So... what is it?

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Hypothesis: People understand things by performing mental operations on what they already know.

Such knowledge is describable in terms of information packets called FRAMES.
Final Goal

Document the range of semantic and syntactic combinatory possibilities—valences—of each word in each of its senses.
Before we ‘dig in’ -
Lets see an example
Frame Example (Attack)

Definition
Frame Elements (FE)
Lexical Units (LU)
Annotation
more: semantic types, FE-FE relations etc.

An **Assailant** physically attacks a **Victim** (which is usually but not always sentient), causing or intending to
Whenever the **Palestinians** **ATTACKED** **Israeli targets abroad**, the Israelis invariably assaulted Lebanon. **Place**, **Time**, **Purpose**, **Reason**, etc. Sometimes a location is used metonymically to stand for the **Assailant** or the **Victim**, and in such cases the Place EE will be annotated on a second EE layer.
A FRAME is any system of concepts related in such a way that to understand any one concept it is necessary to understand the entire system.
Frame-frame Relations:

Inherits from: **Intentionally_affect**

Is Inherited by: **Besieging, Counterattack, Invading, Suicide_attack**

Perspective on: **Hostile_encounter**

Is Perspectivized in:

Uses:

Is Used by: **Defending**

Subframe of:

Has Subframe(s):

Precedes:

Is Preceded by:

Is Inchoative of:

Is Causative of:

See also:

![Diagram](image-url)
Lexical Unit (LU)

- We look for words in the language that bring to mind the individual frames.
- We say that the words *evoke* the frames.
- Instead of words, we have to work with *lexical units* (LUs), each of these being a pairing of a word with a sense. (ambiguity)

1. She *earns* a lot less than she deserves.
2. I made a lot of money, but I *earned* it.
Complementation patterns should go with particular meanings of a word.

- **Medical sense of complain:**
  the patient complained [of back pains]

- **Official act sense of complain:**
  we complained [to the manager] [about X]
  she complained [that her checks were late]
FEs
descriptive vocabulary for the components of each frame.

An **Assailant** physically attacks a **Victim** (which is usually but not always sentient), causing or intending to cause the **Victim** physical damage. A **Weapon** used by the **Assailant** may also be mentioned, in addition to the usual **Place**, **Time**, **Purpose**, **Reason**, etc. Sometimes a location is used metonymically to stand for the **Assailant** or the **Victim**, and in such cases the **Place** FE will be annotated on a second FE layer.

As soon as he stepped out of the bar he was **SET upon** by four men in ski-masks.

we use FEs in labeling the **constituents** of sentences exhibiting the frame.
Annotations

Type 1: annotation sentence
Type 2: full text annotation (books, articles)

we focus on ‘Type 1’

Whenever the Palestinians attacked Israeli targets abroad, the Israelis invariably assaulted Lebanon.
Numbers!

- 1020 frames (and growing)
- ~12,000 Lus
- 2-60 LUs per frame (avg 11)
- 20 annotated sentences for LU
- 120K sentences in total
Until now..

- Imported the english FN data + adjustments
  - XML -> JSON ->mongoDB
- Built Hebrew DB
  - Frames, FE's - copy paste
  - NO - sentences, LUs, annotations..
- created WebApp
  - nodeJS server (Imri)
  - UI: Angular Js + Bootstrap (Asaf)
Until now.. (cont)

- **English LUs translations**
  - Google Translate and morphix
  - not bad - but not so good..

- **Sentences Pipeline (Itay & Alon)**
  - import all Corpora to ElasticSearch:
    - constituents tree
    - dependency V2+ segmentation
    - +some calculated fields
  - search engine: diversification (most ‘different’ sentences)
SO.. what are we doing?

- characterize frames (and Fes) - DONE
- find words that fit the frames
- develop descriptive terminology - DONE
- extract sample sentences
- annotate selected examples
- derive "valence" descriptions - ?
HebFN V0.5

- Explore the english data
- Add hebrew LUs to frame (see example sentences)
- Edit LUs

next: add sentences, annotated sentences, reviewer screen
Choose FRAME from list

UNDERSTAND the ENG frame (definition, FEs, lus, examples)

‘Add LUs’

choose English lus and see translations

‘Add LUs’

THINK add costume LU

see example sentences

add HEB LUs from translation (don’t skip the details)
The screen you are about to see are not the final screens!