

# Text Alignment

Sunoikisis Digital Classics Spring 2025

Megan Bushnell (Oxford Text Archive)  
Chiara Palladino (Furman University)  
Farnoosh Shamsian (University of Leipzig)

# Structure

Theoretical introduction on Translation and Text Alignment (Chiara - 5 min)

Quick overview of Ugarit (Chiara - 5 min)

Quick overview of Research Applications (8 mins max)

Chiara: general overview

Farnoosh: aligning named entities in inscriptions

Megan: sentence alignment for the tradition of the *Aeneid*

How to explore a text/language you don't know with text alignment:

- A historical case (Megan - 15 mins)
- Alignment for Teaching and Learning a new language (Farnoosh - 20 mins)

Exercises

# Principles of Text Alignment

# Parallel corpora

- A parallel text is a **text placed alongside its translation or translations.**
- Large collections of parallel texts are called **parallel corpora**.
- **The alignment of parallel texts is also called Translation Alignment.**
- **Parallel concordancing:** searching aligned texts in tandem.

<p><name type=org> The Ministry of Truth</name>, &mdash; <p><name type=org lang=EN>MINISTRY OF TRUTH</name>, in <name type=org lang=ES>MINISTERIO DE VERDAD</name> target=N1 rend="block">A massive building, darkly, different from any other object in sight. It was an enormous pyramidal structure of glittering white concrete, soaring upwards into the air. From where I stood Winston</name> stood it was white in elegant lettering, the three slogans of the <name type=org>Ministry of Truth</name>: <q rend="centered caps" type=slogan> War is peace</q> <q rend="centered caps" type=slogan> Freedom is slavery</q> <q rend="centered caps" type=slogan> Ignorance is strength.</q>

</p>

<note place=foot id=N1>

<name>Newspeak</name> was the official language of the <place>Oceania</name>. Springer-Science+Business Media, B.V. For an account of its structure and etymology see Appendix.</note>

# Examples of parallel corpora

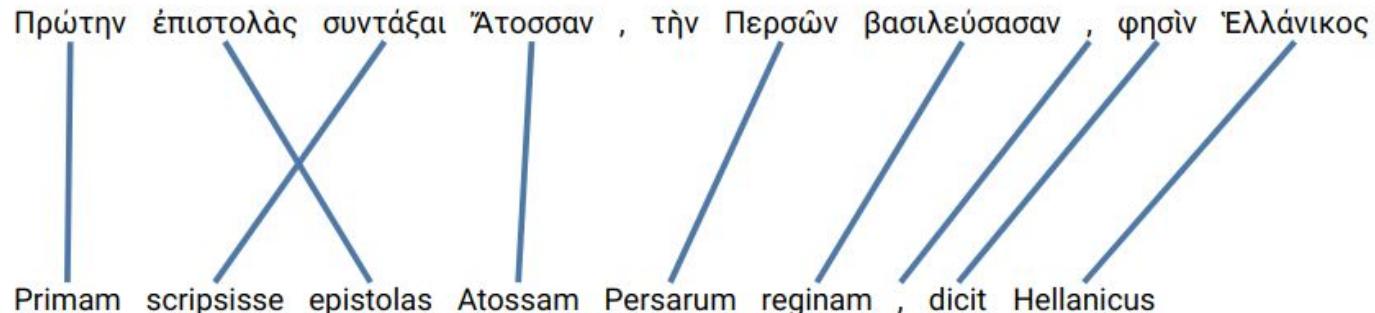
The **Bible corpus** contains 1169 unique translations

<http://paralleltext.info/data/all/>

Available translations		
Translation	Language	Family
1 aai-x-bible	Arifama-Minifolia	Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo...
2 aak-x-bible	Ankave	Trans-New Guinea, Angan, Nuclear Angan
3 aau-x-bible	Abau	Sepik, Abau
4 abt-x-bible-maprik	Ambulas	Sepik, Ndu
5 abt-x-bible-wosera	Ambulas	Sepik, Ndu
6 aby-x-bible	Aneme Wake	Trans-New Guinea, Southeast Papuan, Yareban
7 acd-x-bible	Gikyode	Niger-Congo, Atlantic-Congo, Volta-Congo, Kwa, Nyo, Potou-Tano, Tano, Guang, North...
8 ace-x-bible	Aceh	Austronesian, Malayo-Polynesian, Malayo-Chamic, Chamic, Acehnese
9 acf-x-bible	Saint Lucian Creole French	Creole, French based
10 acn-x-bible	Achang	Sino-Tibetan, Tibeto-Burman, Ngwi-Burmese, Burmish, Northern
11 acr-x-bible-cubulcu	Rabinal Achí	Mayan, Yucatecan-Core Mayan, K'ichean-Mamean, K'ichean, Poqom-K'ichean, Core K'...
12 acr-x-bible-reformed	Rabinal Achí	Mayan, Yucatecan-Core Mayan, K'ichean-Mamean, K'ichean, Poqom-K'ichean, Core K'...
13 acr-x-bible-traditional	Rabinal Achí	Mayan, Yucatecan-Core Mayan, K'ichean-Mamean, K'ichean, Poqom-K'ichean, Core K'...
14 acu-x-bible	Achuar-Shiwiar	Jivaroan, Jivaro
15 ade-x-bible	Adele	Niger-Congo, Atlantic-Congo, Volta-Congo, Kwa, Nyo, Potou-Tano, Basila-Adele
16 adj-x-bible	Adioukrou	Niger-Congo, Atlantic-Congo, Volta-Congo, Kwa, Nyo, Agneby
17 aey-x-bible	Amele	Trans-New Guinea, Madang, Croisilles, Gum
18 afr-x-bible-1953	Afrikaans	Indo-European, Germanic, West, Low Saxon-Low Franconian, Low Franconian
19 afr-x-bible-1983	Afrikaans	Indo-European, Germanic, West, Low Saxon-Low Franconian, Low Franconian
20 afr-x-bible-boodskap	Afrikaans	Indo-European, Germanic, West, Low Saxon-Low Franconian, Low Franconian
21 afr-x-bible-lewende	Afrikaans	Indo-European, Germanic, West, Low Saxon-Low Franconian, Low Franconian
22 afr-x-bible-viralmal	Afrikaans	Indo-European, Germanic, West, Low Saxon-Low Franconian, Low Franconian
23 agd-x-bible	Agarabi	Trans-New Guinea, Kainantu-Goroka, Kainantu, Gadsup-Auyana-Awa
24 agy-x-bible	Angor	Senagi
25 agm-x-bible	Angaatiha	Trans-New Guinea, Angan, Angaatiha
26 agn-x-bible	Agutaynen	Austronesian, Malayo-Polynesian, Philippine, Kalamian
27 agr-x-bible	Aguaruna	Jivaroan
28 agu-x-bible	Aguacateco	Mayan, Yucatecan-Core Mayan, K'ichean-Mamean, Mamean, Awakateko-Ixil
29 ahk-x-bible	Akha	Sino-Tibetan, Tibeto-Burman, Ngwi-Burmese, Ngwi, Southern
30 aia-x-bible	Arosi	Austronesian, Malayo-Polynesian, Central-Eastern Malayo-Polynesian, Eastern Malayo...

# Defining Text Alignment

- **Comparison of two or more texts** in order to find **equivalences** between text units
- **Translation Alignment**: comparison of two or more different language versions of the same text.
- Different **units of alignment**: document, text chunk, sentence, word.
- Output of alignment: **Translation Pairs (TPs)**.



# Descriptive Translation Studies (DTS)

- Purpose is ‘to describe the phenomena of translating and translation(s) as they manifest themselves in the world of our experience’ (Holmes 1987: 15).
- Assumes that for every translation there is:
  - (A) A source.
  - (B) A transferral process from the source text to the translation.
  - (C) A tangible relationship between the translation and the original, i.e. **equivalence**. (Toury 2012: 29-30)
- Goal is to reconstruct (B) the transferral process by examining (C) the equivalence between the translation and (A) the source - which is where translation alignment comes in!

# Equivalence

- Perfect linguistic equivalence does not exist.
- **Cultural equivalents** - words that serve the same cultural function, but not necessarily the same linguistic one (Vermeer 1987: 31).
- Translation is a process of cultural transformation (Ivir 1987).
- Alignment can be used to reverse engineer cultural contexts.

The (prospective) systemic position & function of a translation

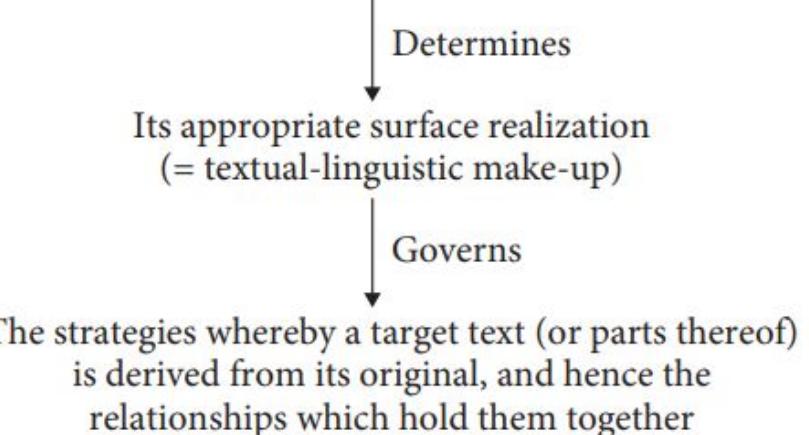
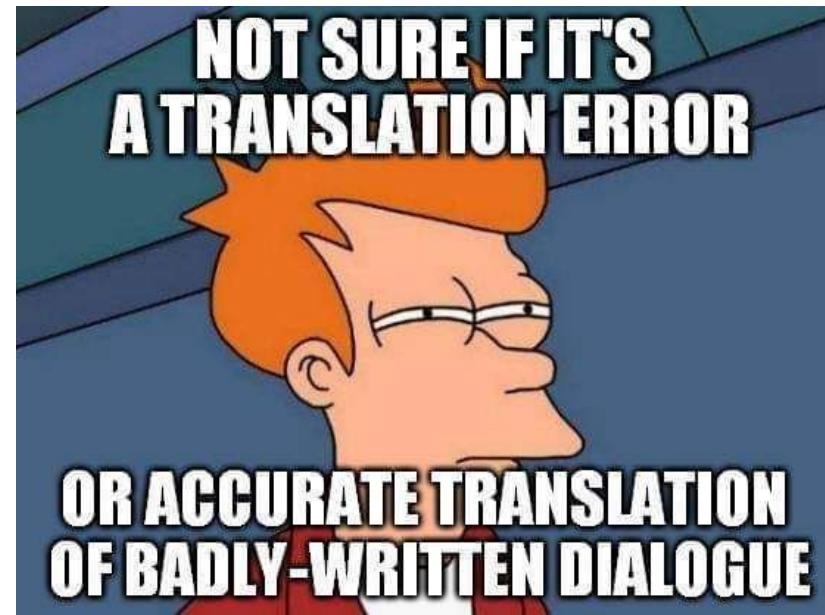


Diagram from Toury (2012: 7, fig. 2)

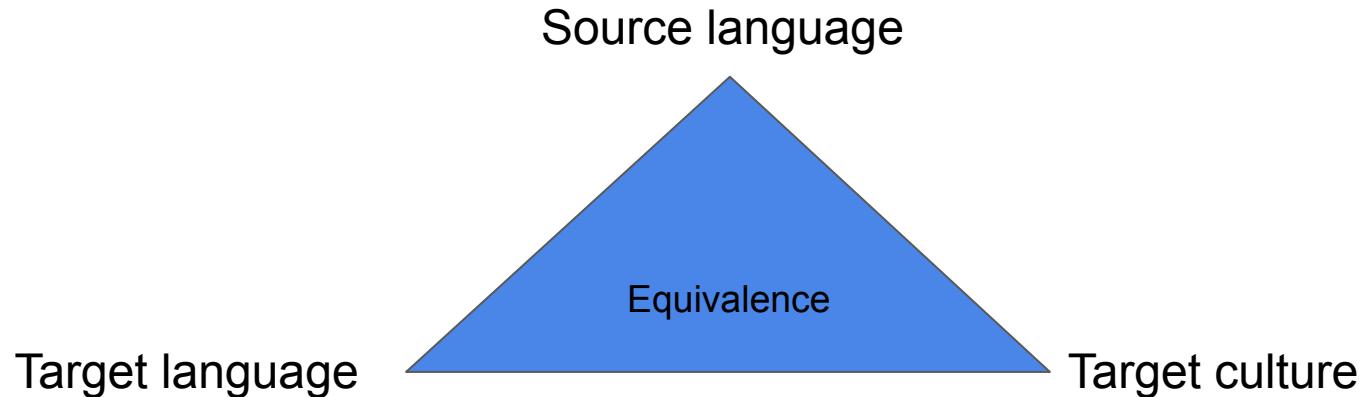
# Defining Text Alignment

- **Crossing dependencies:** different word or sentence order.
- Not always perfect equivalence: **perfect/complete, partial/possible, no alignment.**
- Cultural and linguistic **context** can condition the result in translation alignment.
- Wordplays, allusions, stylistic peculiarities.
- Specificities for **low-resourced languages.**



# Acceptability and Adequacy

- **Acceptability** - how well a text meets the target language's cultural standards; generally more prone to **paraphrase** and **adaptation**.
- **Adequacy** - how accurately a text conveys its source; generally more prone to **literal translation**.
- **Equivalence** is a balance between source language, target language, and target culture's expectations, calibrated by translator's intentions.



