

Workshop on Corpus-linguistic Applications

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Using corpora for cross-linguistic research

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Aim:

conceptual and phraseological patterns
from a cross-linguistic perspective

Focus:

fluidic motion uses of *run* and *τρέχω* ('run')
in English and Modern Greek

Methodology:

- A. Comparable monolingual analysis
- B. Parallel corpus investigation

Tools for contrastive analysis:

- Corpus Pattern Analysis
- Frame Semantics
- Conceptual Metaphor and Metonymy Theory

Tools for contrastive analysis:

- **Corpus Pattern Analysis** (*Hanks 2004*)
Pattern Dictionary of English Verbs (PDEV) →

- **Frame Semantics**

- **Conceptual Metaphor and Metonymy Theory**

flow

- | | |
|---|---|
| 1 | [[Liquid Vapour Soil Energy]] flow [Adv [Direction]]
[[Liquid Vapour Soil Energy]] moves in a stream [Adv[Direction]] |
| 2 | [[Asset]] flow [Adv [Direction]]
[[Asset]] is transferred from one person or human group to another |
| 3 | [[Eventuality 1]] flow [from [[Eventuality 2]]]
[[Eventuality 1]] follows or results from [[Eventuality 2]] |
| 4 | [[Group]] flow [Adv [Direction]]
[[Group]] moves steadily [Adv[Direction]] from one place to another |
| 5 | [[Information]] flow
[[Information]] becomes available |

Tools for contrastive analysis:

- Corpus Pattern Analysis (*Hanks 2004*)

- Frame Semantics (*Fillmore 1985*)

FrameNet →

Fluidic_motion

Definition:

In this frame a **Fluid** moves from a **Source** to a **Goal** along a **Path** or within an **Area**.

The blood **SPURTED** **from the wound**.

The water **GUSHED** **into the house**.

- Conceptual Metaphor and Metonymy Theory

Tools for contrastive analysis:

- **Corpus Pattern Analysis** (*Hanks 2004*)

<https://pdev.org.uk>

- **Frame Semantics** (*Fillmore 1985*)

<https://framenet.icsi.berkeley.edu/fndrupal>

- **Conceptual Metaphor and Metonymy Theory** (*Lakoff & Johnson 1980*)

<http://araw.mede.uic.edu/~alansz/metaphor/METAPHORLIST.pdf>

Case study:

fluidic motion uses of *run* and *τρέχω*

“fluidic motion”:
motion of a liquid Figure

vs.

“aquamotion”:
motion of a non-liquid
Figure in or on the
surface of a liquid
Ground

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THESAURUS

flow if liquid flows, it moves in a steady continuous stream

Blood flowed from his hand.

The river flows very quickly at this point.

run to flow – used when saying that something flows in a particular direction

Water was running down the walls of the room.

Sweat ran off his nose.

The river runs into the sea.

come out to flow out of something

You couldn't drink any of the water that came out of the tap.

pour to flow in large quantities

The rain poured down.

Blood was pouring from a wound on his head.

gush to flow out quickly in very large quantities

Water was gushing out at more than 3000 gallons a minute.

spurt to flow out suddenly with a lot of force

Oil was spurting from a small hole in the pipe.

trickle to flow slowly in drops or in a thin stream

Clare felt sweat trickling down the back of her neck.

leak to flow in or out through a small hole or crack, usually when this is not meant to happen

Oil was leaking from the engine.

From Longman Dictionary of Contemporary English

A.

Comparable monolingual analysis of
run and *τρέχω*

Monolingual corpus data:

- English Web Corpus 2020 (enTenTen20)
- Greek Web Corpus 2019 (elTenTen19)

Sketch Engine tools:

