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Parasiticism Meets the Miracle Creed Framework

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ABSTRACT

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This paper investigates the licensing of parasitic gaps in English within the framework of Chomsky's (2023) Miracle Creed (MC), which restricts Internal Merge (IM) to a single application per derivation. In this model, successive-cyclic movement is replaced by interface-driven accesses to a wh-phrase via phase heads. Focusing on parasitic gaps embedded within adjunct or subject phrases, we show that a single application of IM can yield a desired derived predicate through λ-abstraction, enabling predicate conjunction between the matrix v*P and the parasitic gap-containing adjunct or subject phrase, thus licensing the gap. However, certain cases challenge the sufficiency of this derivational procedure. To address these, we propose the traditional resumptive wh-strategy, in which a resumptive pro is bound by a wh-phrase internally merged at a higher phase edge. This strategy is compatible with the MC framework and provides a principled solution to apparent successive cyclic movement. Our findings support the MC model while highlighting the need for an auxiliary mechanism in structurally complex configurations.

KEYWORDS

single application of internal merge, successive-cyclic movement, parasitic gap, derived predicate, resumptive-wh

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1. Introduction

In his 2023 work, Chomsky proposes a new theoretical model known as the *Miracle Creed* (MC) framework, which offers a revised formulation of core minimalist assumptions. Adhering to the Uniformity Principle (Chomsky 2001, p. 2), the MC framework holds that all human languages are generated by a single, universal computational system. Nonetheless, a central challenge persists in explaining both apparent language/construction-specific peculiarities and superficial cross-linguistic variation. This paper addresses this challenge through an investigation of the parasitic gap (PG) construction in English, arguing that its unusual behavior is best understood not only as a direct result of the computational system itself, but also as a consequence of how that system interacts with the conceptual-intentional (CI) and sensory-motor (SM) interfaces.

A key departure from earlier minimalist models is the MC framework's rejection of successive-cyclic movement. Traditionally (e.g., Chomsky 1973, 2001), long-distance dependencies are built through step-wise movement across intermediate projections—a mechanism crucial for licensing parasitic gaps in PG constructions. The MC framework eliminates such derivational steps, instead positing that long-distance dependencies are formed without successive-cyclic movement. Central to this model is a one-time application constraint on Internal Merge (IM): an element may undergo IM only once—typically from a theta position to a clausal domain—after which it becomes immobile. This raises an important question: how can PG constructions be accounted for under a system that allows only a single movement step?

The paper proceeds as follows: Section 2 outlines the foundational architecture of the MC framework, highlighting the role of phase heads in granting interface accesses. Section 3 turns to the PG construction in English: 3.1 surveys its distinctive features; 3.2 explores how those features are derived through interface access mechanisms as well as the computational system (i.e., the syntactic component); and 3.3 examines and investigates problematic PG configurations that pose a challenge to the analysis given in section 3.2, within the MC framework. Section 4 wraps up with a conclusion.

2. Principle T and the Elimination of Successive-Cyclic Movement

In recent work, Chomsky (2023) introduces a refinement of the minimalist framework that reorients the function of Merge, the essential syntactic operation, around the principle termed Principle T. This principle requires that all syntactic relations and structure-building operations (SBOs) be interpreted as thought-related at the CI interface.[1] Specifically, every instance of Merge must directly contribute to the construction of interpretive representations, either in terms of propositional content (e.g., theta-roles) or clausal-level distinctions (e.g., interrogativity, topic, focus, etc.).

