

Property words in Hoocak and Crow: A contrastive morphosyntactic study on parts of speech in Siouan

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Abstract: Adjectives in Siouan languages do not have any adjective-like inflection found in European languages. There is no grammatical agreement with the head noun of a NP in number, gender, and case. Likewise, there are no derivational processes that derive adjectives from other word classes, or to derive words of other word classes from adjectives. In addition, Siouan adjectives lack a grammaticalized category of comparison. There are no morphological and constructional means to express comparative and superlative. On the other hand, Siouan adjectives inflect like intransitive inactive/ stative verbs, if used as predicates in intransitive clauses. This fact has led most researchers to claim that there is no distinct class of adjectives in Siouan languages (cf. for instance Boas & Swanton 1911; Rood & Taylor 1996; and Helmbrecht 2006, among many others). Adjectives, or better property words, were analyzed as a subcategory of verbs. However, the data available for some Siouan languages shows that this general picture needs some refinement. Property words behave differently across Siouan languages, and language internally compared to other intransitive verbs. This paper presents a contrastive study of the morphosyntactic behavior of property words in Crow and Hoocak showing that property words in Crow cannot occur as nominal modifiers/attributes within a NP. They can be used as nominal modifiers only as (intransitive) predicates of a relative clause. Hoocak is different. Property words can occur as nominal modifiers, but lose all their verbal inflection in this function. Only stative, properties denoting words may occur in this syntactic position. Dynamic intransitive verbs can only occur as nominal modifiers if they are the predicate of a relative clause. Despite this particular behavior of property words, it will be concluded they do not constitute a separate word class (“adjective”) in Hoocak. These results will be discussed and evaluated in the light of previous research on the theory and typology of adjectives in the literature (see for instance Dixon 1977, 2010; Schachter & Shopen 2007; Croft 1991, 2001).

1. Introduction

1.1. Adjectives in Siouan

It has been claimed in the literature that there are no adjectives in Siouan languages. In fact, the common opinion shared by almost all Siouanists is that there is no proper word class adjective

and that words that designate states, qualities and/or properties belong to the class of intransitive inactive/ stative verbs. The following authors claim explicitly in their grammatical description that adjectives (property words) are intransitive inactive/stative verbs: for Crow (cf. Graczyk 2007:5), for Mandan (cf. Kennard 1936:8; Mixco 1997:20), for Lakota (cf. Boas & Swanton 1911; Rood & Taylor 1996:458; Ingham 2003:82ff; Ullrich 2018:243), for Hoočak (cf. Helmbrecht 2006), for Ofo (cf. Rankin 2005), and for Tutelo (cf. Oliverio 1996).

Other authors do not mention adjectives at all in their grammatical descriptions thus implying that there is no separate class of adjectives. This holds for Hidatsa (cf. Park (2012)), for Lakota (cf. Boas & Deloria 1941), and for Biloxi (cf. Einaudi 1976:138ff).

Another group of authors do mention adjectives in their publications, but underline the fact that they are rather a subcategory of stative verbs, see for instance for Lakota (Buechel 1939:94f, 182f, 219f, 320f), for Osage (Quintero 2004:397ff), and for Quapaw (Rankin 2005).

The main reasons for these judgements (if reasons are given at all) are:

- i. property words in Siouan languages do not show any inflectional morphology that is typical of adjectives such as agreement in gender/ class, number, and case, if they modify a noun in an NP;
- ii. there are no word class changing derivations that involve a separate class adjective, such as e.g. derivations of adjectives from nouns, or derivations of nouns from adjectives, which are well-known from European languages;
- iii. property words do not have any class specific grammatical categories such as comparative and superlative;
- iv. all property words are inflected like intransitive inactive/ stative verbs, if used as clausal predicates.