- Word Sketch, Multiword Sketch, concordances

total number of
occurrences

16,344,973 *run*

243,609 *τρέχω*



“fluidic motion”
subset

641,191 *run*

6,729 *τρέχω*

Fluidic motion uses of *run*

ANNOTATED CORPUS EXAMPLES	FRAME	MOTIVATION
I could feel the sweat ^{FLUID} running down my face ^{PATH} .	[Fluidic_motion]	basic manner of motion of liquids (continuous flow)
I went on being sick; my nose ^{SOURCE} was running and my whole head was ready to burst.		the source of liquid is profiled (CONTAINER FOR CONTENT metonymy)
Run cold water ^{FLUID} into the bath ^{GOAL} before hot – it avoids scalding and reduces steam.	[Cause_fluidic_motion]	causative extension: let water come out of a tap to fill a container (ACTION FOR RESULT metonymy)
He noticed that the floor ^{LOCATION} was running with wine ^{THEME} .	[Abounding_with]	swarm alternation: shift of emphasis from the liquid to the location where it flows (CONTAINER FOR CONTENT metonymy)
Never violently sponge the rug as this may cause the colours ^{THEME} to run.	[Filling]	extension: shift of emphasis from the liquid to the effect of the flow, i.e. colour spreading (EFFECT FOR CAUSE metonymy)
<ul style="list-style-type: none"> • But the council expects coal use to increase sharply as oil and gas reserves^{RESOURCE} run out. • ‘Time^{RESOURCE} is running out,’ said the Doctor. 	[Used_up]	metonymic grounding: the result of a liquid moving out of a container is that it becomes used up metaphorical extension to any type of resource
[^{AGENT}]’m running out of time, luck and ammunition ^{RESOURCE} .	[Expend_resource]	causative extension from [Used_up] (CAUSE FOR EFFECT metonymy)
She’s chubby already; I’m worried about her, weight problems ^{FEATURE} run in our ^{ENTITY} family.	[Distinctiveness]	metaphor: A HEREDITARY QUALITY IS LIQUID & GENERATION IS PLACE

Fluidic motion uses of *run*

FRAME	PHRASEOLOGICAL PATTERNS
[Fluidic_motion]	<p>FLUID collocate type: liquid (e.g. <i>water, river, stream, tide, tear, blood, sweat</i>)</p> <p>SOURCE collocate type: source of liquid (e.g. <i>nose, tap</i>)</p> <p>valence patterns:</p> <p>FLUID run over AREA</p> <p>FLUID run down PATH</p> <p>FLUID run from SOURCE in AREA</p> <p>SOURCE run</p>
[Cause_fluidic_motion]	<p>AGENT collocate type: human</p> <p>FLUID collocate types: 1. liquid (<i>water</i>), 2. container (<i>bath</i>) [by metonymy], 3. source of liquid (<i>tap</i>) [by metonymy]</p> <p>BENEFICIARY collocate type: human (for whom we fill a bath with water)</p> <p>valence patterns:</p> <p>AGENT run FLUID into GOAL</p> <p>AGENT run BENEFICIARY FLUID</p> <p>collocations:</p> <ul style="list-style-type: none">• <i>run</i> (hot, cold etc.) <i>water</i> (into a container/ from a source)• <i>run</i> (someone) <i>a bath</i> (= fill a bath with water for someone) CONTAINER FOR CONTENT metonymy, restriction: container = <i>bath</i>, content = <i>water</i>• <i>run the tap</i> (= turn on the tap, so that water can flow) SOURCE OF LIQUID FOR LIQUID metonymy, restriction: source = <i>tap</i>, liquid = <i>water</i>

Fluidic motion uses of *run*

FRAME	PHRASEOLOGICAL PATTERNS
[Abounding_with]	<p>LOCATION collocate type: area (e.g. <i>face, wall, floor, pitch, stream, pudding</i>)</p> <p>THEME collocate type: liquid (e.g. <i>blood, sweat, water, syrup, wine</i>)</p> <p>colligation: progressive aspect, PP-<i>with</i> + liquid</p> <p>valence pattern: LOCATION be running with THEME</p> <p>semantic prosody: it implies that the location is completely affected by the action</p>
[Filling]	<p>THEME collocate types: 1. coloured liquid (e.g. <i>paint, ink</i>) 2. colour (of cloth), cloth [by metonymy] (e.g. <i>colour, dye, red shirt</i>)</p> <p>semantic prosody: negative; it implies that the spreading shouldn't take place</p>