(1) All relations and structure-building operations are thought-related, with semantic properties interpreted at CI. (Chomsky 2023, p. 5)

[1] In Chomsky (2023), the term 'thought-related' is characterized as comprising both theta-related properties and force- & information-features associated with clausal structure, as explicitly mentioned in "We take I-language to be a system generating thought, ... Several categories of thought are relevant to language structure and use. One category is propositional: basic theta-structure. A second is clausal: force- and information-related (interrogative, topic, focus, …). The familiar property of duality of semantics." Chomsky (2023, p. 6)

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This principle serves as a foundational axiom of the emerging MC framework. It reframes the language faculty not as a system optimized for linear or surface-based organization, but as one fundamentally designed to generate structured interpretive representations. Principle T thereby enforces a strong version of the Strong Minimalist Thesis (SMT) (Chomsky 2001, 2023), restricting the system to operations that make a direct contribution to interpretation. In this system, Merge continues to be the sole structure-building mechanism, applying in two forms: External Merge (EM), which introduces arguments and builds a thematic structure, and Internal Merge (IM), which re-merges syntactic objects for purposes of clausal interpretation (e.g., operator scope, force- & information-related features).

This bifurcation in the function of Merge yields what Chomsky (2023) refers to as the duality of semantics: EM constructs propositional meaning by assembling theta-relations, while IM builds clausal-level force and information structure. This division is not stipulated but arises as a direct consequence of how EM and IM operate under Principle T.[2] In addition, structural relations such as sisterhood, term-of, and c-command are treated as emergent properties of Merge that support interpretive processes like quantifier scope, variable binding, and reconstruction. Because these relations are necessary for CI interpretation, they are also considered thought-related under Principle T.

A particularly notable departure from prior minimalist models lies in the MC framework's rejection of successive-cyclic movement. Under traditional assumptions (e.g., Chomsky 1973, 2001), long-distance dependencies are established via step-wise movement through intermediate projections, constrained by locality conditions such as the Subjacency Condition and later the Phase Impenetrability Condition (PIC). These constraints are typically attributed to third-factor principles related to processing and memory limitations (Chomsky 2020).

The MC framework dispenses with such derivational procedures and conditions, proposing instead that long-distance dependencies are derived without successive-cyclic movement. Crucially, Principle T imposes a one-time application constraint on IM: an element may undergo IM once -- from a theta to a clausal domain -- and is then rendered immobile. The result is a model in which only a single instance of movement is permitted, eliminating the need for intermediate landing sites.

This restriction is explained through Chomsky's (2023) Box Theory, wherein a syntactic object that has been displaced by IM is metaphorically placed into a 'box.'[3] Once boxed, the object is removed from further syntactic computation but remains accessible to the interfaces for interpretive purposes. Consider the following example:

(2) a. [Which emails to each other] did Daniel assume the employees said the manager had deleted?
b. [$_{CP_1}$ C_1 INFL [$_{v*P_1}$ Daniel v*$_1$ assume [$_{CP_2}$ C_2 INFL [$_{v*P_2}$ the employees v*$_2$ say [$_{CP_3}$ C_3 INFL have [$_{v*P_3}$ W_1 [$_{v*P_3}$ the manager v*$_3$ delete W_2]]]]]]]

In (2b), W_2 *[Which emails to each other]* originates as the internal argument of *delete* and undergoes a single

[2] Kitahara and Seely (2024) argue that the duality of semantics in the MC framework -- EM for theta structure and IM for clausal properties -- should be derived rather than stipulated. They propose that Merge applies only to elements in the workspace or those bearing theta features and adopts the principle of Minimal Yield, which states that Merge should reduce accessibility. This brings about a natural distinction: EM forms argument structures, while IM targets non-theta positions. Functional elements may undergo EM but not IM. Hence, the duality of semantics arises from general cognitive (third-factor) principles.

[3] The derivation sets aside phase-internal movements to [Spec,VP] and [Spec,TP] for labeling purposes (cf. Chomsky 2015), as these are not directly relevant to the current discussion.

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instance of IM to the local v*P edge, becoming W_1. Once relocated, W_1 is boxed -- rendered inaccessible to further syntactic computation but still available for interpretive accesses. This boxed status prevents conflicts with subsequent theta-role assignment and prohibits further movement. Nevertheless, W_1 remains accessible to higher phase heads, which retrieve its interpretive features at appropriate phase heads on the way from the syntactic derivation to the interfaces.

