Grammaticalization of the generalized Kampan applicative-*ako* (Arawak)

Elena Mihas
University of Wisconsin-Milwaukee

1. INTRODUCTION**.** The present study is concerned with the Kampan semantically unspecified applicative [1] *–ako* and addresses the following issues: (1) What are the synchronic usages of the *ako*-applicative? (2) What are the pathways of the suffix's diachronic development? (3)What is a possible motivation for its historical development? The analysis draws on the corpus of over 300 sentences with *ako*-applicatives collected from texts, grammars, dictionaries, and other secondary sources.

The organization of this paper is as follows. Section 1 offers a brief typological profile of the Kampan subgrouping of Arawak; section 2 presents an outline of the prior research on the applicative *-ako* and discusses its origin; section 3 provides an analysis of the synchronic uses of the *ako*-applicative, discusses their motivation, and proposes pathways of the suffix's development; section 4, by way of conclusion, explores some theoretical implications of this research for the cross-linguistic study of generalized applicatives.

1.1. TYPOLOGICAL PROFILE OF THE KAMPAN LANGUAGES. There are 10 languages in the Kampan subgrouping of Arawak languages of Peru, divided into Northern (Caquinte, Asháninka, Ashéninka Pichis, Ashéninka Perené, Ashéninka Ucayali, Ashéninka Apurucauyali, Ashéninka Pajonal) and Southern (Nomatsiguenga, Machiguenga, Nanti) branches. Kampan languages are polysynthetic and agglutinating, mainly suffixing. The predicate structure is given in Figure 1.

person proclitics A/S	prefixes	VERB ROOT	incorporated noun	suffixes		person enclitic(s) O	clausal enclitics
				derivation	inflection		

Figure 1. The predicate structure of the Kampan verb

Two sets of pronominal cross-referencing clitics are used to mark the nominative-accusative system of grammatical relations. The A argument of transitive verbs and S argument of intransitive verbs are coded by the same set of person proclitics while the O argument of transitive verbs is expressed by a different set of person enclitics. A set of pronominal forms for the Asheninka language varieties is shown in (1).

(1)		1SG	2SG	3SG.m	3SG.n.m.	1INCL.PL[ii]
	A,S	n(o)-	p(i)-	i(r)-	o(Ø)-	a(Ø)-
	O	-na	-mi	-ri	-ro/-ni	-ai

Pronominal forms distinguish genders only in the 3p SG, masculine and non-masculine (inanimate objects are referred to by the non-masculine gender). Pronominal forms make

a number distinction for the 1p while the 2p and 3p plural is indicated by a plural morpheme.

Basic verbal clauses have the basic constituent order VSO or SVO. Like many other Arawak languages, Kampan languages do not have any case marking on core constituents (A, S, O) and possess only one peripheral case marker, a polyfunctional locative–*kV*. Kampan languages exhibit complex applicative systems, as seen in Table 1.

	Asha	APi	APe	AUc	APaj	AApu	No	Ma	Ca	Na
benefactive/ malefactive	-nV, -anoNt	-veNt	-veNt	-βiNt	-nV	-βiNt	-ben/ -bin	-nV	-noNt	
substitutive	-veNt							-veNt	-βent	
comitative/ causative	-akaa	-akag	-akag	-akag	-akag	-akag	-ka(g)	-aka(g) -ag	-aka	
instrumental							-an	-aNt	-aNt	-aNt
allative							-te			
reason	-aNt	-aNt		-aNt	-aNt	-aNt	-biri	-veNt	- βeNt, -aNt	
separative	-apitsa						-pi	-apitsa	-apitsa	-apitsa
presence	-imo	-pitha		-pitha		-pitha	-mo	-imo	-imo	-imo
reference	-ako, -imeNt	-ako	-ako	-ako	-ako	-ako	-có/-gó	-ako	-ako, -imeNt	-ako
purpose	-ashi	-ashi		-asi		-asi	-si	-ashi	-ashi	

Table 1. Applicative systems of Kampan languages[iii]

Table 1shows that Kampan languages have elaborate applicative systems, including two semantically unspecified (generalized) applicatives like *–ako* 'with reference to' and *–imo* 'in the presence of'. The dearth of morphosyntactic alternatives to most of the applicative derivation in Kampan languages makes the use of applicatives almost mandatory.

2. PRIOR RESEARCH ON THE *AKO*-APPLICATIVE**.** In Kampanist literature, this derivational suffix was isolated based on the fact that it indicated an additional object or complement for the verb. One of the early identified functions of the Kampan *ako*-applicative was dative, with an attested variety of other senses e.g. 'on', 'about', 'to', 'with', 'for', 'of/from' (D. Payne 1981, 1984; J. Payne 1989; Wise 1986; Shaver 1996). The use of the term 'dative' was meant to emphasize the main function of the applicative suffix *–ako* to code peripheral recipient arguments promoted to the direct object status. Alternatively, the basic senses of the suffix were defined in Kindberg (1961:530, 1980:462) and Payne (2002:493) as 'concerning'/ with respect to' (about) and 'containing' (in). More recent studies state the basic concept of the suffix with less emphasis on the 'contained' and 'recipient' senses but rather as somehow referring to the object or indicating that the

object is somehow involved e.g. García Salazar (1997:28), Snell (1998:48), Wise (2002:592), Michael (2008:247, 287).

