

Unifying *-ing* without “participles”

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Two puzzles

- Why is *-ing* so morphologically uniform, despite its apparently diverse distribution?
- Why do the exponenda of *-ing* seem to have “mixed-category” properties?

INGventory

1. **Prog-ING** (Progressive “participle”):
The children were **reading**.
2. Nominal “gerunds”: N-ING (“*ing-of*”):
The **reading of books** is rewarding.
3. Clausal “gerunds”(S-ING and D-ING):
 - S-ING (“Acc-*ing*”):
Him **having read books** is implausible.
 - D-ING (“Poss-*ing*”):
His **having read books** is impressive.
4. A-ING: (“participial” modifiers)
The **reading** children were quiet.
Any children **disliking pie** can have ice cream.

Assumptions

- Categorical properties arise from syntactic structure.
- “Morphemes” are explananda, not explanations
- Morphemes must have discoverable, non-disjunctive syntactic exponenda.

Common properties

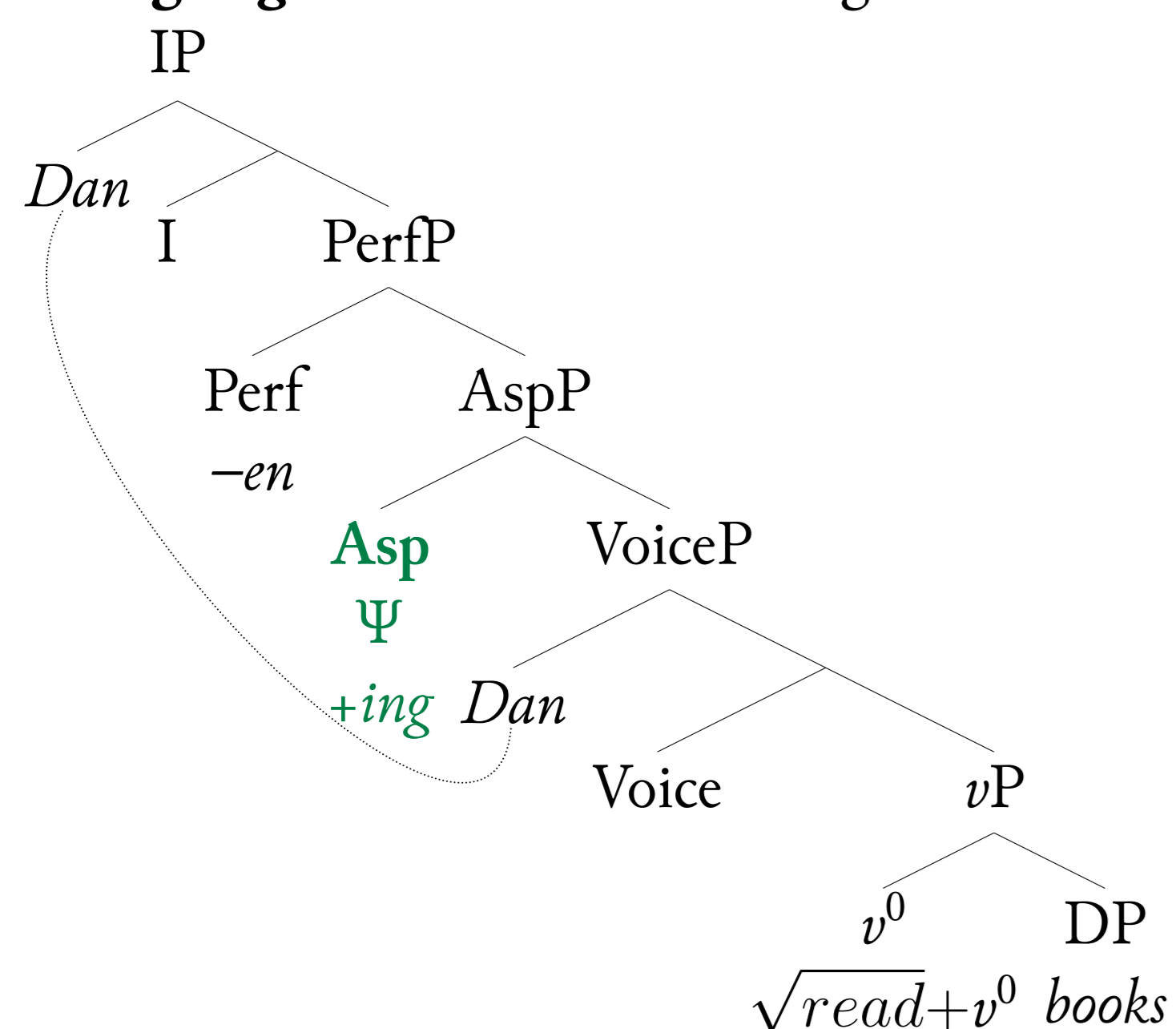
1. exceptionlessly productive
2. almost always semantically transparent
3. no allomorphic differences between types
4. “affix-hopping” pattern (cf. possessive *'s*)
5. Double-*ing* filter cuts across subtypes
6. can incorporate objects (even if verbal)

