Dogon verb serialization and chaining
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direct chains

The most restrictive multi-verb construction is a **direct chain**. In this construction, only the final verb in the chain has regular aspect-negation and pronominal-subject inflection. Nonfinal verbs take the form of a **bare stem** (without affixation) or of an invariant **chaining form**, depending on the language.

   In some languages the form fo the verb used in nonfinal position in chains is also the basis for aspect-negation inflections. In this case it can be called the **combining form**. The verbs are typically adjacent, except that when a proclitic subject pronoun occurs (as in relative clauses), it immediately precedes the final verb.

   The verbs in a direct chain share the **same subject**. They usually share any other overt complements and adjuncts, though in cases including motion verbs like 'go and eat meat' the motion verb need not share anything beyond the subject. If a verbal noun or other nominalization is based on a direct chain, the morphological nominalization applies to the final verb; nonfinal verbs often then function as compound initials.

semantics of direct chains

Jamsay has perhaps the most productive direct chaining system of any Dogon language. In this language, direct chains can denote sequenced events that cohere in some broad sense. Nonfinal verbs occur in a bare form, unmodified by affixation or ablaut. Textual examples are (1a-b).

(1) a. *èmě-n tál-lá   gò: wànà-ŋá bèrè-j-é*
    1Pl-Dat adhere-Revers exit(v) be.far-Caus get-Impf.Neg-3PlSubj
    'They cannot separate themselves from us and go far away.' [Jamsay]

  b. *[nîŋ ènɛ́ wó tá:^{n} wɔ̀: tì yằ:] wá*
    [now Logo 3SgO shoot kill Pfv go.Impf] Quot
    'He said, "now I will shoot and kill you, and (then) go."' [Jamsay]

(1a) has four chained verbs. The final verb 'get' here means 'can, be able', and shows how serialization (chaining) can acquire the functions of English control verbs. The other three 'dis-adhere' (become separated from), 'exit', and 'be far' denote distinct phases or aspects of a single coherent motion event. (1b) also has four chained verbs, but one of them (*tì*) functions as a perfective linker (it likely originated as a verb meaning 'send').

The other events are 'shoot' and 'kill', which denote phases of a single event (cf. English *shoot dead*), plus a discrete motion even 'go'. Because this is a quotation, the subject is expressed as a clause-initial independent pronoun, rather than by a verbal suffix, and the original speaker ('I') and addressee ('you') are rephrased as logophoric and 3Sg, respectively.

In several other Dogon languages, there are tight restrictions on direct chains, if they occur at all. They are generally limited to simultaneous co-events rather than sequenced actions. Examples are 'fall' plus 'descend' = 'fall down' and 'put down' plus 'leave, abandon' = 'put down (and leave)'. Combinations like 'dance' plus 'spend night' can sometimes be phrased as direct chains, but they are often expressed with imperfective subordinators. Similarly, combinations like 'go' or 'come' plus 'eat' in the sense 'go/come to eat' are more often expressed with sequential subordinators.

form of nonfinal verbs in direct chains

Concepts like "bare stem" and "chaining form" are somewhat tricky since the languages differ from each other in two important respects: a) presence/absence of stem-ablaut affecting vocalism, and b) presence/absence of surface verb forms bringing out a lexical tone melody. Verb morphology is most transparent in the eastern languages, in many of which it is fairly easy to identify lexical vocalism and tone melody for any given verb. Elsewhere the productivity of verb-stem ablaut (especially northwestern languages) and the absence of lexical tone melodies (southwestern languages) complicate the picture.