The *ako*-applicative marker can be derived from intransitive or transitive bases (J. Payne 1989: 243). Most Kampanist scholars list the applicative *–ako* under the rubric of argument-adding or valence-increasing derivational operators (Michael 2008:279; Payne 1981:39; Payne, Payne, & Sanchez 1982:55; García Salazar 1997:28; Shaver 1996:42; Snell 1998:46; Wise 1986:591; 2002:336). It was noted that the suffix does not always control object agreement on the verb (J. Payne 1989:243). Non-local participants, when added to the core arguments of intransitive and transitive verbs, generally increase the verb valence. The derived verb in (3) *-ts^{h}irini-t-ako* 'get dark on' becomes fully transitive, as demonstrated by the presence of the plural circumfix *–yi- …-ni*, marking agreement with the patient direct object.

(3) *Asheninka Apurucayali*
*Ø=ts^{h}irini-t-**ako**-iy-an-ak-i-Ø-ni*
[3n.m.A]-get.dark-**APPL**-PL-DIR-PRF-REAL-[3.O]-PL
'The night came upon them.' (Payne 1981:40)

In contrast, local participants in *ako*-applicative derivation typically do not increase the valence of the verb, formally signaled by a cross-referencing object enclitic on the verb and a referent NP (Payne 1989:243; Snell 1998:48; Swift 1988:70). As seen in (4), the *ako*-applicative occurs without a cross-referencing direct object enclitic and a lexical NP.

(4) *Asheninka Apurucayali*
*i=kiy-**ako**-t-apa-ak-i=ri*
3m.A-dig-**APPL**-EP-DIR-PRF-REAL-3m.O
'They dug them out (from the ground).' (Payne 1981:40)

The local participant in (4) does not have grammatical characteristics of central participants: it does not control object agreement and does not require an overt presence of the applied object. Local participants are not normally expressed at the syntactic level in *ako*-derivations and have to be inferred from the context. Though the added local argument, which the speaker believes to be pragmatically retrievable from the context, is *not* obligatorily expressed in the *syntax*, *ako*-applicative derivation incorporates the added argument *semantically* into the predicate frame, evidenced by the periphrastic expressions added to the translations of the sentences.

2.2. ORIGIN OF *–AKO*. The origin of many Kampan applicatives, including *–ako,* is difficult to pinpoint, as noted in Kampanist scholarship (Wise 2002:341). The *ako*-applicative appears to have evolved from a verbal classifier. Phonological and distributional facts seem to point in this direction. Kampan languages use a verbal classifier *-ako* with the meaning 'vessel', 'recipient', or 'cavity' (Payne 1991:249; Michael 2008:341), affixed to verbal stems. In general, Kampan verbal classifiers characterize the referent of a noun in terms of shape (point-like, elongated, cylindrical, etc.), consistency (rigid, soft, liquid,

etc.), and arrangement *(*contained) and usually refer to a core argument in S or O function. Example (6) shows a verbal classifier referring to an S.

(6) *Nanti*
*o=maka-**kita**-an-ak-i*
3n.m.S=rot-**CL:mat-**DIR-PRF-REAL
'It (mat) began to rot.' (Michael 2008:333)

Sources point out that verbal classifiers may extend their functions to peripheral locative arguments (Aikhenvald 2000:162; Michael 2008:332-335), as seen in (7).

(7) *Nanti*
a. *i=hok-**ha**-i*
3m.S-throw-**CL:LIQUID**-REAL
'He threw it [a fishing net] into the water.'
b. *o=sotog-**meni**-ak-i* *kochara*
3n.m.S-come.out.of-**CL:FLAT.RIGID.THIN**-PRF-REAL spoon
'The spoon came out of the hole [in the bag].' (Michael 2008:334)

In (7a), the verbal classifier *–ha* 'liquid' characterizes the locative argument in terms of its consistency while *–meni* 'flat.rigid.thin' in (7b) refers to the locative peripheral constituent's properties of shape and consistency. In (8), the verbal classifier *–ako* 'vessel' indicates the locative argument's arrangement as contained.

(8) *Ashéninka Pichis*
a. *hi=ña-apa-ak-e=ro* *o=pashik-**ako**-t-ak-a*
3m.S-see-DIR-PRF-REAL-ADV 3n.m.S.-fill-**CL:VESSEL**-EP-PRF-REAL
pyaarentsi *inchatona-ki*
masato tree-LOC
'Buscaron donde estaba el *masato* [They discovered *masato* [in a container] near the tree].' (Anderson 1985:20)
Machiguenga
b. *o=vit-**ako**-a-t-e=ro*
3n.m.A-put-EP-**CL:VESSEL**-REGR-EP-PRF-REAL=3.O
'Lo dejó allí in un deposito [She left it there in a pot].' (Grosh 1996:86)
Caquinte
c. *Ø=am-**ako**-t-ak-e=ro* aisa *kachofari*
3n.m.A-bring-**CL:VESSEL**-EP-PRF-REAL-3n.m.O also
'Ella tambien trajo *kachofari* (en un recipiente) [She also brought *kachofari* (in a pot)].' (Swift 1988:70)

The 'container' semantics of the verbal classifier *–ako* in (8) is less abstract, compared with the basic locative meaning of the homophonous applicative suffix *–ako* in (9).

