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Noun Classification in Carrier

William J. Poser
University of Pennsylvania
and
University of British Columbia

Abstract. Carrier, an Athabaskan language of the central interior of British Columbia, has an extensive and productive system of noun classification. This system is comprised of absolutive shape classifiers, a body of water absolutive classifier, four sets of classificatory verbs, classificatory forms of third person singular possessors and objects of postpositions, demonstratives, relativizers, numeral classifiers, and a special system for the interrogative 'how many'. Although some subsystems make use of the same or related categories, there is a high degree of non-homomorphism among the classifications.

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1. Introduction

Carrier, an Athabaskan language of the central interior of British Columbia, is unusual in the presence of noun classification in no less than twelve subsystems. While a few subsystems make use of similar or even identical classifications, most do not, so Carrier is also unusual in that it contains multiple incommensurable classificatory subsystems. These subsystems frequently co-occur in the same sentence and even in the same verb.

The systems of noun classification in other Athabaskan languages have not all been described in such detail, but most of the classificatory subsystems found in Carrier are commonly reported for other Athabaskan languages. It thus appears that Carrier is fairly typical of the family. It is, however, one of the languages with the most extensive and productive systems of noun classification. In particular, it is one of the small subset of the languages reported (Thompson 1993) to have productive 'gender' systems.

Carrier is dialectally diverse, but in most respects noun classification is similar in all dialects. The data presented here come from two dialects. One, the Stuart/Trembleur Lake dialect, is the dialect described in almost all previous publications on Carrier, including Morice (1932) and Carrier Linguistic Committee (1974). The other, the Stony Creek (S̲aik'ʌz̲) dialect may be considered representative of the Southern Carrier dialect group. Examples are in the Stuart/Trembleur Lake dialect.except when identified as Stony Creek. Other than a few sentences quoted from publications, all data result from my fieldwork since 1992.

2. The Absolutive Prefixes

Like other Athabaskan languages, Carrier has several classificatory prefixes that appear on verbs. These include cognates to the prefixes widespread in Athabaskan known as 'gender' prefixes, as well as an innovative prefix not found elsewhere. Since these prefixes agree with the absolutive argument, that is, the subject of intransitive verbs and the object of transitive verbs, I refer to them as absolutive classifiers.

2.1. The 'Gender' Prefixes

The main absolutive prefixes are *d*, which refers typically to stick-like objects, *n*, which refers typically to round objects, and x^{w}, which refers typically to things having areal or spatial extent. In the case of intransitive verbs, these prefixes agree with the subject. Many verbs therefore have four forms, according as they have one of these three prefixes or none. An example is the verb 'to float'. It may have no classifier prefix, as in (1), where the subject is a human being, which falls into the generic class, or any of the three, as in (2)-(4).

(1) T'et nʌlat
young-woman she-is-floating around
A young woman is floating around.

(2) Dʌčʌn nʌ**d**ʌlat
log it-*d*-class-is-floating-around
A log is floating around.

(3) Lʌbrot nʌ**n**ʌlat
ball it-*n*-class-is-floating-around
A ball is floating around.

(4) Yoh nʌ**x**^{w}ʌlat
house it-x^{w}-class-is-floating-around
A house is floating around.

When a verb is transitive, the classifier prefix agrees with its object. The verb 'to eat', for example, may take no classifier prefix, as in (5), *n* for something round like an apple as in (6) or *d* for something stick-like like a stick of pepperoni, as in (7). It may also take the prefix *x*^{w} as in (8). This form could refer to eating something like a house (e.g. in the story of Hansel and Gretel), but in this example is most naturally interpreted as a kind of indefinite.

(5) Bitk'un ʌsʔał
char-roe I-am-eating-generic
I am eating char roe.

(6) Apple **n**ʌsʔał
apple I-am-eating-*n*-class
I am eating an apple.

(7) ʔʌt͟sʌŋ **d**ʌnildʌ͟s-i dʌsʔał
sausage I-am-eating-*d*-class
I am eating a sausage.

(8) **x**^{w}ʌsʔał
I-am-eating-x^{w}-class
I am browsing (at a smorgasbord).

In (9) we have the areal classifier /x^{w}/ agreeing with the subject of the intransitive verb 'it is burning' and and with the object of the transitive verb 'he is looking at'.[1]

[1] The suffix /ʌn/ is the areal relativizing suffix, discussed below.

(9) Yoh **x**^{w}ʌdiz̲k'ʌn-ʌ**n** x^{w}ʌniɬʔen.
house which-x^{w}-is-burning he-is-looking-at-x^{w}
He is looking at the burning house.

The /d/ classifier is also used with sounds, such as messages, speeches, songs, and words, as in (10):

(10) Uyʌn **d**inzu.
her-song it-d-is-beautiful
Her song is beautiful.

The 'areal' prefix /x^{w}/ is so-called because it agrees with arguments that are saliently two-dimensional, as in (11). Compare (12) in which the object is generic.

(11) Yʌn **x**^{w}ʌdʌtsʌn hʌwa tʌna**x**^{w}ʌgʌs̲.
floor it-x^{w}-is-dirty because he-is-washing-x^{w}-class
He is washing the floor because it is dirty.

(12) Naih tʌnagʌs̲.
clothes he-is-washing
He is washing clothes.

It is also used when the argument denotes a space, as in (13). Again, compare (14), in which the subject is generic.

(13) Uyoh **x**^{w}ʌndʌda
his-chest it-x^{w}-is-sore
His chest is sore

(14) Ugan ndʌda
his-arm it-is-sore
His arm is sore.

Periods of time also take the areal prefix, as in (15), which may be compared with (16), which contains the generic form of 'to be'.[2]

(15) X^{w}ʌniz̲yat dzin ʔet ʔʌba x^{w}ʌz̲dliʔdzin ʔʌ**h**unt'oh.
tenth day then father birthday it-x^{w}-is
Father's birthday is the tenth.

[2] The fact that the prefix takes the form /h/ rather than /x^{w}/ in (15) is the result of a phonological rule that changes /x^{w}/ to /h/ before the rounded vowels.

(16) Yʌs iloh; čʌntʌɬi ʔʌnt'oh
wolf it-is-not coyote it-is
It's not a wolf; it's a coyote.

Some verbs distinguish only three of the four categories. Most of the colour terms, for example, listed in (17), have no distinct *d*-class form. Where other verbs would take on a *d*-class form, these take on the generic form.

