

Light determiners: do Navajo verb prefixes select nouns?

2026-11-11 audit pass 2. Apostrophe fixes only. Navajo glottal stops typed as ' or ’ (for example in prefix names like ’a- and ’e’e-, or words like Awéé’) now print as ’ (U+02BC), and a build step no longer turns the closing quote of an English translation inside a Navajo row into a glottal stop (‘...the girls.’, not ‘...the girls.’). No form, gloss or translation wording changed.

2026-11-11 audit pass 5. Tree panels that move V to T now each say that V→v→T is GRANT’S CONJECTURE: untested, neither proven nor refuted. (Superseded by audit pass 7, 2026-11-13: V→v→T is now the working default.) See the pass 5 report.

Placeholder-only trees are now titled “Schematic” so they are not read as analyses of a particular Navajo example.

2026-11-13 audit pass 7. Tree panels now draw V→v→T and subject raising Spec,vP→Spec,TP as the working default in tensed clauses, not as GRANT’S CONJECTURE. Panels that left V or the subject in place were redrawn with the default, or removed where they only repeated the same string and LF; the three panels that drew the verb word with no V raising were removed on Grant’s instruction (2026-11-13). Each panel now says what else has to move for the verb-final order. No Navajo form, gloss or judgment changed. See the 2026-11-13 note and the pass 7 report.

An earlier dated note on this page treats V→v→T and subject raising as Grant’s conjecture or a comparator to test against PF/template rivals. Since 2026-11-13 they are the working default in tensed clauses: VPISH frames where the arguments start so that syntax and

semantics line up; it is not a word-order account. PF/template accounts are kept only as labelled contrast, and the open question is what else has to move. The earlier note is kept as written.

Grant Golland (research by Grok Bot; structural review by the Syntax · Semantics · Interface bot) · 2026-11-02 · status: GRANT'S CONJECTURE (d takes a DP, as v takes a VP), assessed as HYPOTHESIS: four analyses A–D; the site's evidence does not yet decide among them; tests T85a–f and T86a–g OPEN

Abstract

Grant proposes that the Navajo verb prefixes that act as arguments are light determiners. His revised version: d takes a DP argument as v takes a VP, so the noun is a full nominal complement in the phrase structure and only the head d joins the verb word; a prefix with no noun is d over a null pronominal. The Young & Morgan 1987 data on the site support the stem-listing half: the same noun in the same role takes the indefinite 'a- with some verb bases and the plain third person with others. The essay compares four structures (A pronominal argument, B big DP with phrasal movement, C Voice-like d, D big DP with head movement of d only) and states two problems for D: head movement out of a subject specifier, and prefix order (object outside subject). The site's evidence does not yet decide among them; tests T85a–f and T86a–g are open.

Restated on the unified structure (2026-11-15): light d is withdrawn (Grant, 2026-11-14), the working determiners are all overt, and light n is an OPEN structural question; the prefix-order problem raised below for analysis D is now stated as Grant's Merge-site hypothesis and tested in §3.2. See https://navajo-decoded.grant-golland.workers.dev/unified-structure/#us-nominal (https://navajo-decoded.grant-golland.workers.dev/unified-structure/#us-nominal). The essay's data, judgments and citations are unchanged; it is kept as the record of what was argued then.

Note (2026-11-14): Grant has withdrawn light d. In his words, it "was just a proposal to account for facts" and "the existence of this unit was simply posited and i'm willing to unposit it." In thirteen first-principles reviews it was never needed. The essay is kept as a historical record. Grant also noted that if DP and TP are built alike, the noun phrase may have a light n, parallel to light v; that is an

OPEN structural question, not a premise. See https://navajo-decoded.grant-golland.workers.dev/derivation/#spine-light-d (https://navajo-decoded.grant-golland.workers.dev/derivation/#spine-light-d).