# Acceptability and Adequacy through the ages

'In quibus **non verbum pro verbo** necesse habui reddere, sed genus omne verborum vimque servavi.' (Cicero, *De optimo genere oratorum*, V.14).

- *In which effort, I did not hold it necessary to render word for word, but preserved the force and general type of language.*

'**nec verbo verbum** curabis reddere fidus /interpres ...' (Horace, *Ars Poetica*, 133-34).

- *... nor take care to render word with word like a faithful / interpreter ...*

'Dum enim non sunt qui sensum de sensu exprimunt, sed transferre **verborum** semper **proprietatem** volunt omnem dictorum sensum confundunt.' (Gregory, *Epistle 10*).

- *For while there are those who do not express the sense of meaning, but always desire to transfer the property of language, they confuse the entire meaning of the text.*

# Acceptability and Adequacy through the ages

Author	Translates 'word for word'	Translates 'sense for sense'	Prioritises adequacy	Prioritises acceptability
Cicero/Horace		x		x
Gregory		x	x	x
Boethius	x		x	x
	Goal is to displace source	Goal is to access to source	Believes that meaning is located in language	Believes that meaning is separate from language
Cicero/Horace	x		x	
Gregory		x		x
Boethius	x		x	

For a full analysis of this, see Copeland, *Rhetoric, Hermeneutics, and Translation in the Middle Ages* (Cambridge: CUP, 1991).

# Approaches to text alignment

- Manual
  - Pros: Exact, flexible, a great way for you to understand how a translation works.
  - Cons: Laborious and time consuming, not great for large texts.
- Automatic
  - Pros: Fast, powerful,
  - Cons: Not as flexible as of yet; not able to support all languages.

O tempora, o mores! [...] Sunt vestrum aliquam multi qui L. Pisonem cognorint, huius L. Pisonis, qui praetor fuit, patrem.

---

2 ցնօրտ (= cognorint) S D] unde gnorunt sive norunt ψ gonrit R cognoverint π

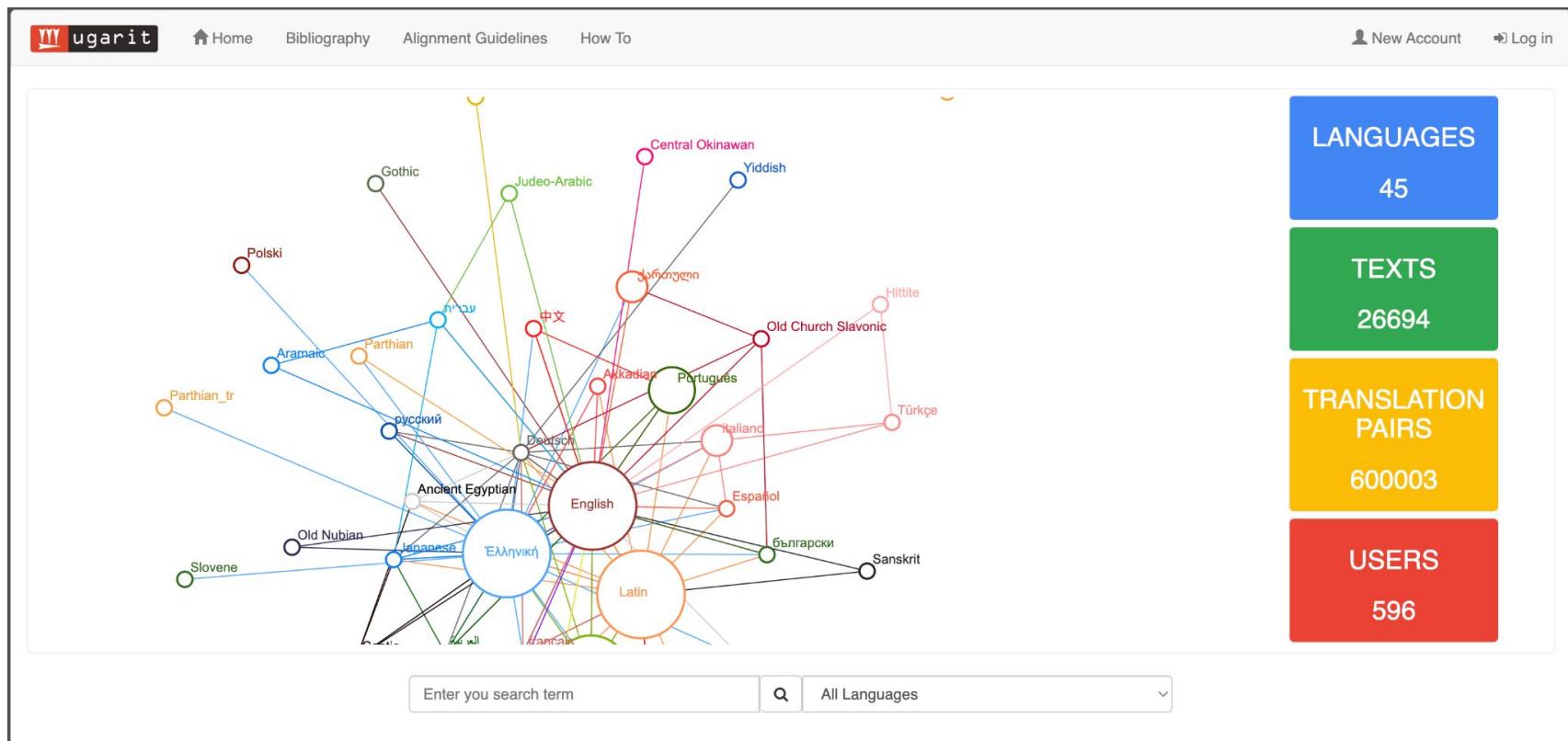
Ô temps, ô mœurs! [...] Il y a un assez grand nombre d'entre vous qui ont connu L. Pison, le père du dernier L. Pison qui fut préteur.

# Programs for alignment

- AntConc: <https://www.laurenceanthony.net/software/antconc/>
- Alpheios Standalone Text Alignment: <https://alignment.alpheios.net/>
- Ugarit Editor: <https://ugarit.ialigner.com/>
- Ugarit automatic alignment (demo): <http://ugarit-aligner.com/>
- iAligner: <https://ialigner.com/>

Overview in Yousef, Tariq, and Stefan Janicke. 2020. “A Survey of Text Alignment Visualization.”  
<https://doi.org/10.1109/TCVG.2020.3028975>.

# Ugarit (<https://ugarit.ialigner.com/>)



# The Ugarit Project



Tariq Yousef



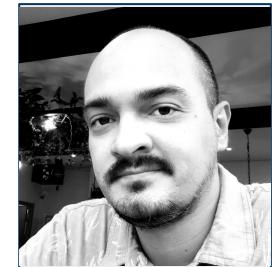
Chiara  
Palladino



Farnoosh  
Shamsian



Anise d'Orange  
Ferreira



Michel Ferreira  
dos Reis



David J. Wright



Monica Berti

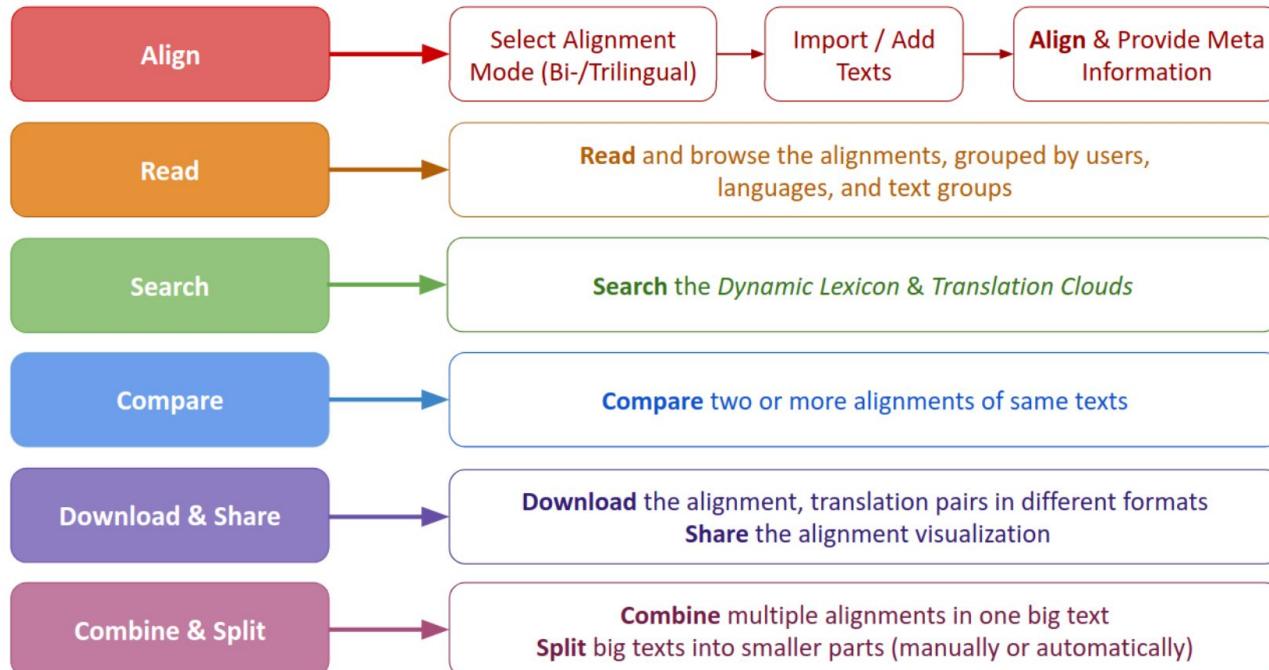


Gregory Crane

# What is UGARIT ?

- Web-based tool for manual alignment of parallel texts.
- Targeting **historical and low-resourced languages**.
- Crowdsourcing tool: to collect **training data** for automatic models.
- Automatic **publication** on the web.
- Also a **reading environment** and learning tool.

# Ugarit Alignment Editor



Overview of Ugarit's features and functionalities.