To fully interpret (2a), the interfaces require distinct information about the *wh*-phrase:

(3) a. The theta-role assigned to the *wh*-phrase DP
b. The scope position of the *wh*-operator
c. The position for linearization (Externalization)
d. The position governing anaphoric dependency

In this derivation, W_2 satisfies (3a) through its local thematic relation with *delete*. The remaining interpretive roles -- (3b–d) -- are determined by higher structural phase heads. For instance, the matrix complementizer C_1 accesses W_1 to establish scope and word order, while the higher v^*P_2 determines the anaphoric relation by evaluating c-command between W_1 and the higher subject DP *the employees* moved to Spec,IP. The interpretive results are schematized in (4):

(4) a. The theta-role assigned by *delete*
b. The *wh*-operator scopes over the matrix clause
c. The *wh*-phrase linearized in sentence-initial position
d. The reciprocal *each other* bound by *the employees*, which locally c-commands v^*P_2.

These outcomes are achieved without successive-cyclic movement. Rather, the system relies on phase head-based accesses to a boxed element. This reflects a broader transition from the *Transfer* model, in which a fully formed syntactic object/structure (e.g., a *wh*-phrase) is passed wholesale to the interfaces, to an *Access* model (Chomsky 2020), where the interfaces plays a central role in this architecture, with the Box Theory serving as a storage mechanism for a displaced syntactic element.

This reconceptualization shifts computational complexity from the narrow syntax to the interpretive interfaces, which are now characterized as active processors rather than passive recipients. Long-distance dependencies are reframed not through multiple movement steps but via targeted accesses to previously displaced/boxed material. As such, the MC framework preserves the locality and memory constraints emphasized in earlier theories while eliminating the derivational burden of successive-cyclic movement.

In sum, the MC model achieves a significant simplification of the derivational system. By permitting a single instance of IM and relocating interpretive labor to the interfaces, it provides a theoretically elegant and biologically plausible alternative to movement-based accounts of displacement. The next section considers how this system applies, with particular attention to the parasitic gap construction in English.

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3. Deriving Parasiticism within the MC framework

3.1 The Syntax of Parasitic Gaps in English: Conditions and Restrictions

Parasitism in syntax refers to a grammatical relationship in which one linguistic element -- typically a gap -- depends on another for its existence or interpretation. This dependency is characterized as parasitic because the dependent element cannot appear independently and relies on the presence of a licensing element for its grammatical legitimacy. A parasitic gap (PG) in English exemplifies this phenomenon: it is licensed only when accompanied by a separate, structurally independent gap, obligatorily an operator-variable gap or licensing gap (LG) derived by overt movement. The parasitic gap, therefore, derives its syntactic and interpretive validity from the primary LG (or also dubbed as real gap), establishing a hierarchical dependency within the larger syntactic configuration. Representative instances of this phenomenon are illustrated in (5a-b), where the licensing gap appears in the matrix object position, and the parasitic gap occupies the object position within an adjunct clause.

(5) Parasitic gaps in adjuncts:
a. Which present did you open $\_\__{LG}$ [after buying $\_\__{PG}$]?
b. Which spy did John kill $\_\__{LG}$ [before anybody could speak to $\_\__{PG}$]?

Further examples of this phenomenon are presented in (6a-b), where the licensing gap is located in the matrix object position, while the parasitic gap (PG) occurs within a subject phrase.

(6) Parasitic gaps in subjects:
a. Who would [a picture of $\_\__{PG}$] surprise $\_\__{LG}$?
b. He's a man who [anyone who talks to $\_\__{PG}$] usually likes $\_\__{LG.}$

(Chomsky 1986, pp. 57-8)

Chomsky (1982) and Engdahl (1984, 1985) argue that parasitic gaps are constrained by the so-called anti-c-command condition, which states that a PG must not be c-commanded by its associated LG. When the LG is in the matrix subject position and c-commands the PG within an adjunct clause, the resulting sentences are ungrammatical, as in the following examples.

(7) a. *Who $\_\__{LG}$ offended Sally [without her even talking to $\_\__{PG}$]?
b. *Which spy $\_\__{LG}$ killed John [before anybody could speak to $\_\__{PG}$]?

