Unaccusativity in Crow[1]
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1 Introduction

- Like in many other Siouan languages, Crow verbs generally belong in one of two classes: ACTIVE (A-set) or STATIVE (B-set).

  ◇ In (1), which consists of the active intransitive verb *disshí-* 'dance', the verb takes the active (or A-set) first person prefix *baa-*, which is shown in bold.[2]

  ◇ In (2), which consists of the stative intransitive verb *bíisshi-* 'tell a lie', the verb takes the stative (or B-set) first person prefix *bii-*, which is underlined.[3]

(1) Active intransitive verb:

baa-lisshí-k
1A-dance-DECL

'I dance'

(Speaker: Felice Big Day)

[Felice_Jack_071218_001:00:08:51.476-00:08:52.401]

(2) Stative intransitive verb:

<u>bii</u>-wíisshi-k
1B-tell.lie-DECL

'I lie'

(Speaker: Riley Singer)

[Riley_081018_002]

- Verbs in Crow take different person prefixes depending on whether they are active or stative; active verbs take A-set markers whereas stative verbs take B-set markers.

	A-SET	B-SET
1SG	baa-	bii-
2SG	daa-	dii-
3SG	Ø-	Ø-
1PL	baa- +PL	balee-
2PL	daa- +PL	dii- +PL
3PL	Ø- +PL	Ø- +PL

Table 1: A- and B-set agreement prefixes in Crow.

- This study focuses on distinguishing **the semantic factors that determine whether a verb in Crow is likely to be active or stative** given in (1) and (2) in which active verbs take A-set whereas stative verbs take B-set.

- This study focuses on **the semantic and syntactic properties of active and stative intransitive verbs in Crow in relation to properties of unergative and unaccusative verbs** that have been discussed exhaustively in the literature on syntactic theory.

Proposal: This analysis suggests that the distinction between active and stative verbs is based on an interaction between agentivity (i.e. control) and lexical aspect (i.e. states vs. events). Furthermore, this analysis suggests that active intransitives are unergatives while stative intransitives are unaccusatives.

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[2]Abbreviations used in the glosses are as follow: A: A-set, B: B-set, CAUS: (direct) causative, DECL: declarative, FREQ: frequentive, FUT: future, IMPER: imperative, INCHO: inchoative, INDEF: indefinite, INSTR: instrumental, NEG: negation, NOM: nominalizer, OBJ: object, 1: first person, 2: second person, 3: third person.

[3]While B-set markers are more accurately described as proclitics, for the purpose of this talk, I use the general term *prefix* to refer to both prefixes and proclitics.

2   Semantic factors underlying the active-stative split in Crow

- The following two are the most commonly discussed factors on active-stative (Mithun 1991):

  - ◇ Lexical aspect is the inherent temporal properties of verbs, which includes states which do not change over time (e.g. be happy) and events (e.g. activities, achievements, accomplishments) which can change over time (e.g. eat).
  - ◇ Agentivity relates to the degree of agency that the subject has over the situation denoted by the verb.

- Rankin (2004) argues that these factors cannot be applied across the Siouan languages where there are inconsistencies in how verbs are classified semantically due to historical reasons.

- Graczyk (2007:177-178): "it is possible to classify a verb as active or stative simply on the basis of its semantic properties...knowledge of the meaning of a verb will almost always enable one to predict its class membership."

- This section takes a in-depth look at the semantic factors underlying the two sets of verbs.

2.1   Fluid-person marking verbs

- There is a class of so-called fluid-person marking verbs which exhibit a change in meaning depending on whether the A- or B-set marker is used (see Table 1). Three examples of fluid-person marking verbs are given in (3–5):[4]

  (3)   *daxchí-* (Graczyk 2007:149):
     a.   Active: *daxchí-* 'tie, bind'
     b.   Stative: *daxchí-* 'choke (on food), gag'

  (4)   *xachií-* (Wallace 1993:88; Speaker: Charles Yarlott Jr. `[Charles_072418.wav]`):
     a.   Active: *xachií-* 'move (location)'
     b.   Stative: *xachií-* 'feel movement, being moved'

  (5)   *daxxálua-* (Speaker: Felice Big Day `[Felice_032919.wav]`)):
     a.   Active: *daxxálua-* 'drag'
     b.   Stative: *daxxálua-* 'slide'

- What light do the shifts in meaning shed on the semantic properties defining active and stative verbs?

