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Syntax and Semantics of Korean Null Subjects and Null Objects

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ABSTRACT

This article argues that Korean null subjects and objects should not be treated as instances of pro. Instead, we propose that these elements are distinct null arguments, with their reference determined pragmatically rather than syntactically. To support this claim, we analyze the behavior of null subjects in embedded clauses. We suggest that these null subjects function as free variables, with their referents being chosen based on the speaker's intention and the broader pragmatic context, rather than through syntactic binding or fixed discourse anaphora. We also highlight important semantic differences. Null subjects tend to favor de se readings (where the referent is self-aware), while overt pronouns lean toward de re readings (where the referent is interpreted as an external entity). Furthermore, null subjects can be interpreted as bound variables under quantification, while overt pronouns generally resist such interpretations, reinforcing the syntactic distinction between the two. Additional evidence comes from maximality effects and dual readings. Overt pronouns usually exhibit stronger maximality effects and allow for dual readings when the plural suffix -tul is added, while null subjects do not show the same interpretive flexibility. These differences demonstrate that null and overt pronouns operate according to distinct interpretive mechanisms. Taken together, these findings challenge pro-based analyses and support the idea that Korean null arguments represent a unique syntactic and semantic category. We advocate for a null argument hypothesis in Korean grammar that captures these distinctions and deepens our understanding of null argument phenomena across languages.

Keywords: De Se; De Re; Bound Variable; Group Reading; Definite; Indefinite

1. Introduction

This article argues that Korean null subjects and objects should not be equated with overt pronouns, and specifically, that they should not be analyzed as *pro*. Instead, we propose that these null elements are distinct null arguments, which challenges the widely held assumption in generative linguistics that *pro* exists within Korean syntax. This stance directly counters previous analyses that treat Korean as a *pro-drop* language. To support this argument, we begin by examining the behavior of null subjects in embedded clauses. We suggest that these null subjects function as free variables, whose referents are not determined by syntactic binding or strict discourse anaphora, but rather by the speaker's intention and the broader pragmatic context. In contrast to overt pronouns, which usually refer to a specific antecedent, null subjects in embedded contexts can refer to any discourse-salient entity based on the speaker's choice. This stands in opposition to *pro*-based analyses, which assume that null subjects are syntactically present and bound by antecedents in a systematic, predictable manner. Next, we explore the interpretive asymmetry between null subjects and overt pronouns in terms of their de se and de re readings. Our analysis shows that Korean null subjects naturally give rise to de se readings, where the referent is self-aware or introspective. In contrast, overt pronouns tend to favor de re readings, in which the referent is interpreted as an external individual. This semantic distinction suggests that null subjects and overt pronouns are governed by different interpretive mechanisms, supporting the view that they occupy separate syntactic and semantic positions. We then turn to bound variable interpretations. Korean null subjects can be interpreted as bound variables under quantification, while overt pronouns generally resist such readings. This divergence further highlights the syntactic and semantic differences between null subjects and overt pronouns. We also argue that the interpretation of a null subject is constrained by a variable that is directly linked to the quantifier, whereas overt pronouns exhibit greater interpretive flexibility. Overt pronouns, in particular, allow for a wider range of interpretations, including deictic, bound variable, and group interpretations. In contrast, null arguments tend to yield vaguer readings and exhibit less flexibility. Additionally, we consider the maximality implications of null subjects and overt pronouns. Overt pronouns generally carry stronger maximality effects, often leading to a more definite reading.

Null objects, on the other hand, do not consistently exhibit maximality effects, though they can allow for a definite reading depending on the context. This semantic discrepancy further underscores the need to treat null arguments and overt pronouns as distinct categories. The final piece of evidence we explore concerns the dual readings triggered by the plural suffix *-tul*. Overt pronouns can exhibit dual readings when suffixed with *-tul*, but null subjects do not show the same interpretive flexibility. This contrast further suggests that null subjects and overt pronouns operate within different syntactic and semantic frameworks. Taken together, these observations challenge the traditional view of null arguments in Korean as instances of *pro*. Instead, we argue that they should be understood as null arguments whose reference is determined pragmatically rather than through syntactic binding. This distinction not only clarifies the nature of null elements in Korean but also calls for a reevaluation of their theoretical status within the broader generative framework. We suggest that analyses of Korean grammar should move beyond *pro*-based frameworks, and adopt a more nuanced understanding of null arguments.