(9) *Ashéninka Pichis*

a. *i=N-kitat-**ako**-t-apaint-e=ri* *samampo-ki*
3m.A-IRR-bury-**APPL**-EP-quickly-IRR-3m.O ashes-LOC
'Ponía las *patarashcas* en las cenizas [He would bury *patarashcas* quickly in the ashes (of the fire)].' (Anderson 1985:126)

b. *hi=ñaa-tzi-i=ri* *h=otet-**ako**-ye-t-ak-e=ri* *apite*
3m.A- see-EP-REAL-REL 3m.A-place-**APPL**-DISTR-EP-REAL-3m.O two
imeretote
anchoveta
'Encontró dos *patarashcas* de *anchovetas* [He found what his friend placed inside, two *patarashcas* of the *anchovetas*].' (Anderson 1985:130)

In (8) and (9), both the verbal classifier *-ako* and the applicative marker *–ako* are used without the lexical NP or cross-reference marking of the locative argument on the verb. In both cases, the suffix is postposed to the verb stem. Both suffixes are employed with the same class of theme/place verbs e.g. 'fill Y with X', 'leave X in Y', 'bury X in Y', 'place X in Y' where X is a theme argument which undergoes a change in location Y. However, the applicative suffix in (9) has a more abstract locative meaning. Evidently, at some point in its evolution, the spatial verbal classifier with the 'container' semantics extended its function to a more abstract inessive sense, acquiring a locative function within verbal morphology, as seen in (10).

(10) *Asháninka*
*y=ar-**ako**-t-i*
3m.S-fly-**APPL**-EP-REAL
'Él vuela (adentro de un avión) [He flies on the plane].' (Kindberg 1980: 463)

Our data e.g. (8), (9) and (10) tentatively support the claim that the applicative *-ako* has developed from a verbal classifier. The immediate postverbal position of the classifier *-ako* points to its origin as the grammaticalized inalienable noun since incorporated nouns tend to follow the verb stem in Kampan languages. In my data, the affixal slot of *–ako* is nearly always found after the verb stem. The fixed postverbal ordering of the suffix provides preliminary evidence that it may have originally developed from an incorporated noun and later evolved into an applicative.

3. SYNCHRONIC USES OF THE APPLICATIVE *–AKO*. This section will investigate a possible role of the *container* image schema in the evolution of the applicative *–ako* and will provide an analysis of the proliferation of the suffix's senses, using a cognitive-diachronic approach.

3.1. THEORETICAL ASSUMPTIONS ABOUT THE GRAMMATICALIZATION PATHWAYS OF LOCATIVE MORPHEMES AND THE *CONTAINER* IMAGE SCHEMA. This study considers a few diachronic studies of grammaticalization pathways of locative morphemes (Heine & Kuteva 2002; Peterson 2007; Rice and Kabata 2007) as a foundation for our analyses of multiple senses of the generalized Kampan applicative *-ako*. The sources treat

grammaticalization as a strategy 'of linguistic processing whereby more abstract functions are expressed in terms of forms for concrete objects', whose effects are essentially the same across languages (Heine & Kuteva 2002:5-6). In many languages, locative morphemes are found to grammaticalize to markers of cause, standard of comparison, concern (*about*), progressive aspect, possession, to existential copulas and subordinators of temporal, causal, and modal clauses (Heine & Kuteva 2002:199-206). The range of possible semantic extensions of the allative-locative morpheme may exceed thirty including spatio-temporal (ablative, duration, time), social (recipient, addressee, beneficiary, possessor, human source, comitative, etc.), mental (conceptual, emotional, perceptual), logical-textual (purpose, reason, subordinator, manner, equivalent, infinitive, etc.), and miscellaneous other senses (instrumental, accusative, ergative) (Rice & Kabata 2007: 473-4). Cross-linguistic surveys of applicatives demonstrate that locative applicatives tend to cluster with instrumentals, reflecting a cross-linguistic trend to be coded by the generalized applicative (Peterson 2007:204). There is also strong cross-linguistic evidence that locative, circumstantial (*a.k.a*. reason, motive, purpose, stimulus, cause), and instrumental senses in applicatives are marked by a single, generalized applicative marker (Peterson 2007:204-207). Thus, based on these observations, a generalized applicative marker with a basic local sense will likely to grammaticalize to circumstantial and instrumental uses. It is also possible that the evolution of the Kampan generalized applicative *–ako* with the original spatial sense will involve multiple extensions of the locative morphemes attested cross-linguistically.

