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Dothraki as a Naturalistic Language

Evaluating HBO's *Game of Thrones*' Dothraki Case System and Relative Clauses

using Real World Analogs and Minimalist Syntax

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LIN Comparative Analysis



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“A naturalistic language is one that attempts as nearly as possible to imitate the quirks and idiosyncrasies of natural language.”

David Peterson on developing Dothraki, 2013

Introduction

Since the Elvish of Tolkien’s Middle Earth and the Klingon of Roddenberry’s Enterprise-traveled stars, authors and directors have sought constructed languages (conlangs) to give their fictional universes an added element of realism. As the Internet grows, it continues to foster intense fandom of TV shows, movies, books and other fantasy media, these fans find it increasingly tempting to immerse themselves in the worlds they love to watch and read about, and this includes the languages of the characters. Within the last decade, Hollywood has taken advantage of this fervor, having employed linguists for the purpose of making languages for their actors to speak on camera and their fans to learn. One of the most notable of these linguists is David J. Peterson, a UC San Diego-trained linguist who was hired by HBO’s *Game of Thrones* to create the languages described in the show’s source, George R.R. Martin’s *A Song of Ice and Fire* series, most notably Dothraki.¹ While Martin’s original material was lean, Peterson was able to create a fully usage language whose grammar he describes as “naturalistic” (“David Peterson on developing Dothraki,” 2013). As a hobbyist who ascribes to create naturalistic languages, as a fan of *Game of Thrones*, and as a student of linguistics, I am interested in objectively evaluating Dothraki as a naturalistic language.

What is Naturalistic Language?

Peterson defines a naturalistic conlang as “one that attempts as nearly as possible to imitate the quirks and idiosyncrasies of natural language.” (2013) In an attempt to find criteria with which to evaluate such behavior, an objective analysis should start by comparing a grammar to the Universal Grammar (UG) (1a). However, linguists do

¹ Peterson has since worked on several other languages on HBO’s *Game of Thrones* as well as on Syfy’s *Defiance* and *Dominion*, on CW’s *Star-Crossed*, and for the novel *The Zaanics Deceit* by Nina Post. He has been independently conlanging since 2000. (“About David J. Peterson,” 2013).

not have direct access to the UG. We can use in its stead the Greenberg linguistic universals. Greenberg (1963) proposed a list of common properties by comparing the grammars of 30 languages. Referred to as Greenberg's linguistic universals, they number 1-45 and reflect what Greenberg hypothesized to be rules that natural language cannot violate. For a more general evaluation, we might aim to compare the conlang to natural languages (1b) with the conclusion that a natural language cannot exhibit behavior that violates the UG.

- (1) A naturalistic conlang is one
- a. that obeys the Universal Grammar (UG).
 - b. whose behavior has analogs in natural language.

In studying natural languages, data can be acquired from real speakers, native or otherwise. While there are speakers of Dothraki, they would be neither native speakers nor undeniably fluent and thus, that cannot be collected in the same manner as a natural and living language. Fans of TV shows, book, and other media use the *canon* convention in such circumstances. Information about storylines, histories, characters, and conlangs that is derived from the original work is considered *canon* (short for *canonical*),² and conversely fan-made derivations and official but peripheral works (e.g. fan-written work and some movie tie-ins) are not canon. In place of real-world data, I have adopted this convention where the relevant canon is what has been released by HBO's *Game of Thrones* or Peterson himself (via his blog *Dothraki.com*) as official. Only canonical Dothraki will be discussed in the analysis.

Gender, Number, and Case Systems

Dothraki nouns have one of two genders: animate and inanimate. While a noun's gender can sometimes correlate with grammatical animacy, this is not a reliable indicator. For example, while the animacy of *ave* 'father' and *chifti* 'locust' might be predicted, *chiorikem* 'wife' and *hrazef* 'horse' are inanimate. Although *vizhadi* 'silver' is inanimate, so is *mawizzi* 'rabbit'. As with natural language gender, the animate/inanimate distinction is lexical and not driven by semantics. Gender affects the inflection the noun will take, where animate nouns inflect for case³ and number,

² This convention derives from Biblical canon: the distinction between the books of the Bible commonly considered sacred (the canon) and those that are attested to be false, misleading, or fraudulent (the Apocrypha).