(17) Three-term Color Terms [3singular Imperfective Affirmative]

Colour	Generic	N-class	xʷ-class
blue	dʌldzan	dʌnʌldzan	xʷʌdʌldzan
brown	dʌlba	dʌnʌlba	xʷʌdʌlba
gray	dʌlgi	dʌnʌlgi	xʷʌdʌlgi
green	dʌltl'ʌz	dʌnʌltl'ʌz	xʷʌdʌltl'ʌz
red	dʌlk'ʌn	dʌnʌlk'ʌn	xʷʌdʌlk'ʌn
yellow	dʌltso	dʌnʌltso	xʷʌdʌltso
black	dʌɬɣʌs	dʌnʌɬgʌs	xʷʌdʌɬgʌs

The term for 'white', however, has the full set of four forms: łyʌl, **d**ʌlyʌl, **n**ʌlyʌl, **x**ʷʌlyʌl.

Still other verbs have only two distinct forms. These are always the x^w form and a generic form. An example is the verb *ndʌda* 'to hurt'. While most parts of the body, such as the hand, take the generic form as in (18), areal/spatial body parts such as the chest take the areal form, as in (19). Stick-like body parts (20) and round body parts (21) nonetheless take the generic form, even if they take a distinct form where one is available, as when the colour of the face is described (22).

(18) Sla ndʌda
my-hand it-hurts
My hand hurts.

(19) Syoh **x**ʷʌndʌda
my-chest it-xʷ-class-hurts
My chest hurts.

(20) Skečʌn ndʌda
my-leg it-hurts
My leg hurts.

(21) Snin ndʌda
my-face it-hurts
My face hurts.

(22) Snin dʌ**n**ʌlk'ʌn
my-face it-*n*-class-is-red
My face is red.

Although these prefixes are referred to as 'noun classifiers', strictly speaking they do not classify nouns but rather the referents of noun phrases. As in several other languages nouns do not fall into fixed noun classes. [3] Different choices of classifier are possible for the same referent depending on precisely what is said about it. For example, a rope may be treated as *d*-class, as seen in (23) and (25. In these cases the generic equivalents in (24) and (26) are ungrammatical.

(23) Tl'uł **d**inča.
rope it-*d*-class-is-big
The rope is thick.

(24) *Tl'uł nča.
rope it-generic-is-big
The rope is thick.

(25) Tl'uł **d**indat.
rope it-*d*-class-is-narrow
The rope is thin.

(26) *Tl'uł ndat.
rope it-generic-is-narrow
The rope is thin.

However, when the rope is considered from another perspective generic forms become grammatical, as in (27) and (29), and the corresponding *d*-class forms become ungrammatical, as in (28) and (30).

(27) Tl'uł nyiz̲.
rope it-generic-is-long
The rope is long.

[3] Foley (1997:232-233) cites examples from Burmese, Thai, Ulithian, and Yucatec Maya. Japanese is yet another example. For example, 'three beers' can be *biiru sambon* (beer 3-cylindrical.objects) if we mean three bottles, *biiru sampai* (beer 3-open.containers.full) if three glasses, or *biiru mittsu* (beer 3-generic) if we do not specify.

(28) *Tl'uł **d**inyiz̲.
rope it-*d*-class-is-long
The rope is long.

(29) Tl'uł ndʌkʷ.
rope it-generic-is-short
The rope is short.

(30) *Tl'uł **d**indʌkʷ.
rope it-*d*-class-is-short
The rope is short.

That this is not attributable to the non-existence of *d*-class forms for these verbs is illustrated by (31) and (32).

(31) Šʌn **d**inyiz̲.
song it-*d*-class-is-long
The song is long.

(32) Dzihtel **d**indʌkʷ
board it-*d*-class-is-short
The board is short.

The classifiers *d*, *n* and x^{w} co-occur rarely if at all. The *d*- and *n*- prefixes appear to co-occur, but their co-occurence is non-compositional. Objects such as round logs, which we might expect to be treated as simultaneously round and stick-like, are purely *d*-class, as illustrated by (33) and (34). /d/ and /n/ do co-occur, but only with reference to approximately circular openings like the mesh of fishnet (35), the spaces between threads in textiles (36), and the size of snares (37).

(33) *Ndi dʌčʌn **dʌn**inyiz̲
this log it-*d*-class-*n*-class-is-long
This log is long.

(34) Ndi dʌčʌn **d**inyiz̲
this log it-*d*-class-is-long
This log is long.

(35) Ndi łembił **dʌn**int'ʌm
this fishnet it-*d*-class-*n*-class-is-small
This fishnet has a fine mesh.

(36) Ndi naih **dʌn**inča
this cloth it-*d*-class-*n*-class-is-large
This cloth is coarse.

(37) Šaṣbił **dʌn**inča
grizzly-bear-snare it-*d*-class-*n*-class-is-large
Grizzly bear snares are large.

It thus appears that we must recognize a fourth abolutive classifier /dn/, parallel to the other three, not sychronically analyzable into what are probably its etymological components.

The co-occurrence of *d* and x^w is less clear. Morice (1932;143-4) asserts that they do co-occur, but examples are difficult to find. One apparent example, (38), appears as an example sentence in the Carrier Linguistic Committee dictionary (1974). This appears to be a mistake. All of the speakers I have consulted have rejected it. Acceptable forms are *hundot*, with x^w alone, and *ndot*, with no classifier at all.

(38) Nedo ts'eke uts'itoh **x**^{w}**ʌd**indot hʌk^{w}adatni.
white-person woman 3s-waist it-x^w-*d*-is-narrow 3s-crave
White women are frantic for narrow waists.

Other apparent examples involve a truly classificatory /x^w/ together with a /d/ that on more careful analysis is probably not in fact classificatory. I have found only one example that appears to contain both prefixes independently. This is the form **x**^{w}**ʌd***inzu* 'it is good', which may be used in reference to a grove of trees, that is, an area occupied by stick-like objects. Since this contrasts with the full paradigm of *nzu*, *hunzu*, *dinzu*, etc., it appears to be a legitimate, if residual, example of the co-occurrence of x^w and *d*.

These prefixes are traditionally known in the Athabaskan literature (e.g. Kari 1990) as 'gender' prefixes. Although some scholars use 'gender' for any kind of noun class system, others, such as Aikhenvald (2000) prefer to reserve it to its earlier and narrower usage for systems with two or three classes based in part on sex. By this definition, the term 'gender' is inappropriate since there are more than three classes and they having nothing to do with sex. Another view is that of Corbett (1991), for whom gender markers are obligatory, have a fixed association with particular nouns, and cannot co-occur. Following Corbett's definition, Rice (2000;325-329) distinguishes these prefixes in Athabaskan languages from true gender markers. Since, as we have seen, these prefixes in Carrier are not obligatorily associated with particular nouns and to a limited extent may co-occur, by Corbett's criteria they are not gender prefixes.[4]

[4] The absolutive classifiers should not be confused with what Athabaskanists traditionally call the 'classifier' prefixes. The 'classifiers', a set of prefixes which immediately precede the verb stem, have no classificatory function whatever. Some now give them the more accurate name 'valence prefixes' (e.g. Rice 2000) or 'transitivity marker' (Kibrik 1993).

