The Syntactic Causative Construction in Hupa (California Athabaskan)

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Abstract

No detailed discussion of the various types of formal expressions of causal relations in Hupa (California Athabaskan) has yet been undertaken. Golla's (1970) descriptive grammar provides an explanation of how the basic causative morphology operates, which is recapitulated in Golla & O'Neill (2001). Some type of causative notion is claimed to be basic to some themes, but how this is instantiated within the larger verb word is not explored. Rice's (2000) survey of voice and valency marking in the greater Athabaskan family provides an excellent general overview of several phenomena, including the encoding of causativity, but a detailed discussion of periphrastic and other syntactic causative constructions—let alone specifics on the Hupa construction(s)—would have been beyond the scope of that survey, and at any rate was not undertaken. This paper puts forth a systematic account of the Hupa syntactic causative construction, with a focus on distribution (i.e., compatibility with different classes of lexical verbs) and semantics. In addition to this full descriptive account, I argue, following Rice (2000) and drawing on Dixon's (2000) account on the semantic typology of causative constructions, that causee control over the effecting of the caused microevent is a major semantic factor in licensing the Hupa syntactic causative construction.

Keywords: Hupa, Athabaskan, Causative, Semantics, Typology

1 Introduction

A fairly extensive literature review has uncovered no detailed discussion of the various types of formal expressions of causal relations in Hupa. Golla's (1970) descriptive grammar provides an explanation of how the basic causative morphology operates, which is recapitulated in Golla & O'Neill (2001). Some type of causative notion is claimed to be basic to some themes [see below for discussion of the Athabaskan theme], but how this is instantiated within the larger verb word is not explored. Rice's (2000) survey of voice and valency marking in the greater Dene family provides an excellent general overview of several phenomena, including the encoding of causativity, but a detailed discussion of periphrastic and other syntactic causative constructions—let

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alone specifics on the Hupa construction(s)—would have been beyond the scope of that survey, and at any rate was not undertaken.

This paper puts forth a systematic account of the Hupa syntactic causative construction, with a focus on distribution (i.e., compatibility with different classes of lexical verbs) and semantics. In addition to this full descriptive account, I argue, following Rice (2000) and drawing on Dixon's (2000) account on the semantic typology of causative constructions, that causee control over the effecting of the caused microevent is a major semantic factor in licensing the Hupa syntactic causative construction. Following this account, I begin to explore mappings between form and causal relations at the level of the lexical item, drawing on Smith's (1991) causal chain schema.

1.1 Previous functional-typological work on causation

What is 'causation,' as encoded linguistically? One early characterization, with which analyses by Comrie (1981), Dixon (2000), Talmy (2000) and others largely overlap, is that of Shibatani (1976a). This working definition models 'causation' as consisting minimally of a causing event and a caused event, and a dependency relation between these two events believed by the speaker/encoder to hold. I repeat Shibatani's three original points here:

(a) An agent causing or forcing another participant to perform an action, or to be in a certain condition[;]

(b) The relation between [the] two events [=the causing event, and the caused performing/being event] is such that the speaker believes that the occurrence of one event, the "caused event," has been realized at t2, which is after t1, the time of the "causing event"[;]

(c) The relation between the causing event and the caused event is such that the speaker believes that the occurrence of the caused event is wholly dependent on the occurrence of the causing event; the dependency of the two events here must be to the extent that it allows the speaker to entertain a counterfactual inference that the caused event would not have taken place at a particular time if the causing event had not taken place, provided that all else had remained the same. (1976a: 1-2)

This set of definitional prerequisites allows for a broad set of types of relationships based, at least, on the lexical verb, the semantics of the causer, the semantics of the causee and the semantics of the construction explicitly encoding the causal relationship. Many analysts have worked to tease apart what factors (semantic or otherwise) account for the distribution of causative constructions, as well as to document what patterns actually occur. I proceed by surveying a number of these works.

Comrie (1981) focuses on the typology of the syntax and semantics of causative constructions proper. Crucially, Comrie (and others to be discussed here) distinguish between the linguistic encoding of causal relations and other, extra-linguistic concerns, such as the nature of causation itself, and questions of how humans perceive of causal relations. While certainly not irrelevant, these extra-linguistic questions will, for now, be left aside. Comrie usefully characterizes causative events in terms of two (or more)

microevents perceived of composing a macroevent, and encoded in a single expression (of varying size and form). Formally, he categorizes causatives into 3 types, depending on the contiguity of the material encoding the causing event and that encoding the caused event. These are: 1) lexical causatives, in which the two events are expressed in a single lexical item, as in the well-discussed case of English *kill*; 2) morphological causatives, in which the causing event and the caused event are encoded in a single verbal complex via causative morphology, and, prototypically, morphological marking showing the status of affected arguments. Finally, Comrie discusses analytic causatives, in which the causing event and the caused event are encoded in separate clauses.

