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# Mirrors and Microparameters

Phrase Structure  
Beyond Free Word Order

David Adger, Daniel Harbour  
and Laurel J. Watkins

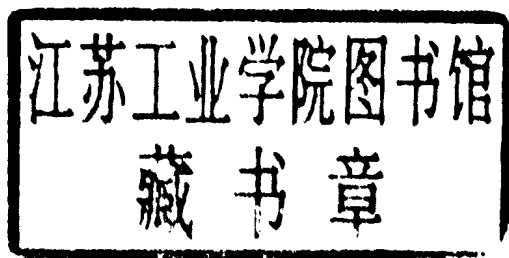
CAMBRIDGE

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FREE WORD ORDER

DAVID ADGER, DANIEL HARBOUR  
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## MIRRORS AND MICROPARAMETERS

What is the nature of syntactic structure? Why do some languages display radically free word order ('nonconfigurationality')? Do parameters vary independently (the micro-view) or can they co-vary *en masse* (the macro-view)? *Mirrors and Microparameters* examines these questions by looking beyond the definitional criterion of nonconfigurationality – that arguments may be freely ordered, omitted, and split. Drawing on newly discovered data from Kiowa, a member of the largely undescribed Kiowa-Tanoan language family, the book reveals that classically nonconfigurational languages can nonetheless exhibit robustly configurational effects. Reconciling the cooccurrence of such freedom with such rigidity has major implications for the Principles and Parameters programme. This novel approach to nonconfigurational languages challenges wide-spread assumptions of linguistic theory and throws light on the syntactic structures, ordering principles, and nature of parametrization that comprise Universal Grammar.

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*Mirrors and Microparameters: Phrase Structure  
Beyond Free Word Order*

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## *Abbreviations and notation*

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-	morpheme boundary
—	phonological boundary between agreement prefix and verb
—	absence of material
∅	zero morpheme
1	first person
2	second person
3	third person
A	animate plural (an agreement type)
ACC	accusative
ACT	active
AG	agent
ANAPH	anaphor
ASP.∅	zero aspect
AUX	auxiliary
CONJ	conjunction
CNTFL	counterfactual
D	dual
DEP	dependent (subordinate)
DETR	detransitive
DISTR	distributive
DO	direct object
EVID	evidential
EX	exclusive
F	feminine
FACT	factive
FOCUS	focus
FREQ	frequentative
GEN	genitive
HAB	habitual
HORT	hortative



I	inverse (number, generally singular for inanimates, plural for animates)
IMP	imperative
IMPF	imperfective
IN	inclusive
INDEF	indefinite
INF	infinitive
INFER	inferential
INJ	injunctive
INSTR	instrumental
IO	indirect object
LOC	locative
MIR	mirative
MOD	modal
NE	<i>ne</i> (a Mohawk morpheme)
NEG	negative
NOM	nominative
NONPAST	nonpast
NV	non-verbal
O	object
OBLIG	obligational
OPPSEX	opposite sex
OPT	optative
P	plural
PAST	past
PF	perfective
POSS	possessive
PRES	present
PRIOR	prior
PRIV	privative
PROH	prohibitive
PRT	particle
PUNC	punctual
Q	interrogative
REAL	real, prototypical
REFL	reflexive
REL	relative clause marker
S	singular

SPCH	speech
STAT	stative
SURM	surmissory
TE	<i>té</i> (a Kiowa morpheme)
Z	zoic (a Mohawk gender)

# *Kiowa phonemes and orthography*

## *Consonants*

	Labial	Dental	Alveolar	Palatal	Velar	Laryngeal
Voiceless stop	p	t			k	(?)
Aspirated stop	ph	th			kh	
Ejective stop	p!	t!			k!	
Voiced stop	b	d			g	
Voiceless affricate			x [c]			
Ejective affricate			x!			
Voiceless fricative			s			h
Voiced fricative			z			
Nasals	m	n				
Liquid		l				
Glide	w			y		

## *Vowels*

	Short		Long		Diphthong	
	Front	Back	Front	Back	Front	Back
High	i	u	ii	uu		ui
Mid	e	o	ei	ou		oi
Low	a	ɔ	aa	ɔɔ	ai	ɔi

## *Vowel diacritics*

	High tone		Falling tone		Low tone	
	Short	Long	Short	Long	Short	Long
Oral	í	íí	î	îv	v	vv
Nasal	ý	ýý	ÿ	ÿÿ	ÿ	ÿÿ

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# 1 *Introduction*

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## 1.1 **What this book is about**

There is a difference between liberty and anarchy. Liberty is freedom from some constraints; anarchy is the absence of all. Nonconfigurationality, defined as the confluence of radical pro-drop, freedom of word order and non-contiguity of (sub)constituents, seems to represent the anarchic end of the linguistic spectrum. What is missing from current studies is the search for order beyond these three simple criteria. In this book, we tackle this issue through the detailed study of one particular nonconfigurational language, showing that robust configurational effects, familiar from other languages, lie beyond the scope of the three definitional criteria. This holds important implications for linguistic theory as it entails that the deep phrasal architecture of nonconfigurational languages does not differ radically from that of more commonly studied ones.

