The interpretations of non-active verbs in Choctaw *

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1. Introduction

In many languages, some verbal roots can form both an intransitive and a transitive verb, where the lone argument of the intransitive corresponds to the object of the transitive. Those roots are said to participate in a *causative* alternation. One such root in English is *smash*.

(1) a. The cup smashed.
b. Suzie smashed the cup.

Henceforth I will refer to the transitive alternant as the *active*, and the intransitive as the *non-active*.

In Choctaw, a Muskogean language spoken today in Mississippi and Oklahoma, many verb roots participate in a causative alternation. Unlike in English, it is common for the active and non-active verb stems to be marked with separate, distinguishing suffixes:[1]

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I use a modified version of Modified Traditional Orthography employed by Broadwell (2006). I employ the following non-transparent glosses: ABS = absolutive; ACT = active; COMP = complementizer; CONTR = contrastive; DS = different-subject; LG = l-grade; MOD = modal; NACT = non-active; OBL = oblique; PTCP = participial; SS = same-subject; TNS= default tense; YG = y-grade.

[1]Byington (1870) and Nicklas (1974) refer to the non-active as the 'passive', Munro and Gordon (1982) uses the term 'lexical passive', Ulrich (1986) uses 'medio-passive' or 'v1' (to be contrasted with 'v2', for the active), and Broadwell (2006) uses 'inchoative'. Although it is clearly undesirable to add to this terminological confusion, I believe 'non-active' is desirable for two reasons. Firstly, it implies nothing about the *meaning* of these verb forms (which vary, as I show in this article); secondly, it evokes the existing scholarship on non-actives in Greek, Hebrew and some other languages, to which the Choctaw non-active is quite similar in function (Alexiadou and Doron 2012).

(2) a. Aayíshko-t koow-**a**-tok.
cup-NOM smash-**NACT**-PST
'The cup smashed.' [non-active]

b. Hattak-m-at aayíshko koo-**li**-tok.
man-DEM-NOM cup smash-**ACT**-PST
'The man smashed the cup.' [active]

Non-actives are almost always syntactically intransitive. However, different non-active verbs have different *interpretations*:

(3) a. koow-a 'it smashed' non-active = **inchoative**
b. koo-li 'she smashed it'

(4) a. fam-a 'he got whipped' non-active = **passive**
b. fam-mi 'she whipped him'

(5) a. lom-a 'she hid' non-active = **reflexive**
b. lohm-i 'she hid it'

(6) a. filiim-a[2] 'she turned her head' non-active = **body-action**
b. filim-mi 'she turned it over'

In this article, I concentrate on non-active verbs with passive and inchoative interpretations like those in (3a) and (4a), and set aside the other interpretations. Much work on the semantics of passives and inchoatives across languages has shown that these two readings are distinguished, at least, by the presence vs. absence of an *implicit agent*—here I provide two diagnostics for the *presence* of an implicit agent in Choctaw (section 2), and a further two diagnostics for the *absence* of one (section 3). I then show that some non-active verbs pass both sets of diagnostics—that is, they may introduce or lack an implicit agent depending on context (section 4). With this small typology in place, I provide an analysis that employs root-conditioned *contextual allosemy* of a single specifierless Voice head. In addition to the semantic properties of non-actives, the analysis captures their morphological uniformity and their non-productivity.

2. Diagnosing the presence of an implicit agent

A common way to test for the presence of an implicit agent is to adjoin a phrase that names it, such as a *by*-phrase in English. The examples in (7) show that a passive can accept a *by*-phrase naming the agent, while an inchoative cannot. The examples also show that there is a test for the *absence* of an agent too. *From*-phrases, which name a non-agent causer, have the opposite distribution from *by*-phrases, and are licensed only in the *absence* of an agent (Alexiadou et al. 2006, Kallulli 2006).

[2] *Filiima* also has an inchoative interpretation 'it flipped over'.

(7) a. The window **was** slowly cracked
(✓ by Mary / ✗ from the pressure). [implicit agent]

b. The window slowly cracked
(✗ by Mary / ✓ from the pressure). [no agent]

When we turn to Choctaw, however, we find that there are no obvious *by* or *from*-phrases, as is perhaps expected of a language with no clear prepositions (on which see Broadwell 2006:252, Tyler 2020:90). In fact we find a dearth of VP-level adjuncts more generally—there are no clear parallels to adverbs like English *deliberately*, which are also sometimes used to diagnose the presence of an (implicit) agent. When asked to translate clauses with *deliberately*, Choctaw speakers may provide paraphrases, like embedding the clause under *ahni* 'intend to'. Instead, alternative diagnostics may be employed. Here I provide two diagnostics for the presence of an implicit agent, and in the next section I provide two diagnostics for the absence of one.