An additional restriction on the licensing of a PG is that it requires overt syntactic movement. Parasitic gaps must be associated with gaps derived by overt movement; they cannot be licensed by gaps resulting from traditional covert movement that applies from S-structure to Logical Form, such as quantifier raising or covert *wh*-movement. This restriction is evidenced by the ungrammaticality of examples in which no overt movement is present, as shown below.

(8) a. *Who filed which paper without reading $\_\__{PG}$?
b. *John filed every article without reading $\_\__{PG}$.
c. *did you open which present after buying $\_\__{PG}$?

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In the next section we attempt to account for the conditions and restrictions on PGs in the MC framework delineated in section 2.

3.2. Deriving Syntactic and Interpretive Aspects of PGs in the MC Framework

As discussed in Section 2, syntactic and interface derivations in the MC framework proceed through a series of steps, as outlined in (9):

(9) a. EM builds the θ-structure (the v*P phase).
b. IM moves internal argument DPs to the edge of the v*P phase.
c. The CP phase, along with any higher projections, is constructed.
d. Each phase head accesses an element at the phase edge to transmit instructions to the interpretive systems (CI and SM).

A key feature of the MC framework is that *wh*-operators are not obligatorily overtly moved to higher positions unless required by the interface systems. In the case of long-distance object *wh*-dependencies, the *wh*-operator undergoes IM only as far as the edge of the embedded v*P to satisfy locality (i.e., the Phase Impenetrability Condition (PIC)), as shown in (10):

(10) $[_{CQ}$ ... $[_{v*P}$ $[_{v*}$ V_{matrix} $[_{\mathbf{CP}}$ ... $[_{v*P}$ wh $[_{v*}$ ... wh ...]]]]]^4

Rather than proceeding through successive-cyclic movement, the matrix phase head -- like the interrogative complementizer (C_Q) -- directly accesses the *wh*-operator at the embedded phase edge (v*P,Spec), retrieving the necessary interpretive information, including scope, without further syntactic overt movement.

It is important to note that a single application of IM within the syntactic derivation is sufficient enough to account for the parasitic gap construction in English, particularly when combined with Chomsky's (1982) Extended Chain Composition (ECC) or Nissenbaum's (1998) reinterpretation of the ECC in terms of predicate conjunction via predicate modification. According to Chomsky (1982), the schematic structure of the PG construction involves two distinct chains: one formed by *wh*-movement in the matrix clause, and the other by the movement of a null operator (Op) in the adjunct clause, as given in (11a).

(11) a. $[_{\mathbf{CP}}$ wh $[$ __ $_{\mathbf{LG}}$ **]** $[_{\mathbf{Adjunct\ clause/CP}}$ **Op [** __ $_{\mathbf{PG}}$**]]]**
b. (wh, $\_\__{LG}$), (Op __ $_{\mathbf{PG}}$)

These two chains in (11b) are composed to form an extended chain.

Building on but slightly diverging from Chomsky's original formulation of the ECC, Nissenbaum (1998) proposes that the composition of the two chains takes place in the early point of derivation, particularly in the matrix clause. Assuming that both intermediate *wh*-movement and null operator movement trigger λ-abstraction,

[4] I set aside the issue of deriving the surface word order for elements other than the *wh*-element, as it is not relevant to the current discussion. Note that in Chomsky's recent framework, subject-auxiliary inversion arises not from traditional T-to-C movement, but from interface Externalization.

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thereby forming open/derived predicates, Nissenbaum argues that the v*P and the adjunct clause (assumed to adjoin to the matrix lower v*P) in (12) can be composed via predicate conjunction (referred to as predicate modification in Nissenbaum's terminology) into a single complex predicate. This composed predicate then combines with the DP copy located at the edge of v*P, a configuration that effectively licenses the parasitic gap.

