chaining, which has been described for Papuan languages, is similar to Japanese Complex predicates, as described for Japanese or Korean (Shibatani 2009).

Actually, in this sentence, the object of the second verb, i.e. ‘words’ [zəKa<sup>3</sup>], precedes the string of verbs, which suggests that syntactically the two verbs are closely associated.

(4) ပုလင်းက ဂူထဲကို မျောပြီး ဝင်သွားတယ် ။  
 pəlin<sup>3</sup> = Ka<sup>1</sup> gu<sup>2</sup> the<sup>3</sup> = Ko<sup>2</sup> myə<sup>3</sup> = Pi<sup>3</sup> wiN<sup>2</sup> θwa<sup>3</sup> = Tε<sup>2</sup>  
 bottle = S./TOP cave inside=DIR float = SUB.TPS enter GO/CFG = REAL.ASS  
*A bottle floated into the cave.*

*lit. (A) bottle entered inside the cave and/while having floated [away from Speaker].*

(5) ... ပန်းကန်ထဲ ရေထည့်လက်ဆေးပြီး...  
 ... pəKan<sup>3</sup> the<sup>3</sup> ye<sup>2</sup> the<sup>1</sup> lε? she<sup>2</sup> = Pi<sup>3</sup> ...  
 ... plate inside water to put hand wash = SUB.TPS ...  
*... after having poured water into the plate and having washed his hands...*

(6) သင်္ဘောပေါ်မှာ ၊ သင်္ဘောပေါ်မှာ စကားလာပြောတယ် ။  
 θiN<sup>2</sup>ba<sup>1</sup> pa<sup>2</sup> = Ma<sup>2</sup> θiN<sup>2</sup>ba<sup>1</sup> pa<sup>2</sup> = Ma<sup>2</sup> zəKa<sup>3</sup> la<sup>2</sup> pyə<sup>3</sup> = Tε<sup>2</sup>  
 boat on = LOC boat on = LOC word.speech come say = REAL.ASS  
*On the boat, on the boat, (she) came to me to talk.*

*(lit. ... she came to tell me some words.)*

## 2.2. Main Features and subtypes of SVC

As pointed out by Senft 2004, the little agreement about how the phenomenon of serial verbs should be defined is partly due to the lack of a common framework for describing and comparing language systems. However, various studies (and authors) agree on a set of common features or key characteristics (Durie, 1997: 2019-91), (Bril, 2004: 2-3).

- Usually, an SVC describes what corresponds conceptually to a unique event.
- The verbs of an SVC share tense, aspect, modality and polarity information.
- The verbs of an SVC share at least one argument, and can have one subject only.
- None of the SVC verbs is a subordinated verb, that is to say none of the verbs in the SVC is the syntactic argument of another verb in the SVC.
- The SVC constitutes a single prosodic unit (without any pause), i.e. it has the intonation of a single clause.

To summarize, SVCs are monoclausal but multi-predicational (Jarkey 2010:5)<sup>11</sup>.

Moreover, diachronic studies show the strong tendency of SVCs to move towards grammaticalization or lexicalization — see Clark (1989:190), DeLancey (1991:3), Lord (1993:3, 215, 236), Bisang (1996:533, 563)<sup>12</sup>.

Notice however that for most of the authors, an SVC may possess all or only some of these features. In other words, none of these properties is defining *per se*.

Therefore, verbal serialization or the SVC is far from being a uniform phenomenon, and most of the authors, after agreeing on this core set of properties, propose sub-types of SVC. Generally, two main classes of SVC can be distinguished, even if from one author to the other, the two classes may contain different sub-types of SCV. These two classes of SVC will be labeled ‘Symmetrical SVC class’ (co-ranking predicates) and ‘Asymmetrical SVC class’ (implying a head-modifier hierarchy), according to Bril (2004) and Aikhenvald and Dixon

<sup>11</sup> Jarkey (2010:110) :” SVCs are monoclausal but multi-predicational. That is, they involve two or more distinct predicating morphemes, linked together in a single clause by virtue of the fact that they share one or more argument positions through coindexation.”

<sup>12</sup> Bisang (1996 : 533) : “Because the unmarked juxtaposition of verbs in the languages of East and mainland South East Asia is particularly easy and widespread, all the products of grammaticalization derived from verbs are the result of grammaticalization combined with the influence of attractor positions on constructions of verb serialization.” (p. 563): “As pointed out above, grammaticalization is tightly linked to verb serialization.”

(2006).

**The symmetrical SVC** may be first characterized by the absence of syntactically or semantically dependent verbs. Verbs belong to open classes without grammatical or semantic constraints. Then, the order of the actions (or sub-events) described by the SVC is generally iconic: it reflects the temporal order of the actions. Lastly, the event described by the SVC is conceived as a unique and single event<sup>13</sup>. According to Durie (1997), there are two explanations for this ‘unitary-event’ characteristic: a cognitive one and a cultural one.