Cognitive analyses have been helpful in explaining grammatical phenomena as reflections of deeper cognitive and conceptual processes by emphasizing that linguistic structure can only be understood and described in the context of a broader account of cognitive functioning. One of the fundamental notions of cognitive approach, image schema, is used in this study as a broader context of the semantic evolution of the applicative *–ako* with the basic locative meaning. Image schemas are defined as gestalts, highly schematic knowledge structures which function to metaphorically extend our understanding of things to a large range of abstract concepts (Lakoff 1987:272). In addition to the spatial property of location (*in/out*), the configuration of the *container* image schema includes direction (*into/out of*) (Clausner 1994:190), as seen in Figure 2.

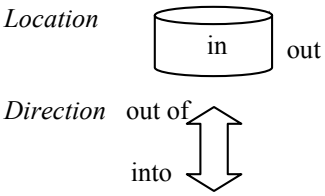

Figure 2. Spatial properties of the *container* image schema (adapted from Clausner 1994:191)

As Figure 2 shows, the concepts associated with the spatial *container* image schema are the static notion of location *in/out* and the dynamic construals of goal *into* and source *out of*. The dynamic nature of the spatial *container* image schema is illustrated in (12).

(12) *Asháninka Pichis*
*hi=noshik-**ako**-t-ak-e=ri*
3m.A-pull-**APPL**-EP-PRF-REAL-3m.O
'El hombre jaló su cordel [the man pull his string (out of the water)].'(Anderson 1985:56)

The applicative marker *–ako* in (12) encodes movement out of contained matter, the water. Image schemas also structure non-physical experiences via metaphor (Lakoff 1987:272). For example, an act of sensory perception can be construed metaphorically, by mapping the concept of movement into/out of container from the source domain of SPACE to the domain of VISION. The experiencer is perceived as moving in the perceptual space towards the perceptual goal/target, as shown in (13).

(13) *Machiguenga*
*i=ne-veNt-**ako**-ge-t-av-ak-a=ri*
3m.A-see-REAS.APPL-**APPL**-DISTR-EP-DIR-PRF-REAL-3m.O
'Lo observó desde lejos [He looked at him from afar].' (Grosh 1996:80)

In (13), the goal sense 'to' of *–ako* is metaphorically transferred to an act of sensory perception when the experiencer is construed as moving towards the perceptual target. It should be noted that the spatial *goal* and *container* image schemas partially overlap, sharing the concept of directed motion towards a destination/target. Both notions are used in this analysis, depending on what shades of the semantic meaning of *–ako* are discussed. In sum, before proceeding to the investigation of synchronic uses of the applicative –ako, I propose that the development of the suffix *–ako* is likely motivated by the *container* image schema, available to structure speakers' conceptualizations.

3.3. SYNCRONIC USES OF THE APPLICATIVE *–AKO*. Senses of Kampan *ako*-applicatives, derived from intransitive verbs, vary from accusative to stimulus to comitative to locative, as shown in (14).

(14)

-tzina-ako-	'take off in'; cf. *-tzina-* 'go up'(APaj)
-ayiit-ako-	'land in'; cf. *–ayiit-* 'go down' (APaj)
-ar-ako-	'fly in'; cf. *–ar-* 'fly' (Asha)
-arëto-ako-	'arrive in'; cf. *–arëto-* 'arrive' (No)
-tiɣari-ako-	'roam in'; cf. *-tiɣari-* 'roam' (Ca)
-amaat-ako-	'go down river'; cf. *–amaat-* 'swim' (APi)
-toNk-ako-	'rise above'; cf. –toNk- 'go up the hill' (APi)
-kis-ako-	'be angry about'; cf. *–kis-* 'be angry' (Ma)
-katsit-ako-	'feel pain on account of'; cf. *–katsit-* 'feel pain' (APi)
-pok-ako-	'come to get into'; cf. *–pok-*'come' (APaj)
-tsirini-ako-	'get dark on smb'; cf. *–tsirini-* 'get dark' (AApu)
-parya-ako-	'fall on smb' (about rain); cf. *-parya-* 'fall'(APi)
-samë-ako-	'sleep with'; cf. *–sam-* 'sleep' (No)
-komot-ako-	'dam.the.river with'; cf. *–komote adv.* 'downriver' (No)

Locative senses (goal and location) and the purpose reading of the applicative *–ako* are represented in (15).

