Formal Notes on Coeur d'Alene Clause Structure

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By

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To the memory of Dorothy, Gladys, Julia, Lawrence, Pascal, Stella, and Tom who began this work more than eighty years ago.

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PREFACE

Coeur d'Alene, also known as *Snchitsu'umshtsn*, is a Southern Interior Salishan (Idaho, USA) language no longer learned by children. Descriptive work on the language has been carried out since the early nineteenth-century (Boas and Teit, 1930; Reichard, 1929, 1938, 1939; Doak, 1997); however, a formal account of the basic clause structure of this polysynthetic language has not been proposed. This work presents just such a formal account within the Minimalist Program (Chomsky, 1995, 1999, 2000, 2001b,a; Lasnik, 1999a,b, 2000), employing the tenets of Distributed Morphology (Halle and Marantz, 1993; Harley and Noyer, 1999).

One of the goals of this work is to demonstrate that an analysis of person marking morphemes as bound pronouns (Jelinek, 1984) is more *economical* in terms of Chomsky's (1995, pg.367) *Elementary Principles of Economy* than a *radical argument drop* or *pro* analysis. In addition, an account of lexical affixation (Carlson, 1990; Kinkade, 1998; Gerdts, 2003), in Coeur d'Alene as incorporation is presented. Appealing to Hale and Keyser's (2002) theory of *Conflation* as Head-movement (Harley, 2004), Chomsky's (1995) claim that head-movement is phonological is maintained, while at the same time illustrating that lexical affixes in Coeur d'Alene serve as incorporated arguments. Finally, the work concludes with an articulation of the left periphery (material above TP here), based on the strict ordering of a series of mood, adverbial, model, and aspectual particles. It is shown that this articulation in Coeur d'Alene patterns with Cinque's (1999) proposed *Universal Hierarchy of Functional and Adverbial Heads*. In this way, the basic clause structure of Coeur d'Alene is formally presented.

The goal of the work is to not only provide a formal account of Coeur d'Alene, but to draw attention to lesser studied languages such as Coeur

d'Alene. Additionally, it is hoped that readers will see the value of heritage materials in formal inquiry, and thus spend the necessary, and perhaps more important, time ensuring they are well preserved. The work presented relies heavily of previous research and documentation, especially the work of Ivy Doak and Gladys Reichard. However, consoltation with the community's language program provided further data and analysis.

In essence, the work presented in the following pages is the result of previous work begun by Gladys Reichard and Coeur d'Alene community members Dorothy Nicodemus, Julia Antelope Nicodemus, and Lawrence Nicodemus in the early parts of the twentieth-century. Reichard came to Coeur d'Alene country, Idaho/Montana USA, in the summers of 1927 and 1929 to record the Coeur d'Alene language at the behest of Franz Boas. Reichard worked with Dorothy Nicodemus, Julia Antelope Nicodemus, Lawrence Nicodemus, Tom Miyal, and Pascal George. In total, Reichard recorded some forty narratives.

The work presented is based in part on the careful analysis of Reichard's field-notes and unpublished manuscripts, an exceptional corpus of the Coeur d'Alene language. It was Anthony Mattina that first introduced me to the work of Reichard and these works, and thus deserves the utmost thanks for his assistance in making this work possible. Dr. Mattina was most helpful in securing me a guest research position at the Language Lab at the University of Montana where he assisted in the preliminary analysis of a number of these narratives. Also deserving of much thanks is Ivy Doak who took time to answer numerous questions regarding the language and offer advice. In addition Raymond Brinkman deserves thanks for his steadfast support and his willingness as Director of Language Programs at the Coeur d'Alene Tribe to assist with data. All three offered their expertise without fail. Their support and collegiality was indispensable.

In addition, I wish to thank Mike Hammond at the University of Arizona for assisting in a leave of absence to conduct preliminary work at the University of Montana and the University of Tokyo. At the University of Tokyo it was Akira Watanabe that hosted my colleague Naomi Ogasawara and me while we conducted research on null arguments that greatly influenced this work. It was Andrew Carnie and Heidi Harley that encouraged us to undertake the work at the University of Tokyo and helped make it possible. Andrew Carnie, Simin Karimi, Dick Demers, Heidi Harley, Jane Hill, and

MaryAnne Willie also deserve thanks for reading various drafts of this work and providing invaluable feedback. I would also like to thank Larry Chott and "Chago" for moral support and editorial advice. Mans Hulden also deserves a word of thanks for looking over various drafts of this work and for introducing me to Finite State Theory and Computational Science, which have greatly influenced how I view this work and the Chomskian Generative Paradigm in general. Finally, and most importantly, Takae, Wolfie, and Nina deserve thanks for all their patience and support during this project.