2.2. The Innovative Prefix *ta-*

Carrier has an absolutive classifier prefix *ta-* for bodies of water, contrasting with zero.[5] It is presumably derived etymologically from the combining form of 'water/liquid' (otherwise *tu*), exemplified in (39)-(42). This classifier is apparently an innovation; to my knowledge it has no counterpart in any other Athabaskan language.[6]

(39) taba 'shore' < 'water' + 'edge'

(40) ta$\underline{s}$ts'aʔ 'algae' < 'water' + 'viscous'

(41) ta$\underline{z}$ʌl 'soup' < 'water' + 'warm'

(42) tadlak 'he is lapping water' < 'water' + 'to lick'

This prefix may be used alone as in (43) or in combination with the *d*-prefix as in (44).

(43) Yatuʔ **ta**ntel.
ocean body-of-water-is-wide
The ocean is wide.

(44) Nak'albʌn **tad**intel.
Stuart Lake *d*-class-body-of-water-is-wide
Stuart Lake is wide.

The /d/ in (44) contrasts with its absence in (43) and has a classificatory function, demonstrating that the classifers /ta/ and /d/ cross-classify. In other cases, /d/ or /n/ is found in the same position but is a thematic prefix with no classificatory function.

(45) tadʌlk'ʌn 'it (body of water) is red' cf. dʌlk'ʌn 'it (generic) is red'

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[5] This prefix must be distinguished from the homophonous prefix meaning 'into many pieces' as well, presumably, as from the homophonous prefix meaning 'with respect to (into or out of) water'. The latter is evidently etymologically related.

[6] The examples in this section are in the Stony Creek dialect, in which this prefix is fully developed. In the Stuart Lake dialect its use is more restricted is several ways. First, in the Stuart Lake dialect it is used only with reference to non-directed bodies of water, that is, lakes and ponds as opposed to rivers and streams. Second, it is restricted to subjects. I have found no examples with objects in spontaneous speech, and examples parallel to those cited for Stony Creek dialect are rejected as ungrammatical. Finally, some verbs that take the prefix in Stony Creek dialect, such as the color verbs, cannot take it in the Stuart Lake dialect, even when it agrees with a subject which is a directed body of water.

(46) taniɬd̲z̲ʌm ‘it (body of water) is clear’ cf. niɬd̲z̲ʌm ‘it (generic) is clear’

In a few cases, where a term is applicable exclusively to bodies of water, there is no form without the /ta/.

(47) **ta**xʌɬ ‘it is deep’ *ʌxʌɬ

(48) **ta**des̲kak ‘it is shallow’ *des̲kak

Although examples of this prefix with transitive verbs are not common, they do occur:

(49) Williston Lake **ta**hʌdiɬbʌn.
Williston Lake they-filled
They filled Williston Lake.

3. The Classificatory Verbs

Another classificatory system is the set of classificatory verbs, used to describe the handling, location, and motion of objects of different types. The bases of classificatory verbs convey little information other than the type of object; what action is performed is determined by the choice of derivational prefixes. (50) illustrates the range of verbs that may be derived from the stem for handling two dimensional flexible objects (e.g. shirts).

(50) Different Types of Handling of a Single Type of Object

behanaitił-čʌs̲	he is going to take it out
didʌtał-čʌs̲	he is going to hold it up
dʌɣaitał-čʌs̲	he is going to hang it up
k’itał-čʌs̲	he is going to put it on (the table)
k’ʌnaitał-čʌs̲	he is going to put it back on (the table)
k’ʌnaitił-čʌs̲	he is going to take it off (the table)
sanaitił-čʌs̲	he is going to bring it back
yʌɣatił-čʌs̲	he is going to give it to her
yʌɣʌtił-čʌz̲	he is going to lend it to her
nʌtił-čʌz̲	he is going to carry it around
ʔatił-čʌs̲	he is going to bury it
tatił-čʌs̲	he is going to submerge it
natił-čʌs̲	he is going to put it on the ground
yaiyʌtił-čʌs̲	he is going to bring it ashore

The categories into which objects are divided are illustrated in (51), where forms of ‘he will give me’ appropriate to a variety of objects are given. The tags such as

'npdo' in the leftmost column are used later to refer to the verbal categories. Notice that some but not all of these bases permit cross-classification by means of the absolutive prefixes.

(51) 'he will give me' for Different Types of Object

npdo	non-plural default object (chair)	sʏatiʔał
	non-plural *n*-class object (ball)	sʏantaʔał
	non-plural *d*-class object (name)	sʏadʌtaʔał
	non-plural xʷ-class object (house)	sʏautaʔał
pdo	plural default objects (chairs)	sʏatilił
	plural *n*-class objects (balls)	sʏantalił
	plural *d*-class objects (names)	sʏadʌtalił
	plural xʷ-class objects (houses)	sʏautalił
euo	uncountable generic objects (sugar)	sʏatidzih
	uncountable *n*-class objects (berries)	sʏantadzih
	uncountable *d*-class objects (toothpicks)	sʏadʌtadzih
lro	long rigid object (canoe)	sʏatiteł
	long rigid *d*-class object (stick)	sʏadʌtateł
body	body (dog)	sʏatiłteł
coc	contents of open container (cup of tea)	sʏatikał
2df	2-d flexible object (shirt)	sʏatiłčʌs̲
mushy	mushy stuff (mud)	sʏatitloh
fluid	liquid (water)	sʏatiłdzo
hay	hay-like (hay)	sʏadʌtałdzo
fluff	fluffy stuff (down)	sʏantałdo

The choice between the plural and non-plural default verbs is not entirely straightforward. A single object calls for the non-plural verb, three or more for the plural verb. Two objects usually, but not always, take the non-plural verb. The plural default verb is also used for certain single items namely ropes and fishnets, perhaps because these are considered to consist of multiple coils and meshes.

The category 'contents of an open container' also includes beds in certain circumstances, as illustrated in (52), where the verb *dehʌyankai* is the classificatory verb for contents of open containers.

(52) Lili ʔaxʷʌz łenintan xʷe dehʌyankai.
bed still it is folded while they put it in
They placed the folded bed in the truck.

The category described as consisting of uncountable objects calls for comment. The objects included in this category are usually small, e.g. grains of sugar or sand, berries, or toothpicks. Consequently, this category has sometimes been described as consisting of a 'quantity of minute objects'. However, larger objects may fall into this category. An example is potatoes, which take this verb if in sufficient quantity.

