

Lekh Dothraki'de Eylemsel İstem*

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 Geliş Tarihi:
 12.03.2025

 Kabul Tarihi:
 12.05.2025

 Yayım Tarihi:
 24.06.2025

 Değerlendirme:
 İki Dış Hakem /

 Çift Taraflı Körleme:
 Hakale Türü: Araştırma Makalesi

Atıf Bilgisi:

Biçer, Yunus (yıl). Verbal valency in Lekh Dothraki. *International Journal of Language and Translation Studies*, 5/1, 54-91.

Benzerlik Taraması: Yapıldı – iThenticate

Etik Bildirim:

lotusjournal@selcuk.edu.tr

Çıkar Çatışması: Çıkar çatışması beyan edilmemiştir.

Finansman: Bu araştırmayı desteklemek için dış fon kullanılmamıştır.

Telif Hakkı & Lisans Yazarlar: Dergide yayınlanan çalışmalarının telif hakkına sahiptirler ve çalışmaları CC BY-NC 4.0 lisansı altında yayımlanmaktadır.

Öz

Lekh Dothraki (Dothraki Dili), kurgusal Game of Thrones evrenindeki yapay dillerden biridir. David J. Peterson tarafından geliştirilen dil, doğal dillerdeki ögeleri kurgusal yaratımlarla birleştiren dilsel özellikler sergilemektedir. Bu çalışmada hem betimlemeli hem de karşıtsal yaklaşım kullanılmıştır. Betimlemeli bir bakış açısıyla Dothraki'deki eylemlerin istemsel davranışları, üye sayısı ve istem değiştirimi açısından incelenmiştir. Bu incelemelerin sonucunda Dothraki'deki eylemlerin bir, iki veya üç üye vönettiği, bu üyeleri yüzey yapıda durum isletimiyle isaretlediği ve derin yapıda onlara anlamsal işlevler yüklediği görülmüştür. İstem değiştirimiyle ilgili olarak dil; üye sayısını korumak (sürerlileştirme, dinamikleştirme, parçacık kullanımı ve tersine çevirme), artırmak (ettirgenleştirme) ve azaltmak (edilgenleştirme ve dönüşlüleştirme) için yedi biçimbilgisel veya sözdizimsel yöntem kullanmaktadır. Karsıtsal bir bakıs acısıyla bu calısma; aynı zamanda istemsiz eylemler, değişken eylemler ve biçimbilgisel veya sözdizimsel farklılıklar açısından Dothraki'deki eylemlerin istem özelliklerini doğal dillerinkilerle karşılaştırmaktadır. Betimlemeli ve karşıtsal incelemelere dayanarak bu çalışmada Dothraki'nin doğal dillere benzer şekilde davranış sergilediği sonucuna ulaşılmıştır.

Anahtar Kelimeler: Lekh Dothraki, Game of Thrones, eylemsel istem, betimlemeli dilbilim, karşıtsal çözümleme

^{*} Etik Beyan: Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur.

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Verbal Valency in Lekh Dothraki*

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Date of Submission: 12.03.2025 Date of Acceptance: 12.05.2025 Date of Publication: 24.06.2025 Review: Double-blind peer review Article Type: Research Article

Citation:

Biçer, Yunus (Year). Verbal valency in Lekh Dothraki. *International Journal of Language and Translation Studies*, 5/1, 54-91.

Plagiarism Check: Yes - iThenticate

Complaints: lotusjournal@selcuk.edu.tr

Conflict of Interest: The author(s) has no conflict of interest to declare.

Grant Support: The author(s) acknowledges that they received no external funding to support this research.

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Abstract

Lekh Dothraki (Dothraki Language) is one of the constructed languages in the fictional world of Game of Thrones. Developed by David J. Peterson, it exhibits linguistic features that combine elements of natural languages with fictional creations. This study uses both descriptive and contrastive approaches. From a descriptive perspective, it analyzes the valential behaviors of Dothraki verbs in terms of argument number and valency alternation. As a result of these analyses, it reveals that Dothraki verbs govern one, two, or three arguments, mark these arguments with case inflection in the surface structure, and assign semantic functions to them in the deep structure. Regarding valency alternation, the language employs seven morphosyntactic techniques to retain (durativization, dynamicization, particle use, and reversivization), increase (causativization), and decrease (passivization and reflexivization) argument number. From a contrastive perspective, this study also compares the valency properties of Dothraki verbs with those of natural languages in terms of avalent verbs, labile verbs, and morphosyntactic differences. Building on the descriptive and contrastive analyses, this study concludes that Dothraki behaves similarly to natural languages.

Keywords: Lekh Dothraki, Game of Thrones, verbal valency, descriptive linguistics, contrastive analysis

^{*} Ethical Statement: It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited.

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1. Introduction

Athchomar chomakaan!³

Constructed languages (conlangs) have played an essential role in shaping the literary narratives on fictional universes and increasing their realness and uniqueness by providing target audiences with fascinating linguistic and cultural elements that make these worlds more tangible and credible. Elevated by J. R. R. Tolkien, who created Middle-Earth as a living space for his invented languages—such as Quenya, Sindarin, and Telerin (i.e., Elvish languages) (Tolkien, 1955, as cited in Carpenter, 1981/2023, p. 327), the prevalence of conlangs in fictional works has since expanded, stretching from literature to multimedia. To give depth to these designed narratives, filmmakers are nowadays working with experts in linguistics to develop fully functional languages for their cinematic worlds.

Continuing the legacies of Pakuni in Land of the Lost (1974) by Victoria Fromkin, Klingon in Star Trek III: The Search for Spock (1984) by Marc Okrand, and Thhtmaa in Dark Skies (1996–1997) by Matt Pearson, David J. Peterson was hired to create the Dothraki and Valyrian languages for the HBO-produced American fantasy drama Game of Thrones (GoT) (2011–2019) (Benioff & Weiss, 2011), adapted from the epic fantasy novel series A Song of Ice and Fire (1996–continues) written by George R. R. Martin (Peterson, 2015, p. 11-2). As an M.A. holder in linguistics from the University of California, Peterson (ibid.) states that before designing Dothraki, he was only instructed to incorporate all the words from the original books and to make it sound like a 'harsh' language (p. 25), to be spoken by a nomadic 'population of [...] horse-riding warriors [...] on the steppes of Essos (Peterson, 2014, p. 6-7).'

Produced to serve many purposes such as international communication, aesthetic contribution, and experimental testing, conlangs can be classified into three categories: auxiliary languages (auxlangs), artistic languages (artlangs), engineered languages (engelangs) (Sanders, 2020, p. 24-25). As an epitome of the artlangs, Dothraki sets a strong example of the interaction between language and culture. The ethnonym Dothraki per se is the agentive derivative of dothralat 'to ride (Littauer, 2016, p. 6)' while their worldview makes a distinction between themselves and others with the lexeme ifak, derived from ifat 'to walk (ibid., p. 10).' That is to say, they refer to themselves as riders and to foreigners as walkers. The indispensability of riding in their lives is reflected in their daily conversations as well: Hash yer dothrae check? 'How are you? (lit. Do you ride well?)' and Anha dothrak check. 'I'm fine. (lit. I ride well.)' (Peterson, 2014, p. 25-27).

In addition to its cultural manifestations, from phonological, morphological, and syntactic perspectives, Dothraki:

- is a spoken language.
- has 20 consonants, 4 vowels, and 2 glides.
- has five digraphs: ch /tʃ/, kh /x/, sh /ʃ/, th / θ /, and zh /ʒ/.

³ It is a greeting phrase to welcome a non-Dothraki (atchomar chomakea for multiple people) translated as 'respect to one that is respectful (Peterson, 2014, p. 26-27).'

- has a variable lexical stress: consonant-final words take stress on the final syllable, vowelfinal words on the initial syllable, and if the final syllable is light (-CV) while the penultimate syllable is heavy (-CVC-), stress falls on the latter.

- is a lightly inflectional language.
- is largely head-initial.
- has a default subject-verb-object (SVO) word order.
- uses adpositions in the form of prepositions.
- divides nouns into two categories: animate and inanimate.
- does not have grammatical gender.
- declines nouns based on number and animacy.
- has five nominal cases: nominative, accusative, genitive, ablative, and allative.

- distinguishes between second-person singular and plural pronouns, as well as familiarity and formality: yer (familiar singular), yeri (familiar plural), and shafka (formal singular/plural).

- conjugates verbs for person and number into three tenses: present, past, and future.

- does not have any explicit copular verbs in the surface structure.

- has several derivational morphemes: v(i)- -(e)r (durative), e(s)- -(s)a (reversive), a/ØCC-(causative), ath- -(z)ar (nominalizer), -(a)k (agentive), -i and -sh (diminutive), -(s)of (augmentative), -(a)sar/(e)ser/(i)sir/(o)sor (collective), -(i)k (resultative), -CCeya (meronymic), -ven (similative), and -men (caritive).

(Brabent, 2011; Peterson, 2014)

In the literature, the Dothraki language has been analyzed not only from linguistic aspects (Destruel, 2014; Vinodh, 2019; Melton, 2020) but also as a sociocultural agent that constitutes online communities (Meluzzi, 2019), reveals power relations in different discourses (Ene, 2024), presents a cross-cultural challenge during translational adaptations (Iberg, 2018; Isnaini, 2024), conveys real-life ideologies in invented universes (Rebane, 2019), and functions as a narrative tool to reinforce themes of exclusion and violence (Doll, 2021).

Using Greenberg's linguistic universals (1963) as their theoretical framework, both Destruel (2014) and Melton (2020) questions how naturalistic Dothraki is as a conlang. The former takes a broader typological perspective, delving into multiple morphosyntactic characteristics, while the latter focuses specifically on the behavioral manifestation of relative clauses. Destruel (2014) concludes that it exhibits adherence to fifteen universals, thereby proving to be both typologically tractable and linguistically functional. However, Melton's findings (2020) reveal that Dothraki relative clause structures violate certain universals and cannot be accounted for within minimalist syntax. Vinodh (2019), on the other hand, investigates the phonological traits of the invented language, focusing on r-alternation, vowel laxing, and lexical stress.

Meluzzi (2019) examines how conlangs like Dothraki and Klingon appear outside their original domains and facilitate the formation of human communities on online platforms. She concludes that the latter, with its nearly thirty-year history of representation, is closer to forming a

sociolinguistically defined speech community; however, in the current situation, their users can be defined as members of a community of practice⁴. Ene (2024) shifts the focus to critical discourse analysis and focuses on Daenerys Targaryen's evolving linguistic stance while speaking Dothraki and High Valyrian languages. She reveals how Daenerys uses these languages to shape power dynamics, exercise cultural diplomacy, and undergo a transformation into a powerful leader throughout the series narrative.