Interesting because:

- Syntactic environments seem to be arbitrary, disjunctive sets of exponenda
- If different, homophonous affixes, then similarities are coincidental.

Progressive ING

1. **Prog-*ing***: Dan has been reading books.



Proposal

- *-ing* uniformly realizes a formal feature $[\Psi]$.
- $[\Psi]$ composes with a predicate of eventualities, closing the event argument.
- $[\Psi]$ appears on various syntactic heads.
- Shared morphological properties of diverse *-ing* forms are due to $[\Psi]$.
- Differences are due to
 - different structural properties above or below the head bearing $[\Psi]$
 - other features on the head bearing $[\Psi]$

Background

- Gerunds encode a defective Infl^0 (Horn 1975, Stowell 1981)
 - Perf OK, no modals, no finite tense.
- *-Ing* forms head various projections smaller than TP: vP , VoiceP, ProgP, PerfP
 - ING doesn’t c-select its complement.
- vP , VoiceP, ProgP, and PerfP all express predicates of eventualities (Parsons 1990, Kratzer 1993, Bach 1986, DeSwart 1998)
 - Possible semantic commonality? Call it $[\Psi]$.

Interpretation of $[\Psi]$

- $[\Psi]$ existentially binds the eventuality argument of its complement.
 - The event can be related to another event (item 1 of the INGventory).
 - The event can be referred to (items 2, 3, and 4 of the INGventory).
 - Tense and modals are not possible in the complement of ING. Why?
 - Tense and modality also saturate or bind the predicate of events.
 - $[\Psi]$ requires an open eventuality argument to bind.
 - it can’t compose with TP or with a modal projection.

ING: structure and differences

Nominal “gerunds”: *-ing-of*

- Nominal, not clausal, syntax: $[\Psi]$ on a nominalizing head n^0
- n^0 takes a complement consisting only of $\sqrt{\text{root}}$
- No source for accusative structural case in nP → *of*-insertion
 - (1) The $[_{nP}$ reading of poetry] is rewarding.

→ **Tree 2**

Clausal “gerunds”: *Acc-ing* and *Poss-ing*

- Both are clausal: they can contain perfect *have*.
 - (2) Mary/Mary’s having been rejected from the conference was unfortunate. (vs. Horn 1985; Abney 1987 for *poss-ing*)
- $[\Psi]$ -bearing head appears where a non-finite T head would. This is the defective Infl^0 .
- If the subject moves to $[\text{spec}, \text{IP}]$, it can move again:
 - (3) Who did you appreciate $[_{IP} \langle \text{who} \rangle$ being invited to the conference]?
- or can remain there, receiving default accusative case if needed:
 - (4) We appreciated the undergraduates being invited to the conference. This is “Acc-*ing*”

→ **Tree 3a**

BUT: If a DP-layer appears above IP:

- The subject moves to $[\text{spec}, \text{DP}]$ and receives genitive case.
- It cannot be further extracted:
 - (5) *Whose did you resent $[_{DP} \langle \text{whose} \rangle$ having left early]?

This is “Poss-*ing*”

→ **Tree 3b**

Adjectival “participles”: **Actually clausal!**

- Complement of *a-Ψ* can be a PerfP:
 - (6) Students [having finished the test] may leave the room.
- Prosodically conditioned light modifier fronting derives prenominal cases.