Side By Side View ≡ ≡

## Table View

## Grid View

Export as JSON 

×

**μῆνιν** αειδε θεα Πηληγάδεω Αχιλῆος ουλομένην  
, ἦ μυρί' Αχαιοῖς αλγε' εθηκε ,

The wrath sing, goddess, of Peleus' son,  
Achilles, that destructive wrath which brought  
countless woes upon the Achaeans,



<http://ugarit-aligner.com/>

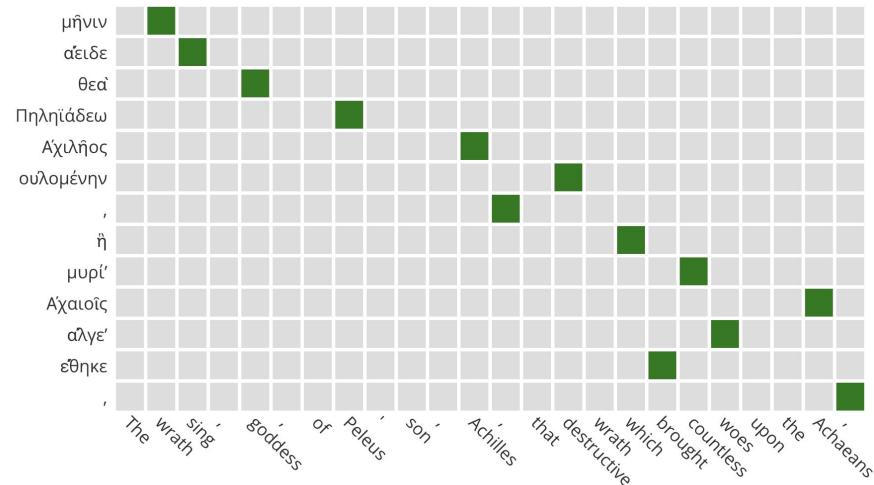


# Hugging Face

Q Search mode



/ grc-alignment



<https://huggingface.co/UGARIT/grc-alignment>

# Create an account



ugarit

Join UGARIT  
Create your account

Full Name

Email

Organization

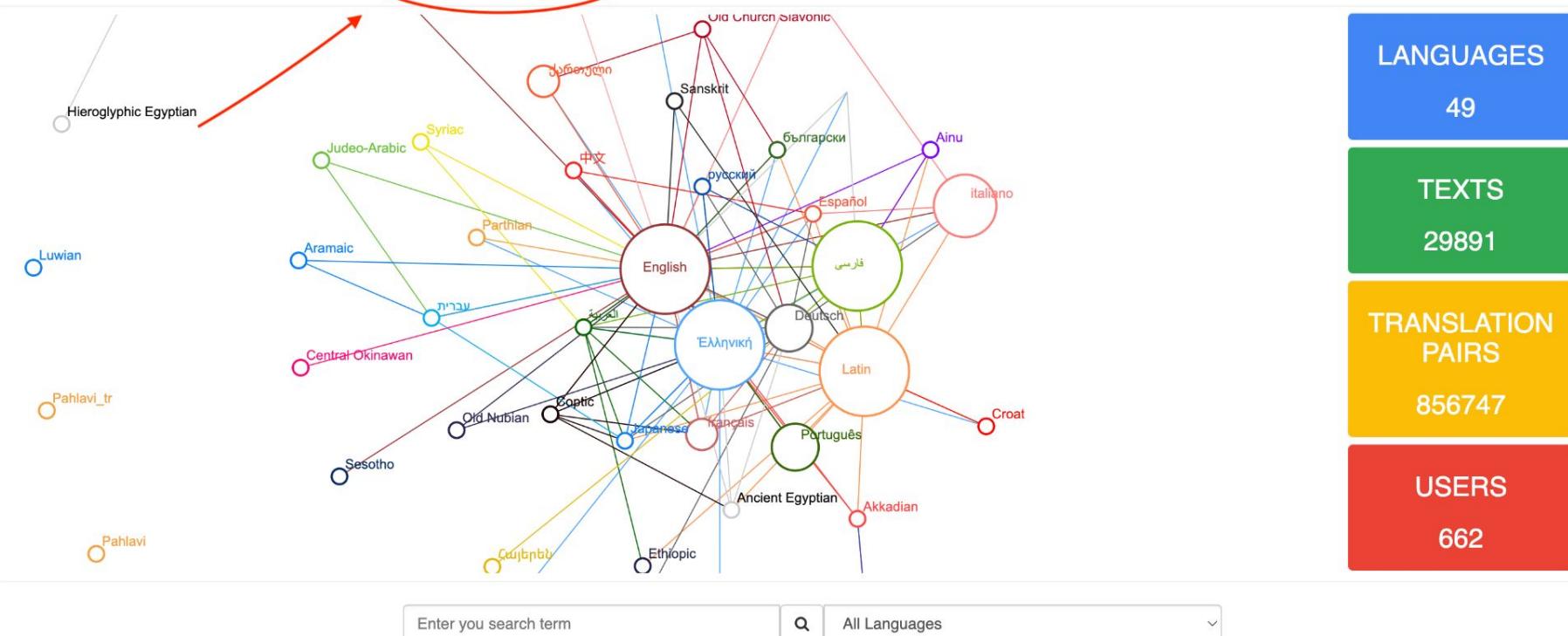
DJGigantomachy

.....

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Should you have any questions or concerns, please contact us [ugarit@ialigner.com](mailto:ugarit@ialigner.com).



Users

New Alignments

# Copy and paste source text and translation

[Home](#)[Dashboard](#)[Translation Alignment Editor](#) ▾[Bibliography](#)[Alignment Guidelines](#)[How To](#)

David J. Wright ▾

## Source Text

CTS urn

 Fetch

Select Language

Ancient Greek ▾

μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος  
ούλομένην, ἷ μυρί' Ἀχαιοῖς ἄλγε' ἔθηκε,  
πολλάς δ' ἵθιμους ψυχάς "Αἴδι προΐαψεν  
ἡρώων, αύτοὺς δὲ ἐλώρια τεῦχε κύνεσσιν  
οἰωνοῖσι τε πᾶσι, Διός δ' ἐτελείετο βουλή,  
ἐξ οὐ δὴ τὰ πρῶτα διαστήτην ἐρίσαντε  
Ἀτρείδης τε ἄναξ ἀνδρῶν καὶ δῖος Ἀχιλλεύς.

## Translation

CTS urn

 Fetch

Select Language

English ▾

Sing, O goddess, the anger of Achilles son of Peleus, that brought countless ills  
upon the Achaeans. Many a brave soul did it send hurrying down to Hades, and  
many a hero did it yield a prey to dogs  
and vultures, for so was the will of Zeus fulfilled from the day on which the son of  
Atreus, king of men, and great Achilles, first fell out with one another.



Align

# It also works with three languages!

CTS urn

Fetch

German ▾

An Luna

Schwester von dem ersten Licht,  
Bild der Zärtlichkeit und Trauer!  
Nebel schwimmt mit Silberschauer  
Um dein reizendes Gesicht;  
Deines leisen Fußes Lauf  
Weckt aus tagverschloßnen Höhlen  
Traurig abgeschiedne Seelen,  
Mich und nächtge Vögel auf.

CTS urn

Fetch

English ▾

To Luna

Sister of the first-born light,  
Type of sorrowing gentleness!  
Quivering mists in silv'ry dress  
Float around thy features bright;  
When thy gentle foot is heard,  
From the day-closed caverns then  
Wake the mournful ghosts of men,  
I, too, wake, and each night-bird.

CTS urn

Fetch

Spanish ▾

Al la luna

¡Oh tú, la hermana de la luz primera,  
símbolo del amor en la tristeza!  
Ciñe tu rostro encantador la bruma,  
orlada de argentados resplandores;  
Tu sigiloso paso de los antros  
durante el día cerrados cual sepulcros,  
a los tristes fantasmas despabila,  
y a mí también y a las nocturnas aves.

# Align!

Text Group	Not Classified	Title	Title
Translator	Translated by ..	Visible	<input checked="" type="radio"/> Yes <input type="radio"/> No
URL	URL	Description	
CTS urn	cts urn	CTS urn	cts urn
Language	Ancient Greek	Language	English

Save

Reset Export as XML Export Translation Pairs μῆνιν anger ≡

μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος  
οὐλομένην , ἦ μυρί' Ἀχαιοῖς ἄλγε' ἔθηκε ,  
πολλὰς δ' ἴφθιμους ψυχὰς "Αἴδι προίαψεν  
ἡρώων , αύτοὺς δὲ ἐλώρια τεῦχε κύνεσσιν  
οἰωνοῖσι τε πᾶσι , Διός δ' ἐτελείετο βουλή ,  
ἔξ οὖ δὴ τὰ πρῶτα διαστήτην ἐρίσαντε  
Ἀτρείδης τε ἄναξ ἀνδρῶν καὶ δῖος Ἀχιλλεύς .

Sing , O goddess , the anger of Achilles son of Peleus , that  
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did it send hurrying down to Hades , and many a hero did it  
yield a prey to dogs  
and vultures , for so was the will of Zeus fulfilled from the day  
on which the son of Atreus , king of men , and great Achilles ,  
first fell out with one another .

<b>Text Group</b>	Not Classified	<b>Title</b>	Iliad 1.-1-7
<b>Translator</b>	Samuel Butler	<b>Visible</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No
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<b>CTS urn</b>	cts urn	<b>CTS urn</b>	cts urn
<b>Language</b>	Ancient Greek	<b>Language</b>	English

 Save Changes
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( 31 / 50 ) 62%

μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλῆος  
οὐλομένην, ἦ μυρί' Ἀχαιοῖς ἄλγε' ἔθηκε,  
πολλὰς δ' ἵφθιμους ψυχὰς "Αἴδι προΐαψεν  
ἡρώων, αύτοὺς δὲ ἐλώρια τεῦχε κύνεσσιν  
οἰωνοῖσι τε πᾶσι, Διός δ' ἐτελείετο βουλή,  
ἐξ οὗ δὴ τὰ πρώτα διαστήτην ἐρίσαντες  
Ἄτρειδης τε ἄναξ ἀνδρῶν καὶ δῖος Ἀχιλλεύς.

( 39 / 80 ) 48%

Sing, O goddess, the anger of Achilles son of Peleus, that  
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yield a prey to dogs and vultures, for so was the will of Zeus  
fulfilled from the day on which the son of Atreus, king of men,  
and great Achilles, first fell out with one another.

- ✗ διαστήτην and
- ✗ ἀνδρῶν men fell out
- ✗ ἄναξ king
- ✗ δῖος great
- ✗ Αχιλλεύς Achilles
- ✗ πρώτα first
- ✗ ἐξ οὗ from the day on which
- ✗ ἐτελείετο fulfilled
- ✗ βουλὴ will
- ✗ Διός Zeus
- ✗ οἰωνοῖσι vultures
- ✗ κύνεσσιν dogs
- ✗ τεῦχε yield
- ✗ ἐλώρια prey
- ✗ ἡρώων hero
- ✗ Αἴδι Hades
- ✗ προΐαψεν did send
- ✗ ἀνδρῶν soul

[Embed](#)[Show Translation Pairs](#)[Alignment Statistics](#)

## NICOLAUS\_DAMASCENUS 141

Chiara Palladino / LAT-GRC alignments

Created on 2022-03-14 22:07:12

Modified on 2022-03-18 10:34:51

Aligned by Chiara Palladino

['Ελληνική](#)[Transliterate](#)

basileūs

Πάνηбоι Λίβυες , ὅταν αὐτοῖς ὁ βασιλεὺς ἀποθάνῃ , τὸ μὲν σῶμα κατορύττουσι , τὴν δὲ κεφαλὴν ἀποκόψαντες καὶ χρυσώσαντες ἀνατιθέασιν ἐν Ἱερῷ .

( 11 ) 46% GRC

( 13 ) 54% GRC - LAT

[Latin](#)

Panebi Libyes mortuo rege corpus reliquum terra condunt , caput autem trunco amputatum inaurantes in sacris statuunt .

( 15 ) 83% GRC - LAT

( 3 ) 17% LAT

<https://ugarit.ialigner.com/text.php?id=30840>

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## NICOLAUS\_DAMASCENUS 141

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[Ελληνική](#)[Transliterate](#)

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<https://ugarit.ialigner.com/text.php?id=30840>



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Show Translation Pairs

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## NICOLAUS\_DAMASCENUS 141

Chiara Palladino / LAT-GRC alignments

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Aligned by Chiara Palladino

**Ελληνική** Transliterate

Πάνηβοι Λίβυες , ὅταν αύτοῖς ὁ βασιλεὺς ἀποθάνῃ , τὸ μὲν σῶμα κατορύττουσι , τὴν δὲ κεφαλὴν ἀποκόψαντες καὶ χρυσώσαντες ἀνατιθέασιν ἐν Ἱερῷ .

( 11 ) 46% GRC

( 13 ) 54% GRC - LAT

**Latin**

Panebi Libyes mortuo rege corpus reliquum terra condunt , caput autem truncō amputatum inaurantes in sacris statuunt .

( 15 ) 83% GRC - LAT

( 3 ) 17% LAT

[Embed](#) [Show Translation Pairs](#) [Alignment Statistics](#)



## NICOLAUS\_DAMASCENUS 141

Chiara Palladino / LAT-GRC alignments

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[Ελληνική](#) [Transliterate](#)

Πάνηβοι Λίβυες , ὅταν αύτοῖς ὁ βασιλεὺς ἀποθάνῃ , τὸ μὲν σῶμα κατορύττουσι , τὴν δὲ κεφαλὴν ἀποκόψαντες καὶ χρυσώσαντες ἀνατιθέασιν ἐν ιερῷ .

( 11 ) 46% GRC

( 13 ) 54% GRC - LAT

( 15 ) 83% GRC - LAT

( 3 ) 17% LAT

## Translation Pairs



Translation Pairs 13

Unique Translation Pairs 13

[Download](#)

GRC	LAT	Frequency
χρυσώσαντες	inaurantes	1
ἀποκόψαντες	trunco amputatum	1
ἀνατιθέασιν	statuunt	1
ἐν	in	1
ἱερῷ	sacris	1
δὲ	autem	1
κεφαλὴν	caput	1
κατορύττουσι	terra condunt	1

Panebi Libyes mortuo rege corpus reliquum terra condunt , caput autem trunco amputatum inaurantes in sacris statuunt .