The invariant form taken by nonfinal verbs in direct chains is summarized below (vocalism information valid for nonmonosyllabic stems):

(2)   eastern
        Toro Tegu
            monosyllabics: bare stem
            others: combining form with suffix *-u*, lexical tones
        Ben Tey
            monosyllabics: bare stem
            others: bare stem, including some with final *í*
        Bankan Tey   ??
        Nanga
            monosyllabics: bare stem
            others: bare stem, including some with final *í*
        Jamsay   bare stem (no nonmonosyllabics with final *î*)
        Togo Kan
            monosyllabics: bare stem
            others: bare stem, including some with final *í*

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Tommo So	bare stem (no nonmonosyllabics with final *i*)
Donno So	
some monosyllabics:	bare stem
other monosyllabics:	chaining form with suffix *-y*
some bisyllabics:	bare stem
all others:	chaining form with suffix *-u*
Yorno So	
some bimoraics:	bare stem
others:	chaining form with suffix *-u*, lexical tones
Tomo Kan	
I-class:	E/I-stem with final *i* as in perfective positive
E-class:	E/I-stem with final *e* or *ε* (ATR harmony) as in perfective positive
northwestern	
Najamba	
-ATR stems:	chaining form: E-stem with final *ε*, as in perfective positive
+ATR stems	chaining form: I/U-stem with final *i*
Tiranige	
CaNv, *CuNv*, *CiNv*	chaining form: I-stem, as in perfective positive
all others:	chaining form: E-stem (final *e/ε*) as in perfective positive
Dogul Dom	??
Yanda Dom	bare stem
Tebul Ure	bare stem
southwestern	
Bunoge	[none]
Mombo	??
Ampari	??
Penange	[none]

The southwestern languages use different constructions, either with overt subordinating morpheme or with both verbs inflected for pronominal-subject.

    The historical morphology of verb chaining is very tricky. The evolution of morphologically marked chaining forms has crossed paths with that of simple perfective positives (final *e ~ *ε ~ *i) and/or with that of deverbal nominals (final *u).

Syllabic aspect-negation morphemes: suffixes or chained auxiliaries?

In several Dogon languages, there is an issue whether an aspect-negative morpheme is a suffix to the verb, or a chained auxiliary verb. The issue is most relevant to syllabic perfective morphemes with shapes like *-ti-* (probably derived from a verb meaning 'send') and *-sv-* (from a quasi-verb 'have'), and to experiential perfect and recent perfect constructions. In languages where the bare stem (or combining form) of the verb is used both in nonfinal chained verbs and before some inflectional suffixes, the form of the verb stem does not tell us whether a suffix or a chained auxiliary is at hand.

Usually the best test is to put the combination into a nonsubject relative clause with pronominal subject. In several Dogon languages, this construction requires a preverbal proclitic subject pronoun (SubjPron). If there are two chained verbs, SubjPron intervenes between the two verbs (3), which are otherwise always adjacent.

(3)   … verb1   SubjPron   verb2-Participle

To determine whether a perfective or perfect morpheme is a suffix or a chained auxiliary, we observe whether the subject pronoun intervenes between it and the verb. If so, we have an auxiliary verb (4a). If the subject pronoun prcedes the verb, we have a suffix (4b).

(4)   a.   … verb   SubjPron   Pfv/Pft-Participle
         b.   … SubjPron   verb-Pfv/Pft-Participle

One difficulty with implementing this test is that some Dogon languages disallow, or strongly disfavor, syllabic perfective markers in relative clauses.

specialized nonfinal verbs (or whatever they are) in chains

The final verb in a chain gets full verbal inflection, so there is no ambiguity about its stem-class, even when this verb only occurs in such constructions. Verbs that only occur in nonfinal position are more difficult to analyse. Consider a morpheme that occurs in a few eastern languages before a motion verb in senses like 'take (sth) along (as one goes somewhere)', with the forms in (5).

