# Relational Grammar and the Limits of Advancement 

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## (1) Some ground rules

a. The Hierarchy of Grammatical Relations:

1 (Subject) >> 2 (Direct Object) >> 3 (Indirect Object)
>> Nonterms (Oblique, Chômeur)
b. Any stratum (= level of grammatical representation) contains at most one instance of each GR (Stratal Uniqueness Law).
c. Nominals can travel up the hierarchy (advancement) or down (demotion).
d. If $X$ bears a specific $G R$ and $Y$ is advanced to this $G R, X$ is put en chômage (becomes a Chômeur).
e. Well-formedness conditions can be defined over a single stratum or the entire set of strata associated with a sentence (its "derivation").

## Can there be multiple advancements to the same GR in a sentence?

(2) Advancee Tenure Law (ATL)

An advancee cannot be placed en chômage by an advancement.

Note: An advancee can still be put en chômage by expletive insertion [4].
injured+en many workers expl. (il)

| Initial Stratum | P | 2 |  |
| :--- | :---: | :---: | :---: |
| Intermediate Stratum | P | 1 |  |
| Final Stratum | P | Cho | 1 |

(3) Against the ATL
a. Most of the impact of the ATL is to rule out multiple 1-advancements.
b. The rare cases of multiple 3-advancements are independently ruled out.
c. Multiple 2-advancements actually exist - as in Locative/Instrumental advancement in Kinyarwanda [5]-[7], with the structure [8].

Diagnostics of 2: No preposition, undergoes passive, relativization, reflexivization, clefting and determines object agreement (in object drop).

Note: None of these properties is derived in any deep sense from 2-hood (which is a primitive property). Moreover, their clustering is equally accidental in RG.
(4) Given that the ATL is too strong, a restricted version is proposed:

## 1-Advancement Exclusiveness Law

A clause contains at most a single 1-advancement.

GB/Minimalism analogue: Raising to subject occurs at most once in a clause.
Are multiple subjects ruled out in general?

## (5) Notation

Stratal diagrams can be converted to RNs, where the "history" of each element is highlighted. Nominals that undergo advancement or demotion head parallel arcs, each labeled with the stratum at which the nominal bears the arc's GR. For example, passive [15], RtO [16], extraposition [17].
(6) Ruled out by 1-AEX: double passive/unaccusative [19] and passive of raising [20].

## Empirical Consequences

(7) In Cebuano, either the theme or the goal of write can be passivized; [22]-[23]. But if the theme is passivized, the goal can't be also passivized (putting the theme en chômage); and if the goal is first promoted to 1 , the theme can't do the same [24][26]. This is impossible regardless of the voice morphology on the verb. The same restriction was reported for other languages as well.
(8) In English, obliques expressing cost can be promoted to 1, as in (b), but the result can't be passivized (d):
a. Melvin bought a lot of heroin for five dollars.
b. Five dollars bought a lot of heroin in 1827.
c. A lot of heroin was bought (by Melvin) for five dollars.
d. $\quad$ A lot of heroin was bought by five dollars in 1827.
(d) is ruled out because its derivation involves two 1-avancements [31].
(9) Question: Why do we analyze five dollars in (b) as an advancee (derived subject)? i) five dollars bears the same semantic role in (a) and (b); ii) the linking rules, mapping the arguments of buy to GRs, are the same in (a) and (b). $\Rightarrow$ Either (a) or (b) is derived. iii) Plausibly, it is the oblique relation that reflects the initial mapping of "cost" NPs (not an agent/causer). $\Rightarrow$ (b) is derived from (a). Notice that RG operates on the assumption that semantic roles are uniformly mapped to the syntax - Universal Alignment Hypothesis (very similar to UTAH).

More support: [34]-[38]. Note: What's not explained is why certain nominals can and other's can't be the first 1-advancee:
a. $\quad 1939$ found the US on the brink of disaster.
b. * The US found (by) 1939 on the brink of disaster.
c. * The brink of disaster found the US by 1939.
(10) No multiple passivization

Given that either argument of write can be passivized [39b]/[40b] (using Pstranding), it is not obvious what rules out applying one passive after the other [40c,d]. Same for pay [41]-[42].

GB/Minimalism: All the bad cases involve passivization of a verb without an external argument. The ultimate challenge, for both frameworks, is to characterize the notion of external argument (initial 1 ) in such a way that it will exclude all the subjects in [33a]-[38a].

## The Unaccusative Hypothesis

The traditional notions of transitive/intransitive verbs can be reconstructed using RG strata. It then becomes clear that more possibilities exist then just a binary distinction.

| a. A stratum contains a 1-arc and a 2-arc. | transitive |  |
| :--- | :--- | :--- |
| b. A stratum contains a 1-arc and no 2-arc. | unergative |  |
| c. | A stratum contains a 2-arc and no 1-arc. | unaccusative |

The Final 1 Law requires the final stratum of every basic clause to contain a 1 arc (EPP). Therefore, option (c) can’t be realized by a final stratum.
(12) The Unaccusative Hypothesis

The initial stratum of some basic clauses contains a 2-arc but no 1-arc.
[48] shows that simple unaccusative clauses contain 1-advancement, whereas simple uergative clauses don't. This follows from the UH and the Final 1 Law.