Even smaller objects, such as coins or berries, only fall into this category if there are enough of them, typically at least four.[7]

My proposal is that this category contains effectively uncountable objects. In the case of numerous minute objects, we do not expect to treat them as individuals and to count them. Larger objects often are individuated, but need not be. For example, when we are dealing with a heap or bushel of potatoes we do not individuate them and usually do not know how many there are.

The same notion is found elsewhere in the language. There is a verb theme *l-dił* which usually occurs with the *n* absolutive classifier prefix, in which case it usually describes eating berries off the bush. Morice (1932;421) characterizes this root as describing:

> The manducation of berries in their natural unprepared condition, and especially from the bush.

This is not entirely accurate. This verb theme is indeed appropriate if a person eats berries one at a time out of a bowl, but not if he eats many berries at once with a spoon. It is also used to describe taking a pill, in which case it is appropriate even if the subject takes only a single pill. Without the *n* absolutive classifier prefix this verb may be used to describe a bear tearing up an anthill and eating ants. I suggest that the true meaning of this verb is: 'eat effectively uncountable objects one at a time'. If this is correct, the meaning of this verb makes use of the same concept of effective uncountability as does the classificatory verb system.

With the exception of the verb for uncountable objects, which is intrinsically plural, the specialized verbs are used only for one or two objects. Plural objects that as individuals would fall into one of the specialized categories take the plural default verb. For example, although 'I will give you a fish' is *ło ŋγatisteł*, 'I will give you three fish' is *ta ło ŋγatislił*. Younger speakers often violate this rule and use the specialized verb even with a plural object.

There are actually four different sets of classificatory verbs.[8] The set already described is used for handling objects under the continued control of the agent. A second set is used for uncontrolled handling, that is, where the agent initiates the motion but then loses control, as when throwing something. A third set is used to describe locations. The forms of these appear to be perfectives of the controlled set, so although the semantics is different in a formal sense this set is perhaps not distinct from the controlled set. Finally, a fourth set of verbs is used to describe inherent motion, that is, motion in which there is considered to be no external agent, as when falling.[9] The distinction is illustrated in (53) for two categories.

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[7] On several occasions I have asked a speaker to describe what I am doing as I handle, e.g. put down on the table, a number of coins. The transition from the plural default object verb to the effectively uncountable object verb typically occurs around four coins.

[8] The same four sets, with differences in detail, are found throughout Athabaskan (Davidson, Elford and Hoijer 1963).

[9] Of course in most cases something causes the motion, e.g. gravity in the case of falling, but such inanimate causes are not considered relevant. When the motion is brought about by the object itself, non-classificatory verbs such as 'walk', 'swim', and 'fly' are used.

(53) Examples of the Four Types of Classificatory Verb

Type	NPDO	LRO	Gloss
controlled	tayanʔai	tayantan	he put it into the water
uncontrolled	tayałʔʌz	tayalht'o	he threw it into the water
inherent	talts'ʌt	tadankez̲	it fell into the water
locative	ʌs̲ʔai	ʌs̲tan	it is located

The distinction between 'controlled' and 'uncontrolled' handling is a subtle one that calls for further investigation. One of the more detailed treatments is the nonetheless relatively brief discussion of the distinction in Slave in Rice (1989;783-787). 'uncontrolled' does not necessarily imply a complete lack of control, but merely a lack of control during some part of the event. The example above of throwing something into the water may suggest that the agent does not control the destination of the object thrown. This is not the case. While handing someone something calls for the controlled handling verb as in (54), tossing someone something calls for the uncontrolled handling verb as in (55). (Both examples are in Stony Creek dialect.) In both cases, the agent controls the destination. The distance is that the object goes out of the agent's control between source and destination when it is tossed.

(54) Łti sts'ʌnintan
rifle he-handed-me-long-rigid-object
He handed me a rifle.

(55) Łti sts'ʌtełt'o.
rifle he-tossed-me-long-rigid-object
He tossed me a rifle.

An uncontrolled verb may also be called for if the object ultimately goes out of control, even if it remains in control while performing its function. Pouring tea into a cup calls for the controlled handling verb for liquids, as in (56). On the other hand, pouring water over someone's hands, as when washing when no faucet or basin is available, calls for the uncontrolled handling verb, as in (57). In the later case the agent successfully directs the water onto the other person's hands; the uncontrolled handling verb is used because the water subsequently goes off in all directions, out of control.

(56) Lʌdi mba deusdzeh
tea for-2s into-container.optative.1s-subject.handle-liquid
I'll pour tea for you.

(57) Nla k'osyił
2s.hand on.optative.1s-subject.handle-liquid
I'll pour onto your hands.

The distinction between controlled and uncontrolled handling is not always physical. With verbs meaning "give", it is generally possible to use either a controlled verb, as in (58), or an uncontrolled verb, as in (59) (both examples in Stony Creek dialect). The controlled verbs are used when the gift is for a serious purpose, e.g. to replace something that has worn out, or as compensation for performing a service. The uncontrolled verb is used for 'gratuitous' gifts, e.g. for an occasion like a birthday, or for the purpose of showing love or respect.[10]

(58) Dzuzt'an sɣaniɬčuz̲
shirt he-gave-me-2-dimensional-flexible-object
He gave me a shirt.

(59) Dzuzt'an sɣʌitez̲ʔoh
shirt he-gave-me-2-dimensional-flexible-object
He gave me a shirt.

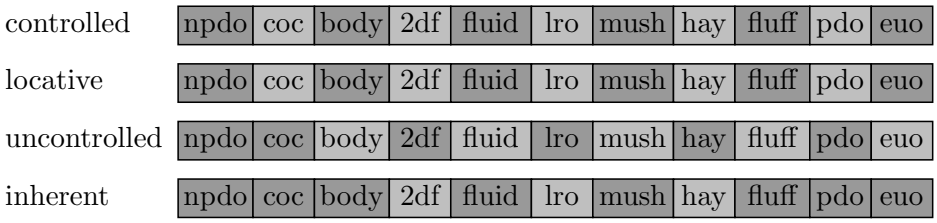
There is one complicating detail in the liquid category for the inherent motion verbs. The basic inherent motion verb is *li* 'to flow', as in *ninli* 'it (current) is flowing'. However, this verb is used primarily for laminar flow. To describe turbulent flow, the uncontrolled verb *yʌɬ* is used. Hence, two words for 'waterfall', both zero-nominalizations of verbs, contrast. A *natainli* is a waterfall in which the water flows smoothly; a *natajɨɬ* is a waterfall in which the water flows turbulently. (*natajɨɬ* has a *d* valence prefix, which fuses with the *y* of the stem to yield *j*.)