The multilingual nature of the television series poses another challenge: translating the third languages for a target audience from another sociocultural reality. Iberg (2018) investigates Dothraki, Valyrian, and Meereenese as third languages and analyzes how they are represented in German subtitles with respect to multilingualism. In contrast, Isnaini (2024) focuses solely on Dothraki and classifies Dothraki lines based on how they are rendered in Bahasa Indonesia. She finds out that retention was a more prevalent approach than omission, thereby faithfully conveying the messages in the third language without any loss or misunderstanding. However, Iberg (2018) concludes that German subtitles impose another constraint for the target audience since the third languages are not visually distinguished.

Alongside the accented speech of English vernaculars, Rebane (2019) discusses how Dothraki is employed to reflect 'real-world stereotypes and attitudes toward different speech varieties and foreign tongues (p. 184)' in the invented universe. Without even a word for thank you, she observes that Dothraki embodies a constructed sense of barbarian otherness and signals a radical departure from Western norms. Similarly, Doll (2021) examines the phonetic, lexical, and syntactic structures of Dothraki and Valyrian in the pursuit of shaping 'cultures of exclusion and violence (p. 6)' through linguistic means. Building on excerpted data from the series episodes, she identifies further interactions between culture and language. She notes that the Dothraki people express love through indirect utterances—such as Yer shekh ma shieraki anni. 'You are my sun and stars.'—suggesting that they do not comprehend love since it is ideally and socially constructed (ibid., p. 8-9).

Academic studies on the linguistic nature of conlangs are limited in number. While these languages are often explored as subsidiary elements from sociocultural perspectives, there is a notable lack of research grounded by linguistic theories. A thorough review of the existing literature on the Dothraki language reveals an absence of systematic studies on how Dothraki verbs behave with respect to their argument structures within syntactic environments. This study aims to address the relevant gap by providing an in-depth analysis through both descriptive and contrastive approaches. By analyzing these structures, the study demonstrates that conlangs can be legitimate subjects of scholarly research. In this regard, it seeks answers to the following questions:

1. What structural and semantic patterns can be derived from the valential information of Dothraki verbs?

2. What morphosyntactic techniques does the Dothraki language use to retain, increase, and decrease verbal valency?

⁴ As a sociolinguistic term, it was firstly used by Eckert & McConnell-Ginet (1992, as cited in Meluzzi, 2019, p. 10).

3. To what extent is the Dothraki language similar to natural languages in terms of its valential behaviors?

2. Method

This study analyzes the valential properties of Dothraki verbs from both descriptive and contrastive perspectives. The population of the study consists of all available Dothraki verbs documented in publicly accessible sources (see Brabent, 2011; Peterson, 2013; Peterson, 2014; Peterson, 2015; Littauer, 2016). From this population, a purposive sample of 22 verbs has been selected based on their representativeness of various argument structures.

For the first step, Dothraki verbs have been classified and described based on the quantitative and qualitative characteristics of their argument(s). Regarding the quantitative aspect, they have been examined in terms of their argument numbers (i.e., one-argument, two-argument, and three-argument verbs). Regarding the qualitative aspect, the morphosyntactic and thematic roles that these arguments assume in sentential environments have been identified and labelled by case markers (i.e., nominative, accusative, genitive, allative, and ablative; see Brabent, 2011; Peterson, 2014), and semantic categories (i.e., agent, experiencer, patient, theme, direction, recipient, location, source, purpose, and company; see Dik, 1980, p. x; Fillmore, 2003, p. 464; Herbst & Schüller, 2008, p. 131-134). To demonstrate the structural and semantic patterns that appear under a verb's government, the following scheme has been used. As a result of these analyses, a total of 22 verbs have been tabulated and presented at the end of the related section (see Table 4).

- $[\mathbf{A}] \xrightarrow{} [\mathbf{B}] \ [\mathbf{C}]_{\mathbf{D}/\mathbf{E}} \ [\mathbf{V}]_{\mathbf{CONJ}} \ (\ [\mathbf{B}] \ [\mathbf{C}]_{\mathbf{D}/\mathbf{E}} \)^n$
- A: Total number of the arguments
- **B:** Current number of the argument
- C: Word class of the argument
- **D:** Structural valency information
- E: Semantic valency information

For the second step, this study has focused on what morphosyntactic strategies that Dothraki employs to retain, increase, and decrease argument numbers. These strategies have been classified based on three criteria (i.e., retention, increase, and decrease), and addressed in detail under the related headings (see 4.2.). Following the descriptive analyses presented thus far, a contrastive analysis has been conducted between Dothraki—representing conlangs—and English, French, German, Greek, and Turkish—which serve as examples of natural languages (or natlangs in short, see Sanders, 2020, p. 7). By comparing the valential behaviors of verbs in a conlang and natlangs, this study also aims to identify the similarities and differences in their argument structures and valency alternation strategies, especially focusing on avalent verbs, labile verbs, and morphosyntactic differences (see 5).

Probably the most challenging aspect of studying on a conlang as a linguistic subject is the lack of reliable sources. As the sole authoritative figure on Dothraki, David J. Peterson's descriptive works have been used to analyze the language's grammar (see Peterson, 2014; Peterson, 2015).

When these guides have failed to satisfy the research content, the compilation of Wiki Info articles has been utilized (see Brabent, 2011). For English equivalents of Dothraki lexemes, Littauer's dictionary (2016) has been consulted. The television series GoT (Benioff & Weiss, 2011) constitutes a canonical context to observe the legitimate use of the conlang. Therefore, each verb analyzed in terms of valency information here has been supported by lines from the series along with the gloss descriptions (see 7) and English translations beneath them. For the lines, Peterson's compilation of Dothraki dialogues (2013) has served as the main reference for the research.

3. Verbal Valency

Tesnière (1965/2015) was the first researcher in the history of syntactic studies to use the term valency (or valence) within a theoretical framework. He defines the related concept as 'the number of bonds a verb has [with its actants⁵] (p. 239).' Inspired by the theories of chemistry, he places the predicate at the center of a sentence. As the governing nuclei of sentential formations, verbal structures determine both the quantitative and qualitative characteristics of the other participants in these formations. The number of participants under a verb's government occupies an important position in his theory of dependency grammar, and verbs are named after accordingly: avalent 'no participant (e.g., rain),' monovalent 'one participant (e.g., sleep),' divalent 'two participants (e.g., see),' and trivalent 'three participants (e.g., give).'

- (1.a.) It_[0] rained.
- (1.b.) Alfred_[1] slept.
- (1.c.) Alfred_[1] saw Bernard_[2].
- (1.d.) Alfred_[1] gave Bernard_[2] a pen_[3].

(adapted from Kahane & Osborne, 2015, p. xlvii)

Languages may employ different strategies to combine the governing verb with its governed argument(s) depending on their morphosyntactic mechanisms. For instance, when comparing Turkish and English—a language that is morphologically lighter than Turkish—in terms of valency assignment, one can observe that syntax plays a central role in the latter whereas morphology is just as important as syntax in the former. For example, when the arguments in (1.c.) are interchanged, their thematic roles invert as well (seer: Alfread, seen: Bernard > seer Bernard, seen: Alfread). However, when case markers (nominative (- \emptyset) for the subject and accusative (-(y)I) for the object) are kept unchanged, the syntactic movement of arguments does not affect their assigned roles in Turkish (see (2.a.) and (2.b.)⁶).

- (2.a.) Alfred, Bernard'ı gördü.
- (2.b.) Bernard'ı Alfred gördü.

⁵ In Tesnière's terminology, an actant is equal to an argument (Tesnière, 1965/2015, p. 97).

⁶ It is not possible to assert that these two sentences are pragmatically equivalent since Turkish marks the important elements depending on their position in the sentence. Even tough Bernard is still the one being seen in (2.b), the emphasis is on Alfred as it appears just before the predicate (see Göksel & Kerslake, 2005, p. 37).

Following Tesnière's dominantly syntactic views on the concept of valency, valency grammar has further expanded to encompass the semantic relations between the predicate and its argument(s). Rooted in Fillmore's case grammar (1968), researchers have begun to focus on the covert information embedded in a verb's deep structure along with the overt markers in its surface structure (for participant functions, see Halliday, 1970; for semantic functions, see Dik, 1980). Building on his proposal⁷ in 1968, Fillmore (2003) presents a novel list of semantic roles: agent, instrumental, stimulus, patient, theme, experiencer, content, beneficiary, source, goal, and path (p. 464).

Fillmore is not alone; others have contributed to the field and addressed many other categories in their studies: agent, goal, recipient, beneficiary, instrument, location, time, direction, processed, force, positioner, source, company, experiencer, and possessor (Dik, 1980, p. x); agent, effector, experiencer, instrument, force, patient, theme, benefactive, recipient, goal, source, location, and path (Van Valin & LaPolla, 1997, p. 85-86); and beneficiary, recipient, effected, affected, predicative, agent, locative: stative, locative: goal, locative: source, time, purpose, and topic (Herbst & Schüller, 2008, p. 131-134).

Based on the background information from the related literature, this study uses the following categories to classify the semantic roles of participants governed by a Dothraki verb: agent, experiencer, patient, theme, direction, recipient, location, source, purpose, and company. In Table 1, ten roles are defined and exemplified according to the titles, definitions, and examples in Dik (1980, p. x), Fillmore (2003, p. 464), and Herbst & Schüller (2008, p. 131-134).

NI	D 1		
No.	Role	Definition	Example
1.	Agent	the initiator of a deliberate action	' <u>Alfred</u> broke the window.'
2.	Experiencer	the receiver of a sensory, cognitive, or	' <u>Alfred</u> loves animals.'
	-	emotional experience	
3.	Patient	the undergoer of an action that results in	'Alfred built <u>a house</u> .'
		a change of state	
4.	Theme	the undergoer of an action that results in	'Alfred moved the chair.'
		no change of state	
5.	Direction	the destination of an action	'Alfred reached <u>home</u> .'
6.	Recipient	the receiver of something in an action of	'Alfred gave <u>Bernard</u> a
		transfer	book.'
7.	Location	the place where an action occurs	'Alfread stayed at home.'
8.	Source	the starting point of an action	'Alfred left <u>home</u> .'
9.	Purpose	the reason why an action is performed	'Alfred went to Cambridge
	_		to do his PhD.'
10.	Company	the companion of an action	'Alfred went to the park with
			<u>his dog</u> .'

