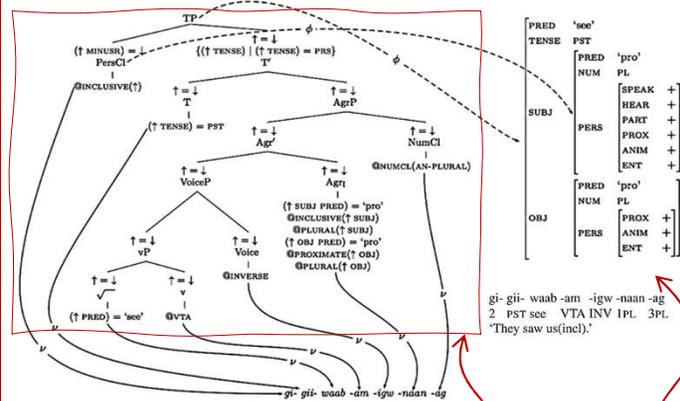# Constraints all the way down:
DM in a representational model of grammar

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What is DM without Minimalism?

Morpheme-based Morphosyntax
- Complex words have internal structure and arrangement of morphemes is syntactic
- Words are not atomic in DM, and paradigms are epiphenomenal
- This property of DM is often called "syntax all the way down" in the DM literature

Realization
- Morphology expresses meaning and function
- Realizational approaches typically assume completed featural structures as the input to morphological operations
- The DM literature uniquely calls this property late insertion.

Morphology as an interface
- Morphology is an interface rather than a separate generative component of the grammar "Morphology has no proprietary categories, but deals only in morphs, understood as pieces of phonological material lexically specified with instructions for their use as exponents of syntactic properties." (Bermudez-Otero and Lus 2016: 311)
- This is most relevant in DM's rejection of the *morphome,* the word, and the paradigm
- The model of syntax that results from an interface with DM necessarily rejects the Lexicalist Hypothesis
- DM today: Suite of operations typically called PF branch operations (such as *Local Dislocation, Rebracketing, Impoverishment, Fusion, Fission, Enrichment,* and *Readjustment*). These are properties of the DM-Minimalism interface, rather than of DM itself

Three lists
- The syntactic, semantic, and phonological domains of "word" (or morpheme) do not align on the same domain
- Three distinct lists, one for each domain:
  a) The Vocabulary: phonological properties
  b) The Encyclopedia: semantic properties
  c) The third (unnamed) list: formal features that populate syntactic structures

Elsewhere principle
- DM employs a version of the Elsewhere/Paninian Principle, called the Subset Principle, whereby a more specific form outcompetes a more general form

Underspecification
- DM accounts for syncretism, polysemy, and distribution via underspecification, whereby a morphological form underdetermines its syntactic and semantic properties

Comparison of L$_R$FG with standard DM

LRFG assumes an interface with LFG as a model of syntax. Resulting differences:

1. LRFG is a **non-derivational, constraint-based** model of the grammar
- Conceptually, realizational morphology (such as DM) is akin to **harmonic** approaches to phonology (such as Optimality Theory)
- Vocabulary Items themselves and the Subset Principle are the **well-formedness conditions**
- In this way, realizational morphology is **inherently** non-derivational
- Intuitively, a model that assesses the welformedness of representations is better suited to be interfaced to other models that assess the wellformedness of representations

2. LRFG allows for exponence to be subject to dependencies on several different modules
- ◦ Affixation in LRFG is conditioned by morphsyntactic features, but also **semantics** and **phonology**
  - **This of course is empirically true of morphology (as has been known):**
    - See for example the phonological restrictions the comparative –*er* has on its base
    - See for example the semantic restrictions *re-* requires of its base
- ➤ In contrast, PF in Minimalism is **explicitly blind to LF** in the Y model, so meaning directly affecting form is excluded in Minimalist DM
    - See for example Root-based approaches to the difference between *brothers* and *brethren* or *older* and *elder*
- ➤ Additionally, in Minimalist DM **surface phonology is ordered <u>after</u> insertion** is complete, so output-sensitive morphology is impossible to obtain absent a DM-OT interface
    - See for example the deadjectivizer –*en*, which is legal in *hasten* because of output-sensitive well-formedness (see Halle 1973 for discussion)