→ **Tree 4**

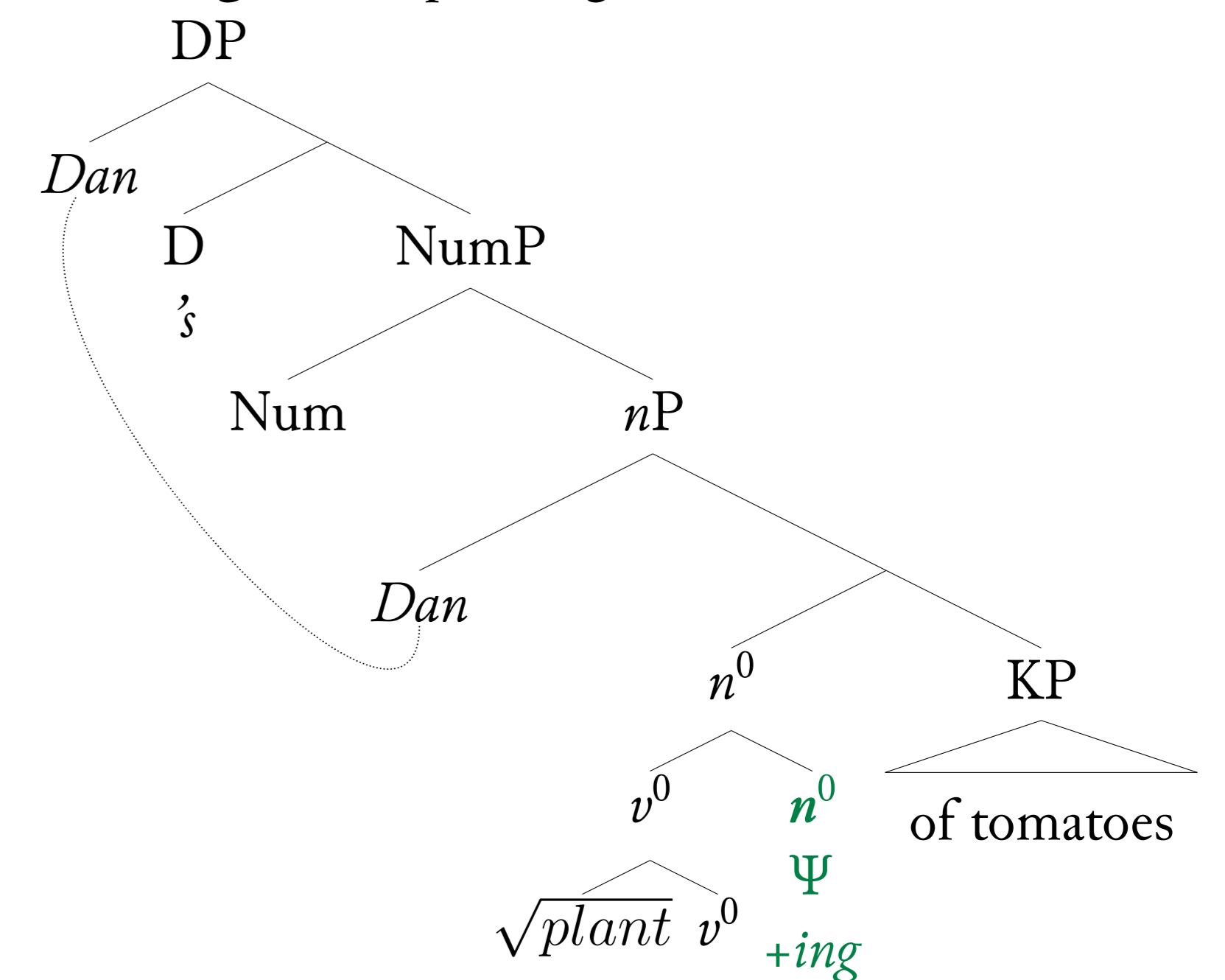
Progressive “participle”: **Prog-ING**

- $[\Psi]$ on the progressive aspect head existentially closes the eventuality argument of the verb phrase
- A separate aspectual feature on Asp provides the progressive aspect.