Table 1. Semantic categories

4. Dothraki Verbs and Their Governmental Characteristics

⁷ He puts forward six cases: agentive, instrumental, dative, factitive, locative, and objective (Fillmore, 1968, p. 24-25).

Marked in their infinitive forms with -(l)at suffix, Dothraki verbs can be either morphologically simple (e.g., ezat 'to find (Littauer, 2016, p. 7)') or complex (e.g., azolat⁸ 'to learn (ibid., p. 8)'). The realization of the infinitive marker is determined by the phonological properties of the verbal base it attaches to. A consonant-final verb takes /-at/ (e.g., lajat 'to fight (ibid., p. 13)') while a vowel-final one requires a combinatory sound and takes /-lat/ (e.g., qiyalat 'to bleed (ibid., p. 17)'). Apart from the infinitive, a verb can be conjugated in the indicative (present, past, and future tenses), the imperative (formal and informal registers), and the participle. Verbs also indicate inflectional polarity between affirmative and negative structures, which are distinguished through vowel alternation and/or affixation. For instance, -(a)k is the affirmative (i.e., anha qiyak 'I bleed') and -(V>/)ok is the negative marker (i.e., anha vo qiyok 'I don't bleed') for the first-person singular (anha) in the present tense.

INF				-(1)at	lajat 'to fight'	qiyalat 'to bleed'
IND	PRES	1 S G	+	-(a)k	lajak	qiyak
			-	-(V>/)ok	lajok	qiyok
		2SG	+	-i/e	laji	qiyae
			-	-i/o	laji	qiyao
		38G	+	-a/e	laja	qiyae
			-	-0	lajo	qiyao
		1PL	+	-(a)ki	lajaki	qiyaki
			-	-(V>/)oki	lajoki	qiyoki
		2PL	+	-i/e	laji	qiyae
			-	-i/o	laji	qiyao
		3PL	+	-i/e	laji	qiyae
			-	-i/o	laji	qiyao
	PAST	SG	+	-Ø/e	laj	qiya
			-	-(V>/)o	lajo	qiyo
		PL	+	-(i)sh	lajish	qiyash
			-	-(V>/)osh	lajosh	qiyosh
	FUT		+	v/aPRES	alaj-PRES	aqiya-PRES
			-	v/oPRES	olaj-PRES	oqiya-PRES
IMP		FOR	±	-Ø/i	laji	qiya
		INFOR	+	-(a)s	lajas	qiyas
			-	-(V>/)os	lajos	qiyos
PART			+	-(a)y	lajay	qiyay
			-	-(V>/)oy	lajoy	qiyoy

Table 2. Verbal inflection

(Brabent, 2011, p. 20-23; Peterson, 2014, p. 36-50; ibid., p. 52-53)

Typologically classified as a lightly inflectional language (Peterson, 2014, p. 7), Dothraki constitutes the syntactic bondages between a verb and its argument(s) through its nominal case system. Dothraki verbs govern five cases (i.e., nominative, accusative, genitive, ablative, and allative) in the surface structure and assign various syntactic roles to their participant(s) in the deep structure (e.g., nominative for a subject, accusative for an object, and genitive for possession). Nominals are declined differently based on their internal features of animacy

⁸ It can be analyzed as az- 'to find (ibid., p. 7)' -o 'dynamics (see 4.2.1.1.).'

(animate or inanimate), number (singular or plural), and the phonological properties (consonant- or vowel-final). Table 3 demonstrates all case declensions for the example lexemes of a consonant-final animate chaf 'wind (Littauer, 2016, p. 5)' and inanimate eyel 'rain (ibid., p. 7),' as well as a vowel-final animate asavva 'sky (ibid., p. 4),' and inanimate jano 'dog (ibid., p. 11)' and dozgo⁹ 'enemy (ibid., p. 6).'

No.	Case	Animacy	Number	Suffix	-C	-V	
1.	NOM	AN	SG	-Ø	chaf	asavva	
			PL	-(s)i	chafi	asavvasi	
		INAN	SG	-Ø	eyel	jano	
			PL	-Ø	eyel	jano	
2.	ACC	AN	SG	-es	chafes	asavvaes	
			PL	-i/es	chafis	asavvaes	
		INAN	SG	-Ø/V>Ø(-e)	eyel	jan	dozge
			PL	-Ø/V>Ø(-e)	eyel	jan	dozge
3.	GEN	AN	SG	-(s)i	chafi	asavvasi	
			PL	-(s)i	chafi	asavvasi	
		INAN	SG	-(V>/)i	eyeli	jani	
			PL	-(V>/)i	eyeli	jani	
4.	ABL	AN	SG	-(s)oon	chafoon	asavvasoon	
			PL	-(s)oa	chafoa	asavvasoa	
		INAN	SG	-(V>/)oon	eyeloon	janoon	
			PL	-(V>/)oon	eyeloon	janoon	
5.	ALL	AN	SG	-(s)aan	chafaan	asavvasaan	
			PL	-(s)ae	chafea	asavvasea	
		INAN	SG	-(V>/)aan	eyelaan	janaan	
			PL	-(V>/)aan	eyelaan	janaan	
					J)_11. Peterson	2014 n 56-62

Table 3. Case inflection

(Brabent, 2011, p. 10-11; Peterson, 2014, p. 56-62)

Under the headings of 'argument number' and 'valency alternation,' Dothraki verbs are described based on their governee loads in their basic forms and after the derivational processes they have gone through.

4.1. Argument Number

Basic verbs are classified into three categories based on their argument numbers: one-argument verbs, two-argument verbs, and three-argument verbs.

4.1.1. One-Argument Verbs

For one-argument verbs, there is only and solely one compulsory participant, which occupies the subject position within a sentential environment. As either the agent or experiencer of the action, this participant is declined in the nominative case. Its placement in the sentence often follows the default word order of the given language although variations may occur due to several factors such as emphasis, topicalization, and interrogation. Among many others, drivat

⁹ Some inanimate nouns that finalize in the phonemes /g/, /w/, and /q/, or in certain consonant clusters exhibit irregularity in the accusative case (Peterson, 2014, p. 58) due to the language's phonological constraints (see Brabent, 2011, p. 48).

(3.a.), qovat (3.b.), and thirat (3.c.) have been presented below as exemplary verbs for this classification:

(3.a.) drivat 'to be dead (Littauer, 2016, p. 7)'

 $[1] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ}$

Ei zhavvorsa drivi.

ei zhavvorsa-Ø-Ø driv-i

all drogon-PL-NOM be.dead-PRES.3PL

'All the dragons are dead.' (Peterson, 2013, p. 122)

(3.b.) qovat 'to tremble (Littauer, 2016, p. 17)'

 $[1] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ}$

Vafi <u>qova</u>!

vaf-i-Ø qov-a

ewe-DIM-NOM tremble-PRES.3SG

'The lamb trembles.' (Peterson, 2013, p. 15)

(3.c.) thirat 'to live (Littauer, 2016, p. 19)'

 $[1] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ}$

Kash qoy qoyi thira disse.

kash qoy-Ø qoy-i thir-a disse

while blood-NOM blood-GEN live-PRES.3SG only

'Only while the blood of my blood lives.' (Peterson, 2013, p. 121-122)

It is also possible for some verbs that are one-argument by nature to accept additional elements to further enlarge upon the informational content of the sentential structure. Benefitting from the multifunctional characteristics of nominal cases, the verbs dogat (4.a.), dothralat (4.b.), and ifat (4.c.) take optional arguments in the ablative, allative, and genitive cases to express source (also for drivolat 'to die of/from (Littauer, 2016, p. 7),' fevelat 'to thirst for (ibid., p. 8),' and garvolat 'to hunger for (ibid., p. 9)'), direction (also for azhat 'to give x to (ibid., p. 5),' davralat 'to be useful to (ibid., 6),' and emat 'to smile at (ibid., p. 7)'), and company (also for dothralat 'to ride with (ibid., p. 6),' elat 'to go with (ibid., p. 7),' and lanat 'to run with (ibid., p. 13)') (Brabent, 2011, p. 24-29). As a consequence, it does not make the exemplary sentences grammatically incorrect when the following elements are removed: athzhikharoon $(4.a.)^{10}$, nakhaan rhaesheseri (4.b.), and yeri (4.c.)¹¹.

(4.a.) dogat 'to suffer (from something) (Littauer, 2016, p. 6)'

 $[1(+1)] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} ([2] [N/Pro]_{ABL/SRC})$

¹⁰ However, the negation marker vo(s) needs to be replaced before the predicate since there will be no argument to specify: Anha vo dogo.

¹¹ Peterson (n.d., p. 10-11) states that there is no word for 'to follow someone' in Dothraki language because the conceptual nation of 'going after someone' is against their worldview, forcing them to admit their inferiority behind the other(s). Therefore, they use syntactic structures translated as 'I will go with/next to/beside you.'

Anha <u>dogo</u> vos athzhikharoon. anha-Ø dog-o vos ath-zhikh-ar-oon. I-NOM suffer-NEG.PAST.1SG no NMLZ-be.sick-NMLZ-ABL 'I have suffered from no sicknesses.' (Peterson, 2013, p. 9) (4.b.) dothralat 'to ride (to somewhere) (Littauer, 2016, p. 6)' $[1(+1)] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} ([2] [N/Pro]_{ALL/DIR})$ [...], Vezh <u>adothrae</u> nakhaan rhaesheseri.vezh-Ø a-dothra-e nakh(o)-aan rhaesher-istallion-NOM FUT-ride-3SG end-ALL world-GEN'[...], the Stallion will ride to the end of the world.' (Peterson, 2013, p. 86)(4.c.) ifat 'to walk (beside someone) (Littauer, 2016, p. 10)' $<math>[1(+1)] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} ([2] [N/Pro]_{GEN/COM})$ Anha <u>vifak</u> yeri. anha-Ø v-ifa-k yer-i I-NOM FUT-walk-1SG you.INFOR-GEN

'I'll follow you. (lit. I'll walk beside you.)' (Peterson, 2013, p. 10-11)

4.1.2. Two-Argument Verbs

Besides agents or experiencers in the subject positions, two-argument verbs require patients or themes in the direct object position, making them the absolute governor of these two obligatory elements. Apart from nominal phrases in the accusative case (5), the second argument can also take dependent clauses attached to sentences by various complementizers (7) or other verbs in the infinitive form (8). Similar to the situation in (4), other cases can alternate with the accusative case to convey different semantic functions.