It might therefore appear that we must distinguish two inherent motion verbs for liquids, one for laminar flow, the other for turbulent flow. I suggest, however, that only *li* is a true inherent motion verb for liquids, and that when *yʌɬ* is used to describe turbulent flow, this is a borrowing from the uncontrolled category. The first reason is, of course, the identity of the stem set with that of the uncontrolled verb. The second is that *li* serves as a cover term for all kinds of flow. Thus, *natainli* is the cover term for waterfalls and may be used in reference to those with turbulent flow. Finally, *yʌɬ* is never used as such to describe inherent motion, but is always used with a /d/ valence prefix, the valence prefix usual with medio-passives. This suggests that intransitive turbulent flow is actually described by a detransitivized form of the uncontrolled handling verb.

The controlled and locative verbs distinguish the same categories and are based on the same stem sets. Some categories are fused for the uncontrolled verbs. The inherent verbs distinguish fewer categories still. The relationships among the categories are shown in (60). Categories that are fused with their neighbours are shaded the same color. Thus, the controlled and locative verbs distinguish the full set of categories. The uncontrolled verbs do not distinguish the contents-of-an-open-container category from the non-plural default object category, so these have the same shading.

[10] This distinction appears to parallel the distinction described for Slavey by Rushforth and Fibbie Tattie in a 1980 talk reported by Rice (1989;784).

(60) Relationships Among Classificatory Verb Categories



Although several of the classificatory verb bases permit cross-classification by absolutive classifier prefixes, this cross-classification is not entirely compositional. The verb base for non-plural generic objects permits the use of the *d-* classifier prefix in limited circumstances. Most of the typical uses of this prefix are not possible here because they require the special verb base for long rigid objects. One of the few remaining uses is for names, songs, speeches and the like, which are considered *d*-class but are not long, rigid objects and therefore do not permit the use of that verb base. Although the inclusion of these items in the *d*-class may be anomalous, this usage is nonetheless compositional. What is unexpected is that the generic verb bases may be used with the *d-* prefix in reference to rocks, which are not otherwise *d*-class. This usage is non-compositional.[11]

Grinevald (2000: 68) excludes classificatory verbs from the general category of noun classification systems on the grounds, if I understand her correctly, that such systems can be found in all languages and that the meaning of the classificatory verbs is not primarily classificatory. She cites as an example the distinctions found in most if not all languages among verbs of ingestion, such as that among English 'drink (liquid)', 'suck (hard food)', and 'chew (denser object)'. But such sets differ in two crucial ways from the Athabaskan classificatory verbs. First, whereas the various verbs of ingestion cover a small semantic field, the range of actions described by classificatory verbs is enormous, and their frequency of occurrence very high. If we are interested in the psychological role of classification, surely classificatory verbs must be quite salient. Indeed, they are surely far more common than numeral classifiers, since counting is actually a rather small part of normal discourse. Second, whereas the primary meaning of verbs like the verbs of ingestion is not classificatory, and the classificatory function is a side-effect of the restriction of the object to foods with certain properties, the Athabaskan classificatory verb stems are primarily classificatory. Beyond their classificatory function, their only seman-

[11] The fact that the /d/ classifer combines with the default classificatory verb bases to yield forms appropriate for rocks raises interesting questions about the morphology which can only be touched on here. If the meaning of the combination is not derivable from the meaning of the parts, we presumably cannot say that the classifier and the base consist of distinct morphemes. We ought therefore to analyze the combination as a single discontinuous morpheme. However, this missess the generalization that the stem sets for the "rock" verbs are identical to those for the default verbs and that the combination of /d/ and the default verbs is systematic, not an idiosyncrasy of a single verb. It is unclear to me whether we should consider these generalizations to be purely historical, with no synchronic status, or whether an approach to morphology is necessary in which distinct morphemes can be assigned a non-compositional meaning, as word-internal idioms, as it were.

tic content is extremely abstract, consisting of the distinctions among controlled handling, uncontrolled handling, inherent motion, and location.

4. Possessive Prefixes and Objects of Postpositions

Another system of noun-classification is found in the possessive prefixes attached to nouns. Nearly identical prefixes serve as pronominal objects of postpositions. Here the distinction is binary, between a generic category and an areal category. This distinction is made only in the third person singular. In (61) the third person singular possessor is marked by *u-*, but in (62) it is marked by *x*ʷ- since 'village' is areal.

(61) Sba **u**keyoh
my-father his-trapline
My father's trapline.

(62) Nekeyoh **x**ʷʌdayi
our-village its-xʷ-class-chief
The chief of our village.

The same distinction in third person singular objects of postpositions is exemplified by (63) and (64). In (63), the postposition *-ando* 'above' takes the generic prefix *b-*, while in (64) it takes the areal prefix *x*ʷ.

(63) Beʔʌzdla-i sto **b**ando ʌsʔai.
cupboard stove above-it it-is-located
The cupboard is above the stove.

(64) NʌkʼatʌnAn dotʼen-i nʌtʼo-i uyoh **x**ʷandoh nʌtʼo
helicopter his-house above-it-xʷ-class it-is-flying-around
The helicopter is flying around above his house.

As with the areal absolutive classifier *x*ʷ, these two 'areal' classifiers also are used for periods of time, as in (65) and (66).

(65) Xit **x**ʷeni łazdʌɬʔih
winter for-xʷ we-prepare
We prepare them (berries) for winter

(66) Xit **x**ʷʌnaih
winter its-xʷ-clothes
Winter clothes.

5. Demonstratives

Carrier has a total of nine demonstratives.[12] They may function as demonstrative adjectives, modifying a noun (e.g. *ndi kʷʌn* 'this fire'), or as pronouns, standing by themselves (e.g. *ndi* 'this'). One dimension of the system is whether the item referred to is human or non-human. As in other aspects of Carrier grammar, dogs fall into the human category, while other animals are treated as human only if considered to be sufficiently human-like. There is some variation in how people treat cats, horses, and other animals with which people may be closely associated. If the item referred to is human, there are distinct singular and plural forms. There is no distinction of singular and plural for non-humans.