2.1 Licensing purpose clauses

Purpose clauses require a semantic agent in their embedding clause. The English sentences in (8) illustrate this.[3]

(8) a. She fried the eggs [so that Mark would be happy]. (overt agent)
b. The eggs were fried [so that Mark would be happy]. (implicit agent)
c. #The eggs fried [so that Mark would be happy]. (no agent)

The (in)ability of a non-active verb to license a purpose clause can be turned into a test for an implicit agent. Some Choctaw non-active verbs, such as *fama* 'be whipped', license purpose clauses, indicating that they introduce an implicit agent:

(9) a. Alla nakni-m-a **fammi**-tok [im-alhpisaa-ch-aachi-k-at].
child boy-DEM-OBL **whip.ACT**-PST DAT-right-CAUS-FUT-COMP-SS
'She whipped the boy to make him behave.' [active]

b. Alla nakni-m-at **fama**-tok [im-alhpisaa-ch-aachi-k-a].
child boy-DEM-NOM **whip.NACT**-PST DAT-right-CAUS-FUT-COMP-DS
'The boy was whipped to make him behave.' [non-active]

Other non-active verbs, such as *koowa* 'smashed', fail to license purpose clauses:

[3]The purpose clause test is deployed to determine whether there is an argument capable controlling the PRO subject of a *non-finite* purpose clause, as in (i). However, the examples in (8) show that finite purpose clauses are subject to just the same agent requirement.

(i) The eggs were fried [PRO to make the kids happy].

(10) a. Kocha aapisa **kooli**-tok [naa hokop-aachi-h-oosh].
outside window **smash.ACT**-PST thing steal-FUT-TNS-SS
'She smashed the window to steal stuff.' [active]

b. #Kocha aapisa-at **koowa**-tok [iskali hokop-aachi-h-o].
outside window-NOM **smash.NACT**-PST money steal-FUT-TNS-DS
'The window smashed to steal the money.' [non-active]

2.2 Licensing rationale clauses

Like purpose clauses, rationale clauses require a semantic agent in their embedding clause:

(11) a. I closed the door [because it was cold]. (overt agent)
b. The door was closed [because it was cold]. (implicit agent)
c. #The door closed [because it was cold]. (no agent)

We find a similar pattern to what we found with purposes clauses. Some Choctaw non-active verbs, like *chokchowa* 'be tickled', license rationale clauses, indicating that they introduce an implicit agent:

(12) a. Allosi-m-a ii-**chokcholi**-tok [yoppa-chi
baby-DEM-OBL 1PL.ERG-**tickle.ACT**-PST laugh-CAUS
pi-nna-h-aatok-o].
1PL.ABS-want-TNS-because-DS
'We tickled the baby because we were trying to make it laugh.' [active]

b. Allosi-m-at **chokchowa**-tok [yoppa-chi
baby-DEM-NOM **tickle.NACT**-PST laugh-CAUS
pi-nna-h-aatok-o].
1PL.ABS-want-TNS-because-DS
'The baby was tickled because we were trying to make it laugh.' [non-active]

Other non-active verbs, like *alhkama* 'close', fail to license rationale clauses:

(13) a. [Kapassa-h-aatok-o] okkísa-m-a okla **akammi**-tok.
cold-TNS-because-DS door-DEM-OBL PL **close.ACT**-PST
'Because it was cold, they closed the door.' [active]

b. #[Kapassa-h-aatok-o] okkísa-m-at **alhkama**-tok.
cold-TNS-because-DS door-DEM-NOM **close.NACT**-PST
'Because it was cold, the door closed.' [non-active]

We have seen that some non-active verbs license purpose clauses and others do not. The same holds for rationale clauses. Each of these tests distinguishes a class of non-actives that can introduce an implicit agent from a class that not. Note that I believe that

non-active verbs generally pattern together on both tests, though I have used different verbs to exemplify each test.[4]

3. Diagnosing the absence of an implicit agent

The tests in the previous section illustrated that some non-active verbs can introduce an implicit agent and some verbs cannot. The tests here show the opposite: that some non-actives can *lack* an implicit agent, while others cannot (i.e. they must always introduce an implicit agent).

