Deep or shallow? Testing the Navajo inverse against Algonquian

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 4. Copied examples: the essay builder dropped the first Navajo word of every example it copied from a working note (for example Witherspoon’s *Hastiin łį́į́’ yiztał* showed as *łį́į́’ yiztał*, so each gloss sat under the wrong word). The words are restored exactly as the working note prints them; no form was changed. See the pass 4 report.

Grant Golland (research by Grok Bot) · 2026-10-27 · status: HYPOTHESIS (deep by every runnable test; binding OPEN)

Abstract

Algonquian has two inverses: a shallow one, which changes only agreement, and a deep one, which raises the patient over the agent. This essay runs Oxford's diagnostics on the Navajo bi- construction. Every test that can be run on Navajo points to a deep inverse in which the patient really takes the subject position. Navajo has no shallow counterpart at all. The plural prefix da- separates Navajo from Oxford's deep inverse, and the decisive binding test still has no data.

Restated on the unified structure (2026-11-15): the inverse is one extra Move of the patient above the raised agent (H3, H21b), trigger and landing site OPEN. See https://navajo-decoded.grant-golland.workers.dev/unified-structure/#us-map (https://navajo-decoded.grant-golland.workers.dev/unified-structure/#us-map). The essay's data, judgments and citations are unchanged; it is kept as the record of what was argued then.

1. The question

> In every Algonquian direct/inverse pair the site opened, the agent stays the agent and the patient stays the patient. Bruening stresses that the inverse is "not a passive". What changes is which participant controls subject agreement SOURCED . SOURCED

> Oxford separates two inverses SOURCED : SOURCED

- **Shallow:** 3→1/2. Obligatory, done by Agree alone, with no movement.
- **Deep:** 3′→3. An optional voice in which the patient is raised over the agent and binding is reversed.

Which one is Navajo's *bi-*?

2. The data

The *bi-* form is complete with no nouns at all, so the choice is made inside the word:

(1) *yiztał* *'It kicked it.'*
`3.3.kicked`

Willie 1991:73, (38)–(39). Copied from The inverse: when a lower argument outranks the agent, ex. (39a).

(2) *biztał* *'It was kicked by it.'*
`INV3.3.kicked`

Willie 1991:73, (38)–(39). Copied from The inverse: when a lower argument outranks the agent, ex. (39b).

The distributive *da-* counts the doer in both voices:

(3)

shizhé'é *'ashiiké* *dabiiłtsą́*
`1s.father` `boys` `PL.INV3.3.saw`
'My father was seen by the boys.' (p. 83)

Willie 1991:83–85. Copied from Can da- count the patient? Two hooks on one plural prefix (T53d), ex. (64b).

(4)

'ashiiké *'at'ééké* *dabiiłtsą́*
`boys` `girls` `PL.INV3.3.saw`
'The boys were seen by the girls.' (p. 83)

Willie 1991:83–85. Copied from Can da- count the patient? Two hooks on one plural prefix (T53d), ex. (65a).

(5)

**'ashiiké* *'at'ééd* *dabiiłtsą́*
`[boys]` `[girl]` `[PL.INV3.3.saw]`
(The boys were seen by the girl.) (p. 83)

Willie 1991:83–85. Copied from Can da- count the patient? Two hooks on one plural prefix (T53d), ex. (65b).

(6)

tł'ízí *mą'ii* *dabishxash*
`[goat]` `[coyote]` `INV3-3-bit`
'The goats were bitten by the coyotes.' (p. 84)

Willie 1991:83–85. Copied from Can da- count the patient? Two hooks on one plural prefix (T53d), ex. (67b).

3. The argument

Willie states the answer directly. The inverse "makes the agent an internal argument … and places an argument with an 'internal' theta role in the external argument position" (p. 100). Sandoval & Jelinek (1989:339) agree that the patient or goal becomes the subject SOURCED . SOURCED

> Every Oxford test that can be run on Navajo points the same way HYPOTHESIS : contrast, word order and linking, relativization (standing in for long-distance agreement), and definiteness. On all of them *bi-* is a **deep** inverse. HYPOTHESIS

When the patient outranks the agent, *bi-* is obligatory. That obligatory *bi-* is the Navajo counterpart of Oxford's *forced* deep inverse, not of the shallow inverse with first and second persons HYPOTHESIS . The site states it as rule RCC, a ban on a higher-ranked slot being c-commanded by a lower one. RCC fits all eight readings of Willie's (72). HYPOTHESIS

> Navajo has no shallow side at all: there is no inverse for a third person acting on a first or second person (Willie p. 86) SOURCED . SOURCED

4. Counter-evidence and differences

- **The plural prefix.** In Oxford's deep inverse, agreement follows the patient. Navajo *da-* follows the agent in both voices. In that respect Navajo is closer to Bruening's Passamaquoddy analysis, labelled IA-1* on the site, where an EPP feature on little v raises the patient's slot only in the inverse SOURCED HYPOTHESIS . SOURCED
- **A possible second hook for *da-*.** *Da-* may have an optional second hook that pluralizes the patient once the patient has moved into the subject slot. This would be weak extra evidence for movement. It needs *da-* to sit high, and Hale's last placement puts it high HYPOTHESIS . HYPOTHESIS
- **Rival analyses.**
- IA-3, Hale 2003's in-situ topic marking, still fits.
- IA-2, Hale 1997, has internal tensions but meets no contradicting data.
- IA-0, inverse linking, is disfavoured by *da-*.

> See the working notes HYPOTHESIS . HYPOTHESIS

5. Status

> Binding is the decisive test. No source opened has Navajo binding data for this question. Possessor coreference fits "deep" but does not decide it (Essay 4). Whether RCC is a hard rule, a soft one, or varies between speakers is also open OPEN . OPEN

No source mentions chemistry, and no chemistry analog is claimed here.

References

1. Oxford. Algonquian (Routledge chapter), §§3–4.2. Cited on the site as Oxford 2023. OPENED
2. Bruening 2005. Manuscript on the Passamaquoddy inverse. OPENED
3. Willie, MaryAnn 1991. Navajo pronouns and obviation (dissertation), pp. 28–32, 72–100. OPENED
4. Sandoval, Merton & Eloise Jelinek 1989. The bi-construction and pronominal arguments in Apachean. OPENED
5. Hale, Ken 1997 (workshop notes, hale023), 2001, 2003 (manuscript). OPENED
6. Bliss 2005 (Blackfoot), cited via Oxford. NOT OPENED

Working notes behind this essay: The Algonquian inverse: same roles, a different subject slot (the "crossing flip", T52), Is Navajo bi- a deep inverse? Oxford 2023's tests run on Navajo (T52d), The inverse: when a lower argument outranks the agent, Can da- count the patient? Two hooks on one plural prefix (T53d), How high is the plural prefix da-? Hale's three placements and the inverse (T54b), The inverse as Agree and EPP: which head probes, what moves, and what da- rules out (T27k).

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