2026-11-11 audit pass 1

The four old from-memory panels had pseudo-categories, missing vP structure and unsupported landing sites. They are withdrawn as complete derivations. The new shared-standard comparison shows only a conservative left-Spec,vP/TP core; whether a nominal head is light d, whether a noun is an argument or adjunct, and whether D incorporates remain OPEN for pass 2. The old A–D prose is preserved as historical conjectures, not four analyses now proved by the replacement drawings. No flat-S source tree establishes our attachments.

Revised 2026-11-02 (afternoon): Grant's proposal is now that d takes a DP, as v takes a VP. Analysis D was added and the comparison of B, C and D was corrected. The earlier draft framed this against the "roles, not words" thesis, which Grant has since dropped.

1. The conjecture

Grant's proposal (2026-11-02) is that the Navajo verb prefixes that act as arguments are *light determiners*: a small head d, paired with D as little v is paired with V GRANT'S CONJECTURE . The candidates are the plain third person (Ø), the indefinite *'a-* GRANT'S CONJECTURE (Young & Morgan's "3i"), the inverse pair *yi-*/*bi-*, the fourth person *ji-* and the agentive-passive *'adi-*. His revised version is that **d takes a DP argument, as v takes a VP**. The noun is then a full nominal complement in the phrase structure, not inside the word. Only the head d joins the verb word. A prefix with no noun, like *'a-* with the sun and light verbs, is d over a null or default pronominal GRANT'S CONJECTURE . GRANT'S CONJECTURE

The prompt was an analogy. Japanese subjects are analysed in Spec,vP rather than inside VP. That is an ANALOGY only, not evidence about Navajo.

2. The data that motivate it

> All forms below are from Young & Morgan 1987 as copied onto the working notes, which give each entry and page SOURCED . SOURCED

The five 'hanging' verbs (working note *hang-subject*). Y&M give 'it hangs (smoke, dust, a cloud, fog)' with five stems. Two carry the 3i: *dah ’oojoł*, *dah ’oogoh*. Three carry none: *dah yikał*, *dah shoogish*, *dah sikaad*. The same nouns (*łid* 'smoke', *łeezh* 'dust', *k’os* 'cloud', *’áhí* 'fog') appear on both sides SOURCED . SOURCED

The *Øjooł* movers (*gas-subject*). In 9 entries for clouds, smoke, fog, rain and the like, all 19 example sentences have an overt noun and a 3i verb, e.g. *níłtsą́ ’adeezhjool* 'a rainstorm has started moving' (Y&M p. 16 def 15). With wool or hay as the mover, the same stem has plain Ø (pairs such as *naajooł / na’ajooł*) SOURCED . Y&M twice comment that here the 3i "does represent the substance functioning as the subject", and they note an "apparent use of 3i ’a- to represent a definite substance" SOURCED . SOURCED SOURCED

The sun, light, melting snow, lightning (*sun-subject*). These take the 3i with no noun: 0 of 28 sun-set sentences have one SOURCED . SOURCED

Rain, water, fire (*rain-fire-subject*). These mostly lack the 3i. The same rainstorm takes the areal *ho-* with *łtįįh* and the 3i with *Øjooł* SOURCED . SOURCED

Willie's inventory (*indef-person*). Willie (pp. 221–222) lists *ho-*, *'a* and *’adi-* "in addition to the person paradigms". On p. 51 she says that they exclude an adjoined noun SOURCED . Y&M's *níłtsą́ ’adeezhjool* is a counterexample for one verb class OPEN . SOURCED

> What follows HYPOTHESIS : with the noun and the role held fixed, the 3i/Ø choice changes with the verb base, so it is listed with the base (a verb-theme fact). That supports the stem-listing half of the conjecture. It does not yet show where the noun sits. OPEN HYPOTHESIS

3. Terms

Merge builds structure: it puts two objects together into a larger one. Agree builds nothing. It lets a head copy feature values such as person and number from another element. "Selects" means c-selection, where a head's feature triggers Merge of its complement. Structures use TP, CP, vP and VP categories. VPISH is the name of the subject-base hypothesis, never a category. Jelinek's 1984 flat-S trees are pre-VPISH and are not used as evidence about where nouns attach.