2. Results

2.1. Literature Review

Huang (1984) explores the relationship between subject and topic structures in Chinese syntax[1]. The paper argues that Chinese allows for both subject-prominent and topic-prominent constructions, with topicalization playing a key syntactic and pragmatic role. Huang introduces the Empty Category Principle (ECP) to explain constraints on movement and traces. He proposes that Chinese has null subjects and objects, drawing parallels with pro-drop languages. The study emphasizes LF (Logical Form) movement to account for scope and binding phenomena. Huang's analysis bridges generative syntax with Chinese-specific data. The work is foundational in applying Government and Binding theory to Chinese. Holmberg (2005) investigates the syntax of subject positions and the nature of subject movement in various languages, focusing on the role of specifier positions in sentence structure[2]. The paper challenges the traditional distinction between subject and topic, suggesting that in many languages, subject movement can be understood as a process of checking features rather than a result of

topicalization. Holmberg examines subject positions in languages like Finnish, Swedish, and English, arguing that the difference between verb-initial and verb-second languages is primarily about the positioning of the subject within the structure. He also explores the concept of *subject pronouns* and their syntactic behavior, proposing a unified analysis for various subject constructions. This work contributes to the broader debate on rich inflection and subject placement in the generative syntax framework. Barbosa (2013) explores the syntax of subject inversion and the phenomenon of verb movement in the context of European Portuguese (EP) and Brazilian Portuguese (BP)[3]. The paper examines the interaction between syntax and information structure, particularly how topic and focus interact with word order. Barbosa argues that subject inversion in EP and BP is a result of focus movement rather than a strictly syntactic requirement. She suggests that in EP, subject inversion occurs to highlight the focus element, while in BP, it is more restricted and often tied to specific syntactic environments. The paper also explores the implications of subject inversion for the analysis of TP and Spec-CP positions in the clause, proposing a nuanced view of the relationship between syntactic structure and discourse functions. Biberauer et al. (2009) discuss the syntactic parameters that govern word order and movement in the context of verb-second *(V2)* languages[4]. They propose a unified account of the syntactic variation in V2 languages, emphasizing the role of universal principles and parametric variation. The authors argue that languages with V2 word order, such as German and Dutch, share a core syntactic structure that allows the finite verb to move to the second position in main clauses. They further suggest that this movement is triggered by the need to satisfy certain syntactic features, such as focus or topic, rather than being a language-specific rule. By comparing V2 languages to non-V2 languages, they highlight that the difference lies in the positioning of the verb and the syntactic mechanisms that allow for this movement. The paper proposes that V2 can be viewed as the result of a parameter that varies in different languages, affecting both syntactic structure and discourse functions. This work contributes to the study of word order and syntactic variation, offering a deeper understanding of how generative grammar can account for cross-linguistic differences in clause structure.

2.2. Materials and Methods

In this article, we focused on analyzing data comprising sentences that featured either null subjects and null objects or overt pronouns. To systematically explore the nature of these constructions in Korean, we conducted eight distinct analyses: free variable analysis, de se and de re reading analysis, bound variable analysis, many-type quantificational phrase (QP) analysis, group reading and distributive reading analysis, maximality implication analysis, E-type pronoun analysis, and dual interpretation analysis. Each of these analytical approaches was selected to illuminate different interpretive properties and syntactic behaviors of null arguments in Korean. Taken together, the results of these analyses provide a comprehensive understanding of how Korean null subjects and objects function. Crucially, the findings consistently demonstrate that Korean null arguments are not simply elliptical counterparts or phonologically absent forms of overt pronouns. Rather, they exhibit distinct interpretive patterns and syntactic properties that set them apart. Consequently, we argue that Korean null subjects and objects should be understood as genuine null arguments, rather than merely reduced or contextually inferred forms of overt pronominal expressions.