  - ◇ In (3–5), the shifts seem to be one of control; that is, A-set verbs denote events that are controlled by the subject, whereas B-set verbs denote events that are not controlled by the subjet.
  - ◇ In (4), the shift could also be one of lexical aspect; A-set verb denotes an event, whereas B-set verb may also denote a state.

2.2   Proposal #1: Lexical Aspect

- To what extent does lexical aspect distinguish between active and stative verbs?

- Here, I use the basic aspectual distinction state and event (or nonstate), in which the latter involve some kind of change, whereas the former does not.

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[4]This work is largely based on the Crow verbs, primarily intransitives for which there are roughly 380 active verbs and 580 stative verbs, that appear in Ray Gordon and Father Randolph Graczyk's unpublished *A Dictionary of Crow*. It was not possible for me to verify the accuracy of all the words in the dictionary. However, most of the words that appear on this handout were checked with Felice Big Day, a speaker of Crow. Sentences without citations are also graciously provided by Ms. Big Day.

(6)   Active intransitives denoting events:

     a.   *díili-* 'walk'

     b.   *xalússhi-* 'run'

     c.   *iluú-* 'stand up'

     d.   *ilíi-* 'talk, speak'

     e.   *baachimmí-* 'count, study'

     f.   *disshí-* 'dance'

     g.   *chiwakíi-* 'pray'

     h.   *káa-* 'laugh, smile'

     i.   *shée-* 'die, faint'

     j.   *bilihpí-* 'bathe, swim'

(7)   Stative intransitives denoting states:

     a.   *chía-* 'be white'

     b.   *isáa-* 'be big'

     c.   *ítchi-* 'be good'

     d.   *púmmi-* 'be short'

     e.   *satchí-* 'be thick'

     f.   *shishía-* 'be dirty'

     g.   *tawée-* 'be hot'

     h.   *xaliá-* 'be itchy'

     i.   *xawíi-* 'be bad'

     j.   *xusshí-* 'be fast'

- Most active verbs do appear to denote events, whereas most stative verbs denote states. Still there is a number of exceptions, as in (8) and (9):

(8)   Active intransitives denoting states:

     a.   *awáachi-* 'sit'

     b.   *chilíi-* 'be afraid'

     c.   *ilutchítchi-* 'feel guilty'

     d.   *xapí-* 'lie (down)'[5]

(9)   Stative intransitives denoting events:

     a.   *bíile-* 'tell on, tattle'

     b.   *biísshi-* 'tell a lie'

     c.   *ámmichi-* 'fall down'[6]

     d.   *apáali-* 'grow, sprout'

     e.   *chipí-* 'drown'

     f.   *daxxálua-* 'slide, skid'

     g.   *daxchí-* 'choke, gag'

     h.   *passhí-* 'fall off'

2.3   Proposal #2: Agentivity

- The distinction between states and events alone is unable to capture the division between active and stative verbs. As the fluid-person marking verbs in (3–5) seem to suggest, perhaps agentivity can fare even better than lexical aspect. Here, I focus on the notion of CONTROL.

(10)   Active intransitives with participants controlling the situation denoted by the predicate:

     a.   *díili-* 'walk'

     b.   *xalússhi-* 'run'

     c.   *iluú-* 'stand up'

     d.   *ilíi-* 'talk, speak'

     e.   *baachimmí-* 'count, study'

     f.   *disshí-* 'dance'

     g.   *chiwakíi-* 'pray'

     h.   *bilihpí-* 'bathe, swim'

     i.   *iiwaannía-* 'play'

     j.   *dée-* 'go'

(11)   Stative intransitives with participants lacking control of the situation denoted by the predicate:

     a.   *chía-* 'be white'

     b.   *shipíta-* 'be black'

     c.   *isáa-* 'be big'

     d.   *ítchi-* 'be good'

     e.   *púmmi-* 'be short'

     f.   *háchka-* 'be tall, long'

     g.   *satchí-* 'be thick'

     h.   *xaliá-* 'be itchy'

     i.   *xawíi-* 'be bad'

     j.   *chilía-* 'be cold'

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[5]The verb *xapí-* as an active verb means 'lie (down)', but as a stative verb means 'fall'. However, this verb differs from fluid-person marking verbs in that the stative counterpart is restricted to third person non-human participants.

[6]*ámmichi-* > *awé* 'ground' + *dichí-* 'hit' (cf. *awélichi-* 'fall down').

- Most active verbs involve participant control, while most stative verbs do not. However, much like the situation with states and events, there is also a number of exceptions, as in (12) and (13).