## Link types:

Word-to-word

Word-to-phrase

Phrase-to-word

Phrase-to-phrase

Embed Show Translation Pairs **Alignment Statistics**

**NICOLAUS\_DAMASCENUS 141**  
Chiara Palladino / LAT-GRC alignments

Created on 2022-03-14 22:07:12 Modified on 2022-03-18 10:34:51 Aligned by

Ελληνική Transliterate

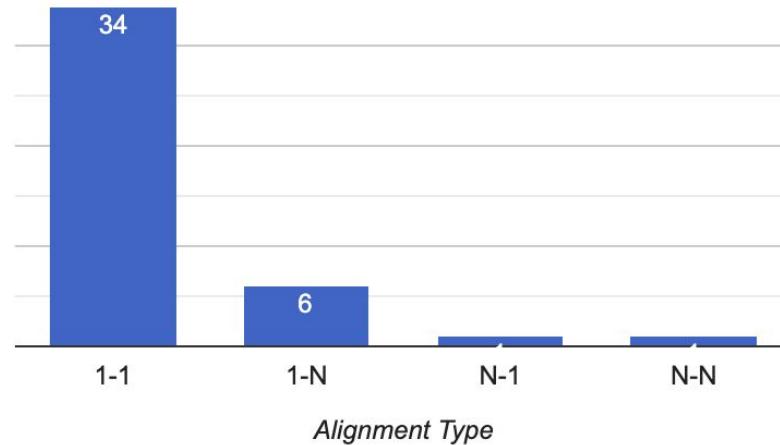
Πάνηβοι Λίβυες , ὅταν αὐτοῖς ὁ βασιλεὺς ἀποθάνῃ , τὸ μὲν σῶμα κατορύττουσι , τὴν δὲ κεφαλὴν ἀποκόψαντες καὶ χρυσώσαντες ἀνατιθέασιν ἐν Ἱερῷ .

( 11 ) 46% GRC

( 13 ) 54% GRC - LAT

## Alignment Statistics

Frequency



Latin

Panebi Libyes mortuo rege corpus reliquum terra condunt , caput autem truncō amputatum inaurantes in sacris statuunt .

( 15 ) 83% GRC - LAT

( 3 ) 17% LAT

# βασιλεὺς ('Ελληνική)

Frequency: 56

Translations:

- Latin : rex (1), Rex (1), rege (2)
- ქართული : მეფე (1)
- فارسی : شاه (1), با تاج و فر (2)
- Parthian\_tr : šāh (1)
- English : king (26), great king (1), presents (1), the king (6), a king (2)
- Deutsch : König (1)
- italiano : il re (1), Re (1)
- Português : o rei (2), rei (6)

Embed

Show Trans



NICOLAUS\_DA

Chiara Palladino / LAT-C

Created on 2022-03-14 2

Ελληνική Transliterate

Πάνηβοι Λίβυες , ὅταν αὐτοῖς ὁ βασιλεὺς ἀποθάνῃ , τὸ μὲν σῶμα κατορύττουσι , τὴν δὲ κεφαλὴν αἰσκρψαντες καὶ χρυσώσαντες ἀνατιθέασιν ἐν Ἱερῷ .

( 11 ) 46% GRC

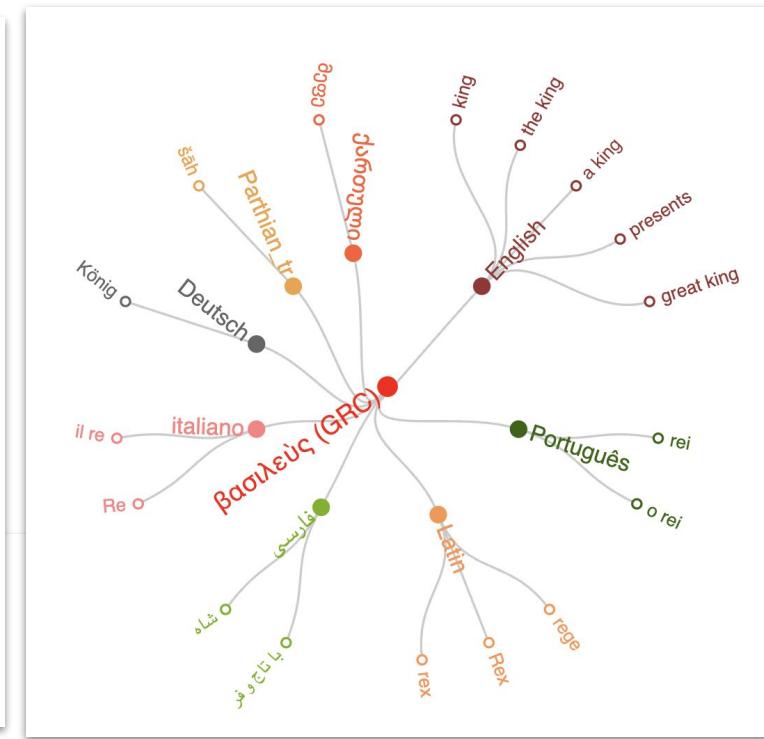
( 13 ) 54% GRC - LAT

Latin

Panebi Libyes mortuo rege corpus reliquum terra condunt , caput autem truncō amputatum inaurantes in sacris statuunt .

( 15 ) 83% GRC - LAT

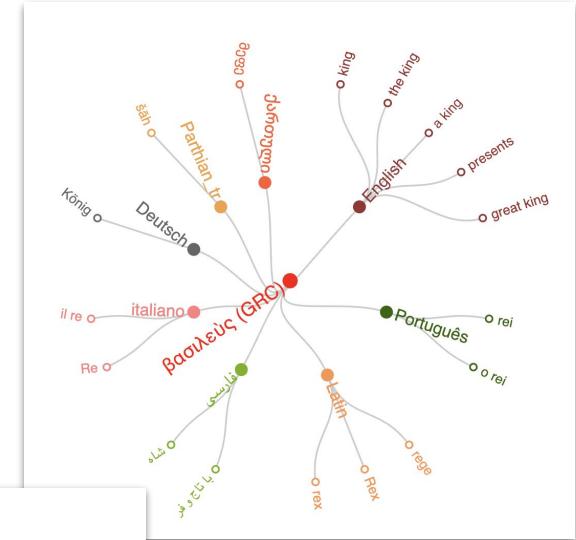
( 3 ) 17% LAT



# Applications of Translation Alignment

# Applications of Translation Alignment

- Reading environments integration
- Descriptive translation study (Sprugnoli 2023)
- Creation of dictionaries and dynamic lexica
- Named Entity Recognition (Yousef et al. 2023)
- Word sense disambiguation (Keersmaekers, Mercelis, Van Hal 2023)
- Pedagogical Applications



## βασιλεὺς (*Ελληνική*)

Frequency: 56

Translations:

- Latin : rex (1), Rex (1), rege (2)
- فارسی: شاه (1), با تاج و فر (2)
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- English : king (26), great king (1), presents (1), the king (6), a king (2)
- Deutsch : König (1)
- Italiano : il re (1), Re (1)
- Português : o rei (2), rei (6)



## ILIAS (GREEK TEXT OF MUNRO &amp; ALLEN)



## LIBRARY

- > Anonymous
- > Bodin
- > Hafez
- > Christopher Marlowe
- > Pseudo-Caesar

## Homer

## Iliad

- Iliad (Greek Text of M...)
- Iliad (Venetus A (Marcia...)
- Iliad (Venetus A (Marcia...)
- Iliad (Epic poetry, 12810...)
- Iliad (English Translatio...)
- Iliad (Murray, sentences)
- Iliad (English Translatio...)
- Iliad (English). Machine ...
- Iliad (English) (Sentences)
- Iliad (English) (spaCy)
- Iliad 1 (Persian)
- Iliad 1 (Greek Sentences)

## Odyssey

## Xenophon

PASSAGE  
REFERENCE

Book 1 Line 1 to Line  
7

1.1-1.7

Iliad Word Alignment (Parrish) ▾

Show unaligned tokens

1.1 μῆνιν ἄειδε Θεά Πηληϊάδεω Αχιλῆος

1.1 Sing, **goddess**, the godlike wrath of Achilles,  
son of Peleus,

1.2 οὐλομένην, ἡ μυρί' Αχαιοῖς ἄλγε' ἔθηκε,

1.2 that sociopathic wrath that caused countless  
pains for the Achaeans.

1.3 πολλὰς δ' ιφθίμουνς ψυχὰς Ήΐδι προΐσαψεν

1.3 It hurled to Hades many precious lives

1.4 ἡρώων, αὐτοὺς δὲ ἐλώρια τεῦχε κύνεσσιν

1.4 of warriors. And it began to make their bodies  
into picked-over scraps for dogs

1.5 οιωνοῖσι τε πᾶσι, Διὸς δ' ἐτελείετο βουλή,

1.5 and for birds, all of them; and the plan of Zeus  
began to be fulfilled,

1.6 ἐξ οὗ δὴ τὰ πρῶτα διαστήτην ἐρίσαντε

1.6 from the point where first, the two having  
both begun a competition with each other,  
both of them faced off,

1.7 Ατρεΐδης τε ἄναξ ἀνδρῶν καὶ δῖος Αχιλλεύς.

1.7 the son of Atreus, lord of men, and god-like  
Achilles.

<https://beyond-translation.scaife-viewer.org/>

## METADATA

vvv.k.

Iliad

Version:

Iliad (Greek Text of  
Munro & Allen)

Language:

Greek

## TEXT SIZE

Aα Aα Aα Aα Aα

## TEXT WIDTH

Narrow Normal Wide Full

## AUDIO



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## DISPLAY MODE

- Default
- Interlinear
- Metrical
- Annotations
- Grammatical Entries
- Dictionary Entries
- Named Entities
- Alignments
- Syntax Trees

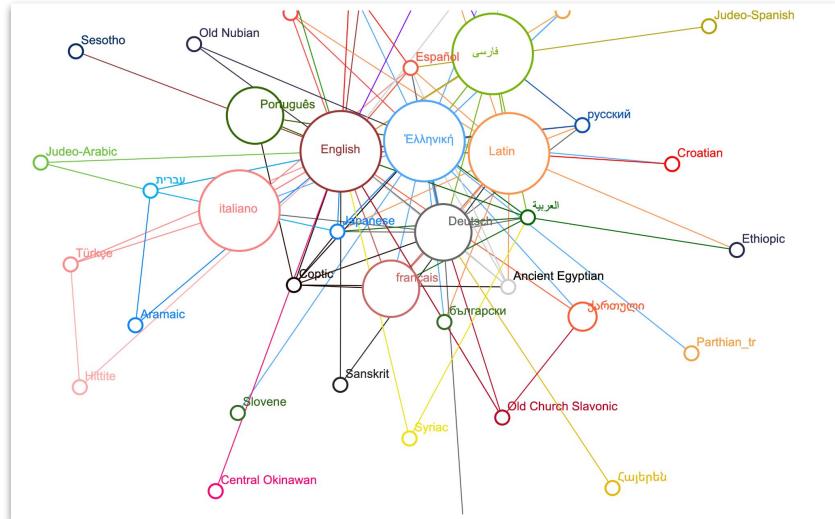


Cynthia prima suis miserum me cepit ocellis ,  
contactum nullis ante cupidinibus .  
  
tum mihi constantis deiecit lumina fastus  
  
et caput impositis pressit Amor pedibus ,  
  
donec me docuit Castas odisse puellas  
  
improbus , et nullo vivere consilio .

Cynthia's eyes first took me , poor unfortunate captive , previously affected by no passion : then did Love cast down my resolute , disdainful eyes , and set foot on my neck : till in time he taught me , desperate power ! to despise chaste maidens , and to live recklessly .  
  
Even now , my present mad pursuit flags not after a whole year , though I am forced to have the gods opposed to me .