There is just one author who explicitly claims the existence of a separate word class “adjective” in Hoočak (cf. Rosen 2015). In his dissertation, explicit reference is made to claims on the universality of adjectives in the theoretical literature, in particular to the generative approach. Generativists always postulated the universality of parts of speech without any justification. Baker (2003), however, is an exception. He presents morphosyntactic arguments for these claims. Rosen applied some of the criteria for adjectivehood on elicited Hoočak data arguing that there are adjectives in Hoočak. The entire argumentation is very theory-driven, though.

1.2. Theoretical accounts of adjectives

Functional-typological approaches to language consider parts of speech as language-specific syntactic categories. The main question to answer in this research paradigm is and was: How do empirical facts of word classification in individual languages fit into traditional terms and concepts such as “adjective”? And secondly, what is universal about the traditional word classes?

I would like to briefly summarize two important approaches to these questions (Dixon 1977, 2010, and Croft 1991, 2001). These approaches are also the theoretical background for my contrastive study of property words in Crow and Hoočak.

In his seminal cross-linguistic study on adjectives, Dixon (1977) claimed that this word class is by no means universal. He demonstrated that languages that do not have adjectives as a

proper word class subsume the expression of property concepts under the verb class or the noun class. In addition, he showed that there are languages with closed classes of adjectives, and that the members of these closed classes of adjectives denote concepts according to a semantic hierarchy DIMENSION<AGE<VALUE<COLOR and so forth. The most typical adjectives are the ones that express dimensions, less typical adjectives express age, value color and so on. If a language has only a few adjectives, they probably express concepts of the left most part of the hierarchy. However, in his most recent publication on this topic, Dixon (2010) revised this position from (1977) claiming that adjectives are a universal class of words and that they can be identified in each language by even slight morphosyntactic differences they show with regard to the other lexical word classes as nouns and verbs. He offers a very detailed catalogue of criteria, grammatical categories and syntactic constructions, to look at in order to identify adjectives in an individual language (cf. Dixon 2010:104ff). In addition, he presents a semantic classification of the most typical adjectives, see (1) for some examples enlarging the semantic classification from (1977).

- (1)
 - a. **Dimension:** big, small, long, tall, short, wide, deep, ...
 - b. **Age:** new, young, old, ...
 - c. **Value:** good, bad, odd, strange, ...
 - d. **Color:** black, white, red, ...
 - e. **Others** such as: Physical Property/Human Propensity/Speed/etc.
(cf. Dixon 2010:73)

In addition, Dixon proposed a fourfold typology distinguishing languages that treat adjectives like verbs, or like nouns, or with similarities to both, or separate them clearly from nouns and verbs.

- (2)
 - a. Adjectives similar to verbs (e.g. Chinese, etc.);
 - b. Adjectives similar to nouns (e.g. Latin, etc.);
 - c. Adjectives show verbal and nominal properties (e.g. Berber, etc.);
 - d. Adjectives are clearly separated morphosyntactically from nouns and verbs (e.g. English, etc.); (cf. Dixon 2010:67).

Hoocak and the other Siouan languages would fall into type (2a). in Dixon's typology. In languages of this type adjectives are similar to verbs, in fact, the majority of Siouanists claim that adjectives are identical to verbs. A major problem for Dixon's revised approach (2010) is that he cannot cope with the facts in Siouan. In his typology, it is presupposed that adjectives are always distinguishable from other word classes, which is not the case in Crow and in Hoocak, as will be shown later.

Croft (1991, 2001), on the other hand, claims that nouns, verbs, and adjectives are not universal categories of language, and are not even syntactic categories of a specific language, but functional prototypes and as such, they are language universals (cf. Croft 2001:63f). The functional prototype "adjective" is defined as the modification of properties to an entity (Croft 2001:87). Adjectives are relational and designate states that are permanent and gradable (cf. Croft 2001:87). The theory of parts of speech as functional prototypes is bound to the theory of typological markedness. The prediction is that words in a language are structurally and behaviorally unmarked the more they correspond semantically and distributionally to one of these three prototypes (noun, verb adjective as prototypes). For example, property words in English are grammatically unmarked, if they are used as modifiers of a noun in a noun phrase. However, if they are used to refer to some abstract