The other dimension of the system is the location of the item. While English has a two term system, in which *this* and *these* refer to things near or associated with the speaker, and *that* and *those* refer to items distant from or not associated with the speaker, Carrier makes a further distinction between among things not near or associated with the speaker. These may be associated with the person spoken to, in which case *ɲu, ɲun* and *ɲun-ne* are used, or they may be distant from or not associated with either the speaker or the addressee, in which case *ŋgʌn-i, ŋgʌn-ʌn* and *ŋgʌn-ne* are used.[13]

(67) Demonstratives

	non-human	human singular	human plural
near speaker	ndi	ndʌn	ndʌnne
near addressee	ɲu	ɲun	ɲunne
away from both	ŋgʌni	ŋgʌnʌn	ŋgʌnne

6. Relativizers

In Carrier the verb of a relative clause always follows the head noun. Other portions of the relative clause may precede or follow the head since Carrier allows both head-external and head-internal relative clauses. There is no complementizer, but the

[12] At least one dialect (Lheidli) appears to have a four-way system, with a distinction between more and less distant "away from us both" terms, for a total of twelve terms. In addition, in all dialects that have been studied *njan* 'here' can be used as a demonstrative adjective in place of *ndi* where the noun phrase denotes a place. This possibility is restricted to deixis; it is not possible when the demonstratives are used anaphorically.

[13] The demonstratives are almost, but not quite, analyzable. They being with /nd/ for the 'near speaker' category, /ɲu/ for the 'near addressee' category, and /ŋgʌn/ for the 'away from both' category, all of which recur in other forms. /nd/ 'near speaker' is found in such forms as *ndizʌnʔa* 'in this manner'. /ɲ/ is found in second person singular forms, such as the pronoun *ɲʌn* 'you (sg.)', the possessive prefix /ɲ/ and the object prefix /ɲ/. /ŋgʌ(ʌ)/ is also found in such words as *ŋgʌz* 'over there'. However, it is difficult to account for the /u/ of the 'near addressee' series or the "stem-final" /n/ of the 'away from both' series. Furthermore, although we can extract a set of suffixes /i/ 'non-human', /ʌn/ 'human singular' and /ne/ 'human plural' identical to the relativizing suffixes (though without the areal member of the set), from the 'near speaker' and 'away from both' series, the same suffixes do not quite work for the 'near addressee' series.

verb optionally takes a relativizing suffix.[14] Three of the suffixes reflect the same categories as the demonstratives, namely human singular, as in (68), human plural, as in (69), and non-human, as in (70).

(68) Dʌʔatndʌdaʌnʔenxʷʌsanayałti.
his-own-wife who-is-sick her he-brought-back
He brought back his wife, who was sick.

(69) Dʌneʔoyatʌdił-netsʼiyaxʷbʌɣʌyʌtse.
person who-go-by all at-them he-barks
The dog barks at everyone who goes by.

(70) Maiʔ unanyin-i ninča.
berries that-you-picked they-are-big
The berries you picked are big.

The suffix *-ʌn* has, however, an additional use as a relatiziver.[15] When the relativized argument of the verb is areal it is *-ʌn* that is used, not the expected non-human *-i*. Here are some examples:

(71) Yoh **x**ʷʌdʌlkʼʌnʌnʔetneyohʔʌ**h**untʼoh.
house which-is-red there our-house it-areal-is
The red house is our house.

(72) Šasksʼoh hunčaʌn hʌ**h**onʔen.
grizzly-tracks which-are-large they-saw-areal-object
They saw large grizzly tracks.

(73) Ndo dzʌł **x**ʷʌdʌdlʌnʌnʔawethayaih.
Up mountain which-is-steep now he-is-reaching
He is reaching the top of the steep mountain.

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[14] The use of the relativizing suffixes varies from dialect to dialect. In the Northwest portion of the Stuart/Trembleur Lake region, they are obligatory. Elsewhere, they are either optional, or, in some Southern dialects, are not found at all. In some Southern dialects, subject relatives are not made as described here but are homophonous with 'while' clauses.

[15] The areal relativizer has not previously been described for Carrier. Neither Morice (1932) nor the grammar sketch in Carrier Linguistic Committee (1974) describe this usage explicitly, but both works list many examples and Morice (1932:89) indicates that he himself coined the deverbal noun *netubetsʼʌlde-ʌn* 'baptismal font' = 'where people are baptized'.

(74) Yoh **x**^{w}ʌdiz̲k'ʌn-ʌ**n** naunit'ai.
house which-is-burning is-collapsing
The burning house is collapsing.

(75) Ti **x**^{w}ʌdʌzoh-ʌ**n** t̲s̲'ih?ʌn łts'enahodiz̲si.
road which-is-crooked straight they-made-it
They straightened out the crooked road.

(76) ?An **h**unča-ʌ**n** ?et sʌs ?analgok.
cave which-is-big there bear he-crawls-back
The bear crawls back into the big cave.

(77) X^{w}eni ndi yʌn łe?**x**^{w}ʌldzu?-ʌn ?et ʌzdiłt̲s̲'i.
we this land which-is-beautiful there we-sit
We live in a beautiful country.

(78) Yoh na**u**dʌnank'an-ʌ**n** ?et łʌt huni
house which-burned-down there smoke there-is
The house that burned down is still smoking.

Notice how in each case the relativized verb contains the areal absolutive classifier prefix *x*^{w}- (possibly realized as /h/ or /u/) as well as the relativizing suffix *-ʌn*. For example, in (71) the verb meaning 'it is red' takes the areal form *x*^{w}*ʌdʌlk'ʌn* rather than the generic form *dʌlk'ʌn*. In (72) and (76) *hunča* is the areal equivalent of the generic *nča*. In (72) the main verb, which governs the relative clause, is inflected for an areal object; if its object were non-areal it would take the form *han?en*.

'Agentive' deverbal nouns are formed in the same way as the verbs of relative clauses. Indeed, they are probably best analyzed not as a distinct morphological type but simply as relative clauses with null heads. The same suffixes may be added to verbs to form nouns meaning 'the one who Vs' or the like. The suffix *-ʌn* is human singular, so *nʌdaih-ʌn* means 'dancer'. The suffix *-ne* is human plural, so *nʌdaih-ne* means 'dancers'. The suffix *-i* is non-human, so that from *?ʌdʌłt'us* 'it peels off bark', we derive *?ʌdʌłt'us-i* 'barker', that is, the machine that strips bark from logs.

Just as there are areal relatives, so there are locative nominalizations formed with the same suffix. Some examples are given in (79).