³ The five cases in Dothraki are Nominative, Accusative, Genitive, Allative, and Ablative. These are discussed further below.

but inanimate nouns only inflect for case (2). All adjectives, regardless of the gender of the noun they modify, inflect for both case and number (3).

(2) The noun inflectional paradigms for *verak* ‘traveler’ and *olta* ‘hill.’ (Adapted from “Dothraki 101,” Peterson.)

	Animate		Inanimate
	Singular	Plural	-
Nominative	verak	veraki	olta
Accusative	verakes	verakis	olt
Genitive	veraki		olti
Allative	verakoon	verakea	oltaan
Ablative	verakoon	verakoa	oltoon

(3) The adjective inflectional paradigm for *ivezh* ‘wild.’ (Adapted from “Dothraki 101,” Peterson.)

	Animate and Inanimate	
	Singular	Plural
Nominative	ivezh	ivezhi
Accusative	ivezha	
Genitive		
Allative		
Ablative		

Personal pronouns (4) reflect three persons and two numbers (singular and plural), which is consistent with Greenberg’s 42nd linguistic universal (5). The second person have both familiar and formal forms, where the formal form does not change depending on number. All of the personal pronouns inflect for cases.

(4) The personal pronoun inflectional paradigm. (Adapted from “Dothraki 101,” Peterson.)

	First Person		Second Person			Third Person	
			Familiar		Formal		
	Singular	Plural	Singular	Plural	Singular and Plural	Singular	Plural
Nominative	anha	kisha	yer	yeri	shafka	me	mori
Accusative	anna	kisha	yera	yeri	shafka	mae	mora
Genitive	anni	kishi	yeri		shafki	mae	mori
Allative	anhaan	kishaan	yeraan	yerea	shafkea	maan	morea
Ablative	anhoon	kishoon	yeroon	yeroa	shafkoa	moon	moroa

(5) Greenberg's 42nd Linguistic Universal. (Greenberg, 1963.)

42. "All languages have pronominal categories involving at least three persons and two numbers."

There is gender distinction in the third person singular; nominative 3rd person singular *me* is used for both animate and inanimate antecedents. This is a violation of Greenberg's 43rd linguistic universal, which states that languages maintain a hierarchy of gender distinctions in nominals (6).

(6) Greenberg's 43rd Linguistic Universal. (Greenberg, 1963.)

43. "If a language has gender categories in the noun, it has gender categories in the pronoun."

Dothraki nominals inflect for five cases: nominative, accusative, genitive, allative, and ablative. Nominative is assigned to the subjects of independent clauses (7a). Accusative is generally given to objects (7b), genitive to possessors of nominals (7c), allative generally to thematic goals (7d), and ablative generally to thematic origins (7e).

(7) Nouns inflected for the five Dothraki cases. (Adapted from "Athchomar Chomakea!," Peterson 2012.)

- a. *Jan-o* *ost* *hrazef*
dog-NOM.INA bite_[PST] horse_[ACC.INA]
 'The **dog** bit the horse.'
- b. *Hrazef* *ost* *jan*
 horse_[NOM.INA] bite_[PST] **dog**_[ACC.INA]
 'The horse bit the **dog**.'
- c. *Jan-o* *lajak-i* *ost* *hrazef*
 dog-NOM.INA warrior-GEN.ANI bite_[PST] horse_[ACC.INA]
 'The **warrior's** dog bit the horse.'
- d. *Kisha* *jad-aki* *krazaaj-oon*
 1_[PL.NOM] come-1_{PL.PRES} mountain-ABL.INA
 'We come **from the mountain(s)**.'
- e. *Kisha* *ver-aki* *krazaaj-aan*
 1_[PL.NOM] travel-1_{PL.PRES} mountain-ALL.INA
 'We are traveling **to the mountain(s)**.'