The cognitive one is based on the observation that the processes meaning “take (away)” or “bring (back)” are currently expressed through SVC in languages that possess this construction. The verbs used mean roughly ‘take’ and ‘go’ (or ‘come’), as exemplified in Vietnamese, Yoruba and Burmese<sup>14</sup>. Similarities in human environment and experience seem a good explanation for the high frequency of this string of verbs (Durie 1997: 321), (Vittrant 2006:311)<sup>15</sup>.

YORUBA (*Niger-congo*, West-Africa) from Stahlke 1970 quoted by Kroeger (2004 : 227)

(7) **mo**      **mu**      **iwe**      **wa**      **fun**      **ε**  
           1SG    **take**      book      **come**    give      2SG  
*I brought you a book.*

BURMESE (*Sino-Tibetan*, Burma)

(8)  $\dot{\text{kh}}\text{oN}^2$   $\text{y}\text{u}^2$      $\text{θ}\text{w}\text{a}^3 = \text{P}\text{a}^2$        $\emptyset$   
           stool    **take**    **go/CTF = POL**      (MP)  
*Take away the stool.*

VIETNAMESE (*Austroasiatic*, Vietnam)

(9) Anh.ấy mang va-li đi r ôi  
           3SG.MASC **carry**      suitcase **go**      CRS  
*He has taken away (his) suitcase.*

However, this cognitive explanation fails to explain why some verbal serializations are presented by speakers as unique and consistent events. In many cases it seems relevant to take into account the socio-cultural context. As shown by Jarkey 1991, writing about dancing while blowing bamboo pipes in Hmong culture<sup>16</sup> (cited by Durie (1997: 321)), each speech community decides what events should be conventionalized verbally within the frame of a SVC.

This cultural explanation allows me to give an account of SVCs such as (10), which presents a process conceived in/by Burmese culture as a unitary event. The process [to<sup>1</sup> sa<sup>3</sup>] (“dip-eat”) refers to a way of eating a certain kind of food: actually a Burmese meal is generally served with little poached vegetables called [to<sup>1</sup> zəya<sup>3</sup>] (“dip-NMLZ”), that is to say ‘dip-able things’. Used as pickles or side-dishes, they are eaten with the hands as we do with radish, dipping them in salt or in a sauce.

<sup>13</sup> See also Baker & Harvey (2010)’s distinction of complex vs. simplex event, the latter being defined by formal constraints (single predicate, coverb construction or monomorphemic predicate).

<sup>14</sup> In languages where SVC is absent or rare, other means are used to express this human experience. See for instance French ‘ap-porter’/‘em-porter’, ‘a-mener’/‘em-mener’, or ‘a-lunir’, ‘a-terrir’, ‘en-voler’, where the prefix *a-* is equivalent to ‘come’ in SVC, whereas *en(m)-* express a motion away from speaker.

<sup>15</sup> See also Vittrant *forthcoming* on the cognitive and cultural explanations, and the different strategies to express semantic compositionality in languages.

<sup>16</sup> Bamboo pipes are usually played by Hmong people during death ceremonies (or other types of ritual), to accompany the dead person up to his last ‘home’. The pipes performers have to dance in a certain and codified way while playing the pipes. Therefore whenever the pipes are played, the performer dances along with the music, the two processes are inseparable from each other. So it is natural for Hmong to recognize ‘dancing-while-playing’ as a single event, which is not the case for dancing and listening, considered as distinct events.

Therefore, the process of “eating-and-dipping” is conceived as a single event in Burmese culture and is expressed by an SVC.

- (10) ဆာနဲးနဲး တိုစာပါ ။  
 sha<sup>2</sup> = ne<sup>1</sup> to<sup>1</sup> sa<sup>3</sup> = Pa<sup>2</sup> Ø  
 salt =with dip eat = POL (IMP)  
 Dip-(it) in salt (and) eat-(it).

The second type of SVC, i.e. the **asymmetrical SVC** may be characterized by the following properties. First, one verb (at least) of the string belongs to a limited class and may be viewed as a modifier of a head verb. It often undergoes semantic change too. In other words, an asymmetrical SVC generally contains a fully-fledged verb (or plain verb) and one (or more) verb(s) that has/have undergone semantic depletion or semantic bleaching.

*“The asymmetrical subtype is generally assigned modification (property, value) or specification of circumstances (manner, result, location, etc.), while the less frequent symmetrical subtype expresses sequential or purposive actions”*. (Bril 2004 :24)

Thus, numerous linguists have noticed the relationship between SVCs and lexicalization and grammaticalization processes<sup>17</sup>. See for instance DeLancey (1991) on grammaticalizations that originate from SVCs in different Tibeto-Burman languages.