Note: Actually, unccusative clauses don't have to contain 1-advancement. Why?

To the extent that we find syntactic phenomena that are sensitive to non-final relations, and they treat the 1 of certain intransitive verbs as if it were a 2 , the UH is corroborated.
(13) Passive vs. Unaccusative
a. In unaccusatives, the input to 1 -advancement is an intransitive stratum.
b. In passives, the input to 1-advancement is a transitive stratum [50].
(14) Universal Alignment Hypothesis

There exist principles of universal grammar which predict the initial relation borne by each nominal in a given clause from the meaning of the clause.
$\Rightarrow$ If exist is unaccusative in English, its semantic counterparts are also unaccusative in every other language.

## (15) Unergative predicates [52]

a. Willed/volitional acts, including manner of speaking verbs.
b. Certain involuntary bodily processes.
(16) Unaccusative predicates [53]
a. Adjectives describing size, shape, weight, color, smell, state of mind.
b. Predicates whose initial 2 is a Patient.
c. Predicates of existence and happening.
d. Involuntary emission of stimuli that impinge on the senses.
e. Aspectual predicates.
f. Duratives.

Fn. 13: Verbs of motion are ambiguous.
Note: This classification is very close to Levin \& Rappaport's, except that L\&R classify emission verbs with unergatives (in fact, with (15b)). The major difference is that L\&R didn't discuss adjectives, and in fact, it's unclear why $\mathrm{P} \& \mathrm{P}$ take them to be unaccusative.

A major prediction: Unaccusative verbs will not have any passive variant (personal, impersonal, pseudopassive), since that will involve two 1-advancements, in violation of the 1-AEX.
(17) No unaccusative pseudopassives

## Unergatives

a. The bed was slept in by the Shah.
b. The bridge was skied under by the contestants.
c. The package was stepped on by a camel.

## Unaccusatives

d. * The bed was torn in by the underwear.
e. * The bridge was jammed under by the canon.
f. * The package was accumulate on by dust.
(18) Ambiguous verbs
a. Ted slid into the closet. unergative
b. The soap slid into the closet. unaccusative
c. The closet was slid into by Ted.
d. * The closet was slid into by the soap.

Also: sit, lean (maintain position vs. simple location) [59].
(19) The problem isn't any requirement that the initial 1 of passive be animate or an agent. English has no such requirement [60].
a. That hypothesis was refuted by the data.
b. The danger of forest fires was increased by the drought.
c. The house is surrounded by tall elms.

## Inversion

(20) Inversion is a construction is which an initial 1 (usually an experiencer) is demoted to a final 3, while an initial 2 advances in its place to final 1. See [61]. P\&P predict that Inversion construction will not passivize.
a. I was spoken to by that girl.
b. $\quad$ I was mattered to by that girl.

More inversion verbs: seem, appear, belong, occur, happen, dawn.

Note: P\&P point out that the lack of passives follows from the advancement-to-1 part of Inversion, not from the demotion-to-3. In other words, given only the 1AEX, verbs like matter could either be initially unergative or unaccusative.

By contrast, on the GB/Minimalist account, matter doesn't passivize because it has no external argument. The notions external argument and initial 1 are nearly co-extensive. Therefore, it is possible to test, empirically, which analysis is superior. How?

## Impersonal passives

These constructions are formed from an unergative or transitive source. A dummy (expletive) is inserted as a 2 , putting the initial 2 (if there is one), and then advancing to 1 , putting it en chômage [68].
(21) Prediction: Since impersonal passives involve 1-advancement, they will be incompatible with an unaccusative verb (which also involves 1-advancement).

Dutch: unergatives [70]-[88], vs. unaccusatives [89]-[105]; ambiguous verbs allow impersonal passives only under the agentive reading (syntactically unergative) [107]-108]. The discussion of the German example [109], with the verbs bleed and die, shows that there is considerable flexibility in verbs’ meanings; many verbs can shift from unaccusative to unergative syntax, depending on how much control over the action the subject has.
$\Rightarrow$ perhaps, then, the unaccusative/unergative distinction is not lexically encoded, but contextually determined (core verbal meanings are underspecified).
(22) Prediction: Since both impersonal passives and Inversion involve 1-advancements, they will be incompatible. See [113] vs. [114]-[115].
(23) Some Inversion constructions, after demoting the initial 1 to 3, advance it to 2 . The original 2 was advanced to 1, so we get a final transitive stratum [118]-[119]. The 1-AEX predicts that this transitive may not be passivized, since it is already derived by 1-advancement. The facts bear out this prediction [120]-[123].

Note: In GB/Minimalism, escape/elude fail passive for two reasons: i) they lack an external argument; ii) the "object" is in fact a hidden oblique, and null prepositions can't be stranded in pseudopassive.
a. The reason for that escapes $\varnothing_{\text {from }}$ me.
b. $\quad * I_{1}$ am escaped $\varnothing_{\text {from }} t_{1}$ by the reason for that.
c. John wrote $\varnothing_{t o}$ me.
d. $\quad{ }^{*} \mathrm{I}_{1}$ was written $\varnothing_{\text {to }} \mathrm{t}_{1}$ by John.

What would be the RG analogue of (ii)?