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Shannon T. Bischoff

ABBREVIATIONS & SYMBOLS

abs	absolutive: indicates third person absolutive Ø
acc	accusative
aug	augmentative
bt	benefactive transitivizer š(i)t
C/CC	reduplication onset
C2	reduplication coda consonant
comp	completive
conn	connective ł
cont	continuative y'c and y'c...(m)š
ct	causative transitivizer -st(u)
cust	customary ʔɛc
CVC	reduplication: onset, nucleus, coda
CV	reduplication: onset and nucleaus
dat	dative transitivizer
dem.adv	demonstrative adverb: xʷi, ciʔ
det	determiner: xʷɛ, łɛ, cɛ
devel	developmental: -iš
dim	diminuative
dir	directional
dt	directive transitive:-nt
emph	emphatic
erg	ergative
fposs	future possibility
fut	future: cɛł

G	genetive
imft	immediate future
imp	imperative
inch	inchoative
indef	indefinite: šɛš
int	intentional
invl	involuntary
irr	irrealis: nɛʔ
loc	locative
m	m morpheme: -m
ncr	noncontrol resultative
neg	negative
nom	nominative
nomlz	nominalizer: s-, -ɛn
nte	nontopic ergative
pl/p	plural
pra	possessor applicative: -ɬt
rdp	reduplication
sg/s	singular
stat	stative: -t
-t	lone -t trans: -t
term	terminative
⋯	vowel lengthening
_	(underscore) compound
-	(minus) morpheme boundary
+	(plus) reduplication morpheme boundary
√	root
=	(equals) lexical affix morpheme
'	glottalization
?	unanalyzed form
-ɛʔ	-ɛʔ (unanalyzed form that often occurs with kin terms)

ORTHOGRAPHIC CONVERTIONS & PHONETIC INVENTORY

Reichard Orthography	Nicodemus Orthograpy	Salishan Orthography
ṛ^w, ṛ'^{w}	(w , '(w	ʕ^w, ʕ'^{w}
q'	q'w	q'^{w}
x̣, x̣^{w}	qh, qhw	x̣, x̣^{w}
k^w, k'^{w}	kw, k'w	k^w, k'^{w}
x^w	khw	x^w
tc, tc'	ch, ch'	č, č'
ts, ts'	ts, ts'	c, c'
R, R'	(, '(	ʕ, ʕ'
q^w	qw	q^w
q'	q'	q'
no form	kh	x
gw	gw	g^w
c	sh	š
t'	t'	t'
p'	p'	p'
w'	'w	w'
y'	'y	y'
l'	'l	l'
r'	'r	r'

Reichard Orthography	Nicodemus Orthograpy	Salishan Orthography
n'	'n	n'
m'	'm	m'
dj	j	ǰ
ł	ł	ł
ʔ	'	', ʔ
í	i̱	í
é	e̱	é
á	a̱	á
ó	o̱	ó
ú	u̱	ú
E, ʟ, u̱	no form	ə
ä	e	ɛ
ɔ	o	ɔ
i	i	i
e	e	e
o	o	o
u	u	u

	labial	alveolar	alveo-palatal	lateral	palatal	labio-velar	uvular	labio-uvular	pharyn-geal	labio-pharyngeal	glottal
voiceless stops/ affricates	p	t	c		č	kʷ	q	qʷ			ʔ
glottalized voiceless stops/ affricates	p'	t'	c'		č'	k'ʷ	q'	q'ʷ			
voiced stops/ affricates	b	d			ǰ	gʷ					
voiceless fricatives		s		ł	š	xʷ	x̣	x̣ʷ			h
plain res-onants	m	n	r	l	y	w			ʕ	ʕʷ	
glotalized resonants	m'	n'	r'	l'	y'	w'			ʕ'	ʕ'ʷ	
Vowels		i		ɛ	e a	o	u				

CHAPTER 1

INTRODUCTION

1.1 Introduction

One of the most influential claims in linguistic theory over the past 50 years has been that while some languages seem quite different, they are actually far more similar than one might assume. That is, given a language like German and a language like Chinese, one might guess that they do not have a great deal in common. For example, in Chinese there are a number of sounds not found in German, a variety of tones for example. In German, when a sentence is uttered it must have a subject. In Chinese on the other hand, the subject and object can seemingly be omitted freely. However, German and Chinese do appear to have elements such as *nouns* and *verbs*[1], and these elements do combine to form complete utterances, or sentences, in both languages. One of the goals of linguistic inquiry is to understand how elements such as *nouns* and *verbs* are combined to create these utterances and sentences. This is where the claim that all languages are actually quite similar comes in.