*“The Tibeto-Burman languages manifest a considerable range of grammaticalized verb constructions. Thus the individual and comparative study of such constructions in various Tibeto-Burman languages provides insight into diachronic processes of serialization, auxiliarization and morphologization of originally independent lexical verbs.”* (DeLancey, 1991: 3)

Then, unlike symmetrical SVCs, asymmetrical SVCs are not necessarily iconic: sub-events need not to refer to sequential actions.

Finally, given its semantic heterogeneity, the asymmetrical SVC class is often divided into several sub-types. The distinction may be based on semantic criteria, leading to the following main sub-types of serialization: directional SVC, resultative SVC, causative SVC, and more generally aspecto-temporal or modal SVC — see Givón (1991: 83), Lord (1993:9), Bisang (1996: 149ff), Durie (1997: 335), Bril (2004:16ff), Bisang (1996: 150).

However, other classifications exist that rely on syntactic properties. For instance, Li & Thompson (1981: 607)<sup>18</sup> talk about the ‘Pivotal construction’<sup>19</sup>, a construction where “*a noun phrase is simultaneously the subject of the second verb and the direct object of the first verb*”, as opposed to serialization where “*one verb phrase or clause is the subject or direct object of another verb*” (1981: 598). But in Role and Reference Grammar, SVCs are described as Nuclear (or tight) vs. Core (or loose) serializations, the two terms referring to the layered structure of the clause (Bril, 2004: 4).

<sup>17</sup> See Givón (1991: 118), Lord (1993: 215ff, 233, 236), Bisang (1996: 533, 563), Durie (1997 : 291), Bril (2004: 13, 38ff) *inter al.*

<sup>18</sup> Li & Thompson 1981 distinguished four types of SVC: (1) SVC that express events related in a way (consecutive, purposive, alternating, circumstance); (2) descriptive clause construction that “*involves a transitive verb whose object is described by a following clause*”, and the two other types already discussed in this section.

<sup>19</sup> On Pivotal and other types (Cotemporal, Disposal and Attainment) of SVCs based on syntactic properties, see Jarke 1991, 2010.

### 3. Criteria used to analyze the Burmese verb phrase

#### 3.1. Irrelevancy of criteria generally used in studies of SVCs

The usual criteria for distinguishing between sequences of clauses, clause-chains and SVCs, or to tell apart the different subtypes of SVC, may not be used in certain languages. For instance, Brill (2004: 9) notices that Oceanic languages generally lack morphological clues, and that “the sharing of TAM morphemes [is] often [an] elusive criteria”. Similarly, criteria such as agreement, case marking, syntactic dependency, position of the arguments, are not relevant in Burmese. As shown by example (11), no agreement is morphologically expressed, nor is case marking, although syntactic functions may be marked in Burmese — see examples (3) and (4), with respectively [Ko<sup>2</sup>] object marker of ‘words’ [zeKa<sup>3</sup>], and [Ka<sup>1</sup>] subject marker of ‘bottle’ [pəliN<sup>3</sup>]. Moreover, constituent order fails to be discriminating, because the order of arguments, if and when they are expressed, is pragmatically (and not syntactically) constrained.

- (11)    ဟင်းချက်တယ် ။  
          hiN<sup>3</sup>    chε? = Tε<sup>2</sup>  
          soup    cook = REAL.ASS  
          {I, you, he} cook {cooked} {a, some} soup

Since we lack a cross-linguistic definition of the SVC, we need to build language-specific tests that help to clarify the status of strings of verbs in a language. Therefore, relying on the notion of SVC and its key features, I look for criteria that allow me to distinguish in Burmese among similar surface forms with different underlying structures, i.e. among:

- string of verbs that behave similarly to compound lexemes
- string of verbs that represent semantically complex events but expressed in a single clause
- strings of verbs that contain a modifying verb that specifies the process expressed by another (head) verb.
- strings of verbs containing a verb that has undergone semantic change, that is to say a verb on a grammaticalization path.

#### 3.2. Criteria relevant to the analysis of Burmese SVCs

Four criteria seem relevant for analyzing Burmese strings of verbs. The first (phonological) criterion is the assimilation of initial consonants of verbs. The second is functional and deals with changes (either functional or semantic) in some elements of the string of verbs, while the last two criteria are syntactic: negation scope and the introduction of subordinators into the string of verbs.