(15) *Ashéninka Pichis*

a. *o=toNk-**ako**-wai-t-ashi-t-an-ak-a* *hiñaa kipachi-ki*
3n.m.S-go.up-**APPL**-CONT-EP-PURP-DIR-PRF-REAL water land-LOC
'El agua subió sobre las colinas en la tierra [The water rose above the hills on earth].'
(Payne & Payne 1983: 137)

Ashéninka Pajonal

b. *a=tzina-**ako**-t-ak-a*
1PL-take.off-**APPL**-EP-PRF- REAL
'Partimos [We took off (inside the plane)].' (Heitzman 1991:128)

c. *n=apiit-**ako**-t-ak-a* *no=pok-**ako**-t-ak-i*
1SG.S-repeat-EP-PRF-REAL 1SG.S-come-**APPL**-EP-PRF-REAL
'Al día siguiente otra vez vine [The next day I came another time (to take the plane)]'.
(Heitzman 1991:129)

The path and location senses of the derived applicative motion verbs *–toNk-ako* 'go up above' and *-tzina-ako* 'take off in' in (15a-b) are clearly motivated by the suffix's original local meaning. The purpose function of the applicative *–ako* in (15c) may be explained by the speakers' conceptual mapping of physical destinations to mentally projected intentions.

My data show that stimuli and accusatives are common companion senses of the *ako*-applicative with the basic locative sense, as seen in (16).

(16) *Machiguenga*

a. *i=kis-**ako**-t-an-ak-e=ro*
3m.A-be.angry-**APPL**-EP-DIR-PRF-REAL-3n.m.O
'Él se molestó por causa de ella [He was angry about her].' (Snell 1998:48)

Ashéninka Pichis

b. *kooya Ø-katsit-**ako**-t-ak-e* *eentsite*
woman 3n.m.A-feel.pain-**APPL**-EP-PRF-REAL her.baby
'La mujer dio la luz a un hijo [The woman felt pain on account of her son (the woman gave birth to a son)].' (Anderson 1985:96)

The stimulus argument of the experiential applicative verb *-kis-ako-* 'be angry about' in (16a) can be construed as an emotional destination, figuratively targeted by the speaker's emotional response. The experiential verb *-katsit-ako-* 'be in pain on account of' in (16b) also expresses causal semantics. The pain can be construed as moving from the causer/ source of sensation (the baby), towards the causee/sensation target (the woman in labor).

The accusative sense of the *ako*-applicative in (17) is seemingly counterintuitive. However, cross-linguistic studies show that locative morphemes, in the course of their diachronic development, often extend their basic spatial meaning to more abstract senses (Heine & Kuteva 2002; Rice & Kabata 2007).

(17) Ashéninka *Apurucayali*
a. *Ø=ts^{h}irini-t-**ako**-iy-an-ak-i-[3.O]-ni*
3n.m.A-get.dark-**APPL**-PL-DIR-PRF-REAL-[3.O]-PL
'The night engulfed them.' (Payne 1981:40)
Ashéninka Pichis
b. *ikanta h=iyaa-t-ak-e ari i-parya-**ako**-t-ak-e inkane*
CON 3m.S-go-EP-PRF-REAL CON 3m.S-fall–**APPL**-EP- PRF-REAL rain
'Comenzó a caer una fuerte lluvia [He walked and the heavy rain struck him].'
(Anderson 1985:116)

The semantic patients in (17) are directly affected human targets, expressing the endpoint of the conceptual event. When found with 'nature' verbs, the *ako*-applicative seems to convey a meaning of an adversative, detrimental action carried out on the patient.

Concomitant function in (18) is marginally attested with *ako*-applicative intransitive verbs in my dataset.

(18) *Nomatsiguenga*
*i=komo-t-o**ko**-k-e=ri pabati otsegoha*
3m.A-dam.stream-EP-**APPL**-PRF-REAL-3m.O father stream
'He dammed the stream with his father.' (Wise 1971: 50)

In (18), the applicative verb *–komo-t-oko* 'dam with' indicates that the father is somehow involved in the construction project. The father's involvement is not necessarily direct but influential enough to consider him an associate in this undertaking.

3.2. SENSE TYPES OF THE AKO-APPLICATIVES DERIVED FROM TRANSITIVE VERBS. *Ako*-applicative derivations from transitive bases show a strong commitment to the local, stimulus, accusative semantic functions, as seen in (19).

(19)

-check-ako-	'cut off'; cf.-*chek-* 'cut' (APi)
-seroNk-ako-	'slice off'; cf. *–seroNk-* 'slice' (Na)
-atsik-ako-	'bite off'; cf. *–atsik-* 'bite' (APi)
-kiy-ako-	'dig from'; cf.-*kiy-* 'dig' (AAp
-ook-ako-	'leave in'; cf. *–ook-* 'leave', 'abandon', 'forget'(APi)
-ashit-ako-	'lock up in'; cf. *–ashit-* 'possess' (APi)
-tashit-ako-	'roast on'; cf. *–tashit-* 'roast' (AP
-tatsiNk-ako-	'push to'; cf. *–tatsiNk-* 'push' (APi)
-p-ako-	'give to'; cf. *–p-*'give', 'feed' (APaj)
-kaim-ako-	'call out to'; cf. *–kaim-* 'call', 'shout' (APi)
-amen-ako-	'look at'; cf. *-amen-* 'look', search' (AApu)
-ña-ako-	'look at'; cf. *-ña-* 'see', 'find' (APi)
-kem-ako-	'hear about'; cf.*–kem-* 'hear', listen','understand' (APi)
-iyot-ako-	'know about'; cf. *–iyot-* 'know'(APi)
-kinkithashirya-ako-	'think about'; cf. *-kinkithashirya-* 'think' (APi)
-ira-ako-	'cry about'; cf. *–ira-* 'cry, lament' (APi)
-keNketsa-ako-	'tell about'; cf.-keNketsa- 'tell' (Asha)