In the example (7) above, the nominative *jano* 'dog' has a morpheme that the accusative *jan* 'dog' does not. The nominative appears to carry inflection while the accusative has a null inflection. This is true for all accusative

inanimate nouns (as seen in 2 above). This paradigm violates Greenberg's 38th linguistic universal (8) which notes that if case systems have null case markers, they mark the nominative case.

(8) Greenberg's 38th Linguistic Universal. (Greenberg, 1963.)

38. "Where there is a case system, the only case which ever has only zero allomorphs is the one which includes among its meanings that of the subject of the intransitive verb."

The Dothraki case system itself (nominative, accusative, genitive, allative, and ablative) appears to violate a tendency noted by Blake (1994) where languages maintain a hierarchy of case (9). Dothraki has no dative case yet it has ablative. It has no instrumental or vocative, yet has the allative. Either Dothraki does not follow this hierarchy and is not naturalistic, or its existing cases are mislabeled and really behave more the conventional dative and locative/prepositional cases.

(9) Blake's Hierarchy of Case. (Blake, 1994.)

Nominative → accusative/ergative → genitive → dative → locative/prepositional → ablative → instrumental → vocative → *others*

Syntax of Case-Marked Relative Clauses

Relative clause formation offers many cross-linguistic variations. Most languages can relativize the subject of a clause, fewer can relative the object, and still fewer can relativize other relations to the verb like thematic instruments, goals and origins. English allows relativizations on all of these structures (10).

(10) English Relative Clause Structures.

Nominative/subject	'The dog that bit the horse'
Accusative/object	'The dog that the horse bit'
Genitive/possessor	'The warrior whose dog bit the horse'
Allative/goal	'The mountain that we travel to'
Ablative/origin	'The mountain that we come from'

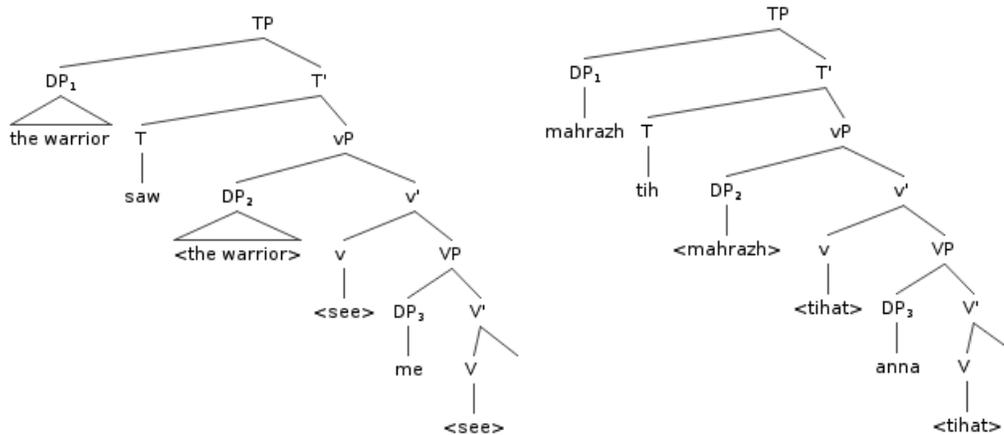
English relative clauses move the noun being relativized and the remaining information usually retains the order of the independent clauses. The same is true in Dothraki (11), whose independent clause structure is SVO like English (12). The result is that Dothraki relative clauses have a structure that looks like English (13). The subject of the relative clause moves first to spec of TP and then out of the relative clause and into the head of the commanding phrase. This internal movement is consistent with the independent clause structure as should be expected (14). The movement out of the phrase triggers nominal marking on the clause relativizer *fin* 'that/which' which allows the subject which has been relative to bare the case it receives in the matrix clause.