(12) [**main clause** ... [**v*P** WH [**v*P** __ **LG**]]] a derived predicate
↑__IM__|
↑↑↑ **Predicate conjunction**
Op [**PG-containing clause** __ **PG**] a derived predicate
↑_____|____| in Nissenbaum's analysis
[**PG-containing clause** [**v*P** Op … __ **PG**]] a derived predicate
|_____↑↑____| in MC framework

Chomsky's syntactic box system, as outlined above, provides a viable structural base that integrates naturally with predicate conjunction in the licensing of parasitic gaps as in the examples (5a-b). Specifically, when an object DP undergoes IM to the edge of the v*P phase, it is 'boxed,' thereby enabling λ-abstraction over its original position. This abstraction converts the lower v*P into a derived predicate at the CI interface. Simultaneously, when the complementizer of the adjunct clause containing the parasitic gap accesses a null operator also IM-ed to the edge of the v*P phase (as indicated by the rightward upwards arrow, instead of Nissenbaum's successive cyclic movement of a null operator, in (12)), it too triggers λ-abstraction, yielding a derived predicate interpretation of the adjunct clause. Predicate conjunction then applies to combine these two derived predicates, resulting in the proper licensing of the parasitic gap. This interaction demonstrates how the Box Theory interfaces with semantic composition, allowing syntactic movement and interpretive processes to align within the MC framework.

When a parasitic gap is embedded within a subject phrase as in the examples (6a-b), the analogous derivation proceeds, as in (13). Following Bošković (2008), among others, I assume that extraction from a subject phrase involves movement to the edge of that phrase, thereby permitting a null operator to move to that position:

(13) a. [$_{CP}$ [$_{v*P}$ WH [$_{v*P}$ EA [$_{VP}$ surprise __ **LG**]]]] a derived predicate
↑_____IM_____|
↑↑↑ **Predicate conjunction**
b. EA: [Op a picture of __ **PG**] a derived predicate
↑_____|

In this case, the parasitic gap is located not within an adjunct clause but within the subject (or external argument (EA)) phrase. The null operator contained within this subject phrase undergoes IM (and interface accesses, if necessary), triggering λ-abstraction and resulting in a derived predicate interpretation of the subject phrase. This, in turn, feeds into the predicate conjunction of the matrix v*P predicate with the derived predicate formed from the subject phrase.

We now turn to the effects on the anti-c-command condition constraining parasitic gaps, as in (7a-b), as schematically represented as follows:

(14) [$_{\text{main clause}}$ [$_{IP}$ ... [$_{v*P}$ who [$_{v*P}$] *a derived predicate
↑_____| EPP-satisfying IM to [Spec,IP]

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↑ Predicate conjunction fails
Op [$_{\text{PG-containing clause}}$ t] a derived predicate
↑_____|_____|

Recall that λ-abstraction applies over a variable introduced by the IM of a *wh*-operator, rather than over a trace left by traditional A-movement. As a result, λ-abstraction cannot apply in the matrix clause in such cases, preventing the formation of a derived predicate. This, in turn, blocks the application of predicate conjunction, thereby accounting for the ungrammaticality associated with a violation of the anti-c-command condition, as in (7a–b).

It was also noted in the previous section that traditional covert movement like QR or covert *wh*-movement (Pesetsky 2000) cannot license parasitic gaps, as in (8a-c). This is schematically represented, as follows:

(15) [**main clause** … [**v*P** WH [**v*P** t]]] *a derived predicate
↑___Interface Access__|
↑↑↑ Predicate conjunction fails
Op [**PG-containing clause** t] a derived predicate
↑_____|_____|

Under this analysis advanced in this paper, only a matrix predicate that is syntactically derived -- rather than the one formed solely via access at the CI interface -- can participate in predicate conjunction for the proper licensing of parasitic gaps. In examples such as (8a–c), no such derived predicate is formed in the matrix clause, which results in the failure to license the parasitic gap.