3.1 Licensing *ilaap* 'by itself'

Expressions like 'by itself' or 'of its own accord' are only licensed in the absence of an agent (Chierchia 1989/2004, Koontz-Garboden 2009), as the following sentences illustrate for English:

(14) a. *I closed the window of its own accord. (overt agent)
b. *The window was closed of its own accord. (implicit agent)
c. The window closed of its own accord. (no agent)

The (in)ability of a non-active verb to license a 'by itself' expression can therefore be used as a test for the absence of an implicit agent. Some Choctaw non-active verbs, like *shila* 'dry', do license an adjunct *ilaap* 'self':

(15) Himmak nittak lashpa-h-aatok-o̲ baalókka-at **ilaap shil**-aachi̲-h.
now day hot-TNS-because-DS pants-NOM **self dry.NACT**-FUT-TNS
'Because it is hot today, the pants will dry by themselves.'

Other non-active verbs, like *taptowa* 'be chopped up' do not license *ilaap*:

(16) #Ilaap taptowa-h.
self chop.NACT-TNS
'It was chopped up by itself.'

[4]One of the confounding factors for both of these tests is that stative semantics appears to license purpose and rationale clauses even in the absence of an agent. This is shown, for English, by the classic stative example in (ia) from Williams (1974) and by the progressive example in (ib). The same problem holds in Choctaw, and requires more research.

(i) a. The grass is green [to promote photosynthesis].
b. The water is boiling [to make a stew].

3.2 Licensing 'success-with-difficulty' readings when a dative object is added

When beneficiary arguments are added to inchoatives, we often see a so-called 'success-with-difficulty' (SwD) reading emerge (see Schäfer 2008), illustrated in (17a). This reading is only possible in the absence of an agent—the English passive in (17b) does not allow the SwD reading.

(17) *People had been trying to open the jammed door all day. But after Katie gave it one particularly hard shove...*

a. it opened for her. (no agent)
b. #it was opened for her. (implicit agent)

This effect comes about because of the general requirement that arguments of the same verb must have *disjoint reference*, in the absence of special (reflexive) marking. In inchoatives, the individual that performs the action (if there is one) is absent from the semantic representation of the event, and so can be identified as the beneficiary argument without violating the disjoint reference requirement. But when the individual performing the action *is* represented as an agent in the semantics, it cannot simultaneously be introduced as a beneficiary.

In Choctaw, some non-active verbs, like *kochoofa* 'bend', allow SwD interpretations when a dative is added to them. Under the reasoning above, we can interpret such verbs as lacking an implicit agent:

(18) Kánah-at móyyo̲ma-t tali-p-a̲ kochoffi bánna-sh
someone-NOM all.YG-PTCP metal-DEM-OBL bend.ACT want.LG-SS
má̲ya-na shohbi-kak-o̲, pola̲ka Katie-ano
be.PL.LG-and.DS all.day-although-DS finally Katie-OBL.CONTR
i̲-**kochoofa**-h.
DAT-**bend.NACT**-TNS
'People had been trying to bend this piece of metal all day, but it finally bent for Katie.'

Other non-active verbs, like *tapa* 'be cut', fail to license SwD readings when a dative argument is added, and instead the dative argument gets some other interpretation (e.g. an external possessor). It must therefore be the case that these verbs *must* introduce an implicit agent:

(19) #Kátit chi̲-tapa-tok-ak-o̲, an-aano
how 2SG.DAT-cut.NACT-PST-although-DS me-OBL.CONTR
a̲-tapa-tok.
1SG.DAT-cut.NACT-PST
(intended: 'Why didn't it cut for you? it cut for me.')
Actual: 'Why didn't yours get cut? Mine got cut.'

In sum, we have seen that some non-active verbs pass the tests for the absence of an implicit agent, while another set of non-active verbs fail those tests (indicating that they must introduce an implicit agent).

4. Mediopassives

So far, we have seen that some non-active verbs pass the tests that diagnose the presence of an implicit agent and fail the tests for the absence of one (e.g. *fama* 'be whipped', *chok-chowa* 'be tickled'), while a different set of non-active verbs pattern in the opposite way: they pass the tests for the absence of an implicit agent, and fail the tests for the presence of one (e.g. *shila* 'dry', *kochoofa* 'bend'). However, there are a number of non-active verbs that can pass both sets of tests. One such verb is *alwasha*, meaning 'fry' (intransitive) or 'be fried'. (20) shows that *alwasha* passes the tests for the presence of an implicit agent and (21) shows that it also passes the tests for the absence of one.

