(R) The Obviative Solution (1/3) [Solution]

R1.

Singular	Plural	Obviative Singular	Locative Singular	Meaning
hisei	hiseinoʔ	hisein	hiseinewe ʔ	‘woman’
hotii	hotiiwoʔ	hotiiw	hotiiwowe ʔ	‘car’
nebi	nebihoʔ	hibio	nebihewe ʔ	‘one’s older sister’
neicet	neicetino		neicetine ʔ	‘one’s hand’
nooku	nookuhoʔ	nookuo	nookuhowe ʔ	‘beaver’
hiseeθ	hiseetoʔ	hiseet	**a. hiseetewe ʔ***	‘pine tree’
b. ooθ	ooto		oote ʔ	‘leg’
beiciθ	beicito		beicite ʔ	‘tooth’
coox	**c. cooθoʔ**	**d. cooθ**	**e. cooθowe ʔ***	‘enemy’
ceʔeinox	ceʔeinoθo		ceʔeinoθe ʔ	‘bag’
hinen	hinenino ʔ	**f. hinenin**	**g. hineninewe ʔ**	‘man’
wotoo	**h. wotooho**	**i. N/A**	wotoohe ʔ	‘pair of pants’
j. woθonohoe	woθonohoeno	**k. N/A**	woθonohoene ʔ	‘book’
l. niiʔeihii	**m. niiʔeihiiho ʔ**	niiʔeihiio	**n. niiʔeihiihewe ʔ***	‘eagle’
ceʔibes	ceʔibexo	**o. N/A**	**p. ceʔibexe ʔ**	‘block (of wood)’
benes	**q. benexo**	**r. N/A**	**s. benexe ʔ**	‘arm’
t. nesi	nesihoʔ	**u. hisio**	**v. nesihewe ʔ**	‘one’s uncle’

*For the cells marked ***, ***hiseetowe ʔ***, ***cooθewe ʔ***, and ***niiʔeihiihowe ʔ*** were also marked as correct, respectively. These forms are generated by the “alternate solution,” under Morphology.

(R) The Obviative Solution (2/3) [Solution]

Stems

Nouns have two "stems," S1 and S2. Rules for going from S1 to S2:

	S1	→	S2
a.	*-V*		*-Vh, -Vn, or –Vx*
b.	*-t*		*-tin*
c.	*-n*		*-nin*
d.	*-ʊ*		*-t*
e.	*-x*		*-ʊ*
f.	*-s*		*-x*

All transformations except for (a.) can be performed uniquely in the direction of S1 → S2, and all can be performed uniquely in the reverse direction of S2 → S1.

For brevity, the same patterns can also be expressed with the following scheme:

s ↔ *x* ↔ *ʊ* ↔ *t* ↔ *tin* (process of phonetic softening or lenition)

n ↔ *nin*

V ↔ *Vh, Vn,* or *Vw*

and the rule:

Locate the stem's ending (as specifically as possible) in the above chart.

Move one step right across a "↔" to convert S1 → S2, and one step left for S2 → S1.

Animacy

Nouns are classified as animate or inanimate semantically — note, body parts are inanimate, while "pine tree" and "car" are animate (all others are as expected).

Morphology

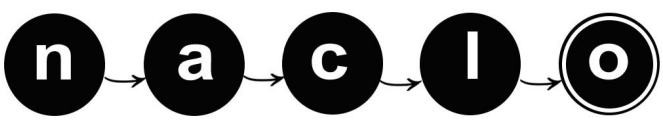
The noun form in each case is:

	singular	plural	obviative singular	locative singular
Animate	S1	S2 + *oʔ*	if S2 *-h,* then S1 + *o* else S2	S2 + *Vweʔ*, where: if root contains *o*, then *V = o* else *V = e**
Inanimate	S1	S2 + *o*	N/A	S2 + *eʔ*

The vowel rule for the locative singular for animate nouns is a kind of vowel harmony.

Note that this rule can be described, consistently with the data, in several ways, including:

- if root contains *e*, *V = e*
- else *V = o*



(R) The Obviative Solution (3/3) [Solution]

*Alternate solution: consistently with the data, the vowel alternation pattern in the locative singular for animate nouns can be explained as:

- *V = e* (for humans)
- *V = o* (for non-humans)

This alternate solution is not an actual phenomenon in Arapaho, but since it fits the data given, it was scored identically, in both parts (R1 and R2), to the vowel harmony solution.

Possession

The prefix “ne-” indicates possession (in English, “one’s…”). In the obviative singular, when this form exists (*i.e.* for animate nouns):

ne- → *hi-*

One way of explaining why this change happens is that the grammatical person is different in the obviative.