##### *Phonological criterion*

In Burmese phonology, initial consonant realization is conditioned by (1) the nature of the previous phoneme and (2) the degree of morphosyntactic bondedness of the syllables. In other words, the initial consonant of a syllable is VOICED if the final segment of the previous syllable is a vowel or a nasal consonant AND if the two syllables are part of the same phrase; the initial consonant is UNVOICED if the final segment of the previous syllable is a glottal stop or if the two syllables are parts of two different phrases (Bernot, 1980: 19-41).

This criterion therefore seems relevant to show the tight juncture between the verbs of an SVC, i.e. to demonstrate that the SVC behaves as a single phrase with closely tied verbs. However, this criterion is limited; it cannot apply when a syllable ends with a glottal stop: in this case, the consonant of the following syllable will automatically be pronounced unvoiced,

regardless of the bondedness of the syllables.

In example (12) (example (10) repeated here for convenience), both sentences contain two verbs. In (a), the verb [to<sup>1</sup>] ‘to dip’ ends in a vowel, whereas in (b) the verb [siN<sup>3</sup>] ‘to mince’ ends in a nasal consonant. Therefore, in both cases, the following verb (and syllable) [sa<sup>3</sup>] ‘to eat’, could be voiced. Actually the [sa<sup>3</sup>] verb is voiced only in (b) where the two verbs are tightly bound. We have here a lexicalized SVC, i.e. a compound lexeme. On the other side, [sa<sup>3</sup>] is realized unvoiced in (a) as the two verbs are not in close juncture. The string of verbs in (a) behaves like a symmetrical SVC, typically iconic.

Finally in (13), no sandhi can occur: [sa<sup>3</sup>] is preceded by the verb [kai?] ‘bite’ ending in a glottal stop, and the following consonant will be automatically uttered unvoiced, since the segmental features do not allow such a sandhi process to take place.

(12) a. ဆားနဲ့ တိုစားပါ။ ။

sha<sup>3</sup> = ne<sup>1</sup>    to<sup>1</sup>    sa<sup>3</sup> = Pa<sup>2</sup>    Ø  
 salt = with    dip    eat = POL    (IMP)  
*Dip (it) in salt (and) eat (it).*

b. ငါ ရပ်စဉ်းစားတယ် ၊ သိလား ၊ ...

ŋa<sup>2</sup>    ya?    siN<sup>3</sup>. Sa<sup>3</sup> = Te<sup>2</sup>    θi<sup>1</sup> = la<sup>3</sup>  
 1SG    stop    mince. eat = REAL.ASS    know = QST  
*You know, I stop and think about it...*

(13) ခြင်္သေ့ဟာ သိုးကလေး ကို ကိုက်စား လိုက် တယ်။ ။

chiN<sup>2</sup>θe<sup>1</sup> = ha<sup>2</sup>    θo<sup>3</sup>Kəle<sup>3</sup> = Ko<sup>2</sup>    kai?    sa<sup>3</sup>    lai? = Te<sup>2</sup>  
 lion = TOP    lamb = OBJ    bite    eat    TERM. = REAL.ASS  
*The lion devoured the lamb.*

Despite this reservation, the ‘phonological unit of the SVC criterion has a discriminating role in Burmese. It allows me to distinguish between:

- (1) a true (symmetrical) SVC and an almost lexicalized SVC, on one hand.
- (2) and a true (asymmetrical) SVC and a grammaticalized SVC on the other hand.

### Semantic change

Semantic change, a defining criterion for asymmetrical SVC, also has a discriminating role and it generally implies a semantically subordinate relationship, although this subordination, i.e. this specialization of verbs, displays different stages between slightly different lexical meanings and grammatical functions. Thus some verbs may have a slightly different meaning according to their position as V1 or V2 in the string (example (14)), whereas others may have undergone a categorial change and become grammaticalized.

For instance, [pyaN<sup>2</sup>], used as the main verb, means ‘to return, to go back’ as in (14a). However, as a V1 or a V2 in a string of verbs, it has a slightly different meaning (14b & c). Compare with [lai?], meaning “to follow” as a main verb, but carrying a aspectual meaning (terminative) when used as a V2 as in example (13). See also [ne<sup>2</sup>] meaning “to leave, to stay” as a main verb (cf. (2)), which conveys unaccomplished aspect as in (3) and (14c).

(14) a. အိမ်ပြန်မယ်။ ။

?eiN    pyaN<sup>2</sup>    = me<sup>2</sup>  
 house    return    = IRR.ASS  
*I am going back home.*

b. စာအုပ် ပြန်ပေးပါ။ ။

sa<sup>1</sup>.?o?    pyaN<sup>2</sup>    pe<sup>3</sup> = Pa<sup>2</sup>  
 book    return    give = POL  
*Give (me) **back** (the) book.*

- c. မိုးရွာနေပြန်ပြီ ။  
 mo<sup>3</sup> ywa<sup>2</sup> ne<sup>3</sup> pyaN<sup>2</sup> = Pi<sup>2</sup>  
 rain fall ASP: INACC ITER =CRS  
*It started raining **again**.*

Actually this criterion helps to distinguish in Burmese between asymmetrical SVCs expressing a modification or specification of circumstances (manner, result), and SVCs containing true auxiliaries, i.e. ‘grammaticalized SVCs’.

