**PROPOSING THE MULTI-LAYERED SEMANTIC FRAME ANALYSIS OF TEXT**

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Designed to develop (mainly Japanese) databases of “word senses in contexts” to fulfill the need to describe the “ecology” of words and their senses.

Supports a “preprocess” that needs to be done before defining entries for any useful (generative) lexicon.

Each word is linked to as many situational/semantic roles as needed, based on the Berkeley FrameNet approach to word sense representation/disambiguation.

Semantic roles in our sense are neither “thematic roles” in the sense of Generative Grammar nor “deep cases” in the sense of Case Grammar; Rather, they are part of a “cognitive models,” or situations, granting that a situation is an organization of situational roles rather than entities.

Frames specify units of human situational understanding, thereby defining cognitive structures that lead to semantic field effects.

Certain frames “cluster” together, thereby constituting a “domain” like Production, Consumption. Typically, clustering is caused by Purpose/Means coupling.

Frame enumeration in MSFA needs not to be exhaustive, as far as it specifies information necessary to construct a Hierarchical Frame Network Analysis (HFNA) below.

A Hierarchical Frame Network Containing Ontological Hierarchies

**Domain Effect Arising from Frame Clustering**

HFNA is supposed to specify what people actually “understand” when they hear (or read) a sentence. HFNA is a fuller specification of human understanding than MSFA. MSFA serves as a preprocess for the construction of a HFNA of a given sentence.

Theoretically, HFNA implements a PDP-style computation:
1) Words evoke, or “activates” frames that they are components of.
2) Evoked frames activate other frames (partially indicated), typically by such associative relations as elaboration, preparation, realization, motivation, presupposition (some of them are pefified as Frame-to-Frame relations in MSFA).
3) Lateral inhibition among activated frames (not indicated per se) leads to convergence.

Ontological hierarchies like “Book IS A Goods IS A Product IS A Artifact IS A Physical Entity” are a derivative of hierarchical frame network.

Frame-evoking elements (evokers) are typically words or morphemes, but they need not be so. Certain kinds of frame-evocation are distributed in nature. This is true especially for “collocations” and “styles.”