# Translation Alignment for language learners

- **Active and reflective engagement** with the text
- Vocabulary **retention** through continuous interaction with words in context
- Focus on **cultural and linguistic specificities** through systematic comparison
- Improve **accessibility** of ancient texts
- Overcome **language barriers**



# Translation Alignment for Annotating Named Entities in the Trilingual Inscription at Ka'ba-ye Zartošt (ŠKZ): Greek, Parthian and Middle Persian

ŠKZ Line 47

Farnoosh Shamsian / ŠKZ inscription

Created on 2025-01-28 16:17:37

Modified on 2025-01-29 09:29:47

Aligned by Farnoosh Shamsian

Ελληνική

Γοανναμ Σαπωρ-σουμ , Τίρμερ Σαρακάρτων καστελλοφύλακος ,  
Ζικ δευτοκλήτορος , Ἀρταβάνου τοῦ ἀπό Τουμβαούντων ,  
Γυνδιφερ Αβγαν , Ρισμαωδ καὶ Παβις Πηρωσαβωρ Σονβεδηγαν ,  
Γουαρζην Γη σατράπου , Κιρδιστρω πιτιάξου , Παπάκου  
Ούισπερηγαν

Parthian\_tr

Wohnām Šābuhr-Šnōm , Tīrmīr Šahrkērēr dīzbed , Zīg niwēdēbed ,  
Ardaþān Dumbāwand-iž , Gundifarr Ēwagān , Razmayōd ud Pābīč  
Pērōz-Šābuhr Šanbidgān , Wārzan Gaß šahrab , Kerdšraw bidaxš ,  
Pābag Wisfarr<a>gān

Pahlavi\_tr

Wohnām ՚ Šābuhr-Šnōm , Tīrmīr ՚ Šahrkērēr dīzbed , Zīg ՚ ayēnīg  
,

Ardawān ՚ Dumbāwan-iz , Gundifarr ՚ \*Ēwagān , Pābīč ՚ Pērōz-  
Šābuhr ՚ Šanbidgān , \*Wārzan ՚ Gay šasab , Kerdšraw ՚ bidaxš ,  
Pābag ՚ Wisfarr<a>gān ,

( 8 ) 24% GRC

( 25 ) 76% GRC - XPR

( 23 ) 74% GRC - XPR

( 8 ) 26% XPR

( 23 ) 74% GRC - XPR

( 8 ) 26% XPR

Table: Different recordings of the word “bidaxš” in the Greek version of ŠKZ

Greek	Parthian	Middle Persian	Line No. Huyse
βιδιξ	bidaxš	bidaxš	line 42
πιτιάξου	bidaxš	bidaxš	line 45
πιτιάξου	bidaxš	bidaxš	line 47
Πιτιξιγαν	bidaxšgān	bidaxšgān	line 49

# Applications of alignment for descriptive translation studies

- Deconstruct translation methods.
- Investigate how translators interpret equivalency.
  - How do they calibrate the concepts of adequacy and acceptability?
- Reverse engineer cultural contexts.

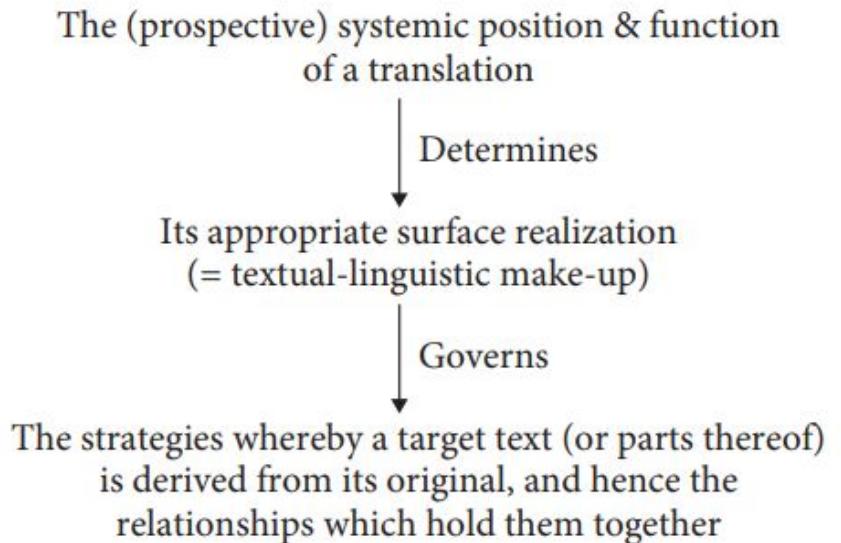
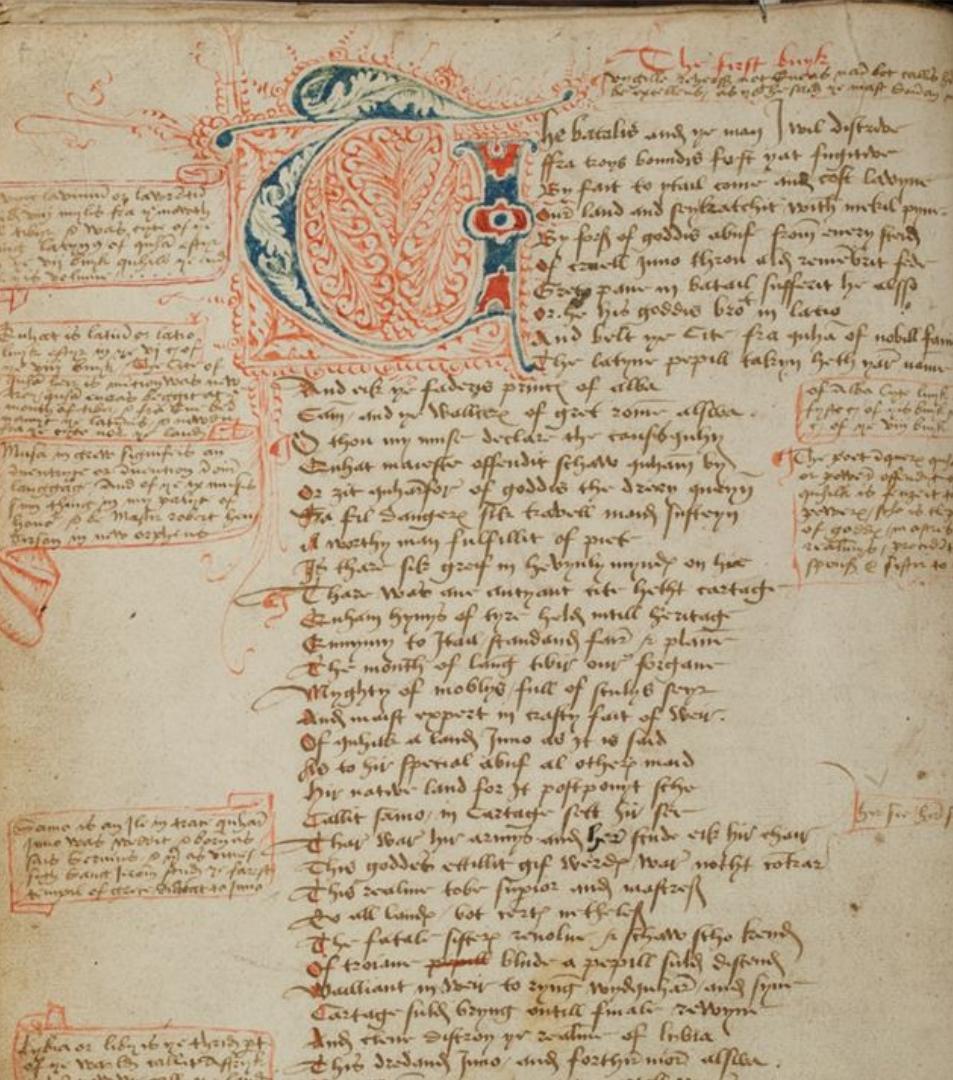


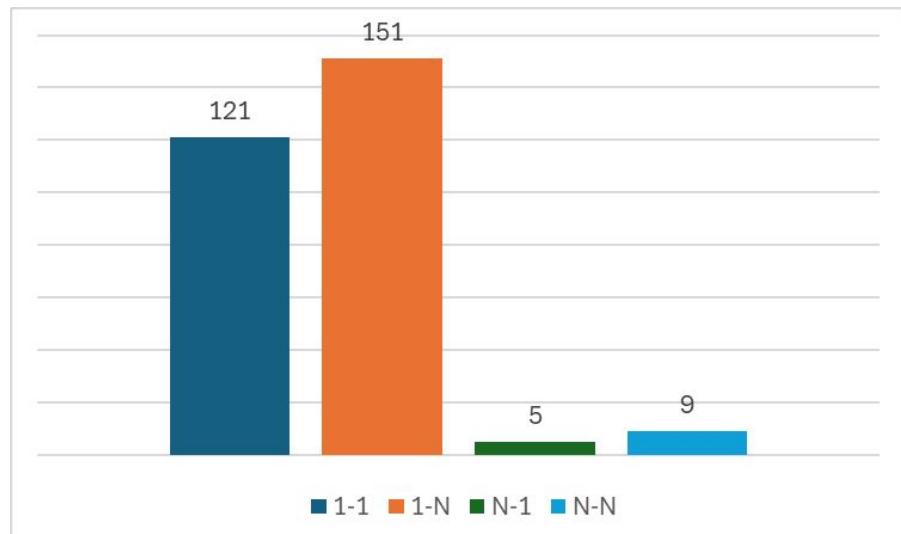
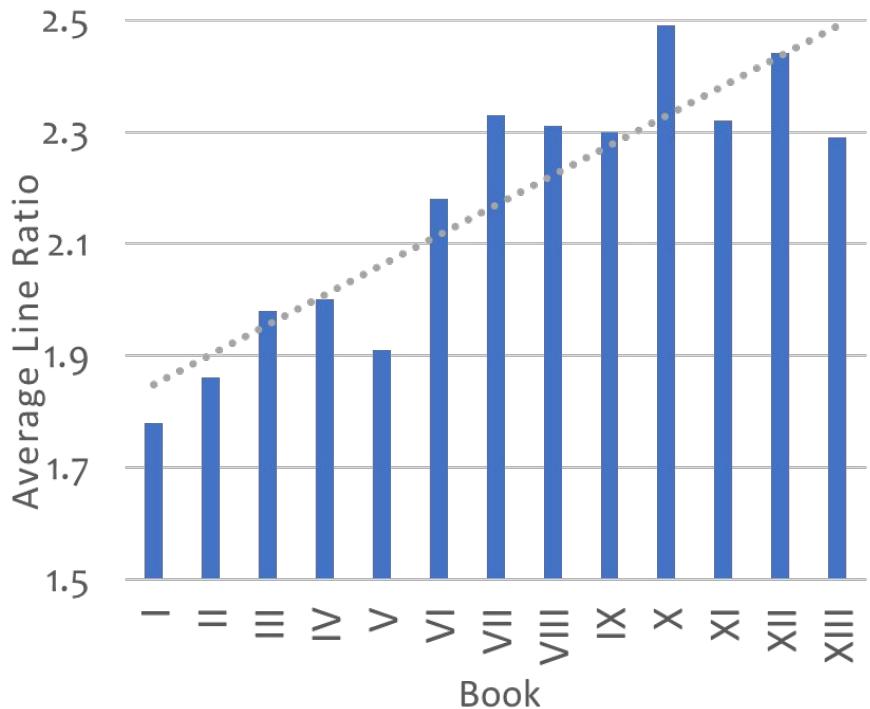
Diagram from Toury (2012: 7, fig. 2)

# Eneados (1513)

- First full direct translation of the *Aeneid* in the British Isles by Gavin Douglas, a Scottish cleric and later Bishop of Dunkeld (Cambridge manuscript pictured right).
- Remarkably meticulous translation.
- More than twice as long as the original - where is this extra length coming from?
- Claims however, not to translate 'word for word' - but what does this mean?



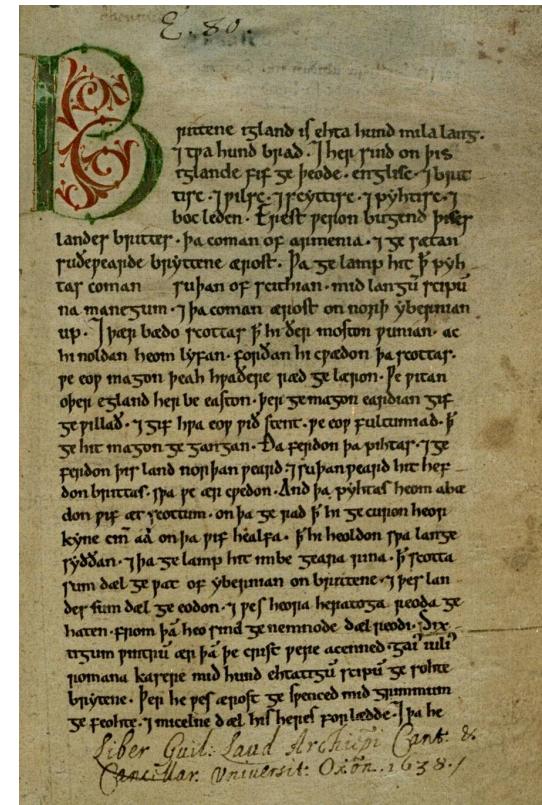
# Line alignment vs. word alignment



Translation Alignment for languages you don't  
know

# A Historical Example: Reading Old English through Latin and Scots

- Rediscovery of Anglo-Saxon in the late 1500s and early 1600s.
- William L'isle (1569-1637) - Anglo-Saxon scholar.
- Three way alignment between Latin, Scots, and Old English via the *Eneados*.