It is also relevant to set apart ‘lexicalized SVCs’, as stated by Durie (1997: 323): “Related to lexicalization of particular verb combinations is the tendency for particular verbs to develop distinct meanings when used in serialization”.

*Inserting an item between the components of the SVC*

Authors such as Matisoff (1991) and Aikhenvald & Dixon (2006) have noticed that inserting an item (subordinator or coordinator) between the different components of a SVC generally leads to a semantically non-equivalent sequence.

In Burmese too, insertion of a subordinator correlated with a semantic change discriminates between different types of SVC. Actually it separates out lexicalized SVCs and (true) symmetrical SVCs on one hand, and grammaticalized SVCs vs. asymmetrical, non-grammaticalized SVCs on the other.

For instance, inserting the temporal subordinating morpheme [Pi<sup>3</sup>] between the two verbs of the SVC in example (15), is correlated with a semantic change. We have a lexicalized symmetrical SVC.

- (15) a. ရှေးတုန်းက သားတစ်ယောက် မွေးစားဖူးတယ်။  
 je<sup>3</sup>.ToN<sup>3</sup>.Ka<sup>1</sup> θa<sup>3</sup> tə-ya? mwe<sup>3</sup>.Sa<sup>3</sup> Phu<sup>3</sup> = Te<sup>2</sup>  
 In the past son one-CLF(hum) adopt, raise EXPER.= REAL.ASS  
*In the past, (he) adopted a son.*

- b. ကြက် မွေးပြီးစားတယ်။  
 ce? mwe<sup>3</sup> = Pi<sup>3</sup> sa<sup>3</sup> = Te<sup>2</sup>  
 chicken give birth, raise = SUB eat = REAL.ASS  
*(He) breeds some chicken and eat (them).*  
 or *(He) breeds chicken to eat [to earn his living].*

On the other hand, when [Pi<sup>3</sup>] is inserted between the two verbs of the SVC in example (16), it does not change the content meaning of the SVC. Example (16) shows a (true) symmetrical SVC as the insertion of [Pi<sup>3</sup>] is not correlated with any semantic change here.

- (16)a. ရိုက်သတ်လိုက်ပါ ။  
 yai? θa? lai? = Pa  
 hit, beat kill TERM. = POL  
*Hit (him) and kill (him) up!*
- b. ရိုက်ပြီးသတ်လိုက်ပါ ။  
 yai? = Pi<sup>3</sup> θa? lai? = Pa  
 hit, beat = SUB.TPS kill TERM. = POL  
*Hit (him) and kill (him) up!*

However, although the clausal meanings of (16)a and (16)b are equivalent, some informants identify a pragmatic difference between these two sentences: the use of the subordinator brings out one stage of the process described by the SVC. For instance, in (17)b, the emphasis is put on the way of eating, that is to say dipping in salt that may prevent a sour taste.

(17) a. ဒီသရက်သီးကို ဆားနဲ့ တို့စားပါ ၊ အဲဒါ အရသာ ပိုရှိတယ် ။  
 di<sup>2</sup> θəyəŋθi<sup>3</sup> = Ko<sup>2</sup> sha<sup>3</sup> = ne<sup>1</sup> to<sup>1</sup> sa<sup>3</sup> = Pa<sup>2</sup>  
 DEM mango = OBJ salt = with dip eat = POL

ŋe - da<sup>2</sup>ŋəya<sup>2</sup>θa<sup>2</sup> po<sup>2</sup> ʃi<sup>1</sup> = Te<sup>2</sup>  
 DEM:anaph. - this taste VV:be more have = REAL.ASS  
*Dip this mango in the salt (and) eat it. It is tastier.*

b. ဒီသရက်သီးကို ဆားနဲ့ တို့ပြီးစားပါ ။ ဒါမှမဟုတ်ရင် အရမ်းချဉ်တယ် ။  
 di<sup>2</sup> θəyəŋθi<sup>3</sup> = Ko<sup>2</sup> sha<sup>3</sup> = ne<sup>1</sup> to<sup>1</sup> = Pi<sup>3</sup> sa<sup>3</sup> = Pa<sup>2</sup>  
 DEM mango = OBJ salt = with dip = SUB.TPS eat = POL

da<sup>2</sup>-mə<sup>1</sup>-mə-hoŋ-yiN<sup>2</sup> ŋəyaN<sup>3</sup> chiN<sup>2</sup> = Te<sup>2</sup>  
 if not very be sour = REAL.ASS  
*Dip this mango in the salt (and/ to) eat it. If not, it is very sour.*

*Scope and position of negation*

The position of the negation marker in a SVC is known to be an important criterion for verb phrase analysis in South-East Asian languages. It is currently used to distinguish free verb morphemes from bound morphemes (Matisoff, 1991: 393), (Bjorverud, 1998: 86).