Song (1996) presents a typology of causatives and causation based on a database of a staggering 600 languages. Song is very critical of typological work that depends on statistical inference, citing data from the Niger-Congo family that contradicts some earlier claims that "languages within genera are generally fairly similar typologically" (Dryer 1989: 267). Song therefore culls data from every language for which adequate documentation was available to him, and categorizes the various causative constructions gleaned there from into 3 classes: COMPACT, AND and PURP. Before discussing these, I introduce Song's terminology very briefly:

Terms:
S   a clause
V   some sub-clausal verbal material
 cause the material encoding the *causing* microevent
 effect   the material encoding the *caused* microevent

These are combined in the following ways:
[*Scause*] – the clause which denotes a causing event
[*Seffect*] – the clause which denotes the caused event
[*Vcause*] – verbal elements of [Scause]
[*Veffect*]- verbal elements of [Veffect] (20)

Song lumps the range of lexical and morphological causatives together under the label COMPACT (20), in which [Vcause] can be "less than a free morpheme" (e.g., bound morpheme [prefix, suffix, infix, circumfix, reduplication], zero-derivation, suppletion); or "a free morpheme" (28), in which [Vcause] and [Veffect] form a single grammatical unit. (Dixon (2000) takes a different approach: see below.) I note that most of the examples given look like serial verb constructions, and no in-depth analysis is undertaken for some of the constructions in which [Vcause] and [Veffect] are less formally contiguous. Song notes this non-contiguity, but does not explain why it might be important.

The AND causative, for Song, is any construction with a separate [Scause] and [Seffect], i.e., in which "two clauses [are] involved" (35). This, in theory could include larger, multi-clausal expressions of causal relations which many analysts probably would not label a 'causative construction', e.g.: 'It rained yesterday, so they stayed home,' but the boundaries of the AND causative category are not discussed.

Dixon (2000), in his authoritative typology of causatives, discusses the syntax and semantics of all types of causative constructions, in much more detail than can be recounted here. One research question he begins to tackle is the following: Many

languages, as he and many others have documented and attempted to categorize, have at least two causative constructions. Leaving aside for now the issue of lexical causatives (except where zero-derivation has been demonstrated to be a productive morphological process), these are usually broadly divided into 'more compact' and 'less compact', with labels, differing by analyst, which are indicative of relative length of the forms in question (e.g., Comrie's straightforward 'morphological'/'syntactic', or Song's (1996) 'COMPACT'/'AND'). Earlier works had attempted to summarize the semantic differences under the vague (though preliminarily useful) rubric of the "Iconicity Principle" (see Huang and Su (2005) for a succinct discussion), which basically posits a correlation between the degree of formal compactness of the linguistic material encoding the causative macroevent and the perceived directness of the relationship between causing event and caused event: i.e., shorter forms, on the whole, were posited to encode more direct causation than longer forms, as in the classic English *I killed him.* [direct causation]vs. *I caused him to die.*[less direct causation] examples.

The Iconicity Principle is a good first step, but does not really explain any fine-grained semantic distinctions that may be in play. The first attempt to take the analysis further, to my knowledge, was Comrie's (1981:164-7) discussion of directness and control, which began looking at the semantics of the causer and causee as possible semantic factors influencing the distribution of different causative constructions. Dixon (2000: 62), however, goes several steps further, identifying and fleshing out a system of 9 scalar parameters along which causative constructions tend to vary. I summarize these here:

Relating to the lexical verb involved in the construction:
1. stative vs. active
2. intransitive vs. transitive vs. ditransitive
Relating to the causee:
3. having vs. lacking control [over the caused microevent]
4. acting willingly vs. unwillingly
5. partially affected vs. completely affected
Relating to the causer:
6. acting directly vs. indirectly
7. acting accidentally vs. intentionally
8. acting naturally vs. with effort [i.e., initiation of the caused microevent takes less or more effort]
9. involved vs. not involved in the activity [i.e. the caused microevent]

This set of parameters is useful in and of itself, but, importantly, Dixon applies it to all causative constructions in a sample of over 25 languages, and notes that more formally compact causative constructions prototypically tend toward the following values on the above 9 criteria:

Causer acts naturally [8], intentionally [7] and directly [6]; the causee either lacks control [3] or has control but is willing [3 & 4], and is only partially affected [5]. May apply only to active intransitive verbs [or may include some small subclass of transitives] [1 & 2], or to state verbs alone [1] ((Summarized from Dixon 2001:77.)

Having briefly situated the current research with respect to the functional-typological literature on causatives, we are now in a position to examine the Hupa data at hand. I begin with background information on the language and its structure.