3. Data Collection

To substantiate the claim that Korean null subjects and null objects function as genuine null arguments, rather than as phonologically null counterparts of overt pronouns, we constructed a set of Korean sentences featuring either null subjects and objects or their overt pronominal counterparts. These examples were carefully designed to reflect natural syntactic environments in which null arguments typically occur in Korean. Specifically, the null subjects predominantly appeared in embedded clauses, while the null objects were located in main clauses—an arrangement that reflects attested patterns in Korean discourse. To facilitate our investigation, we devised these example sentences as the basis for eight detailed analyses, each targeting a specific syntactic or semantic aspect of null argument behavior. These included free variable analysis, de se and de re interpretation analysis, bound variable analysis, many-type quantificational phrase (QP) analysis, group reading and distributive interpretation analy-

sis, maximality implication analysis, E-type pronoun analysis, and dual interpretation analysis. Each analysis was designed to test whether null arguments behaved in a manner consistent with pro (i.e., empty pronominal elements) or exhibited characteristics that set them apart. The results from these analyses collectively demonstrate that Korean null subjects and objects are not semantically or syntactically equivalent to overt pronouns. Instead, they display distinctive interpretive patterns that resist reduction to pro-based explanations. By combining both syntactic diagnostics and semantic interpretation tests, our study provides robust evidence that Korean null arguments are independent syntactic elements rather than elided or covert versions of overt pronouns.

4. Data Analyses

4.1. Free Variable Analysis

In the sections that follow, we present an argument that the Korean null (or "empty") subject, particularly when it appears within embedded clauses, should be analyzed as a *free variable*—that is, an element whose referential value is not fixed by grammatical constraints but instead is subject to variation depending on the speaker's communicative intentions. Crucially, the speaker can choose not to anchor the referent of the null subject or object to a specific entity in the discourse, but rather may guide the hearer to interpret the referent flexibly, according to contextual or pragmatic cues. In such cases, the speaker's intention plays a decisive role in shaping how the hearer construes the meaning of the utterance. This variability underscores a central characteristic of Korean null arguments: their reference is not necessarily determined by syntactic binding or direct anaphoric relations, but can instead float freely, constrained only by broader discourse context and the intentions of the interlocutor. In other words, the speaker can intend for the hearer to understand that the null subject or object does not refer to any particular entity that has been previously mentioned or is syntactically recoverable, but rather to some contextually salient referent that the speaker has in mind. It is important to highlight, in contrast, that Korean overt pronouns behave quite differently in this regard. While overt pronouns *can* be used as free variables under certain conditions, they are also frequently employed to refer back to a clear linguistic antecedent. That is, overt pronouns exhibit a dual nature: they can either be

interpreted anaphorically—anchored to a specific referent in the preceding discourse—or, like null arguments, they can function as free variables whose reference depends on speaker intent and contextual cues. However, this dual potential of overt pronouns contrasts sharply with the behavior of null arguments, which are more consistently dependent on pragmatic inference and do not exhibit the same range of referential flexibility. This asymmetry points to a fundamental difference in how null arguments and overt pronouns function within Korean syntax and discourse. It suggests that the two cannot be treated as equivalent or interchangeable, and more specifically, that null subjects and objects should not be analyzed as instances of *pro*. Instead, they represent a distinct grammatical phenomenon—*null arguments* proper—whose interpretive properties are shaped by discourse pragmatics rather than structural binding. This observation forms the foundation for the broader claim advanced in this study: that Korean null arguments and overt pronouns diverge significantly in their referential behavior, and as such, should be accounted for by distinct theoretical mechanisms within the grammar.

(1) John-un [ku-ka ttokttokhata]-ko sayngkakhanta.
(John thinks that he is intelligent.)

(2) John-un [e ttokttokhata]-ko sayngkakhanta.
(John thinks that e is intelligent.)

As illustrated in example (1), the Korean overt pronoun *ku* ('he') can straightforwardly refer to the linguistic antecedent *John*. In this case, the interpretation is clear: *ku* is anaphorically linked to *John*, and the two refer to the same individual. This pattern supports the conventional view that overt pronouns in Korean can serve as referential expressions tied to explicit antecedents within the discourse. In such cases, the identity of the pronoun's referent is structurally recoverable, guided by syntactic and discourse constraints. This observation suggests a key limitation on the referential flexibility of overt pronouns like *ku*. Specifically, it appears that the referent of an overt pronoun is not entirely subject to the speaker's intention or pragmatic manipulation. Rather, the overt pronoun is typically interpreted in relation to a salient antecedent that has already been introduced in the discourse, and its referential identity is thus more constrained by linguistic structure than by speaker-driven pragmatics. In contrast, consider the behavior of the null