In Burmese, this criterion reveals either the lexicalized or grammaticalized nature of an SVC. In both kinds of SVC, only the preverbal position (before the string of verbs) of the morpheme [mə] negates the whole process described by the SVC; the insertion of the negative morpheme<sup>20</sup> [mə] between two verbs in the string, is either impossible or leads to a different meaning as shown in (18)b.

(18) a. ... မစဉ်းစားတတ်ဘူး ။  
 ...mə siN<sup>3</sup>. Sa<sup>3</sup> ta? = Phu<sup>3</sup>  
 ... NEG mince. eat CAPAC.= NEG  
*(I) cannot imagine...*

b. ... စဉ်းမစားတတ်ဘူး ။  
 ... siN<sup>3</sup> mə sa<sup>3</sup> ta? = Phu<sup>3</sup>  
 ... mince NEG eat CAPAC.= NEG  
*(I) cannot eat (it) mincing (it).*

or *(I) was not used to eating (it while) mincing (it).*

(19) a. သူ ကျမကို မမြင်နိုင်ဘူး ။  
 θu<sup>2</sup> cəma<sup>1</sup> = Ko<sup>2</sup> mə = myiN<sup>2</sup> naiN<sup>2</sup> = Phu<sup>3</sup>  
 3SG 1SG (W.S.) =OBJ NEG = see to win/CAPAC.= NEG  
*He cannot see me.*

b. \*သူ ကျမကို မြင်မနိုင်ဘူး ။  
 θu<sup>2</sup> cəma<sup>1</sup> = Ko<sup>2</sup> myiN<sup>2</sup> mə = naiN<sup>2</sup> = Phu<sup>3</sup>  
 3SG 1SG (W.S.) =OBJ see NEG= to win/CAPAC.= NEG

<sup>20</sup> Negation is expressed in Colloquial Burmese with a discontinuous morpheme [mə ... Phu<sup>3</sup>]. However, the negative value is conveyed essentially by the first part [mə], a form cognate to many negative morphemes in Tibeto-Burman languages (see Matisoff 2003:488). Another clue is the absence of the form [Phu<sup>3</sup>] in negated clauses in archaic dialects such as Arakanese, where the use of the [mə] form is enough to negate a process.

## 4. About Burmese Serial Verb Constructions (SVC)

The aim of this paper was to provide a new and more global approach to the Burmese verb phrase given the range of constructions that shows up with identical forms and different underlying structures.

Despite the ongoing debates on the relevancy of the notion of verbal serialization (Senft 2004, Shibatani 2009, Foley 2010), this notion turns out to be relevant for our analysis of the Burmese verb phrase, and useful for distinguishing among the different structures found.

In this last section, I will present our analysis of the verb phrase in terms of serialization, highlighting the subtypes of SVC relevant for Burmese and their properties.

### 4.1. Properties of the different SVCs

Four sub-types of SVC emerge from our analysis of verbal serialization in Burmese that is to say of string of verbs with different underlying structures. Based on the criteria presented in the previous section, I distinguished:

- (1) Lexicalized (symmetrical) SVCs
- (2) ‘True’ symmetrical SVCs
- (3) ‘True asymmetrical SVCs
- (4) Grammaticalized (asymmetrical) SVCs

#### *Symmetrical SVCs and their properties*

Three properties are important for distinguishing between lexicalized and true symmetrical SVCs: the phonological behavior of the initial consonant of the second (or inner) verb, the semantic change undergone by verb(s) and the boundness of the components of the SVC, which can prevent negation or other items being inserted.

- First, lexicalized SVCs show a phonological unity with voicing when allowed (see § 3.2), while in true symmetrical SVCs, unvoiced initial consonants remain unvoiced.

- Lexicalized SVCs become idiomatic expressions; their meaning cannot be deduced from the meaning of their verbal components. By contrast, true symmetrical SVCs are semantically transparent (see the verbs in bold in (20)a and b).