object (e.g., ‘big-ness’) they have to be nominalized and are hence more marked. Likewise, if property words are used to predicate a state, they require a copula (e.g., ‘X is big’). Again, in this function, the property word is grammatically more marked (copula), because it deviates from the adjectival prototype. Parts of speech of a specific language can therefore be seen as grammaticalizations of the respective prototypes, but in each language in different ways. Markedness theory allows us to compare and measure these different ways (more marked/less marked). Like Dixon, Croft (2001:99) proposes a semantic hierarchy of property concepts that looks quite similar to the one proposed in Dixon (1977). The fact that property words may be used and inflected like intransitive verbs as predicates and, in addition, may be used as nominal modifiers in a NP in Siouan languages without any morphological derivation does not pose a problem for Croft’s theory. A problem for this theory of parts of speech would be the case that property words in Siouan would be more marked (e.g., by certain derivations) as modifiers for nouns than as predicates.

Both theories on parts of speech try to describe and to explain the cross-linguistic variation of language specific parts of speech classifications. Both theories make empirically testable claims. And both theories depend on the detailed theory-neutral morphosyntactic description of word classes in the languages.¹

1.3. Methodological remarks

In order to identify a proper class of adjectives in a specific language, words semantically designating properties should fulfill one or more of the following grammatical criteria.

With regard to inflection, property words should show some kind of agreement with the head noun of a NP. Cross-linguistically, adjectives often agree in gender, number, and case with its head noun. In addition, adjectives should show class-specific morphological or constructional categories of comparison (comparative, superlative, elative, etc.). However, not all languages that have adjectives have grammaticalized categories of comparison.

With regard to word formation, adjectives should play a role in word class changing derivations. Cross-linguistically, adjectives often may be derived from nouns or verbs, or nouns and verbs may be derived from adjectives.

With regard to the pragmatic function of adjectives, or more precisely adjectives as part of a propositional act, it holds that adjectives should be able to appear as modifiers of a noun/ nominal without any derivation or any additional constructional material, because this is the prototypical function of adjectives.

It has been already said in the introduction that property words in Siouan do not show class-specific inflection (agreement, comparison) or derivation (derivations between the other different lexical classes and adjectives). Therefore, I will focus my study on the prototypical function of adjectives as modifiers of nouns in NPs. The following questions will be investigated in both Siouan languages, Crow (Missouri Valley Siouan) and Hoočak (Mississippi Valley Siouan): do all property words are inflected as inactive/ stative verbs as predicates of an intransitive clause in the same way? Do property words need derivations or auxiliaries as predicates? Do all property words occur as modifiers of nouns within a NP in the same way? Do property words need derivations or other constructional support to be able to occur in this function?

¹See, for instance, Sasse (1995) for an outline of the methods to identify lexical parts of speech in an individual language.

2. Crow

2.1. Property words as clausal predicates

According to Graczyk (2007:5, and p.c.), property words in Crow are intransitive stative verbs. They are formally distinguished from active intransitive verbs by a different set of pronominal affixes. They can be used as clausal predicates like any other intransitive (stative) verb; cf. the examples in (3a–3b).

(3) Crow (Graczyk 2007:179)²

- a. *da-lée-k*
2A-go-DECL
'you went'
- b. *dii-háchka-k*
2B-tall-DECL
'you are tall'

The first example (3a) is an intransitive clause with an active verb. It is personally inflected with a pronominal affix of the actor paradigm. The second example (HelmbrechtEx3b) contains a property word that is inflected like any other intransitive inactive/stative verb in Crow with a pronominal affix of the undergoer paradigm, here glossed as 2B. This marking pattern of intransitive subjects is common Siouan.