(20) a. Nípi-t **alwasha**-tok [alla alhiiha nayoppa-ch-aachi-h-o].
meat-NOM **fry.NACT**-PST child PL happy-CAUS-FUT-TNS-DS
'The meat was fried to make the kids happy.'

b. Akakoshi-yat **alwasha**-tok [alla-t akakoshi walhálli
egg-NOM **fry.NACT**-PST child-NOM egg boil.NMLZ
ap-ahii-kiyo-h-aatok-o].
eat-MOD-NEG-TNS-because-DS
The eggs were fried because the kids won't eat boiled eggs.

(21) a. Akakoshi car apakna bóohli-na **ilaap alwasha**-tok.
egg car on.top put.LG-and.DS **self** **fry.NACT**-PST
'I put the egg on top of the car and it fried by itself.'

b. An-aano akakoshi-t **am-alwasha**-h nani-t kiyoh,
me-OBL.CONTR egg-NOM **1SG.DAT-fry.NACT**-TNS somehow-PTCP not
chishn-aano katina akakoshi-t chim-aa-lapaali-h.
you-OBL.CONTR why egg-NOM 2SG.DAT-LOC-stick-TNS
'The eggs are frying for me no problem, why are they sticking for you?'

The reader might notice that the English translation of *alwasha* in these examples varies between inchoative and passive as the context demands. I propose that verbs like *alwasha* may *optionally* introduce an implicit agent. I refer to this class of verb as *mediopassive*.

We thus arrive at the small typology of non-active verbs in (22). Recall that there are other interpretations of non-actives, such as reflexive and body-action interpretations, which I lack the space to discuss (see (3-6)). Readers may notice that this typology is similar to what has been identified for Greek and Hebrew (Alexiadou and Doron 2012).

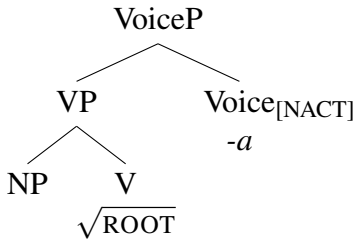
(22)

Classification	Implicit agent?	Example
passive	+	*fam-a* ‘he was whipped’
mediopassive	+/−	*alwash-a* ‘it (was) fried’
inchoative	−	*koow-a* ‘it smashed’

5. Analysis

I propose that there there is one functional head that is used to form almost all non-active verbs in Choctaw: Voice$_{[\text{NACT}]}$. Following the contours of a *Layering* approach to argument structure (Kratzer 1996, Pylkkänen 2002, Alexiadou et al. 2006, 2015), Voice$_{[\text{NACT}]}$ merges with the VP—the constituent that contains the verb root and the internal argument. The [NACT] diacritic ensures that Voice$_{[\text{NACT}]}$ does not take a specifier, ensuring that non-active verbs are (generally) intransitive, and that the internal argument (the theme) becomes the subject. The resulting VoiceP constituent for a non-active verb like *fama* ‘be whipped’ is shown in (23).

(23)



Then, following recent work in *contextual allosemy* (Wood and Marantz 2017), I propose that Voice$_{[\text{NACT}]}$ has at least two possible interpretations. One possible interpretation is ‘Ø’, i.e. an identity function. When Voice$_{[\text{NACT}]}$ is interpreted thus, Voice$_{[\text{NACT}]}$ adds nothing to the interpretation of the VP constituent, and an agentless, inchoative interpretation arises. Another possible interpretation is “$\lambda e.\exists x.\text{AGENT}(x,e)$”: upon combining with the denotation of the VP constituent (via Event Identification, Kratzer 1996), an existentially-bound individual is added as the agent of the event, giving rise to the passive-like interpretation. The root to which Voice$_{[\text{NACT}]}$ is adjacent determines which interpretation Voice$_{[\text{NACT}]}$ may have, by contextual allosemy. A small class of roots—the mediopassive roots—allows Voice$_{[\text{NACT}]}$ to assume *either* of these interpretations.

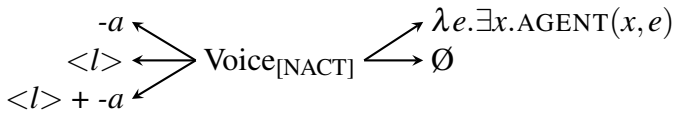
A key advantage of this proposal is that it captures the morphological uniformity of Choctaw non-actives. They are most commonly marked with an *-a* suffix, and by positing a single Voice$_{[\text{NACT}]}$ head for all interpretations—as opposed to different Voice heads (different ‘flavors’) for each interpretation—we allow this fact to be stated simply. What’s more, the uniform analysis allows us to capture easily the fact that the morphological distinctions in non-active marking do not (for the most part) track the semantic distinctions discussed in this article. For instance, another way of marking non-actives is with an infixed *<l>* (which assimilates to the consonant following it). This infix may co-occur with *-a*. As the table in (24) shows, the morphological form of the non-active cross-cuts its interpretation (I take the ‘gap’ to be accidental):