(5.a.) ogat 'to slaughter (Littauer, 2016, p. 16)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

Ogas rek oqet!

(Ø-Ø) og-as rek oqet-Ø

(you.INFOR-NOM) slaughter-IMP.2SG.INFOR that sheep-ACC

'Slaughter that sheep!' (Peterson, 2013, p. 22)

(5.b.) qoralat 'to seize, to hold (Littauer, 2016, p. 17)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

Qoras mae!

(Ø-Ø) qora-s mae

(you.INFOR-NOM) hold-IMP.2SG.INFOR he/she/it.ACC

'Hold him!' (Peterson, 2013, p. 123-124)

(5.c.) rissat 'to cut (Littauer, 2016, p. 17)'

[2] → [1] [N/Pro]NOM/AGT [V]CONJ [2] [N/Pro]ACC/PAT
<u>Rissas</u> jahakes!
(Ø-Ø) riss-as jahak-es
(you.INFOR-NOM) cut-IMP.2SG.INFOR braid-ACC
'Cut his braid off!' (Peterson, 2013, p. 31)

Some verbs possess multiple pieces of semantic information inside and reveal them depending on whether they are assigned to one or two arguments. Adakhat (6.a.), chomat (6.b.), and dothralat (6.c.) are examples to such verbs. When assigned one argument, they behave like reflexive verbs and correspond to the following meanings: 'to have a meal,' 'to be respectful,' and 'to sit on a horse and travel,' respectively. However, when their argument number increases to two, they turn into transitive verbs and reflect the following slightly different but related meanings instead: 'to put food in one's mouth,' 'to respect someone,' and 'to control a horse and travel,' respectively.

(6.a.) adakhat 'to eat (Littauer, 2016, p. 3)'

(6.a.i.) [1] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ}

Yer ray adakho vos!

yer-Ø ray adakh-o vos

you.INFOR-NOM yet eat-NEG.PAST.2SG not

'You haven't eaten yet!' (Peterson, 2013, p. 24)

 $(6.a.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

[...] arrek me <u>adakha</u> hrazef.

arrek me-Ø adakh-a hrazef-Ø

when he/she/it-NOM eat-PRES.3SG horse-ACC

'[...] when she eats horse.' (Peterson, 2013, p. 109)

(6.b.) chomat '1. to be respectful; 2. to respect (Littauer, 2016, p. 6)'

 $(6.b.i.) [1] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ}$

[...] me <u>achoma</u>.

me-Ø a-chom-a

he/she/it-NOM FUT-be.respectful-3SG

'[...] he will be respectful.' (Peterson, 2013, p. 56)

(6.b.ii.) [2] \rightarrow [1] [N/Pro]NOM/AGT [V]CONJ [2] [N/Pro]ACC/THM

Hash yer vos <u>chomi</u> anna?

hash yer-Ø vos chom-i anna

Q you.INFOR-NOM no respect-PRES.2SG.INFOR I.ACC

'So you don't respect me?' (Peterson, 2013, p. 139)

(6.c.) dothralat 'to ride (Littauer, 2016, p. 6)'

 $(6.c.i.) [1] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ}$

Me laz <u>dothrae</u>!

me-Ø laz dothra-e

he/she/it-NOM can ride-PRES.3SG

'She can ride!' (Peterson, 2013, p. 46)

 $(6.c.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}$

Anha [...] adothrak hrazef ido [...].

anha-Ø a-dothra-k hrazef-Ø ido-Ø

I-NOM FUT-ride-1SG horse-ACC wooden-INAN.AGR

'I will [...] ride the wooden horses.' (Peterson, 2013, p. 93-94)

As another characteristic of two-argument verbs, thematic information can be conveyed through either arguments in the accusative form or through dependent clauses with complementizers—such as m(e) 'that.' The language unit $[m(e)]_{COMP}$ appears at the beginning of a subordinate clause and connects it to the main clause. The way how it attaches to a subject also provokes another grammatical curiosity: 'What lexical class does it belong to?' When attached to a consonant-initial lexeme, it surfaces as /me+x/. On the other hand, when interacting with a vowel-initial lexeme, it loses its phonological properties and realizes as /m'+x/. This process brings to mind cliticization, and one of its subcategories proclisis.¹²

(7.a.) charat 'to hear (Littauer, 2016, p. 5)'

(7.a.i.) [2] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}

Anha [...] char tem fogi!

anha-Ø char-Ø tem(me) fog-i

I-NOM hear-PAST.1SG thunder(ACC) hoof-GEN.PL

'I have [...] heard the thunder of his hooves.' (Peterson, 2013, p. 68-69)

(7.a.ii.) [2] → [1] [N/Pro]NOM/EXP [V]CONJ [2] [C1]COMP/THM

Anha <u>char</u> meme vizhada ven az.

anha-Ø char-Ø me+me-Ø vizhad(i)-a ven az-Ø

I-NOM hear-PAST.1SG COMP+he/she/it-NOM be.silver-PRES.3SG like blade-NOM

'I heard that it's silver like a blade.' (Peterson, 2013, p. 33)

(7.b.) dirgat 'to think (Littauer, 2016, p. 6)'

(7.b.i.) [2] → [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}

Fin yer dirgi?

fin-Ø yer-Ø dirg-i

¹² Clitics (proclitics if they precede the host and enclitics if they follow it) resemble independent lexemes but cannot stand alone as they are phonologically dependent on a neighboring lexeme (for terminology, see Crystal, 1980/2008, p. 80; for theory, see Klavans, 1995/2018). Therefore, one can question whether $[m(e)]_{COMP}$ has been grammaticalized from $[me]_{PRO}$ 'he/she/it' over time.

what-ACC you.INFOR-NOM think-PRES.2SG 'What do you think?' (Peterson, 2013, p. 307-308) (7.b.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} [2] [C1]_{COMP/THM} Anha dirgak m'anha tihak mae! anha-Ø dirg-ak m+anha-Ø tih-ak mae I-NOM think-PRES.1SG COMP+I-NOM see-PRES.1SG he/she/it.ACC 'I think I see her!' (Peterson, 2013, p. 17-18) (7.c.) zalat 'to hope for, to want (Littauer, 2016, p. 21)' (7.c.i.) [2] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} [2] [V]_{ACC/THM} [...] meme zala firikhnharen [...] me+me-Ø zal-a firikhnharen-Ø COMP+he/she/it-NOM hope-PRES.3SG crown-ACC "[...] that he wants a crown [...]" (Peterson, 2013, p. 76-77) (7.c.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} [2] [Cl]_{COMP/THM} Anha <u>zalak</u> m'irge haja, [...] anha-Ø zal-ak m+irge-Ø haj-a I-NOM hope-PRES.1SG COMP+back-NOM be.strong-PRES.3SG 'I hope her back is strong, [...]' (Peterson, 2013, p. 34)

In Dothraki language, themes can be marked not only by accusatives and complementizers but also by infinitives. Verbal lexemes are nominalized in their infinitive forms (i.e., V-(l)at) and employed as themes of predicates. While the second arguments in (8.a.ii.) and (8.b.ii.) function as pure themes, the one in (8.a.ii.) behaves more like the purpose of the coming action.

(8.a.) jadat 'to come (Littauer, 2016, p. 11)'

 $(8.a.i.) [1] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ}$

Vorsa <u>jada</u> ajjalan!

vorsa-Ø jad-a ajjalan-Ø

fire-NOM come-PRES.3SG tonight-ACC

'Fire comes tonight!' (Peterson, 2013, p. 126)

 $(8.a.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [V]_{INF/PUR}$

Jadas rhelat eyelat jin!

(Ø-Ø) jad-as rhel-at eye-lat jin-Ø

(you.INFOR-NOM) come-IMP.2SG.INFOR help-INF move-INF this-ACC

'Come help move this!' (Peterson, 2013, p. 20)

(8.b.) zalat 'to hope for, to want (Littauer, 2016, p. 21)'

(8.b.i.) see (7.c.i.)

 $(8.b.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} [2] [V]_{INF/THM}$

Hash yer <u>zali</u> drivolat asshekh?! hash yer- \emptyset zal-i driv-o-lat asshekeh- \emptyset Q you.INFOR-NOM hope-PRES.2SG die-DYN-INF today-ACC 'Do you want to die today?' (Peterson, 2013, p. 17) (8.c.) zigerelat 'to require, to need (Littauer, 2016, p. 22)' (8.c.i) [2] \rightarrow [1] [N/Pro]NOM/EXP [V]CONJ [2] [N/Pro]ACC/THM Yer <u>zigeree</u> serj sasha ma laina! yer- \emptyset zigere-e serj(a) sash(a) ma lain(a) you.INFOR-NOM need-PRES.2SG vest(ACC) new(INAN.AGR) and beautiful(INAN.AGR) 'You need a new and beautiful vest!' (Peterson, 2013, p. 88) (8.c.ii.) [2] \rightarrow [1] [N/Pro]NOM/EXP [V]CONJ [2] [V]INF/THM Me <u>zigeree</u> mithrat. me- \emptyset zigere-e mithr-at he/she/it-NOM need-PRES.3SG rest-INF 'He needs to rest.' (Peterson, 2013, p. 88)

In addition to its main possession and subsidiary accompaniment (4.c.) functions, the genitive marker establishes a semantic bridge of topical relationship between the predicate and argument in (9.a.ii.). Even though it is also possible for the predicate to interact with the accusative case (7.a.i.), the complementary distribution of these cases reveals the semantic difference between chorat acc. 'to receive <u>sounds</u> with one's ears' and chorat gen. 'to receive news <u>about something/someone</u>' (also for astolat 'to speak of/about (Littauer, 2016, p. 4),' donat 'to shout about (ibid., p. 6),' and qafat 'to ask about (ibid., p. 16)') (Brabent, 2011, p. 25).

The dichotomy between the accusative and allative cases, on the other hand, specifies the (un)completedness of the predicate action. This is evident through the case system of the language, where the spitting action is understood to have accomplished in (9.b.i.), while a listener cannot be sure whether it has completed or not due to the use of an uncertain directional marker in (9.b.ii.) (ibid., p. 27). This distinction is also sensed in fakat 'to kick at (Littauer, 2016, p. 8),' lojat 'to hit at (ibid., p. 13),' and vinderelat 'to stab at (ibid., 2016, p. 20).' As for tihat, it creates a purposeful atmosphere when it selects the allative case (9.c.ii.).