1.2 The language

Hupa is a critically endangered language belonging to the California branch of the Athabaskan family. Documentation was undertaken by P. E. Goddard and E. Sapir in the early twentieth century. Victor Golla produced a descriptive grammar in 1970 and Golla and Sean O'Neill annotated and translated a corpus of over 1000 pages of Sapir's texts in 2001, along with a morphological outline of the language and an "element list" containing every lexical item and morpheme found in said texts, with commentary. It is these (1970) and (2001) publications whose accounts of expressions of causation I will summarize and expand on. The data I present here, unless stated otherwise, were collected primarily through work with consultant Verdena Parker, a female native speaker of Hupa in her early seventies, in Winston, Oregon.

1.3 The Hupa verb

Hupa is a head-marking, nominative-accusative, SOV language with exceptionally complicated verbal morphology. The Hupa verb, as with those of other Athabaskan languages, has been analyzed as being organized according to a template containing a verbal root preceded by 11 prefix slots. The following schematic template is adapted from Golla (1970):

ADV	Iter	PL	3SUBJ	OBJ	THM	ADV	Distr	Mode/aspect	1/2SUBJ	Voice/valency	ROOT
11	10	9	8	7	6	5	4	3	2	1	

Table 1: The Hupa Verb

Athabaskan scholars have debated for years over whether such templates have a formal status in a grammar (i.e., whether they are psychologically real to native speakers; see e.g., Rice 2000). My analysis does not depend upon any particular view of templates, and my aim is not take a position on them here. For convenience, however, I refer to certain template positions in the course of the following discussion, where appropriate.

The theme, as discussed in the Athabaskanist literature, is an abstract structure containing the verbal root, often a voice/valency marker and perhaps other "thematic" prefixes. The theme is, in the words of Axelrod:

> ... the underlying skeleton of the verb to which prefixes or strings of prefixes or suffixal elements are added in producing an utterance. The theme itself has a meaning and is the basic unit of the Athabaskan verbal lexicon. (1993:17)

A given verbal root may participate in any number of themes with different meanings and syntactic requirements. Some themes can be derived as members of any

of a number of "theme systems" (Golla 1970), or may be idiosyncratic in form and/or meaning. At any rate, in surveying the relative prevalence of lexicalized causation below, it is individual verbal themes that I will be counting and considering. Let us begin first, however, with a survey of the literature on Hupa expressions of causal relations.

2 Causatives in Hupa

In this section, I first summarize some earlier contributions, then proceed with an account of the Hupa syntactic causative construction.

2.1 Rice's (2001) contribution to an account of morphological causatives

Rice (2001) makes the following points about morphological causatives in Athabaskan:
(a) In all Athabaskan languages surveyed [including Hupa, for which an ample data set is presented], the causativizing morphology can causativize at least some intransitive verbs with patientive subjects. (200-202)

(b) For intransitive verbs with agentive subjects, the family shows a split: only some languages allow morphological causativization in this case. (208)

(c) Koyukon (Northern Athabaskan; Alaska) was found to be the only language in the survey allowing productive morphological causativization of transitive verbs. (211)

(d) "perhaps the presence of the direct object pronoun in the causative construction has something to do with whether the causee is human or animate, or capable of being regarded as such. When the causee or the verb cannot be or is not perceived as a potential controller, then the pronoun is not found [in the Athabaskan languages surveyed]." (Rice 2001:212)

The semantic factor of causee control; that is, the degree of control that the causee wields over the effecting of the caused microevent (also discussed as parameter #3 on Dixon's (2000:62) list), and which Rice finds to be a major factor in other Athabaskan causatives, helps account for quite a bit of the distribution of the Hupa syntactic causative, as we will see.

2.2 Golla's accounts of morphological causatives:

Golla, in his (1970) descriptive grammar (summarized in Sapir and Golla (2001)), describes three classes of morphologically-derived causatives:

(1) causatives from descriptive neuters with ł-classifier (176)
   ni-whon' 'be good, beautiful' >   *O ni-(w)-ł-whon'* 'cause O to be beautiful'
(2) causatives from primary extension neuters with ł- classifier (76-77, 201)
   na-...'a' 'O hangs'   >   *na-O-ł-a'* 'hang O up'
(3) causatives from primary intransitive action themes (76-77, 204)
   ti-ch'id 'grow tired'   >   *O-ti-ł-ch'id* 'tire O out'

   While Golla does not generalize about the semantics of verb themes that are compatible with causative *ł-*, we can make several preliminary generalizations to test based on the examples presented in Golla (1970) and Rice's (2001) suggestions. First of all, in the three cases described by Golla, O[1] [the undergoer; I reserve the term 'causee' for cases of caused agency, to be discussed below] is neither controlling nor agentive. O is largely patientive in all cases. Second, the causer appears to be acting directly on O. Third, none of the examples given (including the examples above, of course) involve the causativization of a base-transitive theme. We will keep these parameters in mind as we examine the structure and distribution of the Hupa syntactic causative.