(11) An independent clause Dothraki. (Adapted from "Relative Clauses in Dothraki," Peterson 2011.)

Mahrazh tih anna
 warrior_[NOM.ANI] see_[PST] 1_[SG.ACC]
 'The warrior saw me.'

(12) Independent clause structure in English and Dothraki. (Adapted from "Relative Clauses in Dothraki," Peterson 2011.)

'The warrior saw me'

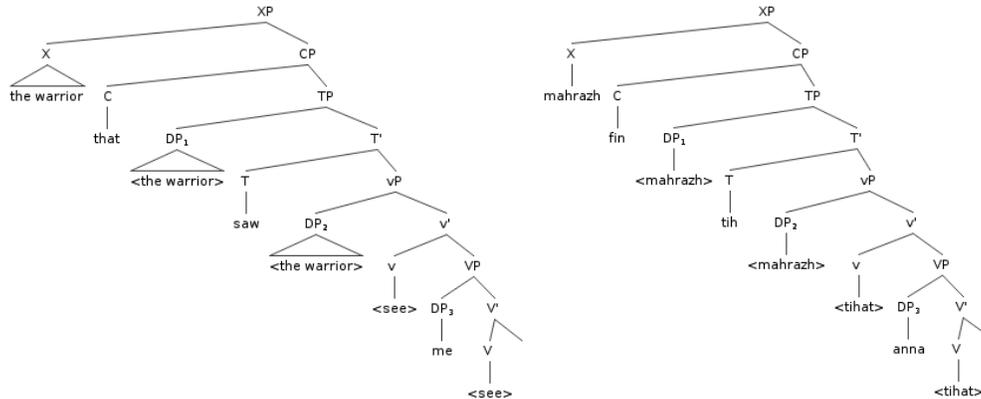


(13) A subject relative clause in Dothraki. (Adapted from "Relative Clauses in Dothraki," Peterson 2011.)

Mahrazh fin tih anna
 warrior_[ANI] that_[SG.NOM.ANI] see_[PST] 1_[SG.ACC]
 'The warrior that saw me'

(14) Subject (nominative) relativization in English and Dothraki. (Adapted from "Relative Clauses in Dothraki," Peterson 2011.)

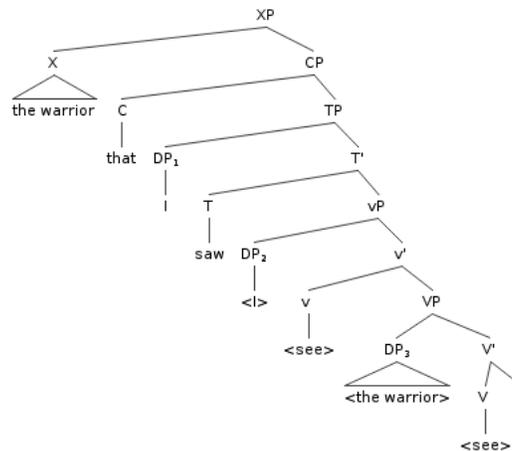
'The warrior that saw me'



Accusative-marked objects may be relativized in English. In doing so, the internal structure of the relative clause remains in place and only the object moves out into the matrix clause (15). Both the relative clause and the matrix clause orders remain SVO.

(15) Object (accusative) relativization in English.

'The warrior that I saw'



In the fictional history of the Dothraki language, historical Dothraki was VSO. As it changed to a SVO structure in the independent clauses, it retained the historical VSO structure in the relative clauses ("Relative Clauses in Dothraki," 2011). As a result, when objects are relativized, the clause structure is different from that of the subject structure