Leaving this section, let me mention one advantage of a predicate conjunction account for parasitic gaps. In compositional semantics, λ-abstraction creates a predicate of type ⟨e, t⟩, expecting an entity (type e) as its argument. Nominal expressions (DPs) can saturate this abstraction, yielding a complete proposition. In contrast, adverbs and adjectives (i.e., adjuncts) do not denote entities and thus cannot fulfill the required type. Consequently, λ-abstractions -- such as those in parasitic gap constructions -- must be closed by DPs, not by modifiers like adjuncts. This restriction accounts for the impossible parasitic gaps dependent on licensing gaps left by *wh*-adjuncts.

(16) a. *How did Deborah cook the pork __$_{LG}$ after cooking the chicken __$_{PG}$?
b. *How sick did John look __$_{LG}$ without actually feeling __$_{PG}$?
d. *How many weeks did he spend __$_{LG}$ in Berlin without wanting to spend __$_{PG}$ in London?
(Hornstein and Nunes 2002, pp. 33-34)

Parasitic gap constructions in (16) are distinguished from across-the-board (ATB) constructions in (17):[5]

(17) a. How$_1$ did Deborah cook the pork e_1 and Jane cook the chicken e_1?
b. How sick$_1$ did John look e_1 and Betty say he actually felt e_1?
d. How many weeks$_1$ did you spend e_1 in Berlin but want to spend e_1 in London?

[5] Following Chomsky (2023), we assume that across-the-board coordination is formed by the freely available operation Form Set, which constructs unordered, multi-membered sets without imposing linear order.

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In the same vein, the null operator movement within the clauses containing parasitic gaps also explains the DP-type restriction on PGs, though ATBs as in (19a) are not subject to such a restriction.

(18) a. The editor told me which book I must write about __LG soon after talking about __PG?
b. *The editor told me about which book I must write __LG soon after talking __PG?
(19) a. This is a topic about which$_1$ you should think __1 and I should talk __1?
b. *This is a topic about which$_1$ you should think __LG before talking __PG?

Since the null operator is categorically a DP, PP parasitic gaps are accordingly ruled out.

3.3 Empirical Challenges: The Avoidance Strategy

Parasitic gaps within complement clauses, as in (20a–b), appear to be ruled out due to a violation of the anti-c-command condition, as they are c-commanded by their corresponding licensing gaps.

(20) a. Who did you tell __LG [that we were going to vote for __PG]]? (Engdahl 1983, p. 11)
b. Who did you warn __LG [that the police would arrest __PG]]? (Culicover 2001, p. 43)

However, as Safir (1987) notes, when parasitic gaps are embedded within complement clauses, the clauses cannot come with the complementizer *that*, as follows:

(21) Who did you tell __LG [*(that) we were going to vote for __PG]]? (Safir 1987, p. 679)

This suggests that, in order to circumvent a violation of the anti-c-command condition, the complement clause containing the parasitic gap in (20a–b) and (21) needs to undergo Extraposition, a strategy permitted by English. Without the complementizer, the complement clause would not undergo Extraposition.

The derivation of (20a) can be schematically represented as follows:

(22) (= 20a)
[$_{v*P}$ who [[$_{v*P}$ you [$_{VP}$ warn __LG t t]] **CP**]]
↑_____ __IM_____| | ↑ |_____| Extraposition
[**CP** Op [$_{IP}$ [$_{v*P}$ [$_{v*P}$ we be going to vote for __PG]]]]
↑_Interface Access_|_____IM_____|

Following the IM of the object DP, the lower matrix v*P is derived as a predicate. Similarly, the complement clause -- after undergoing syntactic IM and subsequent interface access of the null operator -- is also interpreted as a derived predicate. These two derived predicates are then composed into a complex predicate via predicate conjunction. By applying Extraposition to circumvent the anti-c-command condition, the resulting complex predicate successfully licenses the parasitic gap.

We now turn to the cases where one application of IM is not sufficient enough in deriving a complex predicate, as follows:

(23) Which cult leader did you persuade [$_{DP}$ followers of __PG] [$_{CP}$ to abandon __LG]?