2.3 Other causative constructions

On a typological note, Hupa does not appear to have a construction analogous to the English 'let' causative: in all cases, the consultant rendered indirect 'let' causatives with a periphrastic construction involving the theme *(a:)-di-(w)-ne:* 'say', for example, translating "X let Y do Z" as "X said it was ok for Y to do Z."
   Note also that no PURP causative construction, in Song's (1996) terms, was found. PURP causatives are those which prototypically express the 'causing' microevent and the causer's intention for the causing microevent to initiate a second, caused microevent, but remains agnostic as to whether the caused microevent actually happens or not.
   Other types of causal relations, such as Talmy's (2000) event causation, must be expressed in 2 conjoined clauses; for example (gloss abbreviated):

(4) *[Lindsey   yanłah   xosehłchwe'n] mich'in-ding [xoje:'- 'e:ndin']*
   L   surprised   I.made(.her) because.of.it (s)he.fainted
   "My surprising Lindsey made her faint./I surprised Lindsey and made her faint."

   This is crucially different from the syntactic causative construction I describe below, which needs no conjunctions and which, I argue below, consists of 2 verb words in a single clause.

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[1] Note that in citations of Athabaskan themes, *O* refers to incorporated direct object, and not (necessarily) *O* argument.

2.4 The Hupa syntactic causative construction

The Hupa syntactic causative construction is regular and productive. I style this construction 'syntactic' rather than 'analytic' or 'periphrastic' primarily because these latter two terms are usually, in the literature on causation, reserved for constructions that contain 2 or more clauses, which the Hupa construction does not. This construction consists of 2 verb words: the first verb word encodes the caused microevent (Song's (1996) [Veffect]), and is subject-marked for the person and number of the undergoer or causee (in cases of caused agency; old A > A in first verb); the second verb word encodes the causing microevent (Song's [Vcause]) and is always a form of the theme *O-(s)-ɬ-chwen* 'make'. The second verb introduces a second set of morphosyntactic arguments: the introduced agent (causer) is marked as A on [Vcause]; the subject (old A) of the first verb ([Veffect]) is always co-marked as the direct object theme of [Vcause] (i.e., old A > new O).

In order to test the distribution of this construction, I systematically proceeded through Golla's (1970: 156-208) treatise on the system of the Hupa verb and attempted to elicit causatives for a number of subclasses of verb discussed, working with our native speaker consultant. Let us examine the distribution, i.e., which theme types are compatible with the syntactic causative, and attempt to make generalizations where possible.

First, most impersonal themes are compatible:

Class (i): "inherently impersonal" verbs (Golla 1970: 158):

(5) *Justin xo-k'iwan*
J   3.ANIM.OBJ-sleep
Justin sleeps/is sleeping.
[lit. "There is sleep for Justin." See Sapir & Golla (2001:792)]

Justin$_j$ xo$_j$-k'iwan   *xo$_j$-s-eh-ɬ-chwe'n*
J   3.ANIM.OBJ -sleep   3.ANIM.OBJ -PERF-1.sg.subj- CLS-make. PERF
"I made Justin sleep." [lit. "I made there be sleep for Justin."]

Class (ii): "descriptive themes that describe qualities and motions appropriate only to inanimate nature" (Golla 1970: 158):

(6) *ɬi-qoch'*
NEUT-be.a.gap
"There is a gap."

(7) *ɬi-qoch'*   *s-eh-ɬ-chwe'n*
NEUT -be.a.gap PERF-1sg.subj-CLS -make.PERF
"I caused there to be a gap."

Class (iii): extension themes with s-perfective (Golla 1970: 167-8):

(8) *te:-n-ch'e'*
     INCEP- PERF-wind.blows
     "The wind blew."

(9) *Justin$_j$ teh-s-ch'e'*   *ch'i$_j$-s-chwe'n*
     J   INCEP- PERF-wind.blows   3.ANIM.SUBJ-PERF-make.PERF
     "Justin made the wind blow."
     [as in a story in which Justin has supernatural powers]

       The following classes of verbs (verbs of transitive motion or posture verbs encoding a change of state) must employ the syntactic causative construction *if* the causee is perceived as having control over the caused microevent [Song's Veffect], but otherwise mark that entity (which some analysts may still label 'causee') as the direct object of the single verb, as in the following sets of examples:

Class (iv): "primary stative motion[2]" verbs [that occur with *si-* neuter perfective] (Golla 1970: 168)

(10) *Justin   ch'i-s-te:n*
     J   3.ANIM.SUBJ-NEUT-living.being.lies
     "Justin is lying there."