We will show that Kiowa, our language of study, has radical pro-drop, extremely free argument order, and free splitting of constituents. These are the hallmarks of nonconfigurationality. However, Kiowa exhibits three major configurational restrictions and the interplay between these and Kiowa's non-configurational properties is important for how we understand crosslinguistic variation, syntactic structure and the nature of the syntactic interfaces. The generalizations all involve mirroring of hierarchies around the axis of the verb. In one case, preverbal particles and postverbal suffixes have inverse orders; in another case, postverbal constituents are rigidly bound in the reverse of their default (hierarchically induced) order; and in the last case, one and the same set of focus-marked and quantificational elements is banned from the pre- and postverbal extremities.

In deriving these generalizations, we develop a theory of clause structure with several important ramifications. These relate to the nature of crosslinguistic parametrization (in particular, the notion of macro- versus microparameters), to the syntax–semantics interface (the interpretation of different varieties

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of argument chains), and to the morphology–syntax interface and the theory of phrase structure (specifically, the explanatory utility of Mirror Theory, Brody 2000a).

We begin, in chapter 2, with one of the most influential approaches to non-configurationality, the Pronominal Argument Hypothesis developed by Jelinek (1984) and implemented in greatest detail, by Baker (1996), as a macroparameter (that is, as an abstract specification of deep organizing principles of the language). We show that Kiowa bears all of the hallmarks of nonconfigurationality and yet that a pronominal argument analysis fails for this language in a way that suggests a microparametric approach, best stated in terms of properties of functional heads in Kiowa clauses (cf. Legate 2001).

In chapter 3, therefore, we focus on the salient characteristics of the Kiowa clause. We establish two of the generalizations mentioned in the opening paragraph and tie these to crosslinguistic work on the hierarchy of functional projections. These generalizations form the basis of chapter 4, where we compare three accounts of phrase structure and show that Mirror Theory provides the best account of both generalizations: the configurationality of the clausal spine, and the configurationality this induces after the verb.

With this in hand, we turn, in chapter 5, to freedom of argument order before the verb, arguing that much of it is due to movement operations arising from information- and discourse-structural considerations. Against the background of this freedom of argument placement, we elaborate a third generalization: that certain classes of expressions, including focal-marked and quantificational items, are forbidden from certain syntactically distinct positions.

In chapter 6, we explain this generalization by first showing that the Mirror-Theoretic analysis we develop in chapter 4 gives us a range of possible chain types. A maximally simple approach to the syntax–semantics interface gives us an explanation for the restrictions in terms of positions that can only be occupied in virtue of base generation (External Merge).

Overall, we argue that Kiowa nonconfigurationality is best thought of as arising from a conspiracy of microparameters interacting with universal principles of clause structure, chain formation and the syntax–semantics interface. Moreover, we demonstrate the inadequacy of movement-based theories of apparent rightward specifiers, even when implemented in terms of roll-up remnant derivations, and show that the possibility of apparent rightward specifiers is intimately tied to the morphology–syntax interface (1a–c). This amounts to the claim that one of the major trends of recent syntactic research is incorrect.



For explicitness, we state here the parameters, and parameter settings, argued for in the subsequent chapters:

- (1) **Parameter settings in Kiowa**
- a. absence, for some heads, of any morphological realization
  - b. low spell out of the verb and its affixes
  - c. absence of Case- and EPP-related movement
  - d. the possibility of scrambling and, relatedly, obligatory surface scope of quantifiers
  - e. the transparency of DPs to extraction of a left specifier, that is, inactivity of the Left Branch Condition
  - f. the availability of Romance-like Clitic Left Dislocation structures

## 1.2 The Kiowa language

In the remainder of this chapter, we present a brief summary of the core properties of Kiowa grammar. This introduces both the main phenomena to be analysed in subsequent chapters and provides general background necessary to understanding the glossing system used throughout this book. More detail on most of the topics summarized below can be found in Watkins 1984. We begin with some brief notes about the people whose language this is.

### 1.2.1 *Historical sketch*

When they first entered written historical records, the Kiowa were resident in the Black Hills of Montana. According to tribal memory, the original tribe had split and migrated in different directions owing to a dispute between two chiefs over the sharing of udders (Harrington 1928 records the account in Kiowa). The Kiowas constitute the southern half of the split. The other half is supposed to have travelled to the north. Mooney (1979[1898]: 154) writes that:

Several stories are current in the tribe in support of this belief. One woman, now [in 1898] about 80 years of age, when a child was taken by her father with others on a visit to their old friends, the Crows, and says that while there they met a white trader from the north, who addressed them in the Kiowa tongue, which he said he learned from a tribe living farther north, which spoke the Kiowa language.

(We may add that similar stories continue to arise: when discussing the story of the udders with a Kiowa singer in his mid-thirties, Harbour was informed that, at a northern powwow, a member of another tribe claimed to have understood the words of a prayer or song that a Kiowa elder had recited.) Mooney tentatively concludes that such stories “at least offer a suggestion concerning