-kiNkitha-ako-	‘tell about’; cf. –kiNkitha- ‘tell’, ‘preach’ (AApu)
-kamaNt-ako-	‘inform about’; cf.cf.*-kamaNt-* ‘inform’, ‘advise’ (APi)
-kaNt-ako-	‘speak about’; cf.*-kaNt-* ‘say’ (APi)
-pantha-ako-	‘sing about’; cf. *–pantha-* ‘sing’ (APi)
-oosot-ako-	‘tie with (rope)’;cf. *–oosot-* ‘secure’, ‘tie’ (AUc)
-pashik-ako-	‘wrap with (leaves)’; cf.*-pashik-*’fill’,‘cover’ (APi)
-kathat-ako-	‘pull with (rope);cf. *-kathat-* ‘take by hand’ (APi)
-kov-ako-	‘want from’; cf.*-kov-* ‘wish’, want’ (APi)
-oirik-ako-	‘seize from’; cf. *–oirik-* ‘seize’,‘grab’ (APi)
-tsoin-ko-	‘destroy’, ‘finish with’; cf.*-tsong-* ‘finish’, destroy’(No)
-tsa-ako	‘open up’; cf.*-tsa*-untie, loosen’ (Ma)
-ta-ako-	‘burn up’; cf.*-tag-*‘burn’ (APi)
-keNt-ako-	‘pierce’; cf. *–keNt-* ‘sting’, ‘poke’, ‘pierce’

Similar to the *ako*-applicative constructions derived from intransitive verbs, locative *ako*-applicatives are common with transitive verbs, as seen in (20).

(20) *Ashéninka Ucayali*
a. *o=N-tim-ach-e* *a=thochi-**aako**-t-e=ri* *inchapooki-ki*
3n.m.S-IRR-exist/be-CONT-IRR 1PL.A-search-**APPL**-EP-IRR-3m.O plant-LOC
‘(Será necesario) buscarlo entre las plantas [We’ll look for it between the plants].’
(García Salazar 1997:65)
Nanti
b. *no=kig-**ako**-ak-i=ro*
1.A-dig-**APPL-**PRF-REAL-3n.m.O
‘I dug it up [from the ground].’ (Michael 2008:288)
Ashéninka Pichis
c. *pok-apa-ak-e* *kamaari,* *h=otatsiNk-**ako**-tzi-t-ak-e=ne=ri*
come-DIR-PRF-REAL demon 3m.A-push-**APPL**-EP-PRF-REAL-3.O-REL
irovarite, *parya-an-ak-e* *osaaviki*
his.food fall-DIR-PRF-REAL down
‘El demonio se acercó al oso empujando su comida hasta que cayó al suelo [The demon approached the bear and pushed the food causing it to fall down]’.(Anderson 1985:138)

Locative, ablative, and allative senses of the *ako*-applicative in (20) are highly relevant to the suffix’s original locative semantics. In my data, the recipient and addressee senses are also found with the *ako*-applicative verbs. Goal-based recipient and addressee senses are illustrated in (21).

(21) *Ashéninka Pajonal*
a. *no=p-**ako**-ts-imo-tsi=ro=ri* *Irena Irokarto paño*
1SG.A-give-**APPL**-EP-PRES-PRF-3n.m.O-3m.O scarf
‘I gave Richard the head scarf in Irene’s presence.’ (Wise 2002:336)
Ashéninka Pichis
b. *i=kaim-**ako**-t-apa-ak-e=ri* *sintsini*
3m.A-call-**APPL**-EP-DIR-PRF-REAL-3m.O strongly
‘He called out to him [upon his arrival].’(Payne 1984:75)

In (21a), the applicative verb *-p-ako-* 'give to' incorporates into its argument structure the recipient participant whereas in (21b) the applicative verb *-kaim-ako* 'call out to,' subcategorizes for the addressee. Expressing a human endpoint of an action, both the recipient and the addressee senses can be construed as metaphorical destinations, branching off the original locative use of *–ako.*

In my data, experiential *ako*-applicative verbs are found to subcategorize for figurative perceptual, emotional, and conceptual stimuli. These types of stimuli are common uses of *ako*-applicatives in Kampan languages, as seen in (22).