Fluidic motion uses of *run*

FRAME	PHRASEOLOGICAL PATTERNS (<i>cont.</i>)
[Used_up]	<p>MWE: RESOURCE <i>run out/ short</i></p> <p>RESOURCE collocate type: something becoming used up</p> <ul style="list-style-type: none">• literal (e.g. <i>water, food, fuel, supplies</i>)• figurative (e.g. <i>money, time, ideas, patience, luck, steam, gas, agreement, contract</i>) <p>semantic prosody: negative; it implies lack of something essential</p>
[Expend_resource]	<p>MWE: AGENT <i>run out/ short of</i> RESOURCE</p> <p>RESOURCE collocate type: something becoming used up</p> <ul style="list-style-type: none">• literal (e.g. <i>water, food, fuel, supplies</i>)• figurative (e.g. <i>money, time, ideas, patience, luck, steam, gas, agreement, contract</i>) <p>semantic prosody: negative; it implies lack of something essential</p>
[Distinctiveness]	<p>MWE: <i>run in the/ someone's family/ blood</i></p> <p>FEATURE collocate type: trait (e.g. <i>talent, skill, disease, problem</i>)</p>

Fluidic motion uses of τρέχω

ANNOTATED CORPUS EXAMPLES	FRAME	MOTIVATION
<p>Τα δάκρυα FLUID στα μάτια του άρχισαν να τρέχουν σαν ποτάμι CONFIGURATION.</p> <p>“Tears began to run from his eyes like a river.”</p>	[Fluidic_motion]	basic manner of motion of liquids (continuous flow)
<p>Συμπτώματα που σχετίζονται με την αλλεργική ρινίτιδα είναι το φτάρνισμα, η μύτη SOURCE που τρέχει, τα μάτια με κνησμό.</p> <p>“The symptoms of allergic rhinitis include sneezing, nose that is running and itchy eyes.”</p>		the source of liquid is profiled metonymy: CONTAINER FOR CONTENT
<p>Το ίδιο μουσικό αίμα FLUID τρέχει στις φλέβες PATH των κοριτσιών μου, πιάνο και οι τρεις.</p> <p>“Music runs in our veins; all three of my daughters play the piano.”</p>		figurative fluidic motion metaphor: A HEREDITARY QUALITY IS LIQUID
<p>Στην περιοχή αυτή AREA ο χρόνος FLUID τρέχει γρήγορα MANNER σαν τα νερά του Λούσιου.</p> <p>“In this area time runs fast like Lousios river.”</p>		figurative fluidic motion metaphor: TIME IS WATER
<p>Μιλάει μόνο μαζί σου και του EXPERIENCER τρέχουν τα σάλια.</p> <p>“He’s talking only to you and his saliva are running.”</p>	[Desiring]	metaphor: DESIRE IS HUNGER metonymy: PHYSIOLOGICAL EFFECT FOR CAUSE (saliva is produced when we are hungry or when we see our favorite food)
<p>Δεν μας OWNER τρέχουν τα λεφτά POSSESSION από τα μπατζάκια.</p> <p>“Money doesn’t run out of our trouser legs.”</p>	[Possession]	metaphor: MONEY IS A LIQUID

Fluidic motion uses of τρέχω

FRAME	PHRASEOLOGICAL PATTERNS
[Fluidic_motion]	<p>FLUID collocate types: 1. liquid (e.g. νερό, αίμα, δάκρυα, ιδρώτας, πύο, σάλια), 2. trait (e.g. μουσική, αποτυχία), 3. time (e.g. χρόνος, μέρες)</p> <p>SOURCE collocate type: source of liquid (e.g. μύτη, βρύση)</p> <p>CONFIGURATION collocate type: large amount of liquid (e.g. ποτάμι, αυλάκι, κορόμηλο)</p> <p>MWE: [trait] <i>τρέχει στις φλέβες κάποιου</i> (“run in someone’s veins”)</p>
[Desiring]	<p>MWE: <i>τρέχουν τα σάλια</i> (“saliva run”)</p> <p>semantic prosody: it implies great desire often expressed in an unattractive manner</p>
[Possession]	<p>MWE: <i>τρέχουν από τα μπατζάκια</i> (“run out of trouser legs”)</p> <p>POSSESSION collocate types: money (e.g. λεφτά, χρήμα), quality</p> <p>semantic prosody: it implies a great amount of money (or a quality) and speaker’s disapproval of this situation of abundance</p>