→ **Tree 1**

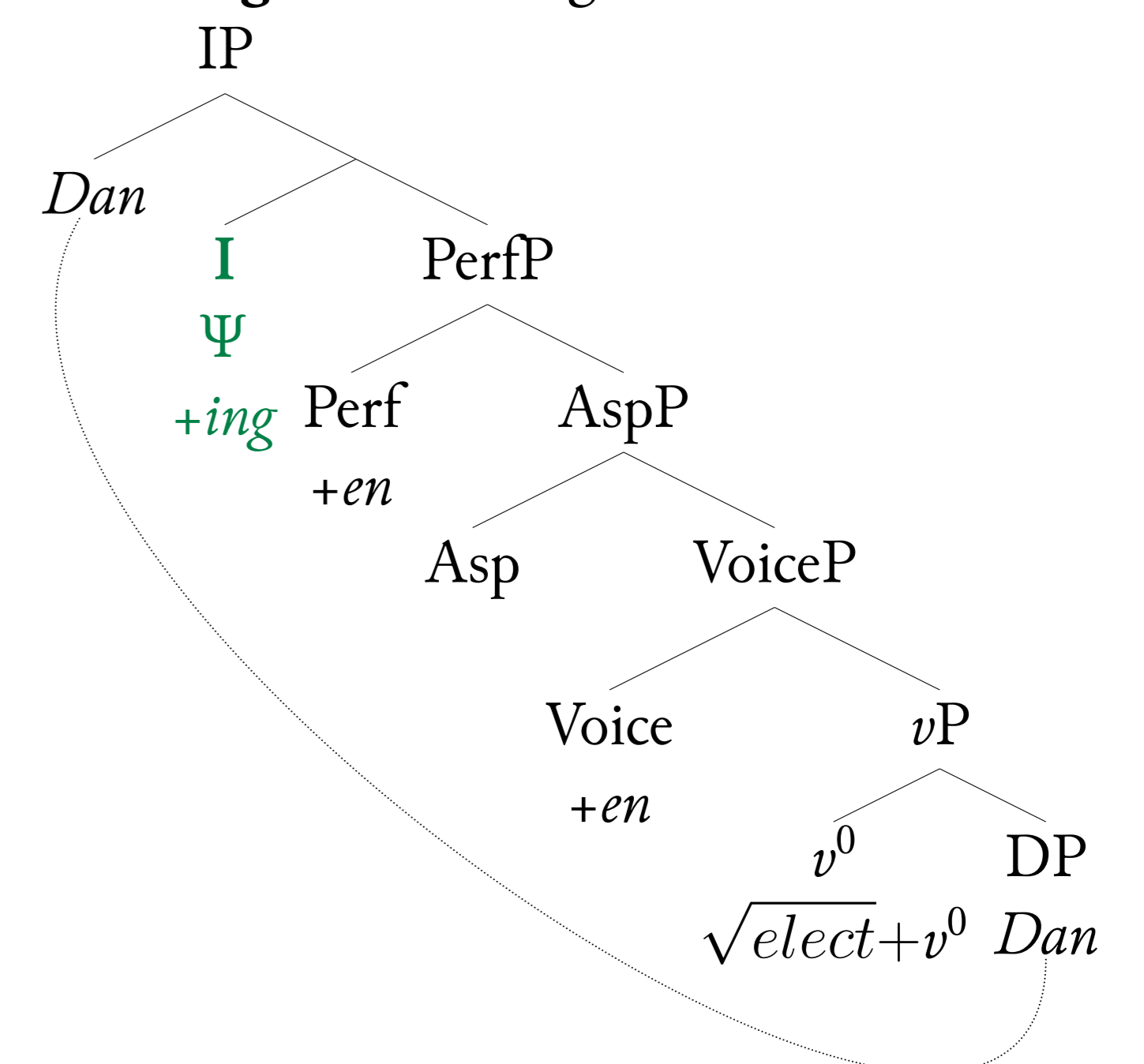
Nominal ING

2. **N-*ing***: Dan’s planting of tomatoes

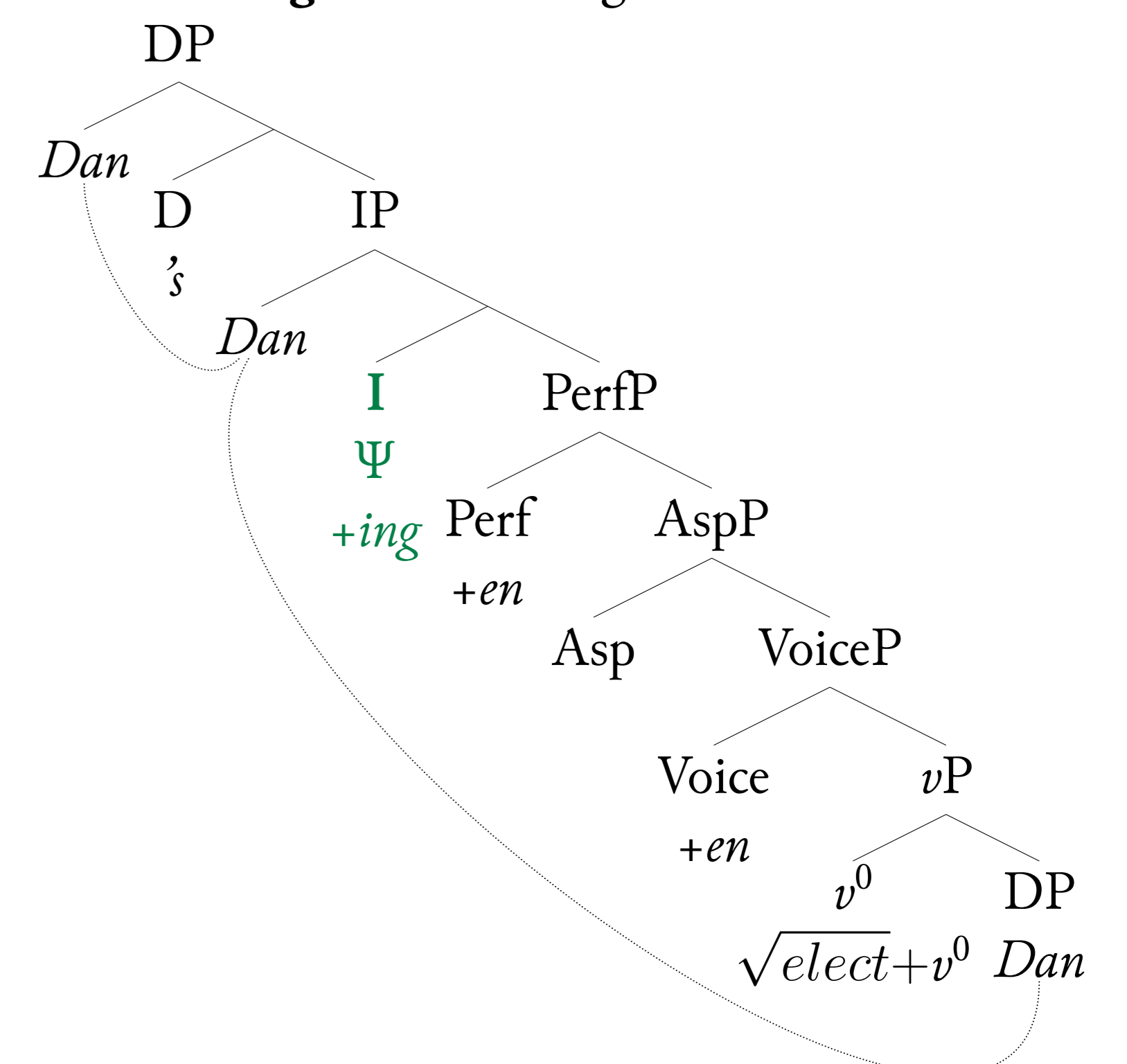


Clausal ING

- 3a. **Acc-*ing***: Dan having been elected



- 3b. **Poss-*ing***: Dan’s having been elected



4. **A-*ing***: Any children disliking pie can have ice cream.