(11) *Justin$_j$ no:-xo$_j$-n-eh-ɫ-te:n*
     J   to.a.point-**3.ANIM.OBJ**-PERF-1.SG.SUBJ-CLS-handle.living.being
     "I laid Justin down." [1st-person causer and agent; 1 verb]

(12) *Justin$_j$ ch'i$_j$-s-ten*
     J   3.ANIM.SUBJ-NEUT-living.being.lies
     xo$_j$-s-eh-ɫ-chwe'n
     3.ANIM.OBJ-PERF-1.sg.subj-**CLS**-make. PERF
     "I made Justin lie down." [1st-person causer, 3rd-person self-agentive agent; 2 verbs]

Class (v): reflexives (Golla 1970: 181):

(13) *Justin   xontah-me'-ch'ing'*   *yeh-ch'i-wi-l-whot'*
     J   house-in.it-towards   into.enclosure-3.ANIM.SUBJ-PERF-CLS-slide
     "Justin slid into the house."

(14) *Lindsey*   *Justin$_k$*   *yeh-ch'i$_j$-xo$_k$-wi-l-whot'*
     L   J   into.enclosure-3.anim.subj-**3.anim.obj**-PERF-CLS-
     slide
     "Lindsey slid Justin in[to the house]."

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[2]"Stative motion" sounds contradictory, but I choose to maintain the terminology from the literature. This class of verbs refers to an entity being at rest.

(15)   L$_j$ J   yeh-'i$_k$-l-whot'   ch'i$_j$-**xo**$_k$-s-chwe'n
      L   J   into.enclosure-3.ANIM.SUBJ-CLS-slide   3.ANIM.SUBJ-**3.ANIM.SUBJ**-PERF-make
      "Lindsey made Justin slide in[to the house]."

Class (vi): "progressive neuter" verbs [with agentive subjects] (Golla 1970: 175):

(16)   *Justin*   *ch'i-wi-l-da:ł*
      J   3.ANIM.SUBJ-THM-THM-run
      "Justin is running."

(17)   *Lindsey*$_j$ *Justin*$_k$ *dah-ch'i*$_k$*-di-n-ła'*
      L   J   up/away-3.ANIM.SUBJ-THM-THM-run
      ch'i$_j$*-**xo**$_k$*-s-chwe'n*
      3.ANIM.SUBJ-**3.ANIM.OBJ**-PERF-make.PERF
      "Lindsey made Justin run [away]."

Class (vii): "non-directional" [motion] verbs (Golla 1970: 185):

(18)   *J*   *na-'i-s-[ł]-qol*
      J   non.dir.motion-3.ANIM.SUBJ- THM-[CLS]-crawl
      "Justin crawled around."

(19)   *L*$_j$ *J*$_k$ *na-'i*$_k$*-ł-qoł*
      L   J   non.dir.motion-3.ANIM.SUBJ-CLS-crawl
      ch'i$_j$*-**xo**$_k$*-s-chwe'n*
      3.ANIM.SUBJ-**3.ANIM.OBJ**-PERF-make.PERF
      "Lindsey made Justin crawl around."

      All transitive verbs (those which must take a direct object) causativize with the syntactic construction. Many classes of intransitive verbs (other than verbs of translative motion, that is) occur with the syntactic construction, as well. Note that the causee [the A argument of the second, caused microevent] has a high degree of control/agency in each of the following examples. Note also that perfective aspect is marked only on the second VP, a fact which will be discussed in detail below. Observe:

Class (viii) "basic transitive" verbs (Golla 1970: 163):

(20)   *Justin*   *Lindsey*   *ch'i-xo-seh-ł-we:n*
      J   L   3.ANIM.SUBJ-3.ANIM.OBJ-PERF-CLS-kill.PERF
      "Justin killed Lindsey."
(21)   *Justin*   *Lindsey*   *ch'i-xo-seh-ł-we:*
      J   L   3.ANIM.SUBJ-3.ANIM.OBJ-PERF-CLS-kill.IMPF
      xo-s-eh-ł-chwe'n
      3.ANIM.SUBJ-PERF-1.SUBJ-CLS-make.PERF
      "I made Justin kill Lindsey." [caused agency]

Class (xi): "personal plural theme" (Golla 1970: 162):

   (22) *k'iɬaxan*   *na:-di-gyit*
         deer   NON.DIR.MOTION-INCEP-THM-many.run
         "Deer are running [around] in a herd."

   (23) *Justin_j k'iɬaxan ti-d-gyit*   *ch'i_j-s-chwe'n.*
         J   deer   INCEP-THM-many.run 3.ANIM.SUBJ-PERF-make.PERF
         "Justin made the deer run in a herd." [caused self-agentive]

Class (x): "semitransitive" verbs [N.B., now usually referred to as 'directive' in the Athabaskanist literature; often discussed as 'conative' elsewhere, also similar to some 'antipassive' constructions] (Golla 1970: 163):

   (24) *J*   *k'iɬaxan*   *ch'-o-wing-'its*
         J   deer   3.ANIM.SUBJ-OPT-PERF-shoot
         "Justin shot at the deer."