(9.a.) charat 'to hear (Littauer, 2016, p. 5)'

(9.a.i.) see (7.a.i.)

(9.a.ii.) [2] \rightarrow [1] [N/Pro]NOM/EXP [V]CONJ [2] [N/Pro]GEN/THM

Hash yeri <u>char</u> norethi?

hash yeri-Ø char-Ø noreth-i

Q you.INFOR-NOM hear-PAST.2PL hair-GEN

'Have you heard about her hair?' (Peterson, 2013, p. 33)

(9.b.) sikhtelat 'to spit (Littauer, 2016, p. 18)'

(9.b.i.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/REC} [...] mori [...] <u>asikhtee</u> yera, [...] mori-Ø a-sikhte-e yer-a they-NOM FUT-spit-3PL you.INFOR-ACC "[...] they [...] will spit upon you, [...]" (Peterson, 2013, p. 113) (9.b.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ALL/DIR} Sindarinak sikhte anhaan [...] sindarinak-Ø sikhte-Ø anh(a)-aan weak-NOM spit-PAST-3SG I-ALL 'A weak person spit at me [...]' (Peterson, 2013, p. 23) (9.c.) tihat 'to look, to see (Littauer, 2016, p. 19)' (9.c.i.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM} Tihas noreth! (Ø-Ø) tih-as noreth-Ø (you.INFOR-NOM) see-IMP.2SG.INFOR hair-ACC 'Look at her hair!' (Peterson, 2013, p. 14) (9.c.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ALL/PUR} Tihas khaleesisaan! (Ø-Ø) tih-as khaleesi-saan (you.INFOR-NOM) see-IMP.2SG.INFOR khaleesi-ALL 'Look out for Khaleesi!' (Peterson, 2013, p. 45) Some verbs—such as a stat and rhelalat—occupy two argument sloths (10.a.i., 10.b.i.) in nature but can also accept additional participants, which are allative/recipient for the former and infinitive/theme for the latter (10.a.ii, 10.b.ii.). This makes their third participants rather

(10.a.) astat 'to say (Littauer, 2016, p. 8)'

(10.a.i.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}

Hash yer <u>asti</u>, [...]?

optional in the syntactic structure.

hash-Ø yer-Ø ast-i

Q-NOM you.INFOR-NOM say-PRES.2SG

'What do you say?' (Peterson, 2013, p. 9-10)

 $(10.a.ii.) [2(+1)] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM} ([3] [N/Pro]_{ALL/REC})$

Majin shafka <u>asti</u> anhaan jin: [...]

ma-jin shafka-Ø ast-i anh(a)-aan jin-Ø

and-this you.FOR-NOM say-PRES.3PL I-ALL this-ACC

'And so you tell me this: [...]' (Peterson, 2013, p. 83)

(10.b.) rhelalat 'to help (Littauer, 2016, p. 5)'

 $(10.b.i.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/REC}$

<u>Rhelas</u> kisha!

(Ø-Ø) rhela-s kisha-Ø

(you.INFOR-NOM) help-IMP.2SG.INFOR we-ACC

'Help us!' (Peterson, 2013, p. 123)

 $(10.b.ii.) [2(+1)] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/REC} ([3] [V]_{INF/THM})$

<u>Rhela</u> anna azzohat mae mra lommayaan

 $(\ensuremath{\emptyset}\xspace{-}\ensuremath{\emptyset}\xspace)$ rhela- $\ensuremath{\emptyset}\xspace$ anna az-zoh-at mae m
ra lommay-aan

(you.FOR-NOM) help-IMP.2SG.FOR I-ACC CAUS-put-INF he/she/it.ACC in tub-ALL

'Help me get him in the tub.' (Peterson, 2013, p. 119)

As either a two-argument (11.a.i.) or three-argument realization (11.a.ii.), the verb astat is also characterized by holding the ability to interchange accusative and complementizer markers in the thematic participant sloths. In (11.a.i.), astat does not include any allative/recipient elements while in (11.a.ii.), it allows a moraan detail before the complementizer me+x and transforms into a two-(plus-one-)argument verb.

(11.a.) astat 'to say (Littauer, 2016, p. 8)'

(11.a.i.) [2] → [1] [N/Pro]NOM/AGT [V]CONJ [2] [C1]COMP/THM

Jin sen gloro asti meme varthasa.

jin sen gloro-Ø-Ø ast-i me+me v-arthas-a

this three medallion-PL-NOM say-PAST.3PL COMP+he/she/it FUT-arthas-3SG

'These three medallions say that he will fall.' (Peterson, 2013, p. 53)

(11.a.ii.) [2(+1)] → [1] [N/Pro]NOM/AGT [V]CONJ ([3] [N/Pro]ALL/REC) [2] [C1]COMP/THM

Asti moraan me Khal Drogo asso moon.

(Ø-Ø) ast-i mor(i)-aan me khal-Ø drogo-Ø asso-Ø m(a)-oon

(you.FOR-NOM) say-IMP.2SG.FOR they-ALL COMP khal-NOM drogo-NOM order-PAST.3SG he/she/it-ABL $\,$

'Tell them Khal Drogo commanded it.' (Peterson, 2013, p. 117)

4.1.3. Three-Argument Verbs

When a verb shows a syntactic potential to govern a recipiential element along with agentive and thematic participants, it follows a coding frame of three arguments. In addition to the default frame of nominative/agent – accusative/theme – allative/recipient (12), research dataset yielded examples of three-argument verbs that exhibit flexibility in marker selection (13) and semantic interpretation (14).

(12.a.) azhat 'to give (Littauer, 2016, p. 5)'

```
[3] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM} [3] [N/Pro]_{ALL/REC}
```

Azhas haz anhaan!

 $(\emptyset - \emptyset)$ azh-as haz- \emptyset anh(a)-aan

(you.INFOR-NOM) give-IMP.2SG.INFOR that-ACC I-ALL

'Give that to me!' (Peterson, 2013, p. 20)

When assigned another verb in infinitive form, azhat starts to correspond to 'to allow someone to do something.' Even though the verb still has a thematic participant in its governance, the only factor that specifies the semantic nuance between (12.a.) and (13.a.ii.) is the difference in the marker type—case versus verbal.

(13.a.) azhat 'to give (Littauer, 2016, p. 5)'

(13.a.i.) see (12.a.)

 $(13.a.ii.) [3] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ALL/REC} [3] [V]_{INF/THM}$

<u>Azhas</u> anhaan dothralat...

 $(\emptyset - \emptyset)$ azh-as anh(a)-aan dothra-lat

(you.INFOR-NOM) give-IMP.2SG.INFOR I-ALL ride-INF

'Let me ride...' (Peterson, 2013, p. 123)

As an example of polysemous verbs, fichat (14.a.) covers both bringing into and taking away actions. The allative and ablative cases create a contrastive atmosphere and determine the dual nature of the verb's semantic content. This nature makes fichat also a contronymic verb (see Karaman, 2008).

(14.a.) fichat 'to take, to bring, to fetch (Littauer, 2016, p. 8)'

 $(14.a.i.) [3] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM} [3] [N/Pro]_{ALL/REC}$

Fichas oggoes anhaan!

 $(\emptyset-\emptyset)$ fich-as oggo-es anh(a)-aan

(you.INFOR-NOM) take-IMP.2SG.INFOR head-ACC I-ALL

'Bring me his head!' (Peterson, 2013, p. 21)

 $(14.a.ii.) [3] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM} [3] [N/Pro]_{ABL/SRC}$

Anha afichak haz salikh yeroon [...]

anha-Ø a-fich-ak haz salikh-Ø yer-oon

I-NOM FUT-take-1SG that cat's.claw.necklace-ACC you.INFOR-ABL

'I'll take that cat's claw necklace from you [...]' (Peterson, 2013, p. 53)

Table 4. Structural and semantic valency of Dothraki verbs

No.	Verbs	[1]		[2]		[3]		Total
		Str.	Sem.	Str.	Sem.	Str.	Sem.	
1.	adakhat	NOM	AGT					[1]
		NOM	AGT	ACC	PAT			[2]
2.	astat	NOM	AGT	ACC	THM	(ALL)	(REC)	[2(+1)]
		NOM	AGT	COMP	THM	(ALL)	(REC)	[2(+1)]
3.	azhat	NOM	AGT	ACC	THM	ALL	REC	[3]
		NOM	AGT	ALL	REC	INF	THM	[3]

4.	charat	NOM	EXP	ACC	THM			[2]
		NOM	EXP	COMP	THM			[2]
		NOM	EXP	GEN	THM			[2]
5.	chomat	NOM	EXP					[1]
		NOM	AGT	ACC	THM			[2]
6.	dirgat	NOM	EXP	ACC	THM			[2]
	C	NOM	EXP	COMP	THM			[2]
7.	dogat	NOM	EXP	(ABL)	(SRC)			[1(+1)]
8.	dothralat	NOM	AGT	(ALL)	(DIR)			[1(+1)]
		NOM	AGT	ACC	THM			[2]
9.	drivat	NOM	EXP					[1]
10.	fichat	NOM	AGT	ACC	THM	ALL	REC	[3]
		NOM	AGT	ACC	THM	ABL	SRC	[3]
11.	ifat	NOM	AGT	(GEN)	(COM)			[1(+1)]
12.	jadat	NOM	AGT					[1]
		NOM	AGT	INF	PUR			[2]
13.	ogat	NOM	AGT	ACC	PAT			[2]
14.	qoralat	NOM	AGT	ACC	PAT			[2]
15.	qovat	NOM	EXP					[1]
16.	rhelalat	NOM	AGT	ACC	REC	(INF)	(THM)	[2(+1)]
17.	rissat	NOM	AGT	ACC	PAT			[2]
18.	sikhtelat	NOM	AGT	ACC	REC			[2]
		NOM	AGT	ALL	DIR			[2]
19.	thirat	NOM	EXP					[1]
20.	tihat	NOM	AGT	ACC	THM			[2]
		NOM	AGT	ALL	PUR			[2]
21.	zalat	NOM	EXP	ACC	THM			[2]
		NOM	EXP	COMP	THM			[2]
		NOM	EXP	INF	THM			[2]
22.	zigerelat	NOM	EXP	ACC	THM			[2]
		NOM	EXP	INF	THM			[2]

4.2. Valency Alternation

Considering morphosyntactic operations in relation to verbal valency, there are three types of coded valency alternation: those that increase the argument number by one (i.e., valency increase), those that decrease it by one (i.e., valency decrease), and those that neither increase nor decrease it (i.e., valency retention).