(5)   *jíjὲ*   Jamsay (main dialect)
         gígὲ   Jamsay (Pergué dialect)
         jíjὲ   Togo Kan
         jíjὲ→   Ben Tey
         jɛ́jὲ→   Nanga

Since the combination with a motion verb, e.g. Jamsay *jíjɛ̀ yǎ:* 'go taking (sth) along' = 'take (sth) with oneself', takes an object NP which the motion verb by itself would not, a reasonable analysis is that the forms in (5) are transitive verbs meaning 'take (sth) along'. However, since they occur only nonfinally in the verb-chain, they never show verbal morphology, so they could also be taken as adverbs or even as postpositions on the object. The Ben Tey and Nanga forms show the final prolongation (→) typical of expressive adverbials and not otherwise used with verb stems.

event sequences

Dogon languages do not have an 'and' or high-frequency adverbial 'then' conjunction that could link VPs and clauses together when they denote sequenced events. The direct chain construction is usually not available if the events are clearly discrete in time. Instead, the languages have constructions in which the first clause or VP is overtly subordinated, followed by a regular main clause.

  An interesting feature of several Dogon languages is that the form taken by the subordinated clause depends on whether the overall event sequence is **a report on past events** or a **prediction of future events**. These languages structure the future type as a **pseudo-conditional** construction, using the same 'if' morpheme as in genuine conditionals. A Togo Kan example of the pseudo-conditional is (6). The first clause is perfective in form because the event must be completed before the second event occurs. The second clause in (6) is an imperfective verb; it can also be an imperative or hortative.

(6) *wó* *[dɔ̀w-ɛ̂*   *dè]*   *súgó-jú*
   3SgS [go.up-Perf **if**]   go.down-Impf
   'He/She will go up and (then) come (back) down.' [Togo Kan]

This mimics a true conditional ('If he/she goes up, he/she will come down'), but there is no contingency relationship as in true conditionals. The pseudo-conditional expresses event sequencing, is almost always positive, almost always requires subject coindexation, whereas true conditionals have complete freedom with regard to temporal relationship, polarity, and subject coindexation.

  The past-time counterpart of a pseudo-conditional is a simple subordinated clause with a same-subject (SS) anterior subordinator, in Togo Kan *-ɛ̀:* as in (7).

(7) *íⁿ* *[dɛ̌ⁿ* *jɛ̌:r-ɛ̀:]*   *dǎ:n-ì*
   1SgS [waterjar bring-and.SS] put.down-Perf
   'I brought the waterjar and put it down.'

imperfective subordinators

When the time interval of the first event contains or overlaps significantly with that of the second event, the first clause is expressed as an imperfective or progressive subordinated clause ('while VP-ing, …'). There may be more than one such construction in a given language. One common combination is a final verb 'spend the day/night' and a nonfinal verb denoting an extended activity that takes place during the relevant time interval. A Togo Kan same-subject (SS) example is (8).

(8)　　*émé*　　*[té*　　*jǎ:ná-ní:]*　　*dègé-jú*
　　　　1PlS　　[tea　　boil-while.SS]　　spend.day-Impf
　　　　'We (will) spend the day making tea.' [Togo Kan]

'before VP-ing' subordinators

Dogon languages have a wide range of constructions where the first clause denotes an event that took/takes place after the second event, as in 'Before the rain fell, we went inside'. Some are of the perfective negative type 'When the rain had not (yet) fallen, …'. Others involve imperfective or future forms: '(When) the rain was going to fall, …'.

　　　　Some languages have more idiosyncratic 'before …' clauses. Jamsay has a **pseudo-causative** construction (9). It could be parsed literally as something like 'in/with/for your-Pl causing to come and arrive home'. The postposition *lè* can elsewhere be dative, instrumental, or locative.

(9)　　*úrò*　　　　*é*　　　*yèrè-dó:-wò*　　　　　　*lè*
　　　　house.Loc　　**2PlPoss**　　**come**$^{L-H}$**arrive-Caus**　　　　**in/with/for**
　　　　'before you-Pl come back home (=to the village)' [Jamsay]

Ben Tey has a construction with final *mà:* (arguably identifiable as dative *mà:*) and a verbal suffix *-rè* that is not otherwise attested.

(10)　　*í*　　　　*ínjírí:-rè*　　　　*mà:, …*
　　　　1SgS　　get.up-Perf1a　　**before**, …
　　　　'Before I got up, ….' [Ben Tey]