Among the inactive/stative verbs in Crow, there is a group of verbs that do not take animate arguments, i.e. they are not inflected for first and second persons and not for animate third persons (cf. Graczyk 2007:186). Unfortunately, the morphosyntactic properties of this subgroup of stative verbs is not specified further in the grammar. It seems that there is an animacy based split of suppletive stems that can be found also in other Siouan languages (e.g. in Hoocąk). This animacy split does not directly touch upon the question of the syntactic category of property words, though.³

2.2. Property words as nominal modifiers

Property words that are used to modify a noun are expressed obligatorily as predicates of (attributive) relative clauses in Crow. Relative clause in Crow are head internal. The general structure of a relative clause is as given in (4).

(4) [head noun-**DET-REL-VERB-DET**] main verb

The head noun, i.e., the nominal that is modified by a relative clause, is structurally part of the relative clause. The head noun is always marked by a determiner. The predicate of the relative clause is prefixed with a relativizer, and the entire relative clause ends with a determiner, often a definite article. Compare (5) for an illustration.

²All examples are glossed as in the sources; a complete list of abbreviations is given in §5 at the end.

³I am not aware of any research on this animacy split in the lexicon of Siouan; it would be a valuable comparative study.

- (5) Crow (Graczyk 2007:254)
hileen [bacheé-o-m Jesus ak-áxp-ak ilía-sh] kan daá-u-lak
 these man-PL-DET Jesus REL-be.with-ss speak-DET then go-PL-COND
 ‘when these men who were speaking with Jesus were leaving’

The head noun in (5) is marked with the indefinite specific marker *-m* (glossed as DET),⁴ or alternatively with *-dak* (DET) in elevated discourse. In addition, there is a relativizer that is usually prefixed to the verb of the relative clause; here *ak-* (REL) indicates that the subject of the relative clause is relativized and that the subject is animate. The determiner (DET) at the end of the relative clause indicates that the referent of the complex NP is definite (uniquely identifiable), or indefinite. If there is no determiner, the NP may be generic.

Inactive/stative verbs modifying a noun have to be expressed as the verb of a relative clause. This is illustrated in the subsequent examples.

- (6) Crow (Graczyk 2007:264)
[[bacheé-m dahíssa-m] dáashe Awachiilipi-sh huu-m] Chíisapua-sh
 man-DET wealthy-DET his.name Ground.Bull-DET say.PL-DET Twines.His.Tail-DET
báaht-ak
 insult-ss
 ‘a **wealthy man** named Ground Bull insulted Twines His Tail’

- (7) Crow (Graczyk 2007:266)
d-iilapxe [bishéechiili-m iláp-kaashe-sh] balee-lappeé-hche-m
 2POSS-father cow-DET fat-AUG-DET 1B.PL-kill-CAUS-DS
 ‘your father had us kill the **really fat cow**’

- (8) Crow (Graczyk 2007:266)
baa-waa-l-ilishe éehk [[bía-axu-o-m xiip-ák xawii-m] iilia-lee-sh]
 INDEF-stem-2A-care.about those woman-body-PL-DET wrinkled-ss bad-DET use-2A-DET
koó-k
 COP-DECL
 ‘all you care about are those **wrinkled and bad women’s bodies** that you use’

All expressions in square brackets are analyzed as noun plus relative clause in Graczyk’s grammar. So, the expression ‘a wealthy man’ in (6) with a property word ‘wealthy’ could be literally translated as ‘(the) man (who) is wealthy’. The same holds for the expression ‘the really fat cow’ in (7) that could be translated literally as ‘(the) cow that is really fat’. Note that the head noun in both NPs is marked by the indefinite specific determiner *-m*, although both are different with regard to definiteness. The ‘wealthy man’ is indefinite, the ‘fat cow’ is definite. Thus, the definiteness value is marked at the end of the relative clause, the indefinite marking of the head noun is just a grammatical marker of the relative clause construction.