Category caution. Navajo nouns are mostly bare, so calling the complement "DP" needs justification. This essay says *maximal nominal projection (DP, pro-DP or φP; open)*, after Déchaine & Wiltschko 2002 (opened, abstract and §1) OPEN . If the complement OPEN has no D of its own, d is the only D, and the structure is [dP d NP], not a D-shell HYPOTHESIS . Tests are whether bare nouns get both definite and indefinite HYPOTHESIS readings, and whether demonstratives or quantifiers co-occur with them (T86a).

4. Four historical light-d hypotheses (OPEN)

A. The prefix is the argument; the noun is an adjunct. This is Jelinek's Pronominal Argument Hypothesis and Baker 1996's polysynthesis account, restated with nouns adjoined above vP rather than to a flat S. Speas 1990 argued against it for Navajo, for hierarchical nominal arguments. Neither side was opened for this essay HYPOTHESIS .

HYPOTHESIS

B. Big DP with phrasal movement. The noun is d's complement, and the earlier draft assumed the NP must *phrasally* move out of the verb word (Uriagereka 1995; Belletti; suggested by the Syntax bot, not opened). Phrasal extraction from inside a word is the weak point HYPOTHESIS . HYPOTHESIS

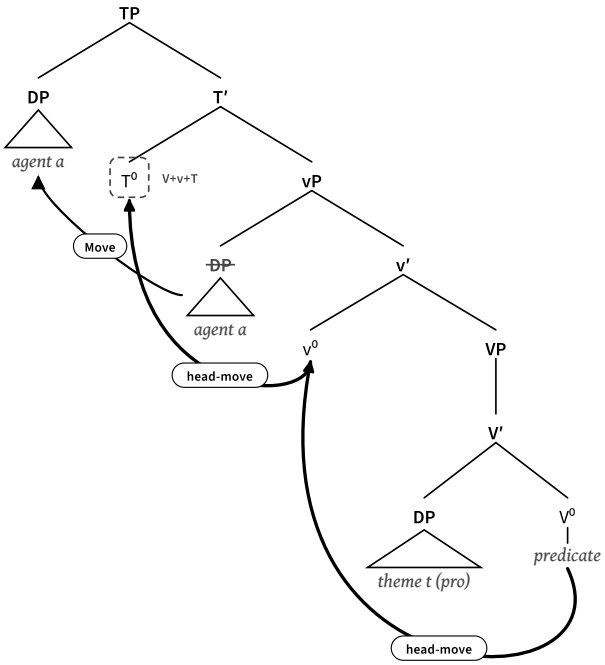
C. Voice-like d. d introduces an argument, like Voice or Appl (Kratzer 1996; Pylkkänen 2008; not opened). It is listed per stem and hosts a pronominal in its specifier. The noun is a separate DP outside the word, associated with that pronominal by Agree or by apposition HYPOTHESIS . In C, d is a head on the verbal spine. HYPOTHESIS

D. d heads the argument phrase (Grant's revision). [dP d [DP/NP noun]] sits wherever the argument sits: the object in the V domain, and the subject in Spec,vP/VoiceP (VPISH; Koopman & Sportiche 1991, Kuroda 1988; not opened) HYPOTHESIS . Only the HYPOTHESIS head d moves to the verb. The complement noun is stranded in argument position, so no extra DP movement is needed. OV and clause-final verb order come from ordinary head-final linearization. Prefix versus suffix is a property of d, so a prefixal d does not conflict with a head-final clause HYPOTHESIS . HYPOTHESIS