   (25) *Lindsey_k*   *Justin_j k'iɬaxan*   *ch'_j-o:-'its*
         L   J   deer   3.ANIM.SUBJ-OPT-shoot
         ch'i_k-xo_j-s-chwe'n
         3.ANIM.SUBJ-3.ANIM.OBJ-PERF-make.PERF
         "Lindsey made Justin shoot at the deer [and he missed]."   [caused agency]

      Classificatory verbs were not found to behave differently from other theme classes: any theme built on a classificatory stem can participate in the syntactic causative construction to encode caused agency; I present a paradigm here:

Class (xi): classificatory verbs (Golla 1970: 196):

   (26) *Justin* *dah-ch'i-win-ta:n*
         J   up-3.ANIM.SUBJ-PERF-handle.sticklike.obj
         "Justin laid [a pencil] up [on a surface]."

   (27) *Justin_j* *dah-ch'i-tiwh*
         J   up-3.ANIM.SUBJ- PERF-handle.sticklike.obj
         xo_j-s-eh-ɬ-chwe'n
         3.ANIM.OBJ-PERF-1.SG.SUBJ-CLS-make
         "I made Justin lay [a pencil] up [on a surface]."

   (28) *Justin* *kin*   *na-'-tin*
         J   stick   NON.DIR.MOTION-3.ANIM.SUBJ-handle.sticklike
         "Justin carried a stick around."

(29) *Justin_j kin   na-'-tin*
     J   stick   NON.DIR.MOTION-3.ANIM.SUBJ-handle.sticklike
     xo_j-s-eh-ł-chwe'n
     3.ANIM.OBJ-PERF-1.SG.SUBJ-CLS-make
     "I made Justin carry a stick around."

Other data show that it is *perceived* causee control/agency—and not actual, literal control over the caused event—that may be licensing the syntactic construction. For example, we see pairs such as the following:

(30) a.   *na:ne:l nah-ł-to'n*
           doll   NON.DIR.MOTION-THM-dance
           "The doll danced."

     b.   *na:ne:l_j   nah-ł-to'n*
           doll   NON.DIR.MOTION-THM-dance
           Ø_j-s-eh-ł-chwe'n
           LOW.ANIM.OBJ-PERF-1.SG.SUBJ-THM-make.PERF
           "I made the doll dance."

In these examples, it is clear that the doll, being inanimate, cannot literally be in control; that is, this is not a case of self-agency and caused self-agency, as in many of the above pairs. The doll is attributed agency in (30a), the non-causative autonomous event. Given this fact, it is not surprising to see the speaker attributing agency to the doll in the causative sentence. Our Hupa consultant exhibits no reservations in attributing agency and grammatical subjecthood to other inanimate objects as well, as past research on descriptions of cutting and breaking events has shown. In the terms of Næss (2007), an entity's being the instigator of an event ([+INST]) is, in itself, sufficient to license marking of that entity as grammatical subject, regardless of volition ([±VOL]). For example, we find utterances such as:

(31) *mił-na'xode:s_j*   *yi_j-xo-n-de:s*
     scissors   3.LOW.ANIM.SUBJ-3.ANIM.OBJ-THM-cut.hair
     "The scissors cut [somebody's] hair on their own."

(32) *mił-k'iłtsil_j*   *me'tawna'n_k Ø_k-yi_j-s-k'il.*
     hammer   cup   3.LOWANIM.OBJ-3.LOW.ANIM.SUBJ-PERF-break
     "The hammer broke the cup."

Note, however, that certain passives have also been found to occur with the syntactic causative; in these cases, the subject of the caused event *cannot* be controlling[3].

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[3] I hope to address interactions between causativization and valence-decreasing operations such as passivization in future work; however, it is beyond the scope of this paper.

Class (xii): "passive neuter" verbs

(33) *Justin   xo-wi-l-tsa:n*
    Justin   3.ANIM.SUBJ-PASS-CLS-see
    "Justin is seen."

(34) *Lindsey Justin   xo_j-wi-l-tsa:n   ch'i_k-xo_j-s-chwe'n*
    L_k   J_j   3.ANIM.SUBJ- PASS-CLS-see   3.ANIM.SUBJ -3.ANIM.OBJ- PERF-make
    "Lindsey made Justin be seen [e.g., by pushing him out from his hiding place]."

2.5 Serial causation: caused agency

Derived "causatives" behave as transitives, and may, in turn, participate in the syntactic causative construction; morphological causativization introduces an additional morphosyntactic argument (an A argument in the original microevent). The syntactic causative construction introduces yet another set of arguments which are marked as O in the causing-event verb, and A in the caused-event verb, analogous to the English glosses. Observe:

Class (xiii): "impersonal with deictic subject markers"

(35) *ta'na:n k'i-d-mat*
    water   THM-THM-boil
    "Water boils."