Recognizing these seemingly basic similarities across languages, linguists have hypothesized that although languages seem different at the level of an utterance or sentence, underlyingly they are created from the same innate elements and employ the same innate mechanism(s) to organize those

[1]I recognize that for the most part this statement is rather uncontroversial. However, I also recognize that there has been a good deal of discussion regarding the existence of such categories as *noun* and *verb* going back at least as far as Bloomfield (1926) in the last century.

elements into utterances. That is, although German and Chinese sound quite different, they are comprised of the same basic elements, e.g. nouns and verbs, and they both employ the same mechanism(s) to organize those elements into comprehensible utterances or sentences.

The primary goal of this work is to look at a language that is on the surface quite different from the vast majority of languages previously studied, in this case a polysynthetic language, specifically Coeur d'Alene (Salish/Idaho, USA). Polysynthetic languages are most notable for the fact that one *word* of such a language is often translated into a complete English sentence. For example the Coeur d'Alene phonological word **nic'k^{w}úpšicɛs** can be translated as the English sentence, **'He cut wood for me'**. If the claim is that utterances in any given language are built from the same innate pieces by the same innate mechanism(s), then even though on the surface a polysynthetic language is uttered as a single word, and an equivalent utterance in a language like English requires several words, it should be possible to demonstrate that both are quite similar at some basic level. This is exactly what this work hopes to demonstrate.

In the remainder of this introduction, the goals of this work will be elaborated, this will be done in Section 2. Further, in Section 3 the primary theoretical considerations employed in this work will be presented. Finally, in Section 4, a general outline of the ramainder of the book is presented.

1.2   Objectives

The purpose of this work is three-fold. The first goal is to present a formal account of the basic clause structure of Coeur d'Alene. This includes identifying the functional projections within the basic clause structure of Coeur d'Alene in terms of Cinque's (1999) proposed universal hierarchy of functional projections and Rizzi's (1997a) Split CP hypothesis. To my knowledge there has not yet been a formal account of basic clause structure in Coeur d'Alene, and neither has there been a proposal put forward regarding the hierarchy of functional projections in this language. This work provides a unique organization of data and analysis not previously available for typological and cross family comparison, thus adding to our broader understanding of the intricacies of a specific language, and how those intricacies compare with the vast number of languages of the world.

Second, it is a goal of this work to test the long-standing claim that although languages may seem radically different on the surface, underlyingly they can be argued to be quite similar. It is shown in this work that Coeur d'Alene, a polysynthetic language, can be described in a way that adheres to the same underlying mechanisms postulated for the typologically quite different English. Employing the primary tenets of the Minimalist Program (Chomsky, 1995, 1999, 2000, 2001a,b; Lasnik, 1999a,b, 2000) within the Principles and Parameters approach to morphology and syntax, it is demonstrated that the same theoretical claims applied to typologically divergent languages can account for a range of specific phenomena in Coeur d'Alene. In addition, it is demonstrated that inquiry into specific phenomena in Coeur d'Alene can add insight into various syntactic and morphological phenomena attested cross-linguistically. In this way, evidence is brought to the fore which brings us closer to an understanding of how knowledge of language might be stored in the mind.

The third goal of this work is to bring Coeur d'Alene and the Salishan work of Gladys Reichard[2] to a wider audience. Coeur d'Alene, like all endangered languages of the world, is invaluable to the scientific endeavors of the linguistic community at large, and to the community of speakers and potential speakers that hope to use Coeur d'Alene to express themselves and their culture. It is hoped that the fascinating phenomena seen in the data of this work will inspire others to begin or continue work on less familiar and endangered languages. It is also hoped this work will highlight the value of heritage materials, such as those of Gladys Reichard, Tom Miyal, and Dorothy Nicodemus[3] used here, and thus inspire others to begin to work with such resources. Too often these materials are left languishing in archives, garages, offices, in homes, and numerous other places and are themselves at great risk of loss, just as the languages they record are in great danger of being lost forever.

Along with this goal is the push to present a general research program for Coeur d'Alene. In the summers of 1927 and 1929, at the behest of Franz Boas, Gladys Reichard came to Coeur d'Alene country to record the language. She collected approximately forty-eight texts. At this time two

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[2]For an overview of Reichard's career in general see Falk 1997 and for an overview of her career with specific reference to her work on Coeur d'Alene see Falk 1999.