Strong evidence that the inactive/ stative verbs are indeed verbs of a relative clause is provided in the last example (8). The two conjoined property words are linked by means of a Same Subject marker *-ak* (ss). The Same Subject vs. Different Subject markers are only used to link clauses, never to coordinate words and phrases. Thus, the inactive/stative verbs are indeed predicates of a relative clause, and not modifiers. However, note that in all three examples, there is no

⁴In Lakota, the head noun of a relative clause is also marked indefinite; see Van Valin (1977:47) and Williamson (1984:171).

relativizer at all in the stative verbs that modify the noun. So, there is a difference between relative clauses with active verbs and with stative verb (although, Graczyk has examples with *ak-* REL plus stative verbs in his grammar; cf. 2007:254). But not all stative verbs are property words.

A particularity with regard to marking appears with numerals. Numerals are often classified as adjectives cross-linguistically. In Crow, they are inflected like inactive/ stative verbs (with slightly different forms than other stative verbs). However, they do not require the head noun to be marked by *-m* (DET), the grammatical marker for relativized nouns.

- (9) Crow (Graczyk 2007:266)
[iichĩile-∅ dúupa-m aw-íaschilee-sh] xusshi-kaás-uu-k
 horse-∅ two-DET 1A-buy-DET swift-AUG-PL-DECL
 ‘the two horses I bought are good runners’

Numerals are thus the least marked adnominal modifiers in Crow. This is, from a theoretical perspective, a very unexpected fact.

3. Hoocak

3.1. Property words as clausal predicates

All property words in Hoocak may be used as clausal predicates in the same way as other intransitive inactive verbs. They may be inflected for person/number of the subject (intransitive argument S), and they all may take additional auxiliaries (positional auxiliaries and others) like any other verb in this clausal function. Only nominal predicates take a special auxiliary/copula.

As already mentioned above, there seems to be an animacy split among the property words such that a group of them may not take pronominal affixes of the first and second person and only animate third persons.

There is no indication that property words as clausal predicates might be adjectives or a proper syntactic category distinct from intransitive verbs. They do not require auxiliary support nor any additional verbalization operations.

3.2. Property words as nominal modifiers

Property words as nominal modifiers appear directly after the head noun N-ADJ-(DET) followed by a determiner. The latter may also be lacking, cf. (10).⁵

⁵All examples are taken from the DOBES Hoocak text corpus stored in the digital archive of the Max Planck Institute for Psycholinguistics. See the website of the DOBES funding initiative of the Volkswagen Foundation (<http://dobes.mpi.nl>). The glossed texts and audio and video files of the Hoocak documentation project are stored in the digital archive of the Max-Planck-Institute for Psycholinguistics called “The Language Archive”; the corresponding URL is: <http://dobes.mpi.nl/projects/hocank>. All materials therein are freely accessible for scientific and educational purposes. The website of the DOBES project “Documentation of the Hoocak Language” led by Johannes Helmbrecht and Christian Lehmann at the University of Erfurt, Germany can be found under the following URL: http://www2.uni-erfurt.de/sprachwissenschaft/Vgl_SW/Hocank/index_frames.html.

(10) BOF004

Heesge haḡinḡa heḡu waruc hija kereireanḡa
 heesge haḡinḡ=ga heḡu waruc hija kere-ire='anḡa
 that's.why morning=CONT that.way food there put.upright-SBJ.3PL=and
hiḡikereireanḡa, 'eegi 'uḡxiḡi 'uḡxiḡi seep niḡe
 hi-gi-kere-ire='anḡa 'eegi 'uḡxiḡi 'uḡxiḡi **seep** niḡe
 1E.U-APPL.BEN-put.upright-SBJ.3PL=and and.then charcoal **charcoal be.black** somewhere
waasge hikijaḡa wat'uḡpre.
 waasge hikijaḡa **wa-t'uḡp-ire**
 dish on.side there **OBJ.3PL-put.down-SBJ.3PL**
 'That's why, in the mornings, they put some food out there by me, and they put a piece of
black coal next to the dish.'