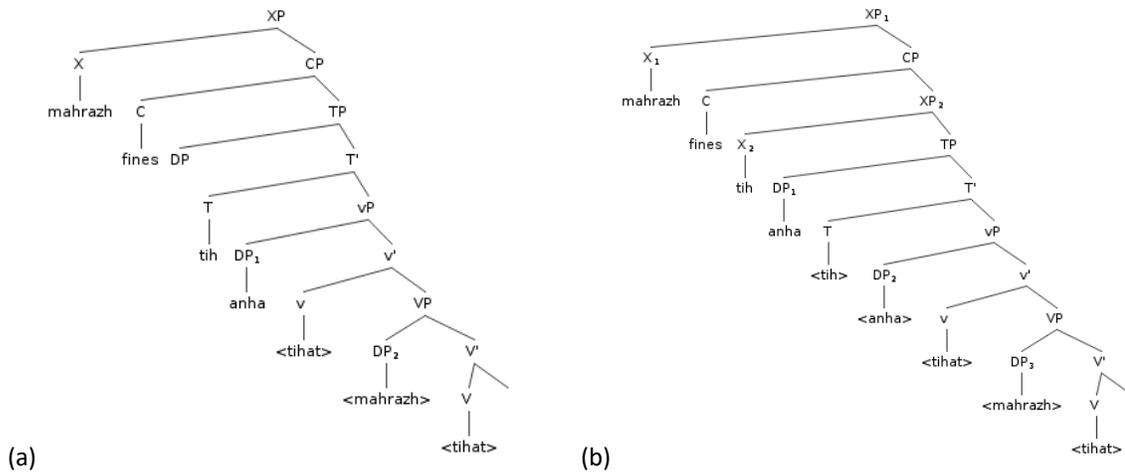
(16) and its movement is inconsistent with minimalist syntactic structures. Such a system where movement in an independent clause results in SVO order but within the relative clause, either the subject's movement is restricted (17a) or the verb is forced to move to a spec of XP between CP and TP (17b) is has no know analog in natural language. The behavior can therefore be considered unnaturalistic.

(16) A subject relative clause in Dothraki. (Adapted from "Relative Clauses in Dothraki," Peterson 2011.)

Mahrazh fines tih anha
 warrior_[ANI] that_[SG.ACC.ANI] see_[PST] 1_[SG.NOM]
 'The warrior that I saw'

(17) Two hypotheses of object (accusative) relativization in Dothraki. The leftmost tree (a) disallows internal movement of the subject of the relative clause to spec of TP. The rightmost tree (b) forces the verb of the relative clause to move up from T to somewhere between CP and TP. (Adapted from "Relative Clauses in Dothraki," Peterson 2011.)

'The warrior that I saw'



What happens within these Dothraki object relativizations also happens with genitive, allative, and ablative structures (18).

(18) Genitive, allative, and ablative relative clauses in Dothraki. (Adapted from "Relative Clauses in Dothraki," Peterson 2011.)

- a. *Mahrzh* *fini* *tih* *anha* *arakh*⁴
 warrior_[ANI] that_[SG.GEN.ANI] see_[PST] 1_[SG.NOM] arakh_[ACC.INA]
 'The warrior whose arakh I saw'
- b. *Mahrzh* *finnaan* *azh* *anha* *arakh*
 warrior_[ANI] that_[SG.ALL.ANI] give_[PST] 1_[SG.NOM] arakh_[ACC.INA]
 'The warrior who I gave an arakh to'
- c. *Mahrzh* *finnoon* *ahajanak* *anha*
 warrior_[ANI] that_[SG.ABL.ANI] strong_[COMP] 1_[SG.NOM]
 'The warrior who I am stronger than'

Conclusion

The gender, number, and case systems of Dothraki have some analogs in natural language, but also break some universal rules as stated by Greenberg (1963) and others. Dothraki relative clause structures break universals that minimalist syntax cannot represent. While Peterson explains these violations within the fictional history of the language, they have no correspondence in natural language and lead me to conclude that Dothraki is, at least in some ways, unnaturalistic. While no one should fault Peterson for taking artistic license in creating a language which will really only have life in a fictional universe, I maintain that calling it a naturalistic conlang is a valid statement.

⁴ An *arakh* is a curved sword which has no English name.

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