[3]Brinkman 2003 provides a detailed account of Reichard's work with the Coeur d'Alene community.

projects are underway to develop a corpus of Coeur d'Alene, comprised primarily of the Reichard texts, which will provide thousands of examples of data for linguistic research and revitalization efforts.[4] It is hoped that the constructions and elements analyzed in this work will serve as a possible starting point for future e.g. formal, functional, descriptive, typological, socio-linguistic inquiry of Coeur d'Alene, and serve as further motivation to complete the two corpora projects.

As mentioned, the heritage materials of Gladys Reichard, Dorothy Nicodemus, and Tom Miyal, in the form of unpublished manuscripts of the narratives of Nicodemus and Miyal recorded by Reichard (1929), were used in this work. Of the some forty-eight narratives, nine were used. These nine narratives were morpho-syntactically and morpho-phonologically analyzed by the current author for their use here. The narratives used in this work, along with the abbreviations employed to denote them are presented here:[5]

Boy takes food	(btf)
Calling his kind (Dorothy)	(chkd)
Calling his kind (Tom)	(chkt)
Coyote imitates Magpie	(cim)
Coyote overpowers sun securing sun disc	(cosssd)
Coyote steals son's wife	(cssw)
Lynx	(L)
Man caught in fire coral	(mcfc)
War between Blackfeet and Coeur d'Alene	(wbc)

In addition to these nine narratives, other works of Reichard used in this work include: Reichard's 1938 grammar, her 1939 partial stem list, and her 1947 English translations of Coeur d'Alene narratives. Other data comes from Nicodemus' 1975 Coeur d'Alene dictionaries, and Doak's 1997 description of grammatical relations in Coeur d'Alene. Further data was arrived at in consultation with Salishan scholars Anthony Mattina and Ivy

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[4]These are the Coeur d'Alene Archive http://academic.uprm.edu/˜sbischoff/crd_archive/ start1.html and Ivy Doak's Coeur d'Alene website http://ivydoak.com/Coeurd'Alene/

[5]The letters in parentheses represent the abbreviations employed before line numbers in the data. A form like *btf34* would indicate line 34 of the narrative *Boy Takes Food*. The names in parentheses following the titles refer to Reichard's primary informants Dorothy Nicodemus and Tom Miyal.

Doak, and the Coeur d'Alene Director of Language Programs Raymond Brinkman.

Before moving forward a brief introduction to Coeur d'Alene is perhaps necessary. Coeur d'Alene is a language no longer learned by children. It is a Southern Interior Salishan language. There has been descriptive work carried out on Coeur d'Alene (see references above and references therein), but to the author's knowledge, no formal account of Coeur d'Alene phenomena has been presented. Coeur d'Alene is spoken by a few elderly speakers on the reservation near Plummer, Idaho. Like many of the language communities of the Americas, speakers of Coeur d'Alene suffered greatly as a result of the imperialism of European powers and the western expansion of the United States prior to the twentieth century. In the twentieth century, Coeur d'Alene continued to demise as a result of the pressures brought on by the dominant culture. Today there are revitalization efforts underway, efforts that include developing corpora from the unpublished Reichard (1929) manuscripts.

1.3   Theoretical considerations

These data were analyzed within the framework of the Minimalist Program. This program is extensively laid out in Chomsky (1993, 1994, 1995, 2000, 2001a,b). The general tenets of the Minimalist program employed in this work are those of Merge and Move, Features, Agree, and Economy. Merge and Move are two recursive operations within the computational system.[6] Merge is the simplest such operation which takes a pair of syntactic objects, α and β, and forms a more complex object J from α and β. In short, Merge combines a head with its complement which then projects and merges with a specifier as in (1).
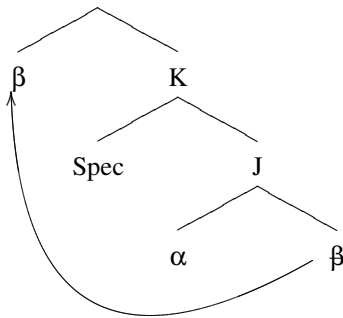
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[6]For an informative critique of the Minimalist Program see Johnson and Lappin (1997).

(1)

Spec   J

α   β
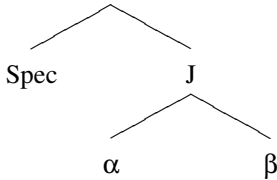
Move takes a copy of an existing element in the structure and places ('re-Merges') this copy in a c-commanding position in the structure.