(79) Examples of Locative Nominalizations

ʔaʔdinla-ʌn	cupboard	where multiple generic things are put
ʔahaʔaɬ-ʌn	dining room	where they eat
ʔahʌdinʔai-ʌn	prison	where he is imprisoned
ʔʌhʌdʌɣʌt-ʌn	sawmill	where they saw stick-like objects
ʔʌhʌhunla-ʌn	construction site	where they made unspecified areal object
bʌtaxʷʌt'en-ʌn	kitchen	where he cooks
dʌne ɬʌhʌt'ih-ʌn	deserted place	where people are absent
haʔnʌɬyeh-ʌn	garden	where he grows plants
halɣʌz-ʌn	coulee	where it (the ground) is arched off
hauni<u>ts</u>el-ʌn	clearing	where it is axed-out
hunzu-ʌn	nice place	where it is nice
hʌk'ʌnegʌz-ʌn	office	where they write
hʌk'ʷehʌndʌda-ʌn	sore	where they are irritated
hʌnʌdaih-ʌn	dance hall	where they dance
ɬʌhʌgan-ʌn	war	where they kill each other
naih beʔuket-ʌn	clothing store	where clothing is sold
nʌyeh-ʌn	ranch	where (animals) grow
tadi<u>z</u>ʔai-ʌn	puddle	where water puddles
t'aɬ-i beʔuket-ʌn	grocery store	where food is sold
ts'ʌztez-ʌn	bedroom	where we sleep
<u>ts</u>ets'ʌhainli-ʌn	spring	where it flows from rock
xʷʌnʌlwʌs-ʌn	warm place	where it is warm
yubeʔuket-ʌn	pharmacy	where medicine is sold

Examples of temporal uses of nominalizations of this type are rare but do occur:

(80) Su ʔts'int'oh ʔoya ɬʌts'ʌzdil-ʌn.
well we-are by when-we-went
We were alright when we went by there.

7. Numeral Classifiers

The numbers, and some quantifiers, take five different forms. These are exemplified for the numbers from one to ten and for two quantifiers in table (81).

(81) Numbers and Quantifiers

	Generic	Human	Multiplicative	Locative	Abstract
1	ʔiło	ʔiłoɣʌn	ʔiłoh	ʔiłoɣʌn	ʔiłoxʷ
2	nanki	nane	nat	nadʌn	naxʷ
3	ta	tane	tat	tadʌn	taxʷ
4	dʌŋɣi	dine	dit	didʌn	dixʷ
5	kʷʌlaiʔ	kʷʌlane	kʷʌlat	kʷʌladʌn	kʷʌlaxʷ
6	łkʼʌta	łkʼʌtane	łkʼʌtat	łkʼʌtadʌn	łkʼʌtaxʷ
7	łtakʼantʼi	łtakʼantʼine	łtakʼantʼit	łtakʼantʼidʌn	łtakʼantʼixʷ
8	łkʼʌdʌŋɣi	łkʼʌdine	łkʼʌdit	łkʼʌdidʌn	łkʼʌdixʷ
9	ʔiło huloh	ʔiło hulohne	ʔiło huloh	ʔiło hulodʌn	ʔiło huloh
10	xʷʌnizyai	xʷʌnizyane	xʷʌnizyat	xʷʌnizyadʌn	xʷʌnizyaxʷ
all	ts'iyai	ts'iyane	ts'iyat	ts'iyadʌn	ts'iyaxʷ
many	łai	łane	łat	ładʌn	łaxʷ

The generic series, illustrated by (82), is used for counting most physical objects. It is also this series that is used for counting in the abstract, e.g. when reciting the numbers, and for telephone numbers, addresses, and so forth.

(82) Kʷʌlaiʔ ʔʌdʌstlʼʌs ʔi nintaininʔai.
5-generic dollar it he-lost-it
He lost five dollars.

The human series is used for counting human beings (83). As is generally the case in Carrier, the grammatical category of human beings includes dogs as in (84).

(83) Nane tsʼeku ɣʌsda
2-human women he-is-married-to
He is married to two women.

(84) Tane łike sɣatilił.
3-human dog-pl he-will-give-me
He is going to give me three dogs.

The multiplicative series often refers to numbers of times, as in (85). However, it is also used with some units of measurement, such as weeks (86).

(85) ʔAwet Hʌdson Bay xʷʌtʼi-ʌn inleʔ
then Hudson Bay where-he-lived it-used-to-be
dit la nenaznintez
4-multiplicative FOCUS we-(3+)-slept
It was four nights that we camped where the Hudson's Bay factor used to live.

(86) Tat lisman ʔet ʌzdalt͟sʼiʔ
3-multiplicative week there we-(3+)-sat
We were there for three weeks.

The locative series is used for counting sets of discrete areas. It is not sufficient that it refer to something areal. For example, in (87), although land is areal, the appropriate form of the quantifier 'all' is the abstract form. The locative form in (88) is ungrammatical. Appropriate uses of the locative forms are illustrated in (89) and (90), where what is counted are a number of discrete areas.

(87) Ndi yʌn t͟sʼiyaxʷ dakeł yʌn ʔʌhuntʼoh
this land all Indian land it-xʷ-class-is
This land is all Indian land.

(88) *Ndi yʌn t͟sʼiyadʌn dakeł yʌn ʔʌhuntʼoh.
this land all Indian land it-xʷ-class-is
This land is all Indian land.

(89) ŋɣʌn-i yoh t͟sʼiyadʌn dakeł yoh ʔʌhuntʼoh.
these houses all Indian houses it-xʷ-class-is
These houses are all Indian houses.

(90) Sba ukeyoh ładʌn yoh xʷʌz̲dla.
my-father his-trapline many-areal house there-are-xʷ-class
On my Father's trapline there are many houses. (NT John 14.1)

The abstract series is used for counting things that have no physical form, such as kinds and ideas, as in (91).

(91) Njan dixʷ ʌzdidoh.
here four-abstract we-are-of-kinds.
We have four clans here.

8. How Many?

The interrogative 'how many?' has five forms the use of which depends on the kind of thing whose quantity is questioned. These are:

(92) Nak'albun/Dzinghubun words for 'how many?'

dalt͟sʌk	generic
dalt͟sʌkne	human
danilt͟sʌk	round
dadilt͟sʌk	stick-like
dax^{w}ʌlt͟sʌk	areal

These will be seen to be the same categories as in the old 'gender' component of the absolutive classifier system with the addition of the human category. They do not correspond to the categories of the numeral classification system.

In the Stony Creek dialect there are only three forms:

(93) Stony Creek words for 'how many?'

danelt͟sʌk	generic
danelt͟sʌkne	human
dawnelt͟sʌk	areal

Here again the categories do not correspond to those of the numeral classification system, which is a five-category system with the same structure as that of the Stuart/Trembleur Lake dialects.