(24)

	Lexical passive	Inchoative	Mediopassive
-a	*fam-a* 'was whipped'	*tiw-a* 'opened'	*lhakoof-a* 'escaped/was saved'
<l>	*ho<h>chifo* 'was named'	(gap)	*ho<n>ni* '(was) boiled'
<l> + *-a*	*a<lh>tok-a* 'was chosen'	*a<lh>kam-a* 'closed'	*a<l>wash-a* '(was) fried'

Under an analysis where each interpretation was associated with its own 'flavor' of $\text{Voice}_{[\text{NACT}]}$ head, we would have to redundantly associate each of the two (or three) $\text{Voice}_{[\text{NACT}]}$ heads with the same syntactic behavior (not taking a specifier) *and* the same set of allomorphs. By contrast, under the proposal here, $\text{Voice}_{[\text{NACT}]}$ can exhibit both root-conditioned contextual allosemy and root-conditioned contextual allomorphy, and there's no expectation that form and interpretation should fall into any one-to-one correspondence. My proposal, which allows many-to-many form-meaning mappings to be unified around a single syntactic head exhibiting uniform syntactic behavior, can be schematized thus:

(25)



The analysis also captures the relative non-productivity of the voice suffixes in Choctaw. Alexiadou et al. (2015) argue that where voice morphology merges directly with the VP constituent, it can show root-conditioned idiosyncrasies and variable productivity. This contrasts with fully-productive and regular voice alternations like the English passive, which they argue to involve functional structure above the Voice head.

References

Alexiadou, Artemis, Elena Anagnostopoulou, and Florian Schäfer. 2006. The properties of anticausatives crosslinguistically. In *Phases of interpretation*, ed. by Mara Frascarelli, volume 91, 187–211. Berlin: Mouton de Gruyter.

Alexiadou, Artemis, Elena Anagnostopoulou, and Florian Schäfer. 2015. *External arguments in transitivity alternations: A layering approach*. Oxford: Oxford University Press.

Alexiadou, Artemis, and Edit Doron. 2012. The syntactic construction of two non-active voices: passive and middle. *Journal of Linguistics* 48:1–34.

Broadwell, George Aaron. 2006. *A Choctaw reference grammar*. Lincoln, NE: University of Nebraska Press.

Byington, Cyrus. 1870. Grammar of the Choctaw language. In *Proceedings of the American Philosophical Society*, ed. by Brinton D, volume 11, 317–67.

Chierchia, Gennaro. 1989/2004. A semantics for unaccusatives and its syntactic consequences. In *The unaccusativity puzzle*, ed. by Artemis Alexiadou, Elena Anagnostopoulou, and Martin Everaert, 22–59. Oxford: Oxford University Press. Published 2004, written and circulated in 1989.

Kallulli, Dalina. 2006. A unified analysis of passives, anticausatives and reflexives. In *Empirical issues in formal syntax and semantics 6: Papers from CSSP 2005*, ed. by Olivier Bonami and Patricia Cabredo Hofherr, 201–225.

Koontz-Garboden, Andrew. 2009. Anticausativization. *Natural Language & Linguistic Theory* 27:77.

Kratzer, Angelika. 1996. Severing the external argument from its verb. In *Phrase structure and the lexicon*, ed. by Johan Rooryck and Laurie Zaring, 109–137. Dordrecht: Kluwer.

Munro, Pamela, and Lynn Gordon. 1982. Syntactic relations in Western Muskogean: a typological perspective. *Language* 81–115.

Nicklas, Thurston Dale. 1974. The elements of Choctaw. Doctoral dissertation, University of Michigan.

Pylkkänen, Liina. 2002. Introducing Arguments. Doctoral dissertation, MIT.

Schäfer, Florian. 2008. *The syntax of (anti-) causatives: External arguments in change-of-state contexts*. Philadelphia: John Benjamins Publishing.

Tyler, Matthew. 2020. Argument structure and argument-marking in Choctaw. Doctoral dissertation, Yale University.

Ulrich, Charles. 1986. Choctaw morphophonology. Doctoral dissertation, UCLA.

Williams, Edwin. 1974. Rule ordering in syntax. Doctoral dissertation, MIT.

Wood, Jim, and Alec Marantz. 2017. The interpretation of external arguments. In *The Verbal Domain*, ed. by Roberta D'Alessandro, Irene Franco, and Ángel J. Gallego, 255–278. Oxford: Oxford University Press.

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