subject *e*, as shown in example (2). In this case, the referent of the null subject is not explicitly expressed and, crucially, is not determined by any overt linguistic antecedent. Instead, the null subject can receive a wide range of interpretations, including an indefinite reading such as 'everyone' or any other contextually salient referent. This interpretive flexibility strongly suggests that the null subject functions as a *free variable*, the value of which is determined primarily by the speaker's intention and the pragmatic context of the utterance. Put more simply, while overt pronouns like *ku* are generally tied to antecedents and thus constrained in their referential possibilities, null subjects like *e* exhibit a far broader range of interpretations. This is because the referent of the null subject in an embedded clause is not grammatically fixed; instead, it can vary freely, depending on what the speaker intends the hearer to infer. The speaker, in effect, controls the interpretive space in which the hearer locates the referent, making null subjects highly context-sensitive and pragmatically malleable. This contrast between the overt pronoun *ku* and the null subject *e* reinforces the broader claim of this study: that Korean null arguments should not be equated with overt pronouns, nor should they be analyzed as *pro* in the traditional syntactic sense. Rather, their referential properties are shaped by pragmatic reasoning and speaker intention, pointing toward a fundamentally different theoretical treatment.

(3) John-un [e (points to Bill) ttokttokhata]-ko sayngkakhanta.
(John thinks that Bill is intelligent.)

(4) John-un [e (points to Tom) ttokttokhata]-ko sayngkakhanta.
(John thinks that Tom is intelligent.)

(5) John-un [e (points to himself) ttokttokhata]-ko sayngkakhanta.
(John thinks that he himself is intelligent.)

(6) John-un [e (points to Mary) ttokttokhata]-ko sayngkakhanta.
(John thinks that Mary is intelligent.)

It is particularly noteworthy that, as demonstrated in examples (3) and (4), the speaker can guide the hearer or reader to interpret the referent of the empty subject *e* as different individuals depending on the context. In (3), for instance, the speaker may intend for the null subject to refer to *Bill*, and in (4), the referent of the same null subject could shift to *Tom*. This flexibility suggests that the referent of the empty subject is not determined by a fixed antecedent but instead can vary depending on the speaker's communicative intent. The speaker, in essence, has the freedom to direct the listener or reader to understand the subject's referent as whatever the speaker means in that moment, emphasizing the variable nature of the null subject's reference. This observation reinforces the idea that the empty subject *e* functions as a *free variable*, whose interpretation is shaped primarily by pragmatic factors and speaker intention, rather than by syntactic or discourse constraints. In this light, consider the further examples in (5) and (6), where the referent of the empty subject can be either *John* or *Mary*, depending on the contextual or interpretive cues provided by the speaker. Once again, the key takeaway here is that the null subject is not bound to a particular antecedent, but rather is a flexible, contextually-dependent entity whose referent can be shifted according to the speaker's goals. To summarize, this comparison underscores a crucial distinction between overt pronouns and null subjects in Korean: while the overt pronoun typically refers to a specific linguistic antecedent within the discourse, the empty subject's referent is not fixed but rather is determined by the speaker's intention. This finding provides strong confirmation that null subjects in Korean should not be treated on par with overt pronouns. Instead, null subjects are best understood as null arguments whose referential identity is largely driven by context and speaker intention, in contrast to overt pronouns, which are generally bound by structural antecedents. It is important to recognize, however, that the referent of the overt pronoun can, in certain contexts, function as a free variable as well, subject to the speaker's intended meaning. This flexibility aligns the overt pronoun with the null subject in certain respects, especially in cases where the speaker chooses to invoke an indefinite or context-dependent interpretation. Nevertheless, despite this potential for variation,

overt pronouns differ from null subjects in a crucial respect: overt pronouns exhibit sensitivity to gender features, which play a significant role in determining their referential identity. In contrast, the empty subject *e* is entirely insensitive to gender distinctions, and its referent can be either male or female without any grammatical implications. This further demonstrates that the overt pronoun and the empty subject diverge in their syntactic and semantic behavior, supporting the conclusion that they cannot be treated as equivalent referential expressions.

(7) John-un [ku (points to Tom)-ka ttokttokhata]-ko sayngkakhanta.
(John thinks that Tom is intelligent.)

(8) *John-un [ku (points to Mary)-ka ttokttokhata]-ko sayngkakhanta.
(John thinks that e is intelligent.)