(2)

β   K

Spec   J

α   β

Features are construed as either interpretable or uninterpretable. The need to allow grammatical convergence through eliminating uninterpretable features motivates the vast majority of syntactic operations within the Minimalist Program. Convergence occurs when an uninterpretable feature F of a Head H, a probe, is deleted in a matching relationship with a c-commanded element, the Head of an XP, a goal, with matching interpretable features. This relation between the probe and goal is an Agree relation. The derivation of a sentence is further subject to general conditions of Economy. Chomsky (1995, p.367) states this as follows:
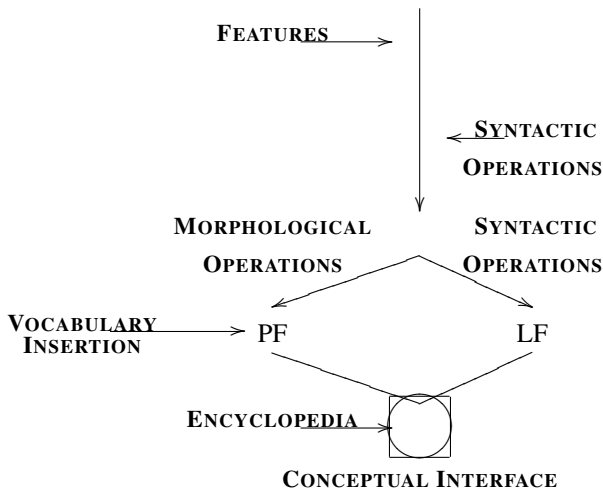
(3)   *Elementary Principles of Economy*

     a.   Add optional α to numeration only if it has an effect at the interface.

b.   At each stage of a derivation, apply the most economical opera-
      tion that leads to convergence.

Many of the other notable theoretical considerations employed in this
work are derived from Distributed Morphology (Halle and Marantz, 1993;
Harley and Noyer, 1999). Distributed Morphology is a late-insertion, piece-
based theory of grammar. The architecture of the grammar, still of the
Y-type, separates the lexicon into three separate components; a set of mor-
phosyntactic features manipulated by syntactic operations, a set of vocab-
ulary items corresponding to phonological content, and an encyclopedia
that gives semantic interpretation for vocabulary items in contexts. The
basic idea of Distributed Morphology (DM) is that Lexical items consist
of feature bundles comprising semantic, phonological, and formal features.
Further, under this view, insertion of phonological content of these bun-
dles occurs post-syntactically. In this way morphemes are subject to a
distinct morphosyntactic description, representing a root plus any material
attached/added to it, and a distinct morphophonological description. This
model is diagramed in (4).

(4)   O'Donnell's 2004 DM Model modified

FEATURES

SYNTACTIC
OPERATIONS

MORPHOLOGICAL   SYNTACTIC
OPERATIONS   OPERATIONS

VOCABULARY   PF   LF
INSERTION

ENCYCLOPEDIA

CONCEPTUAL INTERFACE

The three main principles of DM that govern the morphological component are: late insertion, underspecification, and syntactic hierarchical structure all the way down. Late insertion is the anti-Lexicalist position according to which syntactic categories are abstract and contain no phonological content. It is after syntax that phonological material is inserted into terminal nodes through vocabulary items. Syntactic hierarchical structure all the way down proposes that there is no principled distinction between the structures seen in syntax and morphology: The units in both, consisting of terminal nodes and their content, are discrete. Terminal nodes that are realized as a part of a single morphophonological word are not the result of a combination operation in pre-lexical component, but are rather composed and linearized by the syntactic mechanism itself.

1.4   General outline of the book

The work is divided into the following chapters. In Chapter 2 an overview of Coeur d'Alene morphosyntax is provided in order that those unfamiliar with Coeur d'Alene will be able to navigate the remaining chapters with little difficulty and a fuller understanding of the complexities of Coeur d'Alene grammar. In Chapter 3 arguments for treating person marking morphemes as bound pronouns (Jelinek, 1984; Bhat, 2004) rather than as agreement morphology, with arguments being realized as *pro* (Baker, 1996) are presented. It is claimed that a bound pronoun analysis is preferred in light of various complications that arise for an agreement analysis regarding Economy, learnability, typological considerations, and cross-linguistic evidence that analysis of arguments as *pro* are in general problematic. Further, a grammaticalization account of the diachronic origins of bound pronouns is presented and then rejected, and an alternate account of cross-family variation in terms of argument realization is presented.

In Chapter 4, an account of Lexical Affixes and noun incorporation phenomena in Coeur d'Alene are presented. It is argued that employing Hale and Keyser's 2002 Conflation operator as head-movement (Harley, 2004) is the most optimal analysis for the noun incorporating facts of Coeur d'Alene. It is further argued that such an analysis is preferable to that of Baker, Aranovich, and Golluscio's 2004 analysis of incorporation that maintains traditional head-movement, contra Chomsky 1995, and proposes