4.2.1. Valency Retention

Four morphosyntactic operations cause no change in the argument number under a verb's government: dynamicization (-o), durativization (v(i) - (e)r), reversivization (e(s) - (s)a), and the use of various particles (chir, eth, ish, jif, kis, laz, ray, vil, and zin).

4.2.1.1. Dynamics

Dothraki language makes a morphological distinction between stative and dynamic verbs (with the exception of the possibility that there are also morphologically basic dynamic verbs). The morpheme responsible for this distinction is -o. This derivational process brings no change to

the argument number of the predicate verb, thereby causing no valential alternation. The dynamic forms astolat (15.a.ii.), drivolat (15.b.ii.), and haqolat (15.c.ii.) derive from the base forms astat (15.a.i.), drivat (15.b.i.), and haqat (15.c.i.), with one example for each presented below (Brabent, 2011, p. 17-19).

(15.a.i.) astat 'to say (Littauer, 2016, p. 8)'

see (10.a.i.)

(15.a.ii.) astolat 'to speak (ibid., p. 8)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}$

Kisha vastoki vos alikh hrazefi ido [...]

kisha-Ø v-ast-o-ki vos alikh-Ø hrazef-i ido-Ø

we-NOM FUT-say-DYN-1PL not more-ACC horse-GEN wooden-INAN.AGR

'We will speak no more of wooden horses [...]' (Peterson, 2013, p. 82)

(15.b.i.) drivat 'to be dead (Littauer, 2016, p. 7)'

see (3.a.)

(15.b.ii.) drivolat 'to die (ibid., p. 7)'

 $[1] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ}$

[...], anha <u>adrivok</u> k'athlayafari.

anha-Ø a-driv-o-k k+ath-layaf-ar-i

I-NOM FUT-die-DYN-1SG by+NMLZ-be.happy-NMLZ-GEN

'[...], I will die happy.' (Peterson, 2013, p. 82)

(15.c.i.) haqat 'to be tired (Littauer, 2016, p. 9)'

 $[1] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ}$

Me <u>haqa</u>, vos ale.

me-Ø haq-a vos ale

he/she/it-NOM be.tired-PRES.3SG not more

'He's tired, that's all.' (Peterson, 2013, p. 116)

(15.c.ii.) haqolat 'to grow tired (Littauer, 2016, p. 9)'

 $[1] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ}$

Hrazef kishi haqoe.

hrazef-Ø-Ø kish(a)-i haq-o-e

horse-PL-NOM we-GEN be.tired-DYN-PRES.3PL

'Our horses tire.' (Peterson, 2013, p. 153)

4.2.1.2. Duratives

Durativity refers to an action that involves uninterrupted continuity for a specific period of time (Crystal, 1980/2008, p. 159). The marker that assigns durative characteristics to a verbal base is a two-piece circumfix: v(i)- (e)r. This morphological process does not cause verbs to either

increase or decrease their quantitative information of arguments. Depending on their phonological patterns, adakhat (16.a.i.), kovarat (16.b.i.), and tihat (16.c.i.) derive as vadakherat (16.a.ii.), vikovarerat (16.b.ii.), and vitiherat (16.c.ii.), respectively (Brabent, 2011, p. 36).

(16.a.i.) adakhat 'to eat (Littauer, 2016, p. 3)'

see (6.a.ii.)

(16.a.ii.) vadakherat 'to feed (Littauer, 2016, p. 20)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

Zhavvorsa vadakhera ma hrazef ma vaf akkate.

zhavvorsa-Ø v-adakh-er-a ma hrazef-Ø ma vaf-Ø akkate

dragon-NOM DUR-eat-DUR-PRES.3SG and horse-ACC and lamb-ACC both

'The dragon feeds on both horse and lamb.' (Peterson, 2013, p. 105)

(16.b.i.) kovarat 'to stand (Littauer, 2016, p. 13)'

 $[1(+1)] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} ([2] [N/Pro]_{ACC/LOC} / [P [N/Pro]_{NC}]_{PP/LOC})$

Vo mahrazh laz kovara hatif shekhi atthirari anni...

vo mahrazh-Ø laz kovar-a hatif shek-i atthirar-i anni

no man-NOM can stand-PRES.3SG before sun-GEN life-GEN I.GEN

'No man can stand before the sun of my life...' (Peterson, 2013, p. 106)

(16.b.ii.) vikovarerat 'to stay (Littauer, 2016, p. 20)'

 $[1(+1)] \rightarrow [1] [N/Pro]_{NOM} [V]_{CONJ} ([2] [N/Pro]_{ACC/LOC} / [P [N/Pro]_{NC}]_{PP/LOC})$ Hash yeri avikovareri, [...]

hash yeri-Ø a-vi-kovar-er-i

if you.INFOR-NOM FUT-DUR-stay-DUR-2PL

'If you stay, [...].' (Peterson, 2013, p. 135)

(16.c.i.) tihat 'to look, to see (Littauer, 2016, p. 19)' see (9.c.i.)

(16.c.ii.) vitiherat 'to look upon, to stare at, to examine, to ponder (Littauer, 2016, p. 20)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}$

Vitiheri mae k'athzalari.

(Ø-Ø) vi-tih-er-i mae k+ath-zal-ar-i

(you.FOR-NOM) DUR-see-DUR-IMP.2SG.FOR by+NMLZ-hope-NMLZ-GEN

'Inspect her at your leisure.' (Peterson, 2013, p. 5)

4.2.1.3. Reversives

The semantically reverse interaction between two morphologically related verbs constitutes the concept of reversivity in derivational morphology (Cruse, 1986, p. 226-31). To create reversive verbs, Dothraki language employs another circumfix: e(s)- -(s)a. Shifting from a sense of

holding to releasing, qoralat (17.a.i.) derives into eqorasalat (17.a.ii.) and is presented as an example of this class below (Brabent, 2011, p. 36).

(17.a.i.) qoralat 'to seize, to hold (Littauer, 2016, p. 17)'

see (5.b.)

(17.a.ii.) eqorasalat 'to let go of (Littauer, 2016, p. 7)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

Eqorasas chiories anni, [...]

(Ø-Ø) e-qora-s-as choiri-es anni.

(you.INFOR-NOM) REV-hold-REV-IMP.2SG.INFOR woman-ACC I.GEN

'Unhand my woman, [...]' (Peterson, 2013, p. 28)

4.2.1.4. Other Particles

Some verbal particles mark such additional information as approximation (chir 'almost, nearly (Littauer, 2016, p. 6)'), obligation (eth 'must, have to (ibid., p. 7)'), possibility (ish 'might (ibid., p. 11)'), suggestion (jif 'should (ibid., p. 11)'), exertion (kis 'to try to (ibid., p. 13)'), ability (laz 'can, could (ibid., p. 13)'), perfectivity (ray 'already (ibid., p. 17)'), effectuation (vil 'to manage to (ibid., p. 20)'), and continuation (zin 'sill (ibid., p. 22)'). These particles contribute to the semantic content of a sentential structure. They differ from regular auxiliaries in that they do not undergo any conjugational procedures but instead precede a verbal structure and behave like its preposition (cf. Brabent, 2011, p. 30-31). As they belong to neither pure auxiliaries nor prepositions, they will be referred to as (verbal) particles in this article.

Positioned between the subject and verb in a sentence, verbal particles preserve the quantitative properties of the predicate verb. Therefore, they have been classified as an exemplary means of valency retention.

(18.a.) addrivat 'to kill (Littauer, 2016, p. 3)'

(18.a.i.) see (19.a.ii.)

```
(18.a.ii.) [2] \rightarrow [1] [N/Pro]<sub>NOM/AGT</sub> [eth]<sub>PRT</sub> [V]<sub>CONJ</sub> [2] [N/Pro]<sub>ACC/PAT</sub>
```

Atte yer eth addrivi anna.

atte yer-Ø eth ad-driv-i anna

first you.INFOR-NOM must CAUS-die-PRES.2SG I-ACC

'First you have to kill me.' (Peterson, 2013, p. 113-114)

(18.b.) fichat 'to take, to bring, to fetch (Littauer, 2016, p. 8)'

(18.b.i.) see (14.a.i.)

(18.b.ii.) [3] [1] [N/Pro]_{NOM/AGT} [ray]_{PRT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM} [3] [N/Pro]_{ALL/REC}

Yer <u>ray</u> fich kishaan athohharar!

yer-Ø ray fich-Ø kish(a)-aan athohharar-Ø

you.INFOR-NOM already take-PAST.2SG.INFOR we-ALL destruction-ACC

'You've brought us destruction.' (Peterson, 2013, p. 128)

(18.c.) tihat 'to look, to see (Littauer, 2016, p. 19)'

(18.c.i.) see (9.c.i.)

 $(18.c.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [laz]_{PRT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}$

Hash shafka <u>laz</u> tihi mae?

hash shafka-Ø laz tih-i mae

Q you.FOR-NOM can see-PRES.3PL he/she/it.ACC

'Can you see her?' (Peterson, 2013, p. 9-10)

4.2.2. Valency Increase

Only one morphosyntactic operation increases a verb's argument number: causativization $(a/\phi CC)$. As a result of this process, the newly derived verb starts to govern an additional participant compared to its non-derived basic form.

4.2.2.1. Causatives

Causative forms establish a causal relationship within the semantic framework of a given verb. As a natural consequence of the causativization process, intransitive verbs change to transitive and transitive verbs increase their degree of transitivity, bearing more arguments than their precausative forms (see Dixon & Aikhenvald, 2000, p. 13). Among the various methods found in natlangs, Dothraki employs a prefixal morphological process to create causative verbs: a/ØCC-

. When attached to a consonant-initial base, it manifests through gemination of the initial consonant along with an a- prefix. However, for vowel-initial bases, the vowel remains unchanged, and gemination occurs inside the lexeme (Brabent, 2011, p. 19). Drivat (17.a.i.), nakhat (19.b.i.), and shilat (19.c.i.) are causitivized as addrivat (19.a.ii.), annakhat (19.b.ii.), and asshilat (19.c.ii.).

(19.a.i.) drivat 'to be dead (Littauer, 2016, p. 7)'

see (3.a.)

(19.a.ii.) addrivat 'to kill (Littauer, 2016, p. 3)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

Addrivas mae!