Lexical Realizational Functional Grammar: Ojibwe argument agreement

gi- gii- waab -am -igw -naan -ag
2 PST see VTA INV 1PL 3PL
'They saw us(incl).'

v-structure (simple)
c-structure
f-structure
example VIs

L$_R$FG as a Daughter of DM

Morpheme-based morphosyntax
- L$_R$FG directly adopts the listeme-based, spanning model of Vocabulary Items developed for DM in Haugen and Siddiqi (2016).

Realization
- Exponence in L$_R$FG is fundamentally Vocabulary Insertion.
- A Vocabulary Item in L$_R$FG is a more complete representation as it also contains information relevant to prosodic structure constraints.
- Exponence in L$_R$FG is also more constrained, as it is sensitive to more information: it is conditioned by f-structure and by meaning constructors from Glue Semantics
- Rather than a non-monotonic/destructive replacement algorithm that discharges features from a derivation, exponence in L$_R$FG is a set of pairwise correspondence functions between representations in v-structure, c-structure, f-structure, and p-structure.

Morphology as an interface
- In L$_R$FG, exponence is quintessentially realizational/non-generative.
- The form of v-structure is entirely determined by the satisfaction of constraints on the mappings with other representations.
- Morphology is not an output of L$_R$FG : it is one of many representations described by a given co-description.

Three lists
- L$_R$FG maintains the tripartite division of wordhood that defines DM.
- L$_R$FG further distinguishes vocabulary atomicity (i.e. spans) and phonological (prosodic) atomicity.
- In L$_R$FG, vocabulary atomicity, phonological atomicity, syntactic atomicity, and semantic atomicity do not necessarily align on the same object. Each corresponds to a different representation in the Correspondence Architecture, as described by co-description.

"Special" domains:
Vocabulary-determined mappings
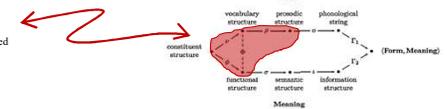
Elsewhere Principle and Underspecification
- L$_R$FG adopts the Subset Principle through two independently motivated subset constraints. *MostInformative* is conditioned by meaning, and *MostSpecific* is conditioned by form.

Reasons to adopt L$_R$FG

Highly formalized:
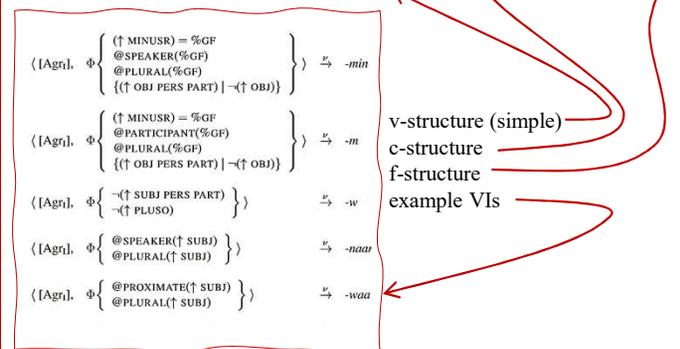- Compare the Subset Principle to its L$_R$FG counterpart, *MostInformative*:

Ability to treat a language "on its own terms" within a general model of UG:
- Our analysis of English employs IP while Ojibwe employs TP and AgrP
- Our analysis of O'dam employs a flat preverbal complex without sub-constituency

Fully representational, non-derivational, multi-modular, co-descriptive, constraint-based model of the well-formedness of an utterance in human language
- If bottom-up derivations aren't your thing or maybe you want a model of morphology that captures all the synchronic and competence pressures on morphological exponence, this version of DM might be for you. Have a look!

References available **tinyurl.com/W21AMS**