(22) *Asháninka Apurucayali*
a. *h=amin-**ako**-t-apa-ak-i=ri*
3m.A-look-**APPL**-EP-DIR-PRF-REAL-3m.O
'He was looking at him.' (Payne 1981:40)
Nanti
b. *no=kem-**ako**-ak-i-=ri*
1A-hear-**APPL**-PRF-REAL-3n.m.O
'I heard about him.' (Michael 2008:288)
Asheninka Pichis
c. *ipaitaka p=ira-**ako**-t-a=ri?*
WH 2A-cry-**APPL**-EP-REAL-REL
'¿Por qué están llorando? [What are you crying about?]' (Anderson 1985:88)
d. *tecatsi i=N-kinkithashirya-**ako**-t-e=ro*
NEG.REAL 3m.A-IRR-think-**APPL**-EP-IRR-3n.m.O
'Ellos no pensaron (que les iba a pasar algo) [They didn't think that something was going to happen to them].' (Anderson 1986:82)

The transitive applicative verbs *-amin-ako* 'look at', *–kem-ako-* 'hear about',*–ira-ako-* 'cry about', *-kinkithashirya-ako-* 'think about' in (22) select a perceptual, emotional, or conceptual target. The acts of sensory perception in (22a-b), emotional response in (22c), and cognitive activity in (22d) can be construed as a figurative movement of the perceiver/ emoter/cognizer towards a perceptual/emotional/conceptual target.

Another type of the stimulus usage of the *ako*-applicative is attested with utterance verbs[iv]. Based on a causal relationship between the content of utterance (indirect causer) and the addressee (causee), oblique arguments in (23) are interpreted as stimulus participants causing the addressee (experiencer) to become aware of some other entity.

(23) *Asháninka*
a. *i=kamaNt-**ako**-t-ak-e=na=ro*
3m.A-inform-**APPL**-EP-PRF-REAL-1.O-3n.m.O
'He informed me about it.' (Kindberg 1961:530)
Caquinte
b. *no=ßetsa-t-**ako**-t-ah-e-npa=ri iɣentiheɣi*
1SG.A-speak-EP-**APPL**-EP-REGR-IRR-REFL-3m.O brother
'Hablaré otra vez sobre mi hermano [I'll speak one more time about my brother].' **(**Swift 1988:70)

The utterance events with applicative verbs ‘speak/inform about’ in (23) can be construed as involving figurative motion from the speaker to the communicative target of the utterance. The accusative reading of *–ako* can also be grounded in the concept of directed motion, with a directly involved and totally affected semantic patient construed as the endpoint of an action, as seen in (24).

(24) *Nomatsiguenga*
a. *pi=tsoin-**kó**-ke=ri* *itsenko*
3n.m.A-finish-**APPL**-PRF-3m.O his.pants
‘(Las espinas) le destruyeron los pantalones [(Thorns) destroyed his pants].’
(Shaver 1996:65)
Ashéninka Pichis
b. *i=keNt-**ako**-t-ashit-ak-a=ri* *inchataatoki*
3m.A-pierce-**APPL**-EP-INT-PRF-REAL-3n.m.O stick
‘Picaron el palo [they pierced the stick with the arrows].’ (Anderson 1986:74)

In (24), semantic patients are targets, directly affected by the A participant’s actions to their detriment; the thorns destroy the pants in (24a) and the stick is splintered by the arrows in (24b).

The use of *–ako* in (25) to encode miscellaneous other roles on transitive verbs such as comitative, instrumental and benefactive is probably more representative of those Kampan languages which lack distinct verbal morphology to mark these uses.

(25) *Ashéninka Apurucayali*
a. *pi=N-osi-**ako**-t-i=na*
2.A-IRR-pull-**APPL**-EP-IRR-1SG.O
‘You pull with (for) me.’ (Payne 1981:40)
Ashéninka Ucayali
b. *Ø=ooso-t-**ako**-t-e=ro*
1PL.A-secure-EP-**APPL**-EP-IRR-3n.m.O
‘La amarramos (con algo) [We’ll tie it down with something)].’ (García Salazar 1998:28)
Nanti
c. *i=nat-**ako**-ak-i=na*
3m.A-carry-**APPL**-PRF-REAL-1.O
‘He carried [it] for me.’ (Michael 2008:361)

Ashéninka Apurucayali and Ashéninka Ucayali do not have morphologically distinct comitative or instrumental applicative markers, which might explain the use of *ako*-applicatives in (25a-b) to code these thematic relations. To compensate for the lack of a morphologically distinct benefactive applicative form, Nanti uses the applicative *–ako* to code this function, as seen in (25d).

4. CONCLUSIONS. In this study, the synchronic uses and grammaticalization pathways of the generalized Kampan applicative *–ako* have been examined. The Kampan applicative suffix *-ako* with the basic locative meaning is shown in Figure 3 to have multiple senses.