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(24) Who did you tell [$_{DP}$ friends of __$_{PG}$] [$_{CP}$ that Mary had met __$_{LG}$]?
(Arregi and Murphy 2022, p. 21)

In the previous grammatical examples, the adjunct or subject phrase containing a parasitic gap is crossed by a single application of IM, which forms the licensing gap. In contrast, the ungrammatical cases that violate the anti-c-command condition lack this crossing: the parasitic gap-containing phrase is not intersected by the licensing movement. This suggests that for a parasitic gap to be properly licensed, it must be structurally traversed by the licensing gap-creating movement/IM. In (23)-(24), since IM applies once within the embedded clause, such a crossing does not appear to occur.

In addition to the cases discussed in (23)–(24), there are further instances that appear to require additional applications of IM. As noted by Haegeman (1984) and Chomsky (1986), when the clauses introduced by *whenever, unless*, or *if* intervene in the path of IM targeting a subject *wh*-phrase and the anti-c-command condition is circumvented, the resulting sentences are grammatical, as illustrated below.

(25) a. ?A man who [whenever I met __$_{PG}$] __$_{LG}$ looks old. (Chomsky 1986, p. 54)
b. This is a note which [unless we destroy __$_{PG}$] __$_{LG}$ will ruin our relationship.
c. This is the professor who that Kim says that, [if you impress __$_{PG}$], __$_{LG}$ will not forget you.
(Haegeman 1984, p. 231)

Chomsky (2023) adopts the Vacuous Movement Hypothesis (VMH), which holds that movement is disallowed unless it yields a change in the sentence's linear order. Under this assumption, consider the possibility that no IM of the subject *wh*-phrase applies in (25a–c). If IM were absent, the parasitic gaps in these examples would not be properly licensed and would therefore be ruled out -- contrary to the observed grammaticality of the sentences.

Furthermore, cross-clausal extraction of a subject *wh*-phrase licenses a parasitic gap within an adjunct clause that modifies a higher clause, as illustrated below.

(26) a. Which Caesar did Brutus [[imply [__$_{LG}$ was no good]] [while ostensibly praising __$_{PG}$]]?
(Engdahl 1983, ex. 60)
b. Remind me who you [[[found out [__$_{LG}$ likes cats]] [after talking to __$_{PG}$ about animals]]]
c. This is the guy who I [[said [__$_{LG}$ is stupid]] [because I wanted to insult __$_{PG}$]]

In these cases, IM, which leaves a licensing gap in subject position, targets the immediate Spec,CP. However, this appears insufficient for licensing the parasitic gap within the higher adjunct clause. To ensure proper licensing, IM must proceed one step further, moving to the matrix Spec,v*P position.

We have two suggestions to resolve this problem: apparent successive cyclic movement leaving behind the licensing gap in (23)-(24) as well as (25)-(26). One suggestion relates to apparent heavy NP/DP shift as in (27)-(28):

(27) I said that Bill bought everything Mary did.
| _____↑ordinary
| _____ ... _↑exceptional
a. <bought t>
b. <said that Bill bought t>

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(28) I said that he$_1$ bought <u>everything Bill$_1$ thought I did</u>.

| _____↑ordinary

| _____ ... _↑exceptional

a. *<bought t>

b. <said that he bought t>

(Fox 1995)

Fox (1995) notes that while heavy NP/DP shift is typically constrained to local domains -- namely, rightward movement to the local v*P (Johnson (1985)) -- it may also extend to long-distance movement into the v*P of a higher clause. In resolving the well-known regress problem of antecedent-contained deletion (ACD), the embedded object in examples (27)–(28) may undergo heavy shift either to the embedded v*P or to the matrix v*P, violating the Right Roof Constraint. This distinction yields two interpretive outcomes: a simple VP reading when the shift is local (as in 27a/28a), and a complex VP reading when the object DP shifts rightwards into the matrix clause (as in 27b/28b). Crucially, the latter reading allows a potential violation of Binding Condition C to be circumvented in (28b), as the shifted configuration avoids the illicit c-command relation. The broader implication is that, when interpretive demands require it, the syntactic system allows such configurations -- highlighting the permissiveness of syntax under interpretive necessity. If this is correct, then in returning to the examples in (23)–(24), the IM involved does not apply once within the embedded v*P. Rather, it targets the matrix v*P, which is then derived as a predicate suitable for licensing the parasitic gap.