  (12)   Active intransitives with participants lacking control of the situation denoted by the predicate:

  - a. *axxí-* 'cough'
  - b. *apiiaxxí-* 'sneeze'[7]
  - c. *pía-* 'fart, break wind'
  - d. *kalée-* 'vomit'

  - e. *chilíi-* 'be afraid'[8]
  - f. *shée-* 'die, faint'
  - g. *baashíali-* 'dream'
  - h. *páxpi-* 'suffer'

  - i. *ilutchítchi-* 'feel guilty'
  - j. *iháwi-* 'sleep'

  (13)   Stative intransitives with participants controlling the situation denoted by the predicate:

  - a. *bíile-* 'tattle'
  - b. *bíisshi-* 'tell lie'

- Many exceptional verbs like 'cough', 'fart' and 'vomit' in (12) are internally-caused bodily processes (Levin and Rappaport 1995), which cross-linguistically form a homogenous subset of unergative verbs. However, there are a handful of internally-caused bodily processes that are also stative verbs, as in (14).

  (14)   Stative intransitives internally-caused bodily processes:

  - a. *táwasaali-* 'perspire, sweat'[9]
  - b. *bixúa-* 'have diarrhea'
  - c. *alíishxachii-* 'shake due to hunger'[10]
  - d. *íishpuuxachii-* 'have cramps in stomach'[11]
  - e. *apíiluu-* 'have nosebleed'[12]

  - f. *shéhchikiichi-* 'hiccough'
  - g. *ilítshia-* 'smelly, stink'
  - h. *tannáa-* 'shiver'
  - i. *daxchí-* 'choke (on food), gag'

- Verbs in (14) that indicate internally-caused bodily processes may involve degrees of control. That is, the more control over the bodily process, the more likely it is to be classified as an active verb, whereas the less control one has, the more likely it is classified as a stative verb.

2.4   Proposal #3: Lexical aspect and agentivity

- The split between active and stative verbs is based on an interaction between control and lexical aspect. That is, active verbs tend to be events that participants control, while stative verbs tend to be states that participants have no control over.

- The exceptions found in the active (i.e. states and uncontrolled) and stative (i.e. nonstates and controlled) verb classes are given in (15) and (16).

  (15)   Active intransitives that denote states lacking participant control:

  - a. *chilíi-* 'be afraid'
  - b. *páxpi-* 'suffer, feel pain'

  - c. *ilutchítchi-* 'feel guilty'

  (16)   Stative intransitives denoting events with participant control:
  - a. *bíile-* 'tell on, tattle'
  - b. *biísshi-* 'tell a lie'

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[7]*apiiaxxí-* > *apá* 'nose' + *ii* 'instrumental' + *axxí* 'cough' (Gordon and Grazcyk, n.d.).

[8]Compare with *chilíihche* 'forbid someone to do something' > *chilíi-* 'be afriad' *-hche* 'indirect causative'.

[9]*táwasaali-* > tawée 'hot' + *asaalí* 'come out, exit'

[10]*alíishxachii-* > *alíishi* 'be hungry' + *xachíi* 'move'

[11]*íishpuuxachii-* > *íishpuu* 'stomach' + *xachíi* 'move'

[12]*apíiluu-* > *apá* 'nose' + *ilúu* 'persist'

2.5 A brief look at Hidatsa

- Hidatsa *mídaba* corresponds semantically to Crow *bíisshi-* 'tell a lie'.

    ◇ Although this is a conjecture, it is plausible that the two words may be decomposed in similar ways, as in (17) and (18).

    ◇ While *dabe* is, to my knowledge, not attested, one can deduce its meaning from *maaʔíidape* in (19).

(17)	bíisshi	(18)	mídaba	(19)	maaʔíidape
	bí-isshe		mí-daba		maa-íi-dape
	?-cover		?-cover?		NOM-INSTR-cover?
	'tell a lie'		'tell a lie'		'cover, lid, stopper'[13]

- Crow *bíile* 'tattle' may plausibly be decomposed as *bí-* + *ilíi* 'speak, talk'; in Hidatsa, *iréʔgsha* 'informer, tattletale' (Boyle and Gwin 2006) is derived from *iréʔe* 'speak, talk' with the frequentive, as in (20).

(20)   iréʔegshac
       iiréʔe-kša-c
       speak-FREQ-DECL
       'He/she talks all the time.'   (Boyle 2005, as cited in Boyle 2007:168, Ex.71c)

- It is likely that these exceptions in Crow are relics of historical changes, particularly through grammaticalization and lexicalization.