The modified noun in (10) is a mass noun with a color word. There is no definite and no indefinite article. This renders the NP indefinite and unspecific. The NP is cross-referenced on the main verb with the object third plural prefix *wa-* (OBJ.3PL) that may also be used impersonally indexing indefinite masses ('stuff'). The property word *seep* 'be.black' is not inflected at all.

The next text example (11) contains a NP with a property word 'be.brave' and an indefinite article marking the referent as indefinite and specific. The modified noun is semantically human/animate and a count noun.

(11) BOF034

Waḡḡ wašoše hiḡḡ 'eeja huhera heḡu šuḡk haminaḡka.
waḡḡ wašoše hiḡḡ 'eeja huhe=ra heḡu šuḡk_haminaḡ=ga
man be.brave INDEF there be.coming.here=DEF that.way ride_sit.on(SBJ.3SG)=CONT
 'A brave man came here riding a horse.'

The NP in (12) is indefinite too, but the head noun is semantically inanimate/abstract and a count noun. The property word 'be.good' is not inflected at all.

(12) CAW069

'eesge woorak te'e woorak piḡḡḡ herenḡ
 'eesge woorak te'e **woorak piḡḡ=iḡḡ** here=naḡ
 thus story this **story good=INDEF** be=DECL
 'that's why this story is **a good story**.'

The NP in the following example (13) contains an animate count noun modified by the property word 'be.fast'. The entire NP is definite (definite article =*ra*). The referent of the NP *šuḡkxetesaaḡre=ra* 'the fast horses' is plural, but this is not marked on the noun, but indexed on the main verb with the object third plural marker *wa-*. This examples clearly shows that the modifying property word is not inflected for plural. If it were the predicate of a relative clause, it should be inflected for plural (SBJ.3PL *-ire*).

(13) CCL0009

'eegi hinuḡbahaḡ haraireḡi haiḡḡa 'eeja šuḡkxete
 'eegi hi-nuḡp-ahaḡ ha-ree-ire=gi haiḡḡ=ga 'eeja **šuḡkxete**
 and.then ORD-two-times COLL-go.there-SBJ.3PL=TOP defeat=CONT there **horse**

saagrera wii'ųñe
saagre=ra wa-hi-'ų-ire
be.fast=DEF OBJ.3PL-APPL.INST-do/make-SBJ.3PL
 'when they go the second time, and then, there they would use *the fast horses*.'

Relative clauses are structurally very similar to NPs in Hoocak, sometimes indistinguishable from a NP; they have the following structure:

- (14) [head noun/nominal= (DET)] [(REL/ADV) (NP) verb:INFL= (DET)]_{Relative clause}
 [head noun (∅) ∅ ∅ verb-∅= (DET)]_{Relative clause}

The determiner (DET) after the head noun/nominal of the relative clause is not obligatory; if it is nothing/ zero, the NP may be interpreted as indefinite. However, the definite and indefinite article may occur, too, as well as an adnominal demonstrative. The relative clause itself usually follows the head noun/nominal, but the head noun may also be internal to the relative clause (there are some examples of this type in the text corpus). The relative clause almost always ends with a determiner (DET), either a definite article, or an adnominal demonstrative. Sometimes an interrogative pronoun such as *jaagu* 'what', *hacijja* 'where', *jaasge* 'how', and so on, serves as a relativizer introducing the relative clause found, in particular, in headless relative clauses. If the verb of the relative clause is a transitive verb, there may be (optionally) a lexically NP that refers to one of the arguments of the verb; usually there are no lexical NPs in a relative clause.

The NP, on the other hand, is distinguished from a relative clause by the following formal properties:

- i. the NP has no determiner (DET) after the head noun preceding the property word;
- ii. there is no (attributive) prepositional phrase modifying the head noun;
- iii. the property word is never personally inflected, if used as an attributive modifier;

Compare the two elicited examples that illustrate the slight structural difference between NP and relative clause in Hoocak.