(Ø-Ø) ad-driv-as mae

(you.INFOR-NOM) CAUS-die-IMP.2SG.INFOR he/she/it.ACC

'Kill him!' (Peterson, 2013, p. 21)

(19.b.i.) nakhat 'to stop (Littauer, 2016, p. 15)'

 $[1] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ}$

Kifindirgi kisha <u>nakhaki</u>?

kifindirgi kisha-Ø nakh-aki

why we-NOM stop-PRES.1PL

'Why are we stopping?' (Peterson, 2013, p. 145)

(19.b.ii.) annakhat 'to stop (Littauer, 2016, p. 3)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

Yer laz vos <u>annakhi</u> anna!

yer-Ø laz vos an-nakh-i anna

you.INFOR-NOM can not CAUS-stop-IMP.2SG.INFOR I.ACC

'You can't stop me!' (Peterson, 2013, p. 170)

(19.c.i.) shilat 'to know (a person), to be familiar with (Littauer, 2016, p. 18)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}$

Kisha <u>shilaki</u> yera.

kisha-Ø shil-aki yera

we-NOM know-PRES.1PL you.INFOR.ACC

'We know you.' (Peterson, 2013, p. 323)

(19.c.ii.) asshilat 'to introduce, to present (Littauer, 2016, p. 4)'

 $[3] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM} [3] [N/Pro]_{ABL/REC}$

Hash anha laz <u>asshilak</u> shafka kemokoon shafki?

hash I-Ø laz as-shil-ak shafka-Ø kemok-oon shafk(a)-i

Q I-NOM can CAUS-know-PRES.1SG you.FOR-ACC bride-ABL you.FOR-GEN

'May I introduce you to your bride?' (Peterson, 2013, p. 10)

4.2.3. Valency Decrease

Both passivization and reflexivization operations are responsible for decreasing a verb's argument number. These valency alternation processes are performed by utilizing the particles nem (for passivization) and nemo (for reflexivization).

4.2.3.1. Passives

During the passivization process, the patient or theme of a transitive verb is relocated to the subject position, thereby eliminating the object position in the sentence and reducing the verb's argument number (see Dixon & Aikhenvald, 2000, p. 7-9). Since it functions as a subject in its novel position, it is inflected for the nominative case with a zero morpheme. In Dothraki, another particle is used as a passivizer: nem. As an optional argument, the prepositional structure k(i) gen. is added to provide extra agent or experiencer information (Brabent, 2011, p. 31). Below, avvirsalat (20.a.) and nesat (20.c.)—two-argument verbs—lose one of their arguments while azhat (20.b.)—a three-argument verb—ends up governing two arguments after the passivization process.

(20.a.) avvirsalat 'to burn something (Littauer, 2016, p. 5)'

 $(20.a.i.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

Athzheanazar yeri avvirsae anna.

ath-zheana-zar-Ø yer-i av-virsa-e anna

NMLZ-be.beautiful-NMLZ-NOM you.INFOR-GEN CAUS-burn-PRES.3SG I.ACC

'Your beauty burns me.' (Peterson, 2013, p. 138)

 $(20.a.ii.) [1(+1)] \rightarrow [1] [N/Pro]_{NOM/PAT} [nem]_{PRT} [V]_{CONJ} ([2] [k(i) [N/Pro]_{GEN}]_{PP/AGT})$

Khado yeroon nem vos vavvirsao.

khado-Ø yer-oon nem vos v-av-virsa-o

body-NOM you.INFOR-ABL PASS not FUT-CAUS-burn-3SG

'Your body will not be burned.' (Peterson, 2013, p. 112-113)

(20.b.) azhat 'to give (Littauer, 2016, p. 5)'

(20.b.i.) see (12.a.)

(20.b.ii.) [2(+1)] \rightarrow [1] [N/Pro]_{NOM/THM} [nem]_{PRT} [V]_{CONJ} [2] [N/Pro]_{ALL/REC} ([3] [k(i) [N/Pro]_{GEN}]_{PP/AGT})

Me nem azh anhaan ki Senthisiri-[...]

me-Ø nem azh-Ø anh(a)-aan ki senthi-(i)sir-i

he/she/it-NOM PASS give-PAST.3SG I-ALL by the Thirteen-COLL-GEN

'It was given to me by the Thirteen—[...]' (Peterson, 2013, p. 187)

(20.c.) nesat 'to know (information) (Littauer, 2016, p. 15)'

 $(20.c.i.) [2] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}$

[...] anha ray nesok mae vos.

anha-Ø ray nes-ok mae vos

I-NOM yet know-NEG.PRES.1SG he/she/it.ACC not

'I just don't know it yet.' (Peterson, 2013, p. 195)

 $(20.c.ii.) [1(+1)] \rightarrow [1] [N/Pro]_{NOM/THM} [nem]_{PRT} [V]_{CONJ} ([2] [k(i) [N/Pro]_{GEN}]_{PP/EXP})$

Jini <u>nem</u> nesa.

jini-Ø nem nes-a this-NOM PASS know-PRES.3SG

'This is known.' (Peterson, 2013, p. 98)

4.3.2.2. Reflexives

Reflexivization causes the agent/experiencer and patient/theme participants in a sentence to relate to the same entity. Similar to the passivization process, reflexivization reduces a verb's valential properties, by eliminating one of its arguments (see Dixon & Aikhenvald, 2000, p. 11-12). For reflexivization as well, the syntax of the language employs a particle between the subject and the verb: nemo. It replaces the direct object governed by the verb and functions as the new direct object of the sentence in reference to the subject. Eventually, the normally two-argument verbs addrivat (21.a.) and eyelat (21.c.) become one-argument verbs while the naturally three-argument verb asshilat (21.b.) turns into a two-argument governor following the reflexivization process.

(21.a.) addrivat 'to kill (Littauer, 2016, p. 3)'

(21.a.i.) see (19.a.ii.)

(21.a.ii.) [1] \rightarrow [1] [N/Pro]_{NOM/AGT} [nemo]_{PRT} [V]_{CONJ}

[...] che anha <u>nemo</u> addrivak!

che anha-Ø nemo ad-driv-ak

or I-NOM REF CAUS-die-PRES.1SG

'[...] or I'll kill myself!' (Peterson, 2013, p. 88)

(21.b.) asshilat 'to introduce, to present (Littauer, 2016, p. 4)'

(21.b.i.) see (19.c.ii.)

(21.b.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [nemo]_{PRT} [V]_{CONJ} [2] [N/Pro]_{ABL/REC}

Nemo asshili (anhaan), [...]

(Ø-Ø) nemo as-shil-i anh(a)-aan

(you.FOR-NOM) REF CAUS-know-IMP.2SG.FOR I-ALL

'Present yourself (to me), [...]' (Peterson, 2013, p. 52)

(21.c.) eyelat 'to move something (Littauer, 2016, p. 7)'

(21.c.i.) [2] → [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}

Rhelas <u>eyelat</u> jin!

(Ø-Ø) rhela-s eye-lat jin-Ø

(you.INFOR-NOM) help-IMP.2SG.INFOR move-INF this-ACC

'Help move this!' (Peterson, 2013, p. 19)

(21.c.ii.) [1] \rightarrow [1] [N/Pro]_{NOM} [nemo]_{PRT} [V]_{CONJ}

Eye yeri <u>nemo</u> hash yeri zali; [...]

eye-Ø yeri-Ø nemo hash yeri-Ø zal-i

move-IMP.FOR you.INFOR-NOM REF if you.INFOR-NOM wish-PRES.2PL

'Go if you wish, [...]' (Peterson, 2013, p. 135)

Table 5. Valency Alternation Techniques

1 Competing Incompany Manufala	
1. Causatives Increase Morphologi	cal Prefix $a/\emptyset CC$ -
2. Duratives Retention Morphologi	cal Circumfix $v(i)$ (e)r
3. Dynamics Retention Morphologi	cal Suffix -o
4. Particles Retention Syntactic	Particle chir, eth, ish, jif, kis, laz,
	ray, vil, zin
5. Passives Decrease Syntactic	Particle <i>nem</i>
6. Reflexives Decrease Syntactic	Particle nemo
7. Reversives Retention Morphologi	cal Circumfix $e(s)$ (s)a

5. Discussion

Even though they are invented, conlangs are designed based on the working mechanisms of existing natlangs. Therefore, the extent to which these languages are naturalistic has been a subject of research in the literature (Destruel, 2014; Wyse, 2019; Melton, 2020; Tak & Lyuh, 2024).

Wyse (2019) compares Klingon's inflectional morphology to that of natlangs such as English and Mutsun in addition to a selection of typological samples. She concludes that it is more similar to English than to the other languages examined. From a pragmatic perspective, Tak & Lyuh (2024) focus on how Esperanto and Unish speakers use refusal strategies in comparison to natlang speakers. Their findings indicate that conlang speakers tend to favor indirect refusals, aligning with the natlang typologies. However, when comparing the two, they observe that Esperanto speakers prioritize direct strategies more than Unish speakers do.

In a similar manner, this study compares the valency patterns of Dothraki verbs to those of natlangs though examples from English, French, German, Greek, and Turkish, focusing on argument number and valency alternation. The related contrastive analyses will be carried out under the headings of avalent verbs, labile verbs, and morphosyntactic differences.

5.1. Avalent Verbs

Some languages, like English (22.a.), French (22.b.), and German (22.c.), fulfil the compulsory subject sloth of a verbal structure which expresses a meteorological phenomenon with an apparent but non-referential subject (it for English, il for French, and es for German). Tesnière (1965/2015) classifies such structures (rain for English, pleuvoir for French, and regnen for German) as avalent verbs (p. 240-241):

(22.a.) It is raining.

(22.b.) Il pleut.

(22.c.) Es regnet.

Dothraki, on the contrary, does not allow avalent verbs. Eyel 'rain (Littauer, 2016, p. 4)' functions as the thematic subject of the verb arthasolat (23.a.). In this respect, valential behavior between eyel and arthasolat in Dothraki resembles that of rain and to fall in English (23.b.) and yağmur and yağmak in Turkish (23.c.). Similarly, Turkish does not have avalent verbs in its verb repertoire (Işık, 1982, p. 75, as cited in Doğan, 2011, p. 88). This similarity makes Dothraki more comparable to Turkish than to English, French, and German in terms of valency number.