## *A Saxon treatise concerning the Old and New Testament (1623)*

'But the Saxon (as a bird flying i the aire farther and farther seems lesse and lesse) the older it was, became harder to bee understood. ... At length, I lighted on Virgil, Scottished by the Reverand Gavin Douglas, Bishop of Dunkeld ... the best translation of that Poet that ever I read: and though I found that dialect more hard than any of the former (as nearer the Saxon, because farther from the Norman), yet with help of the Latine I made shift to understand it, and read the book more than once from the beginning to the end. Whereby I must confesse I got more knowledge than I sought than by any of the other. For, as at the Saxon invasion, many of the Britons, so, at the Norman, many of the Saxons fled into Scotland, preserving the language, better than the inhabitants here, under conqueror's law and custom, were able' (L'isle, 'To the Reader, sec. 9 - cited by Watt 1920: 14-15).

# Other etymological receptions ...

- Franciscus Junius (1591-1677)
  - ‘I hold the Bishop of Dunkeld his irgilian translation to be very much conducing ... there is very good use to be made of him’ (Letter to Dugdale, Feb. 3, 1667-68; cited in Watt 1920: 15; see also Stanley 1988: 167).
- Thomas Ruddiman (1674-1757)
  - New edition of the *Eneados* plus etymological glossary (1710).
- John Jamieson (1759-1838)
  - *An Etymological Dictionary of the Scottish Language* (1808).



S U P P L E M E N T  
TO THE  
ETYMOLOGICAL DICTIONARY  
OF THE

S C O T T I S H L A N G U A G E :

ILLUSTRATING

THE WORDS IN THEIR DIFFERENT SIGNIFICATIONS,  
BY EXAMPLES FROM ANCIENT AND MODERN WRITERS;

SHEWING THEIR AFFINITY TO THOSE OF OTHER LANGUAGES, AND ESPECIALLY  
THE NORTHERN;

EXPLAINING MANY TERMS, WHICH, THOUGH NOW OBSOLETE IN ENGLAND, WERE  
FORMERLY COMMON TO BOTH COUNTRIES;

AND ELUCIDATING

NATIONAL RITES, CUSTOMS, AND INSTITUTIONS,  
IN THEIR ANALOGY TO THOSE OF OTHER NATIONS.

BY  
JOHN JAMIESON, D. D.

FELLOW OF THE ROYAL SOCIETY OF EDINBURGH, OF THE SOCIETY OF THE ANTIQUARIES OF SCOTLAND, OF THE AMERICAN ANTIQUARIAN SOCIETY, AND  
ASSOCIATE OF THE FIRST CLASS ON THE ROYAL FOUNDATION  
OF THE ROYAL SOCIETY OF LITERATURE.

— Quae vos a stirpe parentum:  
Prima vult tellus —  
Antiquam exquitis matrem. — Vtis.

IN TWO VOLUMES.  
VOL. I.

EDINBURGH:  
Printed at the University Press;  
FOR W. & C. TAIT, 78, PRINCES STREET;  
AND LONGMAN, HURST, REES, ORME, BROWN, AND GREEN, LONDON.

MDCCLXXV.

# Pedagogical Application of Translation Alignment

# Learning Ancient Greek through translation alignment in Persian

Two teaching experiments:

- Introduction to Homeric Greek
- Crito Translation Course

How did we use alignment?

- Guideline-based Alignment for Evaluation
- Student-led Alignment:
  - Aligning an available translation
  - Aligning a translation they have revised
  - Aligning their own translation

# Overview of the courses

## Introduction to Homeric Greek

- 30 hours, 20 sessions, ~20 participants
- No textbook, only digital annotations and authentic texts

## Crito Translation course

- Continuance of the Homeric course, starting with 7 participants
- 49 sessions of translation + 6 sessions of revision, ~100 hours
- **Similar approach**, with additional use of available translation
- Participants **translated** and **aligned** the text
- Final goal: providing a **philological translation** of Crito in Persian:
  - Faithful in conveying the content
  - Faithful in representing the form

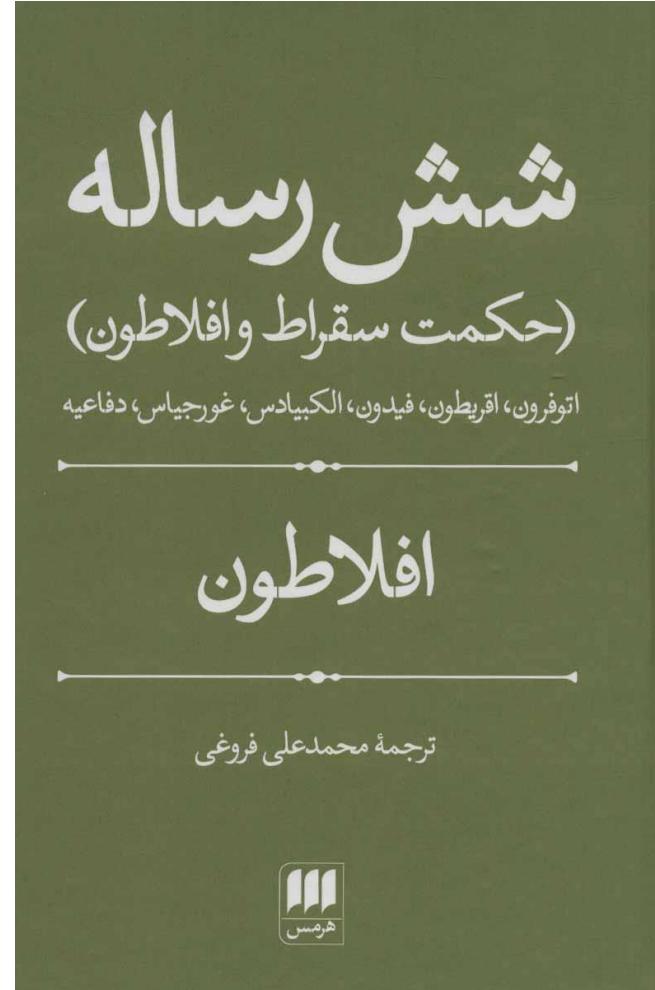
## Available Translations in Persian

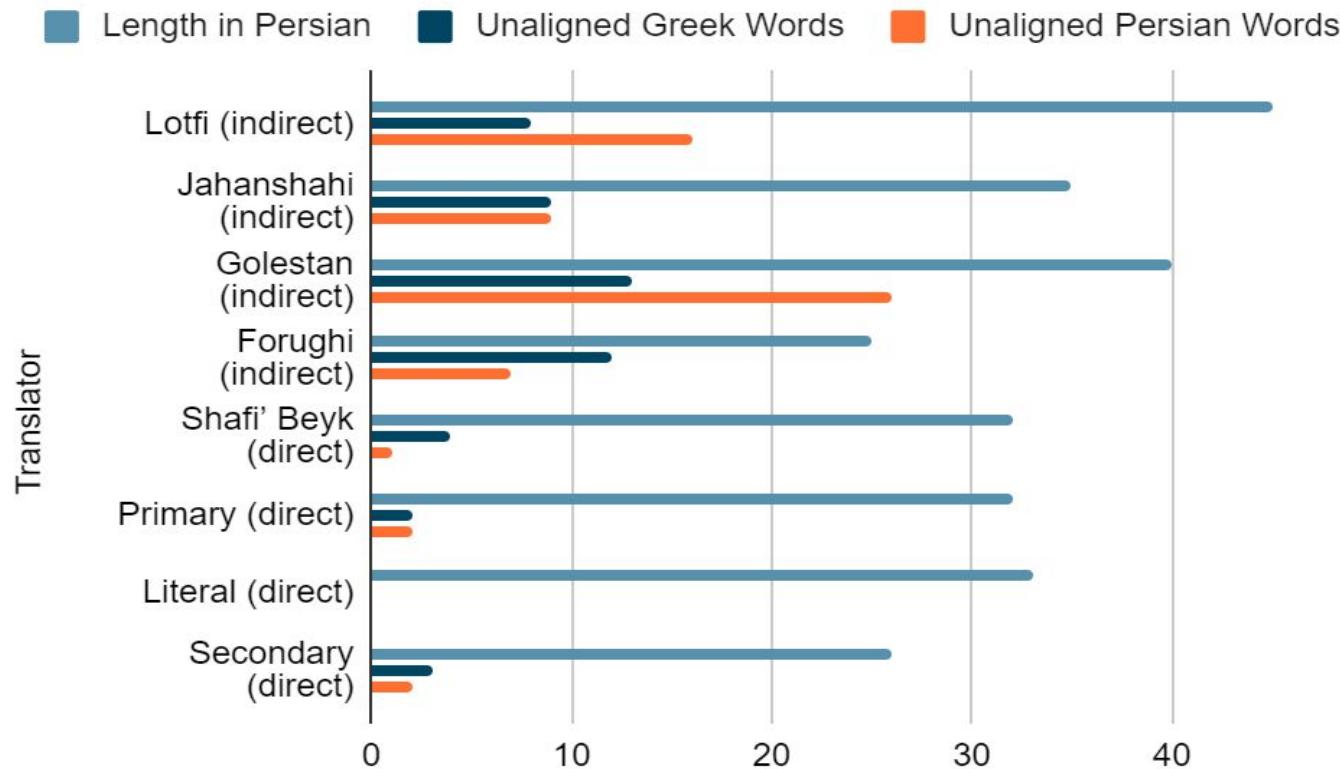
**Iliad** has ~three translations in Persian, by:

- Soheil Nafisi in 1958
- Mir Jalaleddin Kazzazi in 1998
- Farnoosh Shamsian in 2021, aligned with Greek at word-level

**Crito** has five translations in Persian, by:

- Mohammad Ali Foroughi in 1938
- Hassan Lotfi in 1979
- Javid Jahanshahi in 1989
- Lili Golestan in 2013
- Iman Shafi' Beyk in 2023, bilingual with Greek, was published after our course





Unaligned words and word count of Persian translations of Pl.Cr.45d.3-4

## Starting point: Aligning an already available direct translation

- With very limited knowledge of ancient Greek
- Accuracy rates (approximate):  
90% correct  
9% partially correct  
1% incorrect
- Horror Vacui of alignment:  
Leaving no words unaligned!

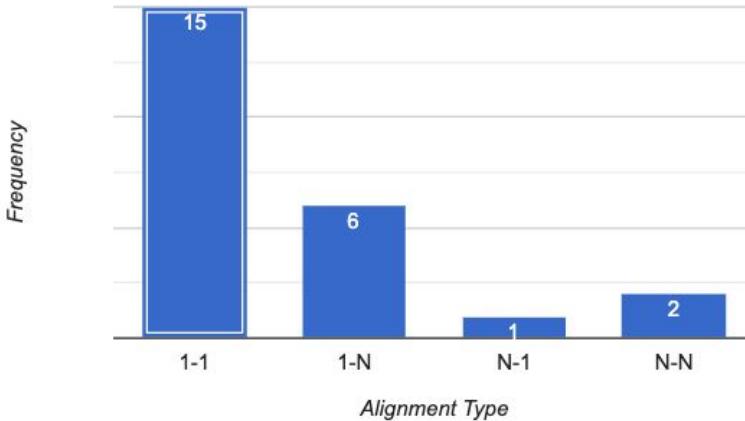
Φοῖβος	فُرْبِيُوس	Correct
Ἄπόλλων	آپولون	Correct
τοῦ	او	Correct
καρήνων	بلندای	Correct
άμφηρεφέα	دوسرپوشیده	Correct
χωόμενος	خشمنگین	Correct
κῆρ	دلی	Correct
δ'	ورا	Partially Correct
βῆ	آمد	Correct
τόξ'	کمان	Correct
ἄμοισιν	دوش	Correct
ἐφιεὶς	سوی	Incorrect
μετὰ	به میان	Correct
δὲ κατ'	پایین	Partially Correct
ἀνὰ	بر فراز	Correct

# Next step: Aligning an indirect translation after revising it

Often resulting in:

- Word-by-word translations
- High 1-1 pairs

Alignment Statistics



Hom. II. 4. 470-472

Nima Mohammadi / Ancient Greek Homeworks / Revisions

Created on 2021-12-03 06:30:15

Modified on 2022-02-04 10:57:52

Translated by Nima Mohammadi

Aligned by Nima Mohammadi

Ελληνικά mèn transliterate

ώς τὸν μὲν λίπε θυμός ,  
έπ' αὐτῷ δ' ἔργον ἐτύχθη ἀργαλέον Τρώων καὶ Ἀχαιῶν :  
οἱ δὲ λύκοι ὡς ἀλλήλοις ἐπόρουσαν ,  
ἀνὴρ δ' ἄνδρ' ἐδνοπάλιζεν .