2.6 Interim conclusion

- Proposals #2 (i.e. agentivity) and #3 (i.e. lexical aspect and agentivity) are the most likely candidates.

    ◇ Proposal #2 is a more elegant account that does not have to rely on an additional semantic factor.

    ◇ Proposal #3 is more explanatory as it can account for more verbs.

- Ultimately, I claim that Proposal #3 is the optimal candidate. First, there is a natural relationship between agentivity and lexical aspect, and second, attempting to explain the exceptions of Proposal #2 (i.e. internal bodily processes) starts to become messy and somewhat arbitrary. If this account is correct:

    ◇ Fits squarely into the typological space of languages that also display an interaction between agentivity and aspect, such as Nepali (Li 2007) and other Indo-Aryan languages (Schwarz, p.c., 2019).

    ◇ Aligns with the notion that the semantic base underlying active-stative splits can change over time (Mithun 1991); the interaction or overlap suggests that Crow is perhaps undergoing change from one semantic base to another semantic base.

3   Tests for agentivity and unaccusativity

- UNERGATIVES are intransitive verbs, as in (21), with subjects (external arguments) that tend to semantically and syntactically behave like subjects of active transitive verbs.

- UNACCUSATIVES are intransitive verbs, as in (22), with subjects (internal arguments) that tend to semantically and syntactically behave like objects of active transitive verbs.

- While not direct evidence for unaccusativity, we find that subjects of unergatives typically act as agents, while subjects of unaccusatives generally act as non-agents (cf. Dowty 1991).

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[13]Source: http://dictionary.hidatsa.org.

(21) **Logan** ran.   (22) Harvey fell.   (23) **Logan** hugged Harvey.

- In English, there are several diagnostics (Levin and Rappaport 1995), such as having the verb appear in a resultative construction, as in (24).

(24) a. *Logan ran tired   b. The pot broke into pieces.
          (= Logan ran and then Logan became tired)

- This section investigates the differences in semantic and syntactic behaviors between active and stative verbs: two morphosyntactic tests are sensitive to agentivity while two other tests are true unaccusative diagnostics.[14]

3.1 Agentivity test #1: Imperative formation

- The imperative suffix *-(a)h* can attach directly to active verbs, as in (25), but not stative verbs. To form imperatives with stative verbs, the inchoative suffix *-dee* (double underlined) must be used, as in (26).[15,16]

(25) Active verbs:
  a. Díili-h!
      walk-IMPER
      'Walk!'
  b. Xalússhi-h!
      run-IMPER
      'Run!'
  c. Duushí-h!
      eat-IMPER
      'Eat (it)!'
  d. Disshí-h!
      dance-IMPER
      'Dance!'

(26) Stative verbs:
  a. Ítchi-laa-h!
      good-INCHO-IMPER
      'Be good!'
  b. Shishía-lee-ssaa-h!
      be.dirty-INCHO-NEG-IMPER
      'Don't be dirty!'
  c. Daxchí-lee-ssaa-h!
      choke-INCHO-NEG-IMPER
      'Don't choke!'
  d. Ámmit-daa-h!
      fall-INCHO-IMPER
      'Fall!'

- In imperative forms of the exceptions in (27) and (28), the inchoative *-dee* is optional:

(27) a. Chilíi(-lee)-ssaa-h!
          be.afraid(-INCHO)-NEG-IMPER
          'Don't be afraid!'
      b. Páxpi(-lee)-ssaa-h!
          suffer(-INCHO)-NEG-IMPER
          'Don't suffer!'
      c. Bíile(-lee)-ssaa-h!
          tattle(-INCHO)-NEG-IMPER
          'Don't tattle!'
      d. Bíisshi(-lee)-ssaa-h!
          tell.lie(-INCHO)-NEG-IMPER
          'Don't lie!'

- According to speakers, whether an inchoative is used for the exceptional verbs in its imperative form is subject to intra- and inter-speaker variation.

- This pattern has also been reported for mixed-class verbs, which draw from both A- and B-set prefixes (see Table 2), that also optionally allow the presence of *-dee* in imperative forms, as in (28).[17]

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[14]The examples in this section are kindly provided by Felice Big Day.

[15]The imperative suffix in Crow triggers ablaut whereby stem-final *ee* > *aa* when directly preceding the imperative.

[16]The suffix *-ssaa* does not affect the application of the imperative suffix.