Alternatively, rather than positing a locality (or PIC)-violating instance of IM in cases such as (23)–(24), one may appeal to the traditional resumptive *wh*-strategy. Under this approach, the embedded object position is occupied by a resumptive *pro*, while the *wh*-phrase is internally merged at the phase edge of the matrix v*P.[6] Given that, within the MC framework, Merge is restricted to a single application, the resumptive *wh*-strategy offers a syntactically plausible means of deriving the necessary interpretive effects. In this configuration, the *wh*-dependency is established without violating locality, and λ-abstraction is triggered over the matrix v*P whose Spec is internally merged with the *wh*-phrase. The result is a derived predicate that successfully licenses the parasitic gap within the matrix goal argument DP.

At present, it is unclear which of the two proposed strategies provides a correct account for the licensing of parasitic gaps in (23)–(24). However, unlike those examples in (23)-(24) -- which involve licensing gaps in object position -- the cases in (25)–(26) feature licensing gaps in subject position and are not amenable to the heavy NP/DP shift strategy. Accordingly, we argue that, in terms of empirical generality, the resumptive *wh*-strategy emerges as a viable and theoretically consistent approach for deriving the necessary interpretive effects in cases that appear to involve more than a single application of IM.[7]

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[6] The insertion of a resumptive *wh*-phrase at the matrix v*P phase edge involves internal merge, but not external merge in a consistent way to Chomsky (2023, p. 5) “The binary operation of External Merge provides theta structures {X,Y}, where one member receives and the other assigns a theta role, . . .”

[7] The nature of A-dependencies involving pronouns has been widely investigated cross-linguistically. Traditionally, two derivational strategies are posited: movement and base-generation, with island sensitivity serving as a key diagnostic—movement typically triggers island effects, while base-generation does not. Scottish Gaelic, according to Adger and Ramchand (2005), exhibits island sensitivity without overt resumptives. However, empirical challenges such as non-identity effects, lack of reconstruction (e.g., Principle C), and agreement mismatches complicate a movement-based account. Adger & Ramchand propose an Agree-based analysis involving null resumptives. We suggest that the resumptive strategy used in exceptional parasitic gap constructions in English parallels that found in Scottish Gaelic.

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4. Conclusion

This paper has investigated the licensing of parasitic gaps in English within the framework of Chomsky's (2023) *Miracle Creed*, which imposes a strict constraint on IM, allowing only a single application per derivation. Under this view, traditional successive-cyclic movement is not required; instead, interpretive operations at the CI and SM interfaces, mediated by phase heads, are responsible for producing the relevant syntactic and interpretive effects.

Through a detailed analysis of parasitic gap constructions in English -- particularly parasitic gaps embedded within adjunct and subject phrases -- we have shown that a single application of IM, as sanctioned by the MC framework, is often sufficient to license parasitic gaps. This is achieved via the formation of a derived predicate at the phase edge (i.e., Spec,v*P), following λ-abstraction over the base position of the moved element. Predicate conjunction between the matrix v*P and the adjunct or subject phrase then yields the appropriate configuration for parasitic gap licensing.

However, certain problematic cases suggest that the single-IM constraint may not always suffice. To account for these, we appealed to the traditional resumptive *wh*-strategy, whereby a resumptive *pro* occupies the licensing gap site and is bound by a *wh*-phrase internally merged at a higher phase edge. This strategy appears compatible with the MC framework's minimalist commitments while offering a principled means of handling apparent successive cyclic movement. Overall, this study underscores the theoretical viability of the MC model in capturing core properties of parasitic gap licensing, while also pointing to the need for an auxiliary mechanism -- such as resumption -- to handle structurally complex configurations.

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Examples in: English
Applicable Languages: English
Applicable Level: Tertiary

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