(36) *ta'na:n k'i-s-eh-ł-me:ch*
    water   THM-THM-1.SG.SUBJ-CLS-boil.TRANS   [suppletive stem?]
    "I boiled the water [=made the water boil]."

(37) *ta'na:n_k   k'i-Ø_k-ł-mech*
    water   THM-LOW.ANIM.OBJ-CLS-boil.TRANS
    xo_j-s-eh-ł-chwe'n   Lindsey_j.
    3.ANIM.OBJ-PERF-1.SG.SUBJ-CLS-make   L
    "I made Lindsey boil the water."

2.6 One VP or two?

It is now time to address the question of whether the two verbs in the syntactic causative construction constitute 2 VPs, or whether they are a single VP in the manner of a serial verb construction (hereafter SVC). Analysts do not agree, however, on what

constitutes an SVC. Some definitions, such as that by Huang and Su (2005), whose criteria[4] I follow, are purely formal:

(a) The verbs agree with each other in focus marking.
(b) The verbs agree with each other in tense/aspect marking.
(c) A negation marker simultaneously negates all verbs in the construction.

Other analysts, such as Forman (1993), neglect altogether to lay out criteria for SVC-hood, and seem to count any series of verbs which occur together in an utterance as an SVC. Take for example, this utterance from Zamboangueño, in which the verbs in question are not contiguous and each bear different aspectual marking, yet which is, for unexplained reasons, called a serial verb construction:

(38) *ya-bolbe*$_{V1}$ *le*   *na*   *kasa*   *ta-kohre*$_{V2}$
      ASP-return   3s   L   house   ASP-run
      "He returned to the house (and was) running."   (172)

One of the most thoroughly fleshed-out sets of criteria for SVC-hood, brought to my attention in Bratkievich (2010), is that of Schultze-Berndt (2000) (Chapter 7, "Simple and Complex Predicates in a Cross-Linguistic Perspective"), which combines both formal and functional considerations. It is this set which I will use in my analysis of the Hupa data at hand. Let us proceed through the criteria one by one:

a. "all constituents of a complex predicate are recruited from the same, open, lexical class. All verbs may, in principle, occur as independent predicates and take verbal inflections (if the language has verbal inflections at all), as well as forming part of a serial verb construction" (p. 548).
      This criterion is met for Hupa. The theme *O-(s)-ɬ-chwen* 'make', which encodes the causing event, is a productive lexical theme used to encode prototypical events of making/creating outside of the causative construction, e.g.:

(39) *k'ita:ltsit*   *chischwe'n*
      leaching pit   she made it
      "She made a leaching pit."   (from text 59, sentence 9, Sapir and Golla 2001:158)

As has already been shown above, the caused event can be a verb from any number of semantic/syntactic classes.

b. Serial verb constructions are usually semantically transparent and have "iconicity restrictions" (Schultze-Berndt 2000: 123, citing Lane & Pawley 1992: 3, Lord 1993: 237, and Durie 1997).
      In Hupa, the verb encoding the caused event [Vcause] always comes before the verb encoding the causing event [Veffect], which is the opposite of what the 'iconicity restriction' would predict. While some languages have been argued to have strict

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[4] The provenance of these criteria is not discussed.

iconicity restrictions (cf. Huang and Su (2005) on Sasiyat, Austronesian), Song (1996) argues that the order of [Vcause] and [Veffect] in COMPACT causatives (a class which lumps lexical, morphological and serial-verb causatives together explicitly) is entirely language- [and probably, I note, construction-] dependent. Interestingly, Song argues that in AND causatives (in which there are 2 separate clauses), the clauses *must* be strictly ordered, with [Scause] preceding [Seffect]. I am arguing here that the Hupa construction is a single clause, but this issue is admittedly not clear-cut; however, if the opposite were argued, it would pose an interesting counterexample to Song's claim.

c. "The constituents of a complex verb cannot be negated individually" (Schultze-Berndt 2000: 124).
This appears to be true for Hupa. It is possible to negate the whole construction, but not a sub-constituent thereof. Observe:

(40) *Lindsey*$_j$ *Justin*$_k$-*do:*   *na-'i*$_k$-*ł-qoł*
L   J   NEG   NON.DIR.MOTION-3.ANIM.SUBJ-CLS-crawl
ch'i$_j$-***xo***$_k$-*s-chwe'n*
3.ANIM.SUBJ-**3.ANIM.OBJ**-PERF
"Lindsey didn't make Justin crawl around."