[17]This pattern is also found in desiderative *bia-* constructions for both the exceptional verbs and the mixed-class verbs.

(28) Kalaaxtá(-<u>lee</u>)-ssaa-h!
      forget-(INCHO)-NEG-IMPER
      'Don't forget (it)!'   (Wallace 1993:142-3, Ex.212, adapted)

	SG	PL
1	b(a)-	balee-
2	d(a)-	d(a)- + PL
3	Ø-	Ø-

Table 2: Mixed-class agreement prefixes in Crow.

- At first blush, it seems that imperatives cannot combine with states; inchoatives allow stative verbs to become achievements, which is a type of event, and are subsequently allowed to appear in the imperative form.

- Although Lakoff (1966) proposes imperatives as a test for statvity, others (e.g. Dowty 1979:112, Levin and Rappaport 1995:170-171, Jackson 2005) argue that imperatives are actually tests for agentivity.

3.2 Agentivity test #2: Instrumental nominalizer *ii-*

- The instrumental nominalizer *ii-* (i.e. *something one uses to V*; double underlined) also highlights the distinction between active and stative verbs. Active verbs may combine with *ii-*, as in (29), whereas stative verbs are rendered ungrammatical with *ii-*, as in (30).

(29) a. <u><u>Ii</u></u>-baa-lúusuu-m   bah-koolée-k.
          INSTR.NOM-INDEF.OBJ-eat-INDEF 1A-have-DECL
          'I have an eating utensil.'

      b. <u><u>Ii</u></u>-diss-ú-m   bah-koolée-k.
          INSTR.NOM-dance-PL-INDEF 1A-have-DECL
          'I have dancing regalias.'

      c. <u><u>Ii</u></u>-xalússa-m   bah-koolée-k.
          INSTR.NOM-run-INDEF 1A-have-DECL
          'I have a thing to run with (e.g. running shoes).'

      d. <u><u>Ii</u></u>-baláxxa-m   bah-koolée-k.
          INSTR.NOM-sing-INDEF 1A-have-DECL
          'I have a thing to sing with (e.g. microphone).'

(30) a. *<u><u>Ii</u></u>-ítcha-m   bah-koole-k.
          INSTR.NOM-good-INDEF 1A-have-DECL
          Intended: I have a thing to feel good with.

      b. *<u><u>Ii</u></u>-hachká-m   bah-koole-k.
          INSTR.NOM-tall-INDEF 1A-have-DECL
          Intended: I have a thing to be tall with.

      c. *<u><u>Ii</u></u>-ámmita-m   bah-koole-k
          INSTR.NOM-fall-INDEF 1A-have-DECL
          Intended: I have a thing to fall with

      d. *<u><u>Ii</u></u>-isáa-m   bah-koolée-k.
          INSTR.NOM-big-INDEF 1A-have-DECL
          Intended: I have a thing to be big with.

- Sentences in (30) containing stative verb with the instrumental nominalizer are rejected without any hesitation even when a context is supplied. However, the sentences in (31) with the two exceptions in the stative verb class allow some leeway in their interpretation.

(31) a. I̲i̲-bíissa-m   bah-koolée-k.
          INSTR.NOM-tell.lie-INDEF 1A-have-DECL

          'I have a thing to lie with (e.g. a machine one uses to tell lies with).'

      b. #I̲i̲-bíila-m   bah-koolée-k.
          INSTR.NOM-tattle-INDEF 1A-have-DECL

          'I have a thing to tattle with (e.g. a machine one uses to tattle with).'

- It seems that only verbs with agent-like arguments may take the instrumental nominalizer prefix.

3.3 Unaccusative test #1: Causative alternation

- The direct causative *-ee* (double underlined) may only attach to stative verbs. Direct causatives may attach to stative verbs that denote states, as in (32), or events, as in (33).[18]

(32) a. i. *óoshi-* 'be ripe, cooked, burnt'   (33) a. i. *apáali-* 'grow, sprout'
          ii. *óosshee-* 'cook'   ii. *apáalee-* 'grow (something), raise'
      b. i. *koowí-* 'be complete, be finished'   b. i. *passhí-* 'fall off'
          ii. *koowée-* 'complete, quit'   ii. *passhée-* 'make fall downward'
      c. i. *úuchi-* 'be dry'   c. i. *xapí-* 'fall'
          ii. *úutchee-* 'dry (something)'   ii. *xapée-* 'drop'

- The direct causative is a valence-increasing operation (i.e. intransitive → transitive) that introduces an agent (external argument) only if it was not already represented in the argument structure of the verb; with direct causatives, these verbs no longer behave like stative verbs – in fact, they behave like active verbs.[19]

3.4 Unaccusative test #2: Noun incorporation

- Noun incorporation (displayed in brackets), where a noun combines with and becomes incorporated into the verb, is attested only for nouns that are objects of transitive verbs, as in (34), and subjects of stative intransitive verbs, as in (35). In other words, objects of active transitive verbs and subjects of stative intransitive verbs pattern in syntactically similar ways.