It is important to observe that, as illustrated in example (7), the overt pronoun *ku* ('he') can refer to *Tom* in the given context. However, in example (8), we see that the same overt pronoun *ku* cannot refer to *Mary*, which reveals an important syntactic constraint on the pronoun's referential scope. This asymmetry underscores a key distinction between overt pronouns and null pronouns in Korean. The overt pronoun *ku* is bound by specific discourse constraints and is typically interpreted in reference to a prior linguistic antecedent that aligns with its gender and number features. Thus, the pronoun *ku* is subject to gender-based and syntactic restrictions, limiting its flexibility in reference. In contrast, the empty pronoun *e*, as shown in previous examples, does not exhibit the same referential constraints. Unlike *ku*, which must adhere to antecedent-binding principles, the referent of the empty subject *e* is far more flexible and can be interpreted freely according to the speaker's intention. This flexibility allows the null subject to refer to a wide range of possible referents, including both singular and plural entities, as well as male and female individuals. The referent of *e* is not syntactically constrained by gender or number agreement, making it more context-dependent and subject to the speaker's communicative goals. Further-

more, this flexibility is not limited to gender or number but extends to the broader range of possible referents that the null subject can take. The speaker has the freedom to invoke either a singular or plural entity, and the null subject *e* is equally capable of referring to a male or female individual. This stands in contrast to the overt pronoun *ku*, which, as shown in (8), can only refer to entities that conform to its gender feature (i.e., typically masculine). The null subject's indifference to such features further highlights the key difference between the two, supporting the view that the empty subject *e* is not governed by the same referential and syntactic rules that constrain overt pronouns. This variability in the referent of the empty subject *e* further reinforces the idea that null subjects in Korean are not equivalent to overt pronouns. While overt pronouns like *ku* are subject to a strict relationship with their antecedents—especially in terms of gender and number—empty subjects are far more contextually dependent and can shift their reference according to the speaker's intentions. This distinction not only challenges the assumption that null subjects are merely null pronouns (*pro*), but also suggests that the syntactic and semantic treatment of empty subjects in Korean requires a different theoretical approach.

(9) John-un [e (points to Tom, Mary or Tom & Mary) ttokttokhata]-ko sayngkakhanta.
(John thinks that Tom (Mary or Tom & Mary) is (are) intelligent.)

As exemplified in (9), the empty subject is not sensitive to gender and number features at all, while the overt pronoun is sensitive to gender or number features. This, in turn, indicates that the empty subject is not the equivalent to the overt pronoun in Korean. This observation provides confirmation that the Korean empty pronoun is not pro but null argument. As demonstrated in example (9), the Korean

empty subject shows no sensitivity to gender or number features whatsoever. In contrast, the overt pronoun is clearly governed by these features and is subject to gender and number agreement. This distinction between the behavior of the empty subject and the overt pronoun is significant, as it directly challenges the assumption that the empty subject is merely an instance of a null pronoun (*pro*) in Korean. The

lack of gender and number sensitivity in the empty subject *e* suggests that it does not operate under the same syntactic or semantic constraints that typically govern overt pronouns in the language. This observation strongly indicates that the Korean empty subject is fundamentally different from the overt pronoun and should not be treated as its equivalent. While overt pronouns such as *ku* ('he') or *kunye* ('she') are constrained by gender features and must agree with antecedents in number and gender, the empty subject remains entirely indifferent to these features. This lack of agreement highlights the unique syntactic and semantic status of the empty subject, supporting the claim that it is not a pro, but rather a null argument in the sentence structure. Moreover, this difference in behavior provides further confirmation that the Korean empty subject cannot be analyzed within the traditional framework that treats null arguments as instances of pro-drop. If the empty subject were indeed a pro, we would expect it to be subject to the same syntactic restrictions as overt pronouns, including gender and number agreement. However, the empty subject's immunity to these constraints suggests that it occupies a distinct syntactic position, one that is governed by different principles of reference and binding. In conclusion, the insensitivity of the empty subject to gender and number features in Korean serves as a compelling argument against the treatment of the empty subject as an equivalent of the overt pronoun. Instead, this behavior confirms that the Korean empty pronoun is better understood as a null argument, whose reference is pragmatically determined rather than syntactically bound by gender or number features. This distinction further strengthens the case for rethinking the theoretical status