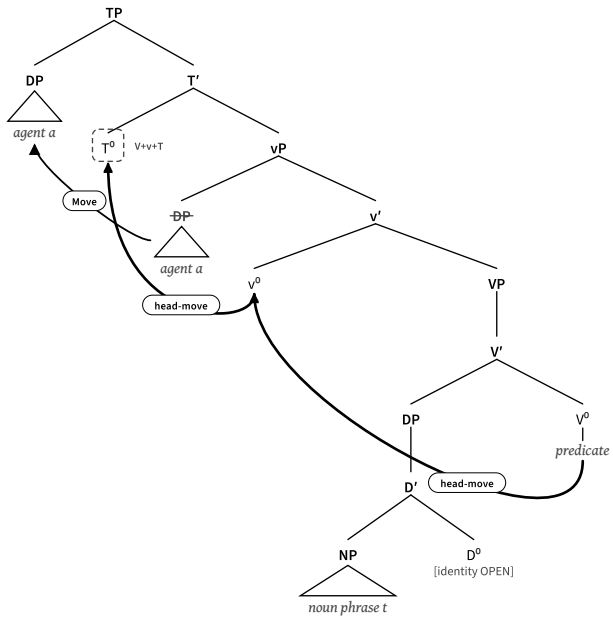
> Pairing a light head with the projection of its lexical counterpart ("v takes VP, d takes DP") is coherent as an extended projection (Grimshaw). D over D is a D-shell, comparable to Larson's 1988 VP shells and to Zamparelli 2000's layered DP. With a pronominal-like head over a full associate, it is the big-DP analysis of clitic doubling (Uriagereka 1995; Belletti 1999; Cecchetto 2000; Torrego 1992). All of these were suggested by the Syntax bot and not opened HYPOTHESIS . HYPOTHESIS

How B, C and D relate. D *is* B, but with head movement of d alone. The objection to B (a noun inside the word, or a phrase extracted from a word) assumed phrasal movement of the NP. It does not apply to D. The first draft of this essay said that "d selecting a noun" contradicts nouns being outside the word. That was wrong. It holds only under phrasal movement, and is corrected here. C and D differ in where d is. In C, d is on the verbal spine and *introduces* an argument. In D, d *heads* the argument phrase and is off the spine.

Analysis A: Pronominal DP; noun attachment still OPEN ◇ Hypothesis



Analysis B: Nominal DP expansion; light-d identity still OPEN ◇ Hypothesis



(1) Schematic (placeholder leaves, no Navajo example): Light determiners: a shared core, not four solved derivations ◇ Hypothesis 2026-11-11 audit pass 1: the earlier four from-memory panels used pseudo-categories, omitted vP in some options and gave unsupported landing sites. They are withdrawn as complete derivations, not silently promoted to our grammar. These conservative generic comparators keep the transitive roles and subject base fixed. The nominal-vs-Voice identity of light d, NP-PRO, noun attachment and D-incorporation are OPEN for pass 2. A/B here name only these two drawings, not the site's A/B spell-out rules. See /essays/light-determiners/#2026-11-11-audit-pass-1.

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A: [TP [DP agent a] [T′ T⁰ [vP ⟨DP⟩ [v′ v⁰ [VP [V′ [DP theme t (pro)] [V⁰ predicate]]]]]]]
B: [TP [DP agent a] [T′ T⁰ [vP ⟨DP⟩ [v′ v⁰ [VP [V′ [DP [D′ [NP noun phrase t] D⁰]] [V⁰ predicate]]]]]]]
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Figure 1 (audit pass 1). Two conservative core schematics, not drawings of the four historical A–D proposals. Panel A abbreviates a pronominal object DP; panel B expands only a possible nominal DP. Neither settles light-d identity, noun attachment or D-incorporation. All are HYPOTHESIS *, with generic leaves and explicit LFs.*

5. Two problems for D

(a) Head movement out of a specifier HYPOTHESIS . A subject d sits inside Spec,vP/VoiceP, and head movement out of a specifier is normally barred (Baker 1988 on the absence of subject incorporation; not opened). Two escapes have been proposed. One is Agree followed by head movement of a defective D (Roberts 2010). The other is post-syntactic attachment: m-merger (Matushansky 2006) or Embick & Noyer 2001. Neither was opened OPEN . HYPOTHESIS OPEN