(34) a. Hinné baapé [Apsáalook-ilaa]-u ii   baa-waachimmí-k
          this day Crow-talk-PL   INSTR 1A-study-DECL

          'Today I learned to speak Crow'

      b. Logan [bishka-lúupia]-k
          Logan dog-dislike-DECL

          'Logan doesn't like dogs'

(35) a. [ilúk-hilahp]-ak
          meat-scarce-ss

          'meat is scarce'   (Graczyk 2007:282, Ex.21)

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[18]One notable example involves the set of motion verbs that are derived from the form *xii*. These verbs behave morphologically like active verbs, but may take direct causatives.

[19]Evidence for the claim that stative verbs behave like active verbs with the causative is via multiple exponence; multiple exponence occurs only on active verbs or stative verbs with a causative marker.

   b. [balaás-itchi]-k
      my.heart-good-DECL
      'I feel good (lit. my heart is good)'

- Actives verbs do not appear to allow incorporation of subjects and attempts to elicit noun incorporation of subjects of active verbs have proven unsuccessful, as in (36).

(36) *[iichíil-xaluushi]-k
      horse-run-DECL
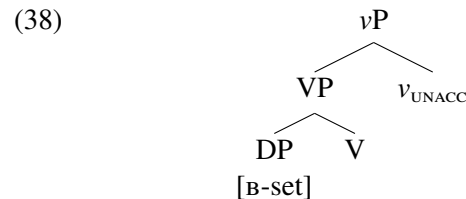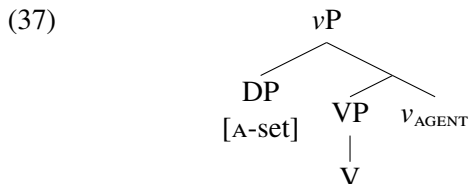   Intended: horse runs (cf. *iichíil-isaam* 'a big horse')

4   Conclusion

- The semantic factors underlying the active-stative split in Crow are agentivity and lexical aspect (Table 3).

  ◇ Active verbs tend to be events that participants control.
  ◇ Stative verbs tend to be states that participants have no control over.

		EVENT	STATE
CONTROL	ACTIVE	*run*, *dance*	*sit*, *live*
	STATIVE	*tattle*, *tell a lie*	*be cruel*, *be lazy*
NON-CONTROL	ACTIVE	*die*, *vomit*	*be afraid*, *suffer*
	STATIVE	*slip*, *fall*	*be tall*, *be big*

Table 3: Distribution of Crow active and stative verbs based on an interaction between agentivity (i.e. control vs. non-control) and lexical aspect (i.e. event vs. state). Cells with a darker shade indicate a higher frequency for that particular interaction, and cells with lighter shade indicate lower frequency.

- Active verbs syntactically and semantically behave like unergative verbs, as in (37), while stative verbs behave like unaccusatives, as in (38) – unaccusativity in Crow is semantically determined and syntactically encoded (Levin and Rappaport 1995). In addition to the inherent semantic factors underlying the split:

  ◇ Subjects of active verbs tend to behave like subjects of transitive verbs, while subjects of stative verbs tend to behave like objects of transitive verbs with causative alternation and noun incorporation as true unaccusative diagnostics.

(37) *v*P
      ┌──────┴──────┐
      DP   VP   *v*$_{AGENT}$
      [A-set]   │
                 V

(38) *v*P
      ┌──────┴──────┐
      VP   *v*$_{UNACC}$
   ┌──┴──┐
   DP   V
   [B-set]

- Final remarks on diachrony involving active-stative split systems:

  ◇ There have been several proposals on what motivates shifts across active-stative languages, including grammaticalization and lexicalization (Mithun 1991), fluid-person marking phenomena (Pustet 2002), sound change and morphological syncretism (Rankin 2004).
  ◇ The relationship between agentivity and lexical aspect is tightly interwoven allows for a natural shift in semantic base. Thus, the interaction of these two factors may serve as a bridge facilitating this shift.

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