- (15) PM (XVI:1ff)
- a. *cii skaara waacáanq*
[cii skaa=ra] wa-haca=ną
house white=DEF OBJ.3PL-see.1E.A=DECL
 'I see the white houses'
 - b. *cii skáirera waacáanq*
[cii skaa-ire=ra] wa-haca=ną
house white-SBJ.3PL=DEF OBJ.3PL-see.1E.A=DECL
 'I see the white houses that were white'

The modifying property word in (15a) is not inflected and does not agree with the head noun wrt number. It cannot be separated by a determiner from the head noun. On the other hand, the property word in (15b) is the verb of a relative clause. It is marked pronominally like any other verbal

predicate indexing the intransitive argument (S) of the clause. The property word in this construction may be separated from the head noun by a determiner. The relative clause is almost always marked by a definite article.

Thus, the following conclusions can be drawn for Hoocak. Property words that appear as modifiers immediately after the head noun of a NP are never inflected (person/ number), and they are never separated from the head noun by a DET. All words in the Hoocak corpus that fulfill these structural properties are semantically stative designating qualities, and all belong to the class of inactive intransitive verbs. Intransitive inactive verbs that are dynamic may not fill this position, i.e. may not modify a head noun (except in a relative clause). So, we have a kind of sub-class of intransitive inactive verbs, negatively defined from a morphological point of view, and distributionally defined by a certain slot in a certain syntactic construction (NP).

4. Conclusions

If property words were adjectives, i.e. a separate class of words distinct from verbs, then one would expect that they behave differently as clausal predicates. They should be either verbalized by derivational means, or by taking an auxiliary. If property words were adjectives, then one furthermore would expect that they occur as adnominal modifiers without any derivation, i.e. this should be the unmarked structural and functional position of property words. On the other hand, if the property words are verbs (no matter which subclass), they should occur in this position/function only after a word class changing derivation, or as predicate of a relative clause.

The latter is the case in Crow. Property words may appear as modifiers of a head noun only as predicates of a relative clause (attributive clause). Thus, one has to conclude that property words remain intransitive stative verbs in Crow, perhaps as a subclass of intransitive stative verbs, although there are slight differences with regard to the marking of the respective relative clauses. Hoocak is different. Property words may occur as modifiers of a head noun, but they lose all their verbal inflection in this construction. No word class changing derivation is involved here. And, in addition, all property words are inflected as intransitive inactive verbs, when used as clausal predicates. Thus, one has to conclude that property words are a subclass of intransitive inactive verbs in Hoocak.

From a theoretical point of view, one could say that property words in both languages have a special morphosyntactic behavior that would not contradict the prototype theory of parts of speech (Croft 1991, 2001). They are less unmarked as modifiers of a noun. This holds for Hoocak, but also for Crow, although less clearly. The relative clauses in Crow seem to be less marked than the regular ones with dynamic active verbs.

However, the proposed prototypical semantics of adjectives cannot be confirmed by the facts from Crow. It has never been proposed that cardinal numbers are the most prototypical meanings of adjectives. Cardinal numbers appear as adjectives only in languages with large open class inventories of adjectives.

The facts in Hoocak and Crow definitely contradict the claims by Dixon (2010) that adjectives are a universal class of words. Even if property words behave somewhat differently than other intransitive inactive/stative verbs, they cannot be classified as a proper class of adjectives. In both languages, they never lose their verbal properties.

5. Abbreviations

1, 2, 3	=first, second, third person
A	=actor; agent
APPL.BEN	=benefactive applicative prefix
APPL.INST	=instrumental applicative
AUG	=augmentative
B	=intransitive pronominal prefix of the undergoer paradigm
CAUS	=causative
COLL	=collective marker
COND	=conditional
CONT	=continuative
COP	=copula
DECL	=declarative
DEF	=definite
DET	=determiner
DS	=different subject
E	=exclusive
I	=inclusive
INDEF	=indefinite article
OBJ	=object
ORD	=ordinal number
PL	=pl
POSS	=possessive
REL	=relativizer
SBJ	=subject
SG	=singular
TOP	=topic
U	=undergoer; patient

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