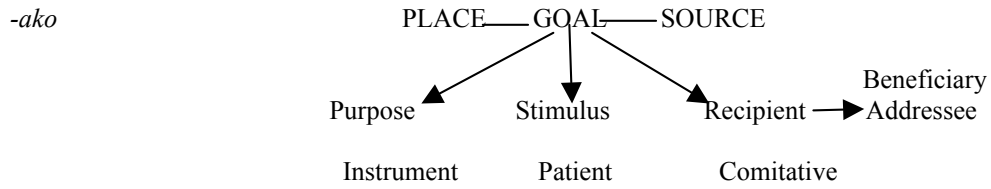

Figure 3. Proposed semantic functions of the applicative suffix *–ako*

Figure 3 illustrates multiplicity of usages of the generalized applicative marker *–ako* and a variety of extension pathways available to the applicative marker with a starting locative sense. Clearly, the evolution of *-ako* is a multidimensional grammaticalization process. The general locative sense of the applicative *–ako* (place, goal, source) is shown to have spawn a few extensions such as purpose, stimulus, recipient, addressee. The benefactive, comitative, instrumental, and patient functions are not shown to be linked to any specific sense in Figure 3 since I lack sufficient cross-linguistic data to make generalizations about which sense serves as the source of their development. To explain the position the benefactive sense in the vicinity of the recipient and addressee senses in Figure 3, I draw on cross-linguistic evidence indicating that recipient, addressee and beneficiary, both typically human and similar semantically, are often marked by the same morpheme (Rice & Kabata 2007:480-481). The placement of semantic patients in Figure 3 close to the area of semantic stimuli is meant to represent a possible interdomain percolation between these two senses since both stimuli and patients can be construed as targets of a goal-based action. The schematic position of the instrument and comitative functions of *–ako* in Figure 3 is preliminary. The model of the causal chain indicates that cause, comitative and instrument thematic roles are frequently coded by the same piece of morphology (Croft 1991:187), thus, the instrument function of the applicative *–ako* is tentatively linked to the stimulus and purpose senses of *–ako*.

The attested senses of the generalized applicative *–ako* are likely to be motivated by the schematic options available for its grammaticalization, based on its starting sense. The spatial *container* schema might have served as a determinant of the evolution of the *-ako* senses, from the basic local destinations to mental emotional and perception destinations (stimulus/cause) to social (to recipient, addressee, beneficiary) to logical (purpose), to directly affected physical targets (accusative). Instrumentals and especially comitatives are marginally attested in our data, though the incidence, in particular, of instrumentals which presuppose a more abstract causal sense, probably reflects a higher degree of the suffix's grammaticalization.

This analysis is likely to have consequences for the discussion of grammaticalization routes resulting in applicative markers. The generalized Kampan applicative *–ako* is probably derived from a noun source via an interim stage of the verbal classifier. This grammaticalization pathway of the applicative *–ako* might have involved an extension of the function of the verbal classifier with a diffuse 'container' meaning to a more abstract spatial function of the applicative marker.

This study has confirmed a cross-linguistic tendency for a generalized applicative marker to code both circumstantial (cause, reason, purpose, motive) and local participants

(Peterson 2007:206). In Kampan languages, the same applicative morphology marks locative (place, goal, source) and causal (purpose and four types of stimuli) senses.

A final observation addresses a cross-linguistic tendency concerning stimulus applicatives. This study has verified the affinity of stimulus applicatives to occur in languages which have other applicative types, or to be one of the semantic functions of a generalized applicative marker (Peterson 2007:207). In particular, the Kampan generalized applicative *–ako* has been found to exhibit a richly attested stimulus function.

Notes

[i] Typical applicative derivation is a transitivizing operation whereby an applicative verb is overtly marked for the semantic role of an added direct object (Payne 1997:186; Peterson 2007:1-2). While a prototypical semantic role of direct object is that of patient or theme, in applicative constructions, peripheral participants with semantic roles other than patient and theme are 'centralized' or promoted to the core arguments.

[ii] The following abbreviations are used in this paper:1-first person, 2-second person, 3-third person, A-subject of transitive verb, ADV-adverbial clause marker, APPL-applicative, CL-classifier, CON-connector, CONT-continuous, DIR-directional, DISTR-distributive, EP-epenthetic, IMP.PASS-impersonal passive, INCL-inclusive, IRR-irrealis, LOC-locative, m-masculine, n.m.-non-masculine, O-object of transitive verb, PL-plural, PRES-presential, PRF-perfective, PURP-purpose, REAL-realis, REF-referential, REGR-regressive, REL-relaive, S-subject of intransitive verb, SG-singular,WH-question word.

[iii] Sources for Table 1: Asháninka (=Asha) Kindberg 1975, 1980; Ashéninka Pichis (=APi) D. Payne 1980, 1983, 1984; J. Payne 1989; Ashéninka Perené (=APe) Payne 1989; Ashéninka Ucayali (=AUc) García Salazar 1997; Ashéninka Pajonal (=APaj) Heitzman 1991; Ashéninka Apurucayali (=AApu) Payne 1981; D. Payne, J. Payne, & Sanchez 1982; Nomatsiguenga (=No) Wise 1971; Shaver 1996; Peterson 2007; Machiguenga (=Ma) Snell 1998; Caquinte (=Ca) Swift 1988; Peterson 2007; Na (=Nanti) Michael 2008. Wise 1989, 1990, 1991, 2002 and Payne 2002 deal with valence operators in the Arawak family.

[iv] An alternative interpretation is to treat a verb of utterance as subcategorizing for the speaker, the content of the utterance and the addressee. In this case, the content of the utterance is a metaphorical theme.

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