

STEPS TOWARD HEBREW FRAME_{NET}

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This paper presents ongoing work of a project under development to build an on-line lexical resource for contemporary Hebrew which will provide the semantic and syntactic combinatorial possibilities, or valences, for each item analyzed, through the manual annotation of example sentences in a newspaper corpus² (and eventually, the automatic capture and organization of the annotation results).

In accord with Frame_{Net}, the first computational lexicography project of its kind (<http://www.icsi.berkeley.edu/~framenet>), Hebrew Frame_{Net} is based on the principles of Frame Semantics (Fillmore 1978, 1985, Petruck 1996), at the heart of which is the *semantic frame*, an experience-based schematization of the speaker's world against which word meaning can be understood. In Frame Semantics, a linguistic unit *evokes* a frame, whose *frame elements* (FEs), or participants and props in a scene, determine the semantic roles that need to be filled. A Frame Semantic analysis of a lexical item relies on the identification and definition of the frame(s) in which the word participates, as well as the frame-specific frame elements. FEs are actually triples of information about the semantic role, the phrase type and the grammatical function of the constituent that is annotated.

To illustrate, consider the predicates (boldface) in the first sentence of the initial corpus used for Hebrew Frame_{Net}: *asrot anashim **megi'im** mi-tailand le-israel kshe-hem **nirshamim** k-mitnadvim ax le-ma'ase **mishamshim** sxirim zolim* (tens (of) people reach from-thailand to-israel while-they register as-volunteers but in-deed they serve laborers cheap) - 'Tens of people reach Israel from Thailand, registering as volunteers but in fact serving as cheap labor'. The verb *magi'a* - 'reach' evokes an Arriving frame, characterizing a situation in which a Theme moves in the direction of a Goal, the latter either expressed explicitly or implied by the verb. The NP *asrot anashim* fills the role of Theme, and functions as the subject of the clause; the Goal is expressed by the PP complement *le-israel*; the example sentence also includes an optional Source expression in the PP *mi-tailand*. *nirsham* - 'register' evokes a Registration frame, describing a scene in which a Registrant puts an Entity on record at an Institution as belonging to a Category or as Licensed for a specific purpose or state. The NP *kshe-hem* expresses the Registrant and functions as the subject of the clause; the NP *k-mitnadvim* fills the Category role. Finally, *mishamshim* evokes the *Function_as* frame, in which an Entity serves a Function or Purpose, the former for activities and the latter for states of affairs. Although not present in the maximal clause of the verb *mishamshim*, it is clear what fills the Entity role (*hem*); the object NP *sxirim zolim* expresses the Purpose.

In conclusion, the paper discusses the usefulness of Frame Semantic analyses, as illustrated above, for research in contrastive lexicology and in the advanced foreign language classroom. For example, whereas Hebrew *mishamesh* expresses Purpose as an object NP, English expresses it as a PP complement. The availability of such information

² <http://el.khaifa.ac.il/~shlom/compres/2000contenec/>

via the internet will facilitate studies in Hebrew linguistics and Hebrew language teaching/learning.