Overall remarks

- the semantic and phraseological patterns of *run* and *τρέχω* share little in common
- the [Fluidic_motion] frame is the only point of convergence
- the semantic extensions of *run* are built around the **result of liquid flow** (coverage of a location, colour spreading, a resource becoming used up, a family becoming distinct)
- the concept that runs through the uses of *τρέχω* is **large amount** (of liquid, quality, time, desire, money)

Overall remarks

- the *run* fluidic motion node is more productive than its Greek counterpart

<i>Run</i> frame distribution		<i>Τρέχω</i> frame distribution	
Expend_resource	59%	Fluidic_motion	84%
Used_up	30%	Desiring	14.3%
Fluidic_motion	10%	Possession	1.7%
Abounding_with	0.4%		
Distinctiveness	0.3%		
Cause_fluidic_motion	0.2%		
Filling	0.1%		



B.

Parallel corpus investigation:
Shifts in translation

Parallel corpus data:
Open Parallel CorpUS (OPUS2)

Sketch Engine tools:
Corpus Query Language search tool, parallel concordances

Focus:

Grammatical
shifts

Semantic
shifts

- shifts in FEs (the frame evoked is the same)
- shifts in frames
- shifts in frame mappings in the case of metaphors

Examples of English-Greek translation shifts

Type of shift	Translation pair	
	SL: English	TL: Modern Greek
Grammatical shift	<p>1) The streets of Shinbone^{LOCATION} will be running with blood^{THEME}.</p> <p>Frame: [Abounding_with]</p>	<p>1) Οι δρόμοι της πόλης^{LOCATION} θα βαφτούν με αίμα^{THEME}.</p> <p>“The streets of the city will be painted with blood.”</p> <p>Frame: [Abounding_with]</p>
Frame shift	<p>2) Shall I^{AGENT} run a bath^{FLUID} for you^{BENEFICIARY}?</p> <p>Frame: [Cause_fluidic_motion]</p>	<p>2) Να σου^{BENEFICIARY} γεμίσω τη μπανιέρα^{GOAL};</p> <p>“Shall I fill the bathtub for you?”</p> <p>Frame: [Filling]</p>
	<p>3) Colours^{THEME} that never run.</p> <p>Frame: [Filling]</p>	<p>3) Χρώματα^{THEME} που δεν βγαίνουν στην πλύση^{CIRCUMSTANCES}.</p> <p>“Colours that don’t go out in the wash.”</p> <p>Frame: [Motion_directional]</p>
Frame mapping shift	<p>4) Genius^{FEATURE} runs in my^{ENTITY} family.</p> <p>Source frame: [Fluidic_motion]</p> <p>Target frame: [Distinctiveness]</p>	<p>4) Η ιδιοφυΐα^{FEATURE} είναι οικογενειακό μας^{ENTITY}.</p> <p>“Genus is our family feature.”</p> <p>Source frame: -</p> <p>Target frame: [Distinctiveness]</p>
	<p>5) The risk that funds^{RESOURCE} might run short should be avoided.</p> <p>Source frame: [Fluidic_motion]</p> <p>Target frame: [Used_up]</p>	<p>5) Πρέπει να αποφευχθεί ο κίνδυνος ανεπαρκούς χρηματοδότησης^{ITEM}.</p> <p>“The risk of insufficient funding should be avoided.”</p> <p>Source frame: -</p> <p>Target frame: [Sufficiency]</p>
	<p>6) I^{AGENT}’m running out of patience^{RESOURCE}.</p> <p>Source frame: [Fluidic_motion]</p> <p>Target frame: [Expend_resource]</p>	<p>6) Η υπομονή μου^{RESOURCE} τελειώνει.</p> <p>“My patience will soon finish.”</p> <p>Source frame: -</p> <p>Target frame: [Used_up]</p>