(2)

( 26 ) 93% GRC - FAR

Transliterate فارسی

انگاهه همانا روحش او را ترک کفت ،  
اخاییان و تروواییان گردانگرد جسد رنج کشیده به منازعه پرداختند .  
پس همانند گرگانی که بر هم هجوم میبرند ،  
مردی مردی را بر زمین میزد .

( 34 ) 97% GRC - FAR

(1)

Moving from revision to translation:  
Where is the line?

# Alignment examples on Ugarit: Equivalents of “ξένοι”

Ελληνική Transliterate

σοὶ δὲ ὑπάρχει μὲν τὰ ἔματα χρήματα , ὡς οἶμαι , ικανά : ἔπειτα καὶ εἴ τι ἐμοῦ  
κηδόμενος οὐκ οἵει δεῖν ἀναλίσκειν τάμα , **ξένοι** οὗτοι ἐνθάδε ἔτοιμοι ἀναλίσκειν : εἰς δὲ καὶ  
κεκόμικεν ἐπ' αὐτὸ τοῦτο ἀργύριον ικανόν , Σιμμίας ὁ Θηβαῖος , ἔτοιμος δὲ καὶ Κέβης καὶ  
ἄλλοι πολλοὶ πάνυ . ὕστε , ὅπερ λέγω , μήτε ταῦτα φοβούμενος ἀποκάμης σαυτὸν σῶσαι ,  
μήτε , ὃ ἔλεγες ἐν τῷ δικαστηρίῳ , δυσχερές σοι γενέσθω ὅτι οὐκ ἄν ἔχοις ἔξελθών ὅτι  
χρώσι σαυτῷ :

xénoi

Transliterate فارسی

باری براستی تو بر دارایی من که کافی می پندرام اش صاحب اختیاری ، و علاوه بر آن اگر از آنجا که ملاحظه ام را  
می کنی می پندرای که نبایست خرج کردن از آن من ، برون **پارانی** در اینجا مشتقند به خرج کردن و یکی شان ،  
سیمیاس **پاری** ، برای همین **کار** مال کافی اورده است و کیس و سیاری دیگر جملگی آمده اند . پس چنین بگویم : از  
نجات خودت از ترس این منصرف مشو و از آنجه که در دادگاه گفته ای آشتهه میاش که با بیرون رفتن از اینجا ندادی  
که با خود چه کنی .

Ελληνική Transliterate

πολλαχοῦ μὲν γὰρ καὶ οἷας ὅποι ἄν ἀφίκη ἀγαπήσουσι σε : ἐὰν δὲ βούλῃ εἰς Θετταλίαν  
ίεναι , εἰσὶν ἐμοὶ ἕκει **ξένοι** οἱ σε περὶ πολλοῦ ποιήσονται καὶ ἀσφάλειάν σοι παρέξονται ,  
ὕστε σε μηδένα λυπεῖν τῶν κατὰ Θετταλίαν .

xénoi

Transliterate فارسی

از این روی که بیگمان ، به گاهی دیگر و به هر کجا که رفته باشی در سیاری جایها با آغوش باز پذیرای تو  
خواهد بود . لیکن اگر رفتن سوی نسالی را بخواهی ، هستند مرا بدانجا **پارانی** میزان که تو را ارزش سیار فائل  
خواهد شد و پناهی برای تو مهیا خواهد نمود طوری که هیچ کدام از آنها در نسالی تو را رنجاندن **نتوانند** .

Ελληνική Transliterate

σοὶ δὲ ὑπάρχει μὲν τὰ ἔματα χρήματα , ὡς ἔγώ οἶμαι , ικανά : ἔπειτα καὶ εἴ τι ἐμοῦ  
κηδόμενος οὐκ οἵει δεῖν ἀναλίσκειν τάμα , **ξένοι** οὗτοι ἐνθάδε ἔτοιμοι ἀναλίσκειν : εἰς δὲ καὶ  
κεκόμικεν ἐπ' αὐτὸ τοῦτο ἀργύριον ικανόν , Σιμμίας ὁ Θηβαῖος , ἔτοιμος δὲ καὶ Κέβης καὶ ἄλλοι  
πολλοί πάνυ . ὕστε , ὅπερ λέγω , μήτε ταῦτα φοβούμενος ἀποκάμης σαυτὸν σῶσαι , μήτε , ὃ  
ἔλεγες ἐν τῷ δικαστηρίῳ , δυσχερές σοι γενέσθω ὅτι οὐκ ἄν ἔχοις ἔξελθών ὅτι χρώσι σαυτῷ :  
ἐν τῷ δικαστηρίῳ ، δυσχερές σοι γενέσθω ὅτι οὐκ ἄν ἔχοις ἔξελθών ὅτι χρώσι σαυτῷ :

xénoi

Transliterate فارسی

کربیون و لیکن بیشک دارایی های ما ، که **فکر** می کنم کافی است ، برای تو حی و حاضر است / متعلق به توست . افزون بر این  
اگر دنگران متنی و فکر می کنی لزومی به خرگردین دارایی های ما نیست ، **بیگنگان** آینجا [ نیز ] خود دست به نقدند  
و یک نفر [ از اینان ] ، سیمیاس نسی ، به همین منظور ، این مقدار پول / وجه مورد نیاز را تامین کرده است /  
[ تقبل ] وجه مورد نیاز را بر عهده گرفته است . و کیس و سیاری دیگر [ نیز ] در دسترس اند . بنابراین ،  
همان طور که گفتم ، ترسان از این [ وقایع ] ، از نجات خود صرف نظر مکن و خست نباشد از بابت آنجه در دادگاه  
گفته بودی که با روانشدن [ از آینجا ] نمی دانی از [ وجود ] خود چه نصیب بري .

# Understanding the context

## Translations of ξένος:

(non-Athenian) friend  
outside-friend  
xenos  
stranger  
foreigner  
outsider  
hosting friend

يار (غير أتني)  
برون يار  
كسنوس  
بيگانه  
اجنبى  
غريب  
يار ميزبان

**ξένος**, ὁ, Ep. and Ion. **ξεῖνος** (also freq. in **Pi.**, **N.7.61**, al., used by Trag. metri gr. even in trim., mostly in voc., **S.OC33**, al., **E.IT798** codd., **El.247**), Aeol. **ξένος** Hdn.Gr. 2.302; scanned <sup>^</sup> and written **ξείνος** in **Theoc.28.6, 30.17**: Aeol. Sup. **ξεννότατος** Sch. Tz. in **An. Ox. 3.356.18** (sed v. fin.).

I. *guest-friend*, applied to persons and states bound by a treaty or tie of hospitality, **Od.1.313**, etc.; “**ξεῖνοι δὲ . . εὐχόμεθ’ εἶναι ἐκ πατέρων φιλότητος**” **15.196**; “**ξ. πατρώϊός ἐσσι παλαιός**” **Il.6.215**; “**ξ. δ’ ἀλλήλων πατρώιοι εὐχόμεθ’ εἶναι**” **Od.1.187**; “**φησὶ δ’ Ὁδυσσῆος ξείνος πατρώϊος εἶναι**” **17.522**; later freq. coupled with “**φίλος, Πλούταρχος ὁ τούτου ξένος καὶ φίλος**” **D.21.110**, cf. **18.46**, **X.An.2.1.5**, **Lys. 19.19**; “**βασιλέως πατρικὸς ξ.**” **Pl.Men.78d**.

2. of parties giving or receiving hospitality, **Od.8.145**, etc.; mostly of the *guest*, opp. the host, **ξεινοδόκοι καὶ ξεῖνος** ib. **543**, etc.; ἄξείνα the *visitor*, **Theoc.2.154**; of *guests* at a club, opp. **σύνδειπνοι, PTeb.118.4** (ii B. C.): less freq. of the host, **Il.15.532**, **A.R.1.208**, **Ep.Rom.16.23**, etc.: c. dat., “**ξείνος τινί**” **Hdt.1.20, 22**, cf. **Th.2.13**, **X.An.1.1.10**, etc.; also ξ. **τινός** ib. **2.4.15**.

II. *stranger*, esp. *wanderer, refugee* (under the protection of **Ζεὺς ξένιος**), sts. coupled with “**ἰκέτης, Ζεὺς ἐπιτιμήτωρ ἱκετάων τε ξείνων τε ξείνιος**” **Od.9.270**, cf. **8.546**; with “**πτωχός, πρὸς γάρ Διός εἰσιν ἀπαντες ξεῖνοι τε πτωχοί τε**” **6.208**.

III. generally, *stranger, foreigner*, opp. **ἔνδημος, Hes.Op.225**; opp. **ἀστός**, **Pi.Q.7.90**, **S.OC13**, **And.4.10**, etc.; “**πολιατῶν καὶ ξ.**” **Pi.I.1.51**, cf. **A.Th.924** (lyr.), **Pl.Grg. 473d**, etc.; opp. **ἐπιχώριος, Id.Men.94d**: coupled with **μέτοικος, Th. 4.90**, cf. **IG12.39.53**; with **ἐπηλυς, Luc.Herm.24**; opp. a member of the family, **PMasp.169.10** (vi A. D.), etc.

b. as a term of address to any *stranger*, “**ὦ ξένε**” **E.Ion247**, **Mosch.1.5**, etc.; “**ὦ ξένη**” **Pl.Smp. 204c**.

2. = **βάρβαρος**, at Sparta, **Hdt.9.11, 55**.

IV. *hireling*, **Od.14.102**; esp. *mercenary soldier*, **IG12.949.89**, **X.An.1.1.10**, **D.18.152**, etc.; “**ξ. ναυβάται**” **Th.1.121**: rarely simply, *ally*, **X.Lac. 12.3**.

B. as Adj. **ξένος**, η, ον (also ος, ον **E.Supp.94**), Ion. **ξεῖνος**, η, ον, *foreign*, not in *Horn.* (in the phrases “**ξεῖνε πάτερ**” **Od.7.28**, “**ἄνθρωποι ξεῖνοι**” **Il.24.202**, both words are Subst.); freq. in later writers, “**ξείνα γαῖα**” **Pi.P.4.118** codd.; “**ξένης ἐπὶ χθονός**” **S.OC1256**; γάρς **ἐπὶ ξένας** ib. **1705** (lyr., cf. **ξένη**); ἐν **ξένησι χερσί** by *foreign* hands, **Id.El.1141**; ξ. **δόμοι**, **πόλις**, etc., **E.Ph.339** (lyr.), **369**, etc.; of *alien* property, “**ξ. ἄρουραί**” **PMasp.295.22** (vi A.D.).

II. c. gen. rei, *strange to a thing, unacquainted with, ignorant of it*, “**ξ. τοῦ λόγου**” **S.OT210**, cf. **AP4.3a.37** (*Aaath.*): “**ξ. τῶν διαθηκῶν τῆς ἐπαννελίας**” **Ep.Eph.2.12**.

# Translating and aligning verbal aspect in Persian

ἀλλὰ βουλεύου — μᾶλλον δὲ οὐδὲ βουλεύεσθαι ἔτι ὥρα ἀλλὰ βεβουλεῦσθαι — ...

English translation by Harold North Fowler:

Just consider, or rather it is time not to consider any longer, but **to have finished considering.**

Ελληνική Transliterate

ταῦτα οὖν , ὡς Σώκρατες , ὅρα μὴ ἄμα τῷ κακῷ καὶ αἰσχύνεσθαι τὸν καὶ ἡμῖν . ἀλλὰ  
βουλεύου — μᾶλλον δὲ οὐδὲ βουλεύεσθαι ἔτι ὥρα ἀλλὰ **βεβουλεῦσθαι** — μία δὲ βουλὴ :  
τῆς γάρ ἐπιούσης νυκτὸς πάντα ταῦτα δεῖ πεπρᾶχθαι , εἰ δ' ἔτι περιμενοῦμεν , ἀδύνατον  
καὶ οὐκέτι οἴον τε . ἀλλὰ παντὶ τρόπῳ , ὡς Σώκρατες , πείθου μοι καὶ μηδαμῶς ἄλλως  
ποιεί .

bebouleūsthai

فارسی Transliterate

باری ای سفراط با این وجود این چیزها را بین که مبادا هم برای تو و هم برای ما بد و شرم آور باشد اما تامل کن با اینکه اکنون نه هنگام تأمل کردن باشد بلکه آن را از پیش تأمل کردن می بایست . پس یک راه وجود دارد که به هر طریق طی شب پیش رو انجام گرفتن تمام این کار می بایست . و اگر اکنون درنگ کنیم درمانده ایم و آن ناممکن می گردد . لیکن ای سفراط به هرروی از من پیشیرو و جز این مکن .