(41) **L*$_j$ *J*$_k$ *na-'i*$_k$-*ł-qoł*   *do:*
L   J   NON.DIR.MOTION-3.ANIM.SUBJ-CLS-crawl   NEG
ch'i$_j$-***xo***$_k$-*s-chwe'n*
3.ANIM.SUBJ-**3.ANIM.OBJ**-PERF-make
[Intended: "Lindsey didn't make Justin crawl around" OR "Justin crawled around, but it's not the case that Lindsey made him do so."]

d. "in serial verb constructions, regularly either only one verb inflects, or all verbs take the same morphology under agreement, even though all verbs have the potential of taking their own inflections when used outside the serial construction" (Schultze-Berndt 2000: 124).
In every Hupa form elicited (and found in the Sapir & Golla (2001) texts) only one verb word in the syntactic causative construction is inflected with perfective morphology, even though the entire macroevent (i.e., [Vcause] + [Veffect]) is perfective. For example:

(42) *J*   *k'iLaxan*   *ch'-o-**wing**-'its*
J   deer   3.ANIM.SUBJ-OPT-**PERF**-shoot
"Justin shot at the deer."

Here, the perfective –**win(g)** occurs on the main verb of the clause. From this, it is clear that this verb "ha[s] the potential of taking [its] own inflections when used outside the serial construction". In the syntactic causative construction, however, perfective marking is only found on [Vcause], as here:

(43) *Lindsey*$_k$ *Justin*$_j$ *k'iLaxan*   *ch'*$_j$-*o:-'its*
L   J   deer   3.ANIM.SUBJ-OPT -shoot

*ch'i*_k-*xo*_j-***s***-*chwe'n*
3.ANIM.SUBJ-3.ANIM.OBJ-**PERF**-make
"Lindsey made Justin shoot at the deer [and he missed]."

e. "Each of the constituents of a complex predicate may contribute semantic participants and play a role in determining the argument structure of the complex predicate. Syntactically, on the other hand, the complex predicate functions like a simple predicate, in that it allows only one set of morpho-syntactic arguments. This difference in semantic and syntactic properties gives rise to the concept of argument fusion or argument sharing... One syntactic argument slot may be 'shared' by the semantic arguments of more than one predicative element" (Schultze-Berndt 2000: 125).

This criterion was not found to hold for the Hupa data. Let us return to a previous example above to illustrate:

(44) *Lindsey*$_k$ *Justin*$_j$ *k'iłaxan*$_m$ *[ch'*$_j$*-o:-Ø*$_m$*-'its]*$_{V1}$
      L   J   deer   3.ANIM.SUBJ-OPT-LOW.ANIM.OBJ-shoot
      [ch'i$_k$*-xo*$_j$*-s-chwe'n]*$_{V2}$
      3.ANIM.SUBJ-3.ANIM.OBJ-PERF-make
      "Lindsey made Justin shoot at the deer [and he missed]."

This example nicely illustrates that each verb in the syntactic causative construction introduces its own morphosyntactic arguments. In V1, translatable as "he shot at it," "Justin" is the Agent (A) and the grammatical subject; "*k'iłaxan*" ('deer') is the zero-marked low-animacy direct object and undergoer (O) of that microevent. "Lindsey" is the Agent (A) and the grammatical subject of V2, and the causer (in the causative macroevent); "Justin" is the Undergoer (O) of both V2, translatable as "s/he made him/her", and of the causative macroevent V1, being the causee.

The Hupa syntactic causative construction thus appears to meet four of Schultze-Berndt's five criteria for SVC-hood. However, functionally, criterion (e) would appear to be the most crucial to deciding the one-VP-or-two question: if each verbal complex (V1 and V2, in example (44)) is making demands on the argument structure by introducing its own morphosyntactic arguments and marking the semantic roles[5] of said arguments, then an analysis of the two verb-word-complex as comprising a single VP seems unwarranted. On these bases, I hesitate to classify the construction as a serial verb construction, and will continue to treat it as two separate VPs where relevant to the discussion.

3 Conclusion

Hupa has at least two causative constructions: morphological, and syntactic. As Golla (1970) describes, the morphological causative is applicable to the following verb classes:

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[5]I am not in a position to analyze, nor am I interested in discussing at this point, within any specific theoretical framework, how the semantic roles are assigned.

descriptive neuters with ł-classifier (176)
primary extension neuters with ł- classifier (76-77, 201)
primary intransitive action themes (76-77, 204)

I have herein described the form of the Hupa syntactic causative construction, and have shown it to be compatible with a number of other verb classes. In many (but not all) cases, the semantic factor of undergoer or causee control (Dixon's criterion #3) seems to be playing a prominent role: where caused agency is encoded (i.e., an agent [causer] causes another agent [causee] to perform an action), and the causee is perceived as having control over the performance of the caused event, the syntactic causative construction is employed. However, if this were the only factor, we would expect certain verb classes (such as class (ii) above, "descriptive themes that describe qualities and motions appropriate only to inanimate nature," in which the undergoer is non-sentient and perceived as such, and has no control) to be compatible with the morphological causative, when in fact they are not. Also unaccounted for are interactions among passivizing and causativizing constructions. These avenues remain for future research.

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