Examples of Greek-English translation shifts

Type of shift	Translation pair	
	SL: Modern Greek	TL: English
Grammatical shift	<p>1) Βουλωμένη ή μύτη ^{SOURCE} που τρέχει και πόνος του λαιμού. “Stuffy or nose that is running and sore throat.”</p> <p>Frame: [Fluidic_motion]</p>	<p>1) Stuffy or runny nose ^{SOURCE} and sore throat.</p> <p>Frame: [Fluidic_motion]</p>
FE shift	<p>2) Από τα μάτια της ^{SOURCE} έτρεχαν ποτάμι ^{CONFIGURATION} τα δάκρυα ^{FLUID}. “Tears were running from her eyes like a river.”</p> <p>Frame: [Fluidic_motion]</p>	<p>2) Tears ^{FLUID} were streaming from her eyes ^{SOURCE}.</p> <p>Frame: [Fluidic_motion]</p>
FE shift (in source frame)	<p>3) Μου ^{EXPERIENCER} έτρεχαν τα σάλια τη μέρα που σε γνώρισα ^{TIME}. “My saliva were running the day that I met you.”</p> <p>Source frame: [Fluidic_motion] Target frame: [Desiring]</p>	<p>3) I ^{EXPERIENCER} salivated the day that I met you ^{TIME}.</p> <p>Source frame: [Fluidic_motion] (FLUID: DNI) Target frame: [Desiring]</p>
Frame shift	<p>4) Ο χρόνος ^{FLUID} τρέχει, όταν έχεις παρέα. “Time runs when you have company.”</p> <p>Frame: [Fluidic_motion]</p>	<p>4) Time ^{THEME} flies when you have company.</p> <p>Frame: [Motion]</p>
Frame mapping shift	<p>5) Δεν μου ^{OWNER} τρέχουν κι απ’ τα μπατζάκια. “Money doesn’t run out of my trouser legs.”</p> <p>Source frame: [Fluidic_motion] Target frame: [Possession] (POSSESSION: DNI)</p>	<p>5) I ^{OWNER}’m not made of money ^{POSSESSION}.</p> <p>Source frame: [Creating] Target frame: [Possession]</p>
	<p>6) Πολύ σύντομα τα λεφτά ^{POSSESSION} θα τρέχουν από τα μπατζάκια μας ^{OWNER}. “Pretty soon money will be running out of our trouser legs.”</p> <p>Source frame: [Fluidic_motion] Target frame: [Possession]</p>	<p>6) Pretty soon money ^{POSSESSION} will be falling off trees.</p> <p>Source frame: [Motion_directional] Target frame: [Possession]</p>

Conclusion

- Monolingual corpus analysis: the semantic extensions motivated by the same core fluidic motion sense have taken a different direction in the two verbs

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- Monolingual corpus analysis: the semantic extensions motivated by the same core fluidic motion sense have taken a different direction in the two verbs
- Parallel corpus analysis: translation shifts emerge from the interaction of conceptual and phraseological forces
- Methodological issues:
 - the combined use of comparable monolingual and parallel corpora reveals both congruent (i.e. formally similar) and non-congruent (i.e. formally dissimilar) correspondences
 - phraseological patterns emerge as the minimal reliable unit for investigating correspondence
 - semantic frames systematically serve as a tertium comparationis for mapping lexical information across the two languages

References

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FrameNet <https://framenet.icsi.berkeley.edu/fndrupal/>

Master Metaphor List <http://araw.mede.uic.edu/~alansz/metaphor/METAPHORLIST.pdf>

Pattern Dictionary of English Verbs <http://www.pdev.org.uk/#browse?q=;f=C>

Corpora

enTenTen20

https://app.sketchengine.eu/#dashboard?corpname=preloaded%2Fententen20_tt31_1

elTenTen19

https://app.sketchengine.eu/#dashboard?corpname=preloaded%2Feltenten19_tt3

OPUS2 (English-Greek)

https://app.sketchengine.eu/#dashboard?corpname=preloaded%2Fopus2_en

OPUS2 (Greek-English)

https://app.sketchengine.eu/#dashboard?corpname=preloaded%2Fopus2_el



Thank You!