(23.a.) arthasolat 'to fall (Littauer, 2016, p. 4)'

 $[1] \rightarrow [1] [Pro]_{NOM//THM} [V]_{CONJ}$

Eyel varthasoe [...]

eyel-Ø v-arthas-o-e

rain-NOM FUT-fall-DYM-3SG

'The rain will fall [...]' (Peterson, 2013, p. 113)

(23.b.) to fall 'to drop down from a higher level to a lower level (OUP, 2025)'

 $[1] \rightarrow [1] [Pro]_{NOM//THM} [V]_{CONJ}$

The rain was falling.

the rain-Ø was fall-ing

DET rain-NOM be.PAST fall-PROG

(23.c.) yağmak '(of rain, snow, etc.) to fall (TDK, 2022)'

[1] → [1] [Pro]NOM//THM [V]CONJ
Yağmur yağıyor.
yağmur-Ø yağ-(1)yor
rain-NOM pour-PRES.PROG.3SG
'The rain is falling.'

5.2. Labile Verbs

On the spectrum of transitivity, labile verbs are versatile elements that can function both as intransitive/inchoative and transitive/causative governors (Haspelmath, 1993, p. 92). Their inherent competence allows them to alternate between these two functions without the requirement to change their morphological structure. Examples of labile verbs from natlangs include English break (24.a.), Turkish içmek (24.b.), and Greek svíno (24.c.). In each case, the first meaning represents the intransitive realization while the second corresponds to the transitive use. Likewise, Dothraki verbs such as adakhat (6.a.), chomat (6.b.), and dothralat (6.c.) exhibit lability in their internal natures.

(24.a.) break 'to be damaged; 2. to damage (OUP, 2025)'

(24.a.i.) [1] \rightarrow [1] [N/Pro]_{NOM//THM} [V]_{CONJ}

The plate <u>broke</u> into pieces.

the plate-Ø broke into piece-s

DET plate-NOM break.PAST into piece-PL

 $(24.a.ii.) [2] \rightarrow [1] [N/Pro]_{NOM//AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

He <u>broke</u> the window accidentally.

he-Ø broke the window-Ø accident-al-ly

he-NOM break.PAST DET window-ACC accident-ADJZ-ADVZ

(24.b.) içmek '1. to drink alcohol; 2. to drink (TDK, 2022)'

 $(24.b.i.) [1] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ}$

Dün akşam birlikte <u>içtiler</u>.

(onlar-Ø) dün akşam birlikte iç-ti-ler

(they-NOM) yesterday night one-NMLZ-LOC drink-PAST-3PL

'Last night, they drank (alcohol) together.'

 $(24.b.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC//THM}$

Su <u>içiyorum</u>.

(ben-Ø) su-Ø iç-(i)yor-um

(I-NOM) water-ACC drink-PRES.PROG-1SG

'I'm drinking water.'

(24.c.) svíno '1. to go out; 2. to extinguish (Haspelmath, 1993, p. 92)'

 $(24.c.i.) [1] \rightarrow [1] [N/Pro]_{NOM/THM} [V]_{CONJ}$

Ésvisan ta fóta.

é-svi(s)-an ta fóta.

PAST-go.off-3PL DET.NEUT.PL.NOM light.PL.NOM

'The lights went off.' (CGL, n.d.)

(24.c.ii.) [2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/THM}

Oi pyrosvéstes katáferan na svísoun tin pyrkagiá.

oi pyrosvést-es katáfer-an na sví(s)-oun tin pyrkagiá

DET.M.PL.NOM firefighter-PL.NOM manage-PAST.3PL PRT extinguish-PRES.3PL DET.F.ACC fire.ACC

'Firefighters managed to extinguish the fire.' (ibid.)

5.3. Morphosyntactic Differences

Natlangs may employ various strategies to modify the valential properties of their verbal elements. Generally discussed under the name valency alternations (see Haspelmath & Hartmann, 2015, p. 64-67), these strategies involve systematic operations that retain, increase, or decrease the number and roles of argument(s) a verb governs. Due to its highly agglutinative nature, Turkish relies on derivational morphology for such operations. For instance, inherently one-argument verb ölmek (25.a.) undergoes morphological causativisation with -DIr-¹³ and transforms into a two-argument verb öldürmek (25.b.) (for Turkish causatives, see Göksel & Kerslake, 2005, p. 71). In (25.c.), on the other hand, the causative öldürmek undergoes morphological passivisation with -II-, reduces its participants, and returns to a one-argument verb öldürülmek (for Turkish passives, see ibid., p. 72). As for Dothraki, it employs a prefixation operation to achieve causativization and increase valency (see 4.2.1.1.) while passivity is assigned syntactically through a particle rather than morphological marking (see 4.2.3.1).

(25.a.) ölmek 'to die (TDK, 2022)'

 $[1] \rightarrow [1] [N/Pro]_{NOM/EXP} [V]_{CONJ}$

Kazada üç kişi öldü.

kaza-da üç kişi-Ø-Ø öl-dü-Ø

accident-LOC three person-PL-NOM die-PAST-3SG

'In the accident, three people died.'

(25.b.) öldürmek 'to kill (ibid.)'

 $[2] \rightarrow [1] [N/Pro]_{NOM/AGT} [V]_{CONJ} [2] [N/Pro]_{ACC/PAT}$

Aslan ceylanı öldürdü.

aslan-Ø ceylan-ı öl-dür-dü-Ø

lion-NOM gazelle-ACC die-CAUS-PAST-3SG

'The lion killed the gazelle.'

¹³ Capital letters represent suffixal allomorphy as a result of vowel and consonant harmonies.

(25.c.) öldürülmek 'to be killed (ibid.)'

 $[1(+1)] \rightarrow [1] [N/Pro]_{NOM/PAT} ([2] [[N/Pro]_{GEN} tarafından]_{PP/AGT}) [V]_{CONJ}$ Tanık (katil tarafından) öldürüldü.

tanık-Ø (katil-Ø tarafından) öl-dür-ül-dü-Ø

witness-NOM (killer-GEN by) die-CAUS-PASS-PAST-3SG

'The witness was killed (by the killer).'

6. Conclusion

Continuing J. R. R. Tolkien's tradition in written literature, television producers harness the power of conlangs to add a taste of authenticity into the fictional narratives of their artistic shows. As one of these shows, GoT (Benioff & Weiss, 2011) stages multiple conlangs such as Dothraki and Valyrian languages. Designed by David J. Peterson, who holds an M.A. in linguistics, Dothraki is a notable example of artlangs (see Sanders, 2020, p. 24-25). It is spoken by a nomadic, horse-riding, and war-driven people from Essos within the fictional world (Peterson, 2014, p. 6-7). Calling themselves ridders (i.e., dothraki < dothralat 'to ride (Littauer, 2016, p. 6)'), the Dothraki people reflect their lifestyle in their language. Greeting each other with respect (i.e., M'athchomaroon! 'Hello! (lit. With respect!)'), they part ways by wishing each other a good hunt (i.e., Fonas check! 'Goodbye! (lit. Hunt well!)') (Peterson, 2014, p. 25-27).

Scholarly works on the Dothraki language have examined its naturalistic value (Destruel, 2014; Melton, 2020), phonological characteristics (Vinodh, 2019), sociocultural role in online communities (Meluzzi, 2019), communicative function in power dynamics across discourses (Ene, 2024), linguistic challenges in cross-cultural translation (Iberg, 2018; Isnaini, 2024), ideological construction of real-life stereotypes within a fictional world (Rebane, 2019), and narrative mechanism to emphasize exclusion and violence (Doll, 2021). This study, on the other hand, adopts a linguistic stance and focuses on the valential behaviors of Dothraki verbs. After describing their occurrence in terms of argument number (see 4.1.) and valency alternation (see 4.2.), it compares them to those in natural languages such as English, French, German, Greek, and Turkish (see 5).

This study reveals that Dothraki verbs can obligatorily govern one (see 4.1.1.), two (see 4.1.2.), or three (see 4.1.3.) arguments and retain (see 4.2.1.), increase (see 4.2.2.), or decrease (see 4.2.3.) their argument numbers through seven morphosyntactic methods. These arguments are realized through case inflection in their surface structures (see Table 3). In addition, they fulfil various semantic functions in their deep structures (see Table 1). As sources for descriptive analyses, Brabent (2011), Peterson (2014), and Peterson (2015) have been used for grammatical explanations; Dik (1980, p. x), Fillmore (2003, p. 464), and Herbst & Schüller (2008, p. 131-134) for semantic categories; Littauer (2016) for dictionary definitions; and Peterson (2013) for example sentences.

From a different perspective, the contrastive analyses have focused on avalent verbs (see 6.1.), labile verbs (see 6.2.), and morphosyntactic differences (see 6.3.). In terms of argument number, natural languages like English, French, and German allow avalency in such verbs as rain, pleuvoir, and regnen, respectively. However, Dothraki employs monovalent structures in

parallel sentences, making it more comparable to Turkish in this respect. Similar to English break, Greek svíno, and Turkish içmek, Dothraki adakhat, chomat, and dothralat also have labile behaviors. As for coded valency alternation operations, Turkish relies on morphological methods while Dothraki employs both morphological and syntactic techniques. Based on these findings, this study concludes that Dothraki behaves in the same way as natural languages.

7. Symbols and Abbreviations

+	1. free morpheme; 2. affirmative
-	1. bound morpheme; 2. negative
±	both affirmative and negative
Ø	zero morpheme/phoneme
()	optional element
[]	abstract unit
//	concrete unit
/	phonological/morphological/syntactic variation
>	left-to-right developmental change
<	right-to-left developmental change
	multiple functions
1	first person
2	second person
3	third person
ABL	ablative
ACC	accusative
ADJZ	adjectivizer
ADVZ	adverbializer
AGR	agreement
AGT	agent
ALL	allative
AN	animate
С	consonant
CAUS	causative
cf.	compare
Cl	clause
COM	company
COMP	complementizer
CONJ	conjunction
DET	determiner
DIR	direction
DUR	durative
DYN	dynamic

EXP	experiencer
F	feminine
FOR	formal
FUT	future
GEN	genitive
GoT	Game of Thrones
INAN	inanimate
IND	indicative
INF	infinitive
INFOR	informal
lit.	literally
LOC	location
М	masculine
Ν	noun
NC	nominal case
NMLZ	nominalizer
NOM	nominative
0	object
Р	preposition
PART	participle
PASS	passive
PAT	patient
PL	plural
PP	pre/postpositional phrase
Pro	pronoun
PRES	present
PROG	progressive
PRT	particle
PUR	purpose
Q	interrogative
REC	recipient
REF	reflexive
REV	reversive
S	subject
SG	singular

SRC	source
THM	theme
V	1. vowel; 2. verb
Х	unknown lexeme

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