(b) Prefix order SOURCED HYPOTHESIS . The site's template, from Hale 2003:14–15 ex. (10) after Young & Morgan 1987:37–38 (working note *navajo-verbs*), puts the object prefix in Position IV, the deictic subject in V and the ordinary subject in VIII, nearest the stem SOURCED . Cyclic head movement under the Mirror Principle predicts the reverse: the lower argument's d (the object) should be nearest the stem HYPOTHESIS . This mismatch is a known Athabaskan issue (Rice 2000; not opened). D therefore should not claim that prefix order follows from structure. Order is better stated as a template or position-class fact at the morphology interface HYPOTHESIS . SOURCED HYPOTHESIS SOURCED HYPOTHESIS

6. yi-/bi- versus ’a-

yi-/bi-. The choice depends on the relative rank of subject and object (Aissen 1997 on ranked obviatives, working note *ranked-obviatives*; Willie 1991) SOURCED . Hale 1973 also treats it as an inversion (not opened). Because it compares two arguments, it needs a probe above both d's (v/Voice or T), perhaps relativized or cyclic Agree (Béjar & Rezac 2009; not opened). Agree inside a single d–DP pair cannot see both arguments. Each d's own person and animacy may still be valued locally by its sister nominal HYPOTHESIS . SOURCED HYPOTHESIS

’a-. The 3i is a d selected by the stem (a theme fact). With no noun, it takes a null or default pronominal complement HYPOTHESIS . D predicts a clash. With *’a-* plus an overt noun, either d's indefiniteness projects (the noun is read non-specifically) or the noun's own reading wins. The site's one overt-noun class is the *Øjooł* HYPOTHESIS

movers, and there Y&M describe the 3i as representing "a definite substance" SOURCED . So if D is right, the 3i d does not impose indefiniteness when it has an overt complement. D-over-D then needs a rule for which D wins, or the 3i is not semantically indefinite in this class HYPOTHESIS . That is a reading from a dictionary note, not a speaker judgment (T86d) OPEN .

SOURCED

HYPOTHESIS

OPEN

7. Parallels

These were suggested by the Syntax bot. Only Folli & Harley 2005 and Déchaine & Wiltschko 2002 were opened.

- **Flavours of light heads.** Folli & Harley 2005 (opened, §1 and §3.2) propose flavours of v (vDO, vCAUSE) that "place different restrictions on their subjects", and attribute an alternation gap to "lexically specified differences in v, rather than on idiosyncratic restrictions on the root V" SOURCED . A stem-listed 3i d is the same kind of statement in the nominal domain HYPOTHESIS .
- **Classifiers.** The Athabaskan classifiers and the Y&M verb theme are also stem-listed (Kari 1989; Rice 2000; not opened). HYPOTHESIS
- **Root-specific selection.** Distributed Morphology's root-specific selection of a functional head (Marantz 1997; Embick 2010; not opened).
- **Pronoun size.** Déchaine & Wiltschko 2002 distinguish pro-DP, pro-φP and pro-NP, "each one is associated with a distinct syntactic projection" SOURCED . This gives a vocabulary for the size of d and of its complement. SOURCED

8. Tests

> From the first draft (T85) OPEN : OPEN

1. **T85a.** Do a noun's features ever have to match the prefix?
2. **T85b.** Is any noun ever obligatory?
3. **T85c.** Do the standard pronominal-argument diagnostics hold, checked in Speas 1990 and Baker 1996?

4. **T85d.** Does any single base allow both 3i and Ø with the same noun?
5. **T85e.** Is the 3i/Ø choice part of Y&M's theme entries?
6. **T85f.** Is d smaller than DP?