9. Discussion

The classificatory system is comprised of twelve subsystems, viz.:

a. the original absolutive prefixes, which distinguish five categories: stick-like, round, circular opening, areal/spatial, generic

b. the absolutive prefix for bodies of water, which distinguishes two categories: body of water, generic

c. the controlled handling verbs, which distinguish eleven categories: non-plural default, plural default, uncountable, long rigid, body, contents of open container, 2-D flexible, mushy, liquid, hay-like, fluffy

d. the uncontrolled handling verbs, which distinguish categories: non-plural default, plural default, uncountable, long rigid, body, 2-D flexible, mushy, liquid, hay-like, fluffy

e. the verbs of location, which distinguish eleven categories: non-plural default, plural default, uncountable, long rigid, body, contents of open container, 2-D flexible, mushy, liquid, hay-like, fluffy

f. the verbs of inherent motion, which distinguish four categories: non-plural default, plural default, long rigid, 2-D flexible

g. third person sinular possessors of nouns, which distinguish two categories, areal and generic.

h. objects of postpositions, which distinguish two categories, areal and generic.

i. demonstratives, which distinguish three categories: human singular, human plural, and non-human.

j. the relativizers/deverbal noun forming suffixes, which distinguish four categories: human singular, human plural, locative, and non-locative non-human.

k. the numerals, which distinguish five categories: human, multiplicative, locative, abstract, generic

l. 'how many?', which in some dialects distinguishes five categories: round, stick like, human, areal, generic, and in others distinguishes three categories: human, areal, generic.

It should be clear that the various classificatory subsystems are not in general commensurable. Among the differences are:

- The human category is restricted to the numeral classification subsystem, the demonstratives, the relativizers, and 'how many?';
- The multiplicative category is restricted to the numeral classification subsystem;
- Most of the specialized categories of the four types of classificatory verb are absent from all of the other systems;
- The 'areal' categories in the verbal system do not correspond to the locative category in the number system;
- The categories of 'how many?' are quite different from the categories of the numeral classifier system used in the answer to this question;
- The areal category is found only in the absolutive prefixes, the relativizers, third person singular possessors of nouns and third person singular objects of postpositions.
- The body of water category has no counterpart in any other subsystem.

The classifications used by the controlled and locative verbs are the same, as are those used by third person singular possessors of nouns and objects of postpositions. Once these are collapsed, however, we are still left with nine distinct classifications. Some of these differ from each other only in making additional distinctions. For example, the inherent motion verbs merge most of the more specialized categories distinguished by the controlled and uncontrolled handling verbs and the verbs of location. Similarly, the three categories distinguished by the demonstratives represent the merger of the locative category distinguished by the relativizers into the generic category. The two category system of the third person singular possessors and objects of postpositions represents the merger of the round, stick-like, and circular opening categories of the absolutive prefixes into the generic. In other cases, however, the categories are not even homomorphic. For example, the numeral classification system is incommensurable with the classification used for asking 'how many'.

Although the possibility of a language containing two distinct systems of classification was pointed out long ago by Royen (1929:266), similar examples of languages containing multiple distinct systems of classification are rare. Probably the most extensive such system previously reported is that of the Amazonian language Palikur. According to Aikhenvald (2000;192ff) Palikur has noun classes, nominal classifiers, verbal classifiers, possessive classifiers, and locative classifiers. The next most extensive is that of the Kanjobalan branch of Mayan, summarized by Grinevald (2000). These are described by Craig (1986, 1987) for Jakaltek and Zavala (1992, 2000) for Akatek. In the Kanjobalan languages there are four classificatory subsystems:

(a) Fused number classifying suffixes

The classificatory suffixes are used obligatorily with numerals. Each noun falls into exactly one class. This subsystem has just three categories: human/non-human animate/inanimate.

(b) Independant numeral classifiers

About a dozen categories.

(c) Plural classes

The plural morphemes for nouns have two or three classes based on divisions such as human vs. non-human.

(d) Noun classifiers.

These function as determiners and as anaphoric pronouns. From twelve to twenty classes.

The first two are both numeral classifiers in Aikhenvald's terms, so the Kanjobalan languages have just three types of classifier: numeral classifiers, noun classifiers, and the plural morphemes, which do not fit neatly into Aikhenvald's categories.

Carrier has more classificatory subsystems than either Palikur or Kanjobalan. Carrier appears[16] to be tied with Palikur for the most types of noun classification in a single language, with noun classes, numeral classifiers, verbal classifiers, possessive classifiers, and deictic classifiers. Of the possible types, Carrier lacks only noun classifiers and locative classifiers.

Noun classification has been taken in linguistic folklore as a prime example of the relationship between language, non-linguistic cognition, and the environment. Sometimes the linguistic categories are seen as a reflection of cognitive categories:

> Nominal classification is a prime example of a grammatical category assumed to strongly reflect human categorization. (Gomez-Imbert 1996;447)

or of environment and culture:

[16] I hedge here because, as I understand it, Aikhenvald's "noun class" category is not clearly distinguished from the others, which are defined in terms of where the marking occurs. For instance, demonstratives that agree with the head of the NP in gender, as in French, appear to be deictic classifiers, yet at the same time, by her definition, they are noun class markers.

> Indeed, of all nominal and verbal grammatical categories, classifiers are the easiest to immediately connect with extralinguistic phenomena — either of physical environment or of culture. (Aikhenvald 2000;340)

but often it is assumed that linguistic categories affect cognition:

> Classifiers and noun categorization systems... provide a unique insight into how people categorize the world through their language. (Aikhenvald 2000;5)

The intuition underlying the putative relationship between noun classification and cognitive categorization is that in a language in which a classification is obligatorily used, the repeated use of such a system will "wear ruts in the mind" of speakers and condition them to be particularly sensitive to these linguistically encoded categories (Kay and Kempton 1984). This intuition makes some sense for languages in which there is a single system of classification, such as the familiar numeral classifier systems of East and South-East Asia, but breaks down when languages with multiple systems of classification are taken into consideration. If for one purpose we classify into human vs. non-human, for another purpose on the basis of shape, and so on, there is no reason for any one classification to become particularly salient. The more different wheelbases there are, the less distinct the ruts in the road. Ironically, we may therefore expect that to the extent that Whorfian effects are detectable at all (and persuasive cases are rare (Gleitman & Papafragou to appear)), they will more likely be found in languages with a single system of noun classification than in languages like Carrier in which the luxuriant profusion of noun classification renders the individual classifications less salient.

Proponents of the Sapir-Whorf hypothesis talk as if languages provide only one way of talking about things, e.g. one way of talking about time, linear vs. cyclical, to take Whorf's most famous example, and it is this belief that underlies the "ruts in the mind" metaphor. In fact, languages often provide a variety of ways of talking about the same thing, a point made by Kay (1996). with the example of transaction verbs such as 'buy', 'sell', 'pay', and 'cost', in which different arrangements of thematic roles present alternative perspectives on the same event. Languages with multiple classificatory systems make this same point for systems of noun classification, the canonical systems of linguistic categorization.

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