Ελληνική Transliterate

ώς ἔγωγε καὶ ὑπὲρ σοῦ καὶ ὑπὲρ ἡμῶν τῶν σῶν ἐπιτηδείων αἰσχύνομαι μὴ δόξῃ ἄπαν τὸ  
πρᾶγμα τὸ περὶ σὲ ἀνανδρίᾳ τινὶ τῇ ἡμετέρᾳ πεπρᾶχθαι , καὶ ἡ εἰσόδος τῆς δίκης εἰς τὸ  
δικαστήριον ὡς εἰσῆλθεν ἔσօν μὴ εἰσελθεῖν , καὶ αὐτὸς ὁ ἀγών τῆς δίκης ὡς ἐγένετο , καὶ  
τὸ τελευταῖον δὴ τοιτὶ , ὕσπερ κατάγελως τῆς πράξεως , κακίᾳ τινὶ καὶ ἀνανδρίᾳ τῇ  
ἡμετέρᾳ διαπεφεύγειν ἡμᾶς δοκεῖν , οἵτινές σε οὐχὶ ἐσώσαμεν οὐδὲ σὺ σαυτόν , οἴον τε  
ὅν καὶ δυνατὸν εἶναι μικρὸν ἡμῶν ὄφελος ἦν . ταῦτα οὖν , ὡς Σώκρατες , ὅρα μὴ ἄμα  
τῷ κακῷ καὶ αἰσχύνεσθαι τοι τε καὶ ἡμῖν . ἀλλὰ βουλεύου — μᾶλλον δὲ οὐδὲ βουλεύεσθαι ἔτι  
**bebouleūsthai** — μία δὲ βουλὴ : τῆς γάρ ἐπιούσης νυκτὸς πάντα ταῦτα δεῖ  
πεπρᾶχθαι , εἰ δ' ἔτι περιμενοῦμεν , ἀδύνατον καὶ οὐκέτι οἴον τε . ἀλλὰ παντὶ τρόπῳ , ὡς  
Σώκρατες , πείθου μοι καὶ μηδαμῶς ἄλλως ποιεί .

فارسی Transliterate

بنابراین من هم برای تو و هم برای ما که دوستان تو **هستیم** شرمسارم مبادا بیاندیشند که کل این ماجراهای پیرامون تو ناشی از هراس گونه ای از سوی ما بوده است . هم ورود این دعوا به محکمه آنچنان که وارد شد که امکان وارد نشدن را هم داشت و هم خود جلسه مجمع قضایی انظر که گذشت و هم نهایتاً اینکه چونان اوج مسخرگی این ماجرا گمان می برند که تباہی و هراس از سوی ما موجب شد که فرصت از ما گزینخت و نه ما تو را نجات دادیم و نه تو خودت را . با اینکه این کار ممکن بود اگر ما را هیچ فایده ای بود . بهوش باش ای سفراط که مبادا اینها برای تو و برای ما شرم آور و در عین حال تباہ باشد . تأمل کن و شاید بیگر نه زمان تأمل کردن بلکه **اصلام تأمل** است تنها یک گزینه بایست زیرا همه آن می بایست که در شب آنی صورت پیزد و اگر تعطیل کنیم بیگر نه چنین است و ناممکن می گردد . اما به هر روی ای سفراط از من پیروی کن و هیچ کار بیگر مکن .

# Guideline-based Aligning for Evaluation

The guideline used for Greek-Persian: <https://zenodo.org/records/8039931>

- Used in the finalization process of the Crito translations
- Moving from revision to translation: Where is the line?

Purposes of the guidelines:

- The end justifies the means!
- For reaching a high level of granularity in the alignment
- For comparing direct and indirect translations

# Guideline-based comparison of translations, directs

## 0059-003I67.ICr.45d.4. Primary translation

Farnoosh Shamsian / Crito comparison

Created on 2023-10-16 11:40:32 Modified on 2023-10-16 11:44:58 Aligned by Farnoosh Shamsian

Ελληνική Transliterate

οὐ δέ μοι δοκεῖ τὰ ῥάθυμότατα αἰρεῖσθαι . χρὴ δέ , ἄπερ ἀνὴρ ἀγαθὸς καὶ ἀνδρεῖος ἔλοιτο ,  
ταῦτα αἰρεῖσθαι , φάσκοντά γε δὴ ἀρετῆς διὰ παντὸς τοῦ βίου ἐπιμελεῖσθαι :

( 7 ) 22% GRC

( 25 ) 78% GRC - FAR

( 30 ) 86% GRC - FAR

( 5 ) 14% FAR

فارسی Transliterate

لیک به نظر میرسد که تو راحتترین راه را برگزینده‌ای . باری باید آنچه را برگزینی که مرد نیک و جوانمرد برمی‌گزیند ، تو که  
ادعا داری در تمام زندگی‌ات دغدغه‌ی فضیلت را داشته‌ای .

## 0059-003I67.ICr.45d.4. Shafi' Beyk

Farnoosh Shamsian / Crito comparison

Created on 2023-10-16 11:52:18 Translated by Iman Shafi' Beyk Aligned by Farnoosh Shamsian

Ελληνική Transliterate

οὐ δέ μοι δοκεῖ τὰ ῥάθυμότατα αἰρεῖσθαι . χρὴ δέ , ἄπερ ἀνὴρ ἀγαθὸς καὶ ἀνδρεῖος ἔλοιτο ,  
ταῦτα αἰρεῖσθαι , φάσκοντά γε δὴ ἀρετῆς διὰ παντὸς τοῦ βίου ἐπιμελεῖσθαι :

( 9 ) 28% GRC

( 23 ) 72% GRC - FAR

( 31 ) 89% GRC - FAR

( 4 ) 11% FAR

فارسی Transliterate

حال انکه چنان منعاید که تو آسان‌ترین کارها را برمی‌گزینی . اما باید همان چیزهایی را برگزید که مرد نیک و دلیر برمی‌گزیند ،  
اگر ادعا داشته باشد که سراسر عمر پروای فضیلت داشته است .

## 0059-003I67.ICr.45d.4. Literal Translation

Farnoosh Shamsian / Crito comparison

Created on 2023-10-16 11:44:37 Aligned by Farnoosh Shamsian

Ελληνική Transliterate

οὐ δέ μοι δοκεῖ τὰ ῥάθυμότατα αἰρεῖσθαι . χρὴ δέ , ἄπερ ἀνὴρ ἀγαθὸς καὶ ἀνδρεῖος ἔλοιτο ,  
ταῦτα αἰρεῖσθαι , φάσκοντά γε δὴ ἀρετῆς διὰ παντὸς τοῦ βίου ἐπιμελεῖσθαι :

( 5 ) 16% GRC

( 27 ) 84% GRC - FAR

( 32 ) 84% GRC - FAR

( 6 ) 16% FAR

فارسی Transliterate

باری به نظر من میرسد که تو سهلترین‌ها را برگزینده‌ای . اما باید آنچه مردی خوب و دلیر می‌گزیند همان را برگزیند ، حال که  
در تمام عمرت نم از وقف فضیلت بوند زده [ ای ] .

# Guideline-based comparison of translations, indirects

## 0059-003|66-67 Lotfi

Farnoosh Shamsian / Indirect translations of Crito

Created on 2022-06-23 12:39:43

Modified on 2022-06-23 12:56:13

Translated by Mohammad Hassan Lotfi

Aligned by Farnoosh Shamsian

Ελληνική Transliterate

σύ δέ μοι δοκεῖ τά ῥθυμότατα αἰρεῖσθαι . χρὴ δέ , ἄπερ ἄν τὸν ἀγαθός καὶ ἀνδρείος ἔλοιτο ,  
ταῦτα αἰρεῖσθαι , φάσκοντά γε δὴ ἀρετῆς διὰ παντὸς τοῦ βίου ἐπιμελεῖσθαι :

( 13 ) 41% GRC

( 19 ) 59% GRC - FAR

( 30 ) 62% GRC - FAR

( 18 ) 38% FAR

فارسی Transliterate

ولی چنین می تمايد که تو راه آسانتر را برمیگزینی در حالی که آدمی در همی احوال باید راهی انتخاب کند که با دلاری و  
مردانگی سازگار باشد ، خصوصاً کسی که همی عمر خود را به تحقیق و گفت و شنود درباره قابلیت انسانی گذرانده است .

## 0059-003|66-67 Foroughi

Farnoosh Shamsian / Indirect translations of Crito

Created on 2022-06-23 12:47:19

Translated by Mohammad Ali Foroughi

Aligned by Farnoosh Shamsian

Ελληνική Transliterate

σύ δέ μοι δοκεῖ τά ῥθυμότατα αἰρεῖσθαι . χρὴ δέ , ἄπερ ἄν τὸν ἀγαθός καὶ ἀνδρείος ἔλοιτο ,  
ταῦτα αἰρεῖσθαι , φάσκοντά γε δὴ ἀρετῆς διὰ παντὸς τοῦ βίου ἐπιμελεῖσθαι :

( 17 ) 53% GRC

( 15 ) 47% GRC - FAR

( 18 ) 67% GRC - FAR

( 9 ) 33% FAR

فارسی Transliterate

چنین می تمايد که تو راه آسانتر را برمیگزینی و حال آنکه باید برباری پیشنهاد خود تمايیز ، خاصه اينکه در همه عمل لاف از  
وظيفهشناسی میزدي .

## 0059-003|66-67 Golestan

Farnoosh Shamsian / Indirect translations of Crito

Created on 2022-06-23 12:41:35

Modified on 2022-06-23 12:50:42

Translated by Lili Golestan

Aligned by Farnoosh Shamsian

Ελληνική Transliterate

σύ δέ μοι δοκεῖ τά ῥθυμότατα αἰρεῖσθαι . χρὴ δέ , ἄπερ ἄν τὸν ἀγαθός καὶ ἀνδρείος ἔλοιτο ,  
ταῦτα αἰρεῖσθαι , φάσκοντά γε δὴ ἀρετῆς διὰ παντὸς τοῦ βίου ἐπιμελεῖσθαι :

( 18 ) 56% GRC

( 14 ) 44% GRC - FAR

( 14 ) 32% GRC - FAR

( 30 ) 68% FAR

فارسی Transliterate

حال هر آنچه را که فکر کردام ، برايت گفتم و تو بخش ضعیف حرفهای مرا برمیگزینید ، در حالی که تو که تمام عمرت به امر  
گسترش پاکامنی مشغول بوده ای ، باید بخشی را برمیگزینید که متعلق به یک مرد واقعی باشد .

# Exercise

## Option 1.

Use translation alignment to see if you can read a text in a language you don't know very well (or at all!).

1. Start by recognizing sentence/line overlaps, perhaps using a spreadsheet to record your alignments.
2. Then, upload the text into Ugarit and start aligning word by word. Try first with proper nouns of people and places.
3. Use the dictionary and other context clues to align words at a finer granularity, e.g. words that are repeated often, conjunctions, verbs, etc.
4. Try to recognize and align larger chunks, e.g. expressions or sentences.
5. See how far you can get!

You may use the texts recommended in the session page

([https://github.com/SunoikisisDC/SunoikisisDC-2024-2025/tree/main/Code/translation\\_alignment](https://github.com/SunoikisisDC/SunoikisisDC-2024-2025/tree/main/Code/translation_alignment)), and then check your results against their aligned versions  
(<https://github.com/SunoikisisDC/SunoikisisDC-2024-2025/wiki/8-Text-Alignment#available-aligned-texts>).

Think about these questions:

- 1) What level of granularity in your alignments did you manage to achieve? Line or word, or larger chunks? Why do you think that is?
- 2) What sort of context clues were you able to use, to manage the alignments?
- 3) Was there always a perfect overlap between proper nouns in the original and the translation?
- 4) Did the dictionary provide enough help to better understand words that you could not figure out? Why/why not?

## Option 2.

Take the first five lines of a text whose language and alphabet you don't know. You can use some of the texts recommended in the session page

([https://github.com/SunoikisisDC/SunoikisisDC-2024-2025/tree/main/Code/translation\\_alignment](https://github.com/SunoikisisDC/SunoikisisDC-2024-2025/tree/main/Code/translation_alignment)), or any other text from an online repository.

1. Paste the text into ChatGPT or any other GenAI tool. Parse it line by line with the following prompt:  
“Transliterate this sentence. For each word, provide the meaning. Do not translate the sentence in full.” (Be aware that ChatGPT may not work very well for some languages!)
2. Then, with the help of the output generated by ChatGPT, align your text word-by-word against a scholarly translation using Ugarit.

At the end, you can use the already aligned texts

(<https://github.com/SunoikisisDC/SunoikisisDC-2024-2025/wiki/8-Text-Alignment#available-aligned-texts>) to see how you did.

Compare the scholarly translation with the vocabulary provided by ChatGPT: where do they overlap, and where does the translation diverge from ChatGPT? Why do you think that is?