> New tests separating D from C (T86) OPEN : OPEN

1. **T86a.** Category: do bare nouns get both definite and indefinite readings, and do demonstratives or quantifiers co-occur with them? This decides [dP d DP] versus [dP d NP].
2. **T86b.** Connectivity and locality: does the noun behave like it is in argument position? Look for reconstruction, binding connectivity and island sensitivity. D predicts yes. An appositive or adjunct (A, C) predicts no.
3. **T86c.** Number: D allows exactly one nominal per d. C allows stacked appositives and free dropping.
4. **T86d.** Quantifiers: D predicts ordinary scope, with the noun in argument position. C (with Jelinek's PAH, Jelinek 1995 and Baker 1996) predicts that quantified nouns only restrict the pronominal. The cleanest test is two quantified nouns, one per argument. The same test should check the definiteness of the noun with *'a-*.
5. **T86e.** Cross-category: if d wraps a nominal, the same behaviour should hold on V, P and N hosts. The site has it sourced that the postposition's third-person *bi-* is cognate with the possessor *bi-* and that the postposition's object never goes silent (Willie p. 28, working note *p-object-b*) SOURCED . That is a difference between P and V hosts, since the verb's object can be Ø, and D must explain it. SOURCED
6. **T86f.** Extraction: can the noun be wh-moved, relativized or focused without the prefix as a constituent?
7. **T86g.** Specifier head movement: is there any sign of how a subject d reaches the word, by Agree with a defective D or by post-syntactic attachment?

The earlier findings, that nouns are not ordered by hidden slots and that the inside of the word is mostly Agree (*Mostly Agree*), fit A, C and D. They do not distinguish them HYPOTHESIS . HYPOTHESIS

9. Verdict

> The stem-listing half of the conjecture is supported by dictionary data HYPOTHESIS . D is coherent, and it answers the objection that sank B in the first draft. It HYPOTHESIS faces two stated problems: head movement out of a subject specifier, and object-outside-subject prefix order. C avoids both, but it has no account of why a noun should ever have to be in argument position. **The site's evidence does not yet favour A, C or D. B as first stated, with phrasal movement, is disfavoured** HYPOTHESIS . The tests in §8 would decide among them OPEN . HYPOTHESIS

One SPECULATIVE closing remark. A host lattice that "lists" which site a dopant OPEN may occupy is the nearest chemistry picture of a stem listing its d. Bridge A stays locked and SPECULATIVE, and nothing here claims a joint field.

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Working notes behind this essay: Hanging smoke, dust, cloud and fog: the same thing in the same role takes the 3i with two stems and a plain third person with three others, so the verb base, not the role and not the item, lists the subject prefix (T83c), Smoke, cloud and rain take the 3i prefix with their nouns: in the *Øjooł family the verb picks 'a- or Ø by what kind of stuff moves, so PX-11 fails for one verb class (T80a), The sun, sunlight, melting snow and lightning also take the 3i prefix, but without a noun: 3i-CL is not a gas class (T81b), Rain, water and fire: the rainstorm takes the areal ho-, fire and flowing water take a plain third person, and the 3i appears only in drizzle and water-blister verbs, so the verb base picks the subject prefix (T82c), Young & Morgan's 3i subject 'a- is 'someone' as often as 'something': people go, work and dream with it, so the indefinite 'a- is not only an inanimate patient (T77a, T77c, T77b, T33e), Three indefinites outside the person paradigms: 'someone', 'something' and the areal ho- carry a sort feature but no person,

and none of them takes a noun (T75a, T75d)., Three third persons on Aissen's 1997 tier: ranked obviatives, and a direct/inverse check made word by word (T62d), Which noun is which? Nominal adjunction: nouns attach to role slots, and the verb can overrule word order, Where do Jelinek and Baker attach the nouns? (T25c: A3 and Hale's target), Merge and Agree inside the Navajo verb word: Merge sites, Agree sites, phases, and whether anything is [+MFS]-like (T40).

Static site, no tracking. Source: github.com/crimsonflower420/navajo-decoded (https://github.com/crimsonflower420/navajo-decoded). Design: palette, type and emblems by Artiste; front-end and WebDAV recommendations by Web Designer. Fonts: Gentium Book Plus, Source Sans 3, Noto Sans Mono (SIL Open Font License; license). Notation is provisional (standard Minimalist: vP/VoiceP, Spec-to-Spec movement, copies in angle brackets).