- (20) a. စလေမှာ ဘုန်းကြီး ရှင်းပြတဲ့လိပ် ၊ ...  
 sa<sup>1</sup>le<sup>2</sup> = Ma    phoN<sup>3</sup>ci<sup>3</sup>    jiN<sup>3</sup>    pya<sup>1</sup> = Te<sup>1</sup>    lei? ...  
 Sale = LOC    monk    clear    show = REL.R.    turtle  
 ... *the turtle about which the monk, in Sale, explains [the story]*  
*lit. ... the turtle that the monk shows clearly [the story]....*

- b. လမ်းဖြတ်ကူးတယ် ။  
 laN<sup>3</sup>    **phy**a?    ku<sup>3</sup> = Te<sup>2</sup>  
 road    cut, go across    cross = REAL.ASS  
 (He) cut [and] crossed the road.

- Moreover, the two kinds of symmetrical SVC behave differently regarding syntactic criteria (position of the negative marker, insertion of a subordinating marker): whereas no item neither negation nor subordinating markers may be inserted between the components of a lexicalized SVC, true symmetrical SVCs are inconsistent in their syntactic behavior, accepting various positions for these markers.

- Finally, symmetrical SVCs are known to be time-iconic, referring to sequential actions (or action-goal, action-result, cause-effect events), which constitute the various phases of a single event. Burmese ‘true’ symmetrical SVCs do not depart from the general rule. However, iconic principles may sometimes be irrelevant due to coincident actions, language-specific constraints (see Matisoff 1969:84 on the order of concrete and abstract verbs in Lahu), or idiomaticity. Thus, lexicalized (symmetrical) SVCs, which are highly idiomatic, do not conform to the iconic principle.

*Asymmetrical SVCs and their properties*

The main difference between symmetrical and asymmetrical SVCs is whether they belong to an open class or a closed class. In asymmetrical SVCs, one (at least) verb shows dependency<sup>21</sup> on another verb; thus the head verb belongs to an open class, while the modifier verb(s) usually come(s) from a closed class. This dependency comes with semantic change.

This semantic change is defining *per se* of the asymmetrical SVC; it affects some but not all the verbal components of the SVC, and so differs from what happens in lexicalized SVCs. In this latter construction, the change in meaning affects the whole string, producing an idiomatic meaning.

The degree of change discriminates between ‘true’ asymmetrical SVCs and grammaticalized (asymmetrical) SVCs: some verbs may have undergone a slight specialization, with a modifying meaning easy to infer from the original meaning of the verb, while others may have become auxiliaries.

For instance, in (21) (compared with (6)), the motion verb [la<sup>2</sup>] ‘come’ has a slightly different meaning when used as the last verb of the sequence; it has undergone a functional specialization (a kind of intermediate stage between lexical and grammatical function): it actually marks deixis, i.e. the direction of the process from the viewpoint of narrator (Grinevald 2011: 56). In (22) however, the change is more radical: it has become an aspectual marker, conveying a change of state with progression in time or an inchoative meaning.

(21) ကောငံမလေး ပြောင်းခင်းထဲကနေ ပြန်ထွက်လာတယ်  
 kaɔN<sup>2</sup>ma<sup>1</sup>le<sup>3</sup> pya<sup>3</sup>N<sup>3</sup>.KhiN<sup>2</sup> the<sup>3</sup> = Ka<sup>1</sup>ne<sup>2</sup> pya<sup>2</sup> thwe? la<sup>2</sup> = Te<sup>2</sup>  
 woman corn. field inside = FROM (go)back go out **come**>CPETE = REAL.ASS  
*The young woman come out back from (inside) the corn field [towards me].*

(22) အိမ်ထောင်ကျတော့ ဝလာတယ် ။  
 ?eiN<sup>2</sup>.thaɔN<sup>2</sup> ca<sup>1</sup> = Tɔ<sup>2</sup> wa<sup>1</sup> la<sup>2</sup> = Te<sup>2</sup>  
 to marry be in certain state = SUB.TPS fat **come**>INCHOAT = REAL.ASS  
*She got fat when she married.။*

Finally, the position of the subordinate verb is not consistent in asymmetrical SVCs, although a tendency becomes clear: when subordinate verbs are the first components of the SVC, i.e. V1 position, the SVC is a ‘true’ asymmetrical SVC. By contrast, most of the verbs that have undergone grammatical change, i.e. auxiliaries, appear after the head-verb, as V2.

The table summarizes the core properties of the four sub-types of SVC distinguished for Burmese.

Table (1): Sub-types of SVC and their properties in Burmese

Sub-types of SVC	Defining properties
Lexicalized (symmetrical) SVC	- phonological rule applied - <b>idiomatic meaning</b> - No insertion between components of the SVC
True’ symmetrical SVC	- no phonological link - semantic transparency - independence of the verbs (open class) - <b>generally iconic</b> BUT different syntactic behavior
True asymmetrical SVC	- dependency (head-modifier relationship) - restricted class of the modifying verb - <b>slight semantic change</b> BUT different syntactic behavior

<sup>21</sup> Following Brill (2004:24), I subsume under ‘dependency’ the following relations: (a) relations of dominance within hierarchical structures and (b) relations of governance between constituents. Asymmetrical serialization generally displays the former (dominance), but excludes the latter (governance).  
 ။ Example from Okell & Allott (2001:198)

Grammaticalized (asymmetrical) SVC	<ul style="list-style-type: none"> <li>- dependency (head-modifier relationship)</li> <li>- restricted class of the modifying verb</li> <li>- semantic change &gt; <b>grammatical function</b></li> <li>- <b>modifying-verb as V2 (after Vhead)</b></li> </ul> <p>Generally no insertion between components of the SVC</p>
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## 4.2. A continuum with prototypical types of SVC

Although the different sub-types presented could be characterized with phonological, syntactic and semantic properties, what also emerges from these definitions is that our four sub-types are not clear-cut categories of SVC.

A better way to give an account of Burmese verb phrases is therefore to analyze the different sequences of verbs studied as belonging to a continuum marked out by four prototypical categories, as shown in figure 1.

<i>Figure (1) : Continuum of Serial Verb Constructions (SVCs)</i>			
< tendency towards			tendency towards >
LEXICALIZATION	SYMMETRICAL SVC	ASYMMETRICAL SVC	GRAMMATICALIZATION
Compound lexemes			Auxiliaries

This approach is confirmed by diachronic studies of verb serialization that show a tendency for verbs to shift from isolation (serial verbs) to boundness (see footnote 17). To put it in other words, serial verbs tend to lexicalize or to grammaticalize, with common cross-linguistic changes. See for instance Ozanne-Rivierre & Rivierre (2004) on the gradual development of contiguous verbs involving gesture and action into compounds in New Caledonian languages, or Matisoff (1991:414ff) on areal and universal patterns of ‘verbleaching’ and ‘verpositions’<sup>23</sup> in East and Southeast Asian languages.

*There is a very strong diachronic tendency to lexicalization and grammaticalization of the meaning of serial complexes: this can involve treating the whole serial complex as a single lexical(ized) item, or ‘demotion’ of the meaning and grammatical status of one of the verbs to that of a modifier or case-marker. (Durie, 1997: 291)*

## Conclusion

Given our aim to provide a more global description of the Burmese verb phrase, the notion of Serial Verb Construction helped to give a global account of those verb phrases that are identical on the surface but have different underlying structures.

Although no clear-cut categories of serial verb construction emerge, some tendencies can be highlighted: for instance post-head position of modifying verbs in grammaticalized SVCs vs. pre-head position of modifying verbs in asymmetrical position; transparency vs. semantic change to distinguish between symmetrical and asymmetrical SVCs.

Moreover, the criteria retained for our analysis — such as the phonological criterion —, clearly discriminate between SVCs at each end of the continuum, i.e. lexicalized and grammaticalized SVCs. Notice however the similar behavior of lexicalized SVCs on one side and grammaticalized SVC on the other end of the continuum, which differ only in their semantic properties.

Table (2) summarizes and illustrates properties of various SVCs in Burmese.

Although I present our results according to our continuum, notice that this table could have

<sup>23</sup> ‘Verbleaching’ refers to “the semantic process by which a full verb undergoes abstractification, at the same time as it expands its co-occurrence possibilities. [...] When this process is far enough advanced, the bleached morpheme can become a satellite to an indefinite number of heads — an auxiliary, helping, or ‘versatile’ verb.” (Matisoff, 1991: 402), while ‘verpositions’ is a label for “verb-derived morphemes that have come to function like preposition” (p. 433).

been presented with the split between symmetrical and asymmetrical SVC, which would have shown that the extremities of the table meet.

#### Abbreviations :

ANAPH: anaphoric, ASS: assertive, AUX: auxiliary, BENE: benefactive, CLF: classifier, CFUGE: motion away from deictic center; CPETE: motion toward deictic center; CRS: current relevant state, DEM: demonstrative, DIM: diminutive, DM: discourse marker, DIR: directional, IMP:imperative, INACC: inaccomplishment, INCHOAT: inchoative (aspect); IR: irrealis modality, ITER: iterative (aspect), LOC: locative, NMLZ: nominalizer, OBJ: object, PERF: perfect, POL: politeness, PLUR: plural, QST: question marker, R. or REAL: realis modality, REL: relator, RESULT: resultative (aspect), S: source of the action (« ablative » or « nominative »), SUB: subordinator, SPT: spacio-temporal, TERM: terminative (aspect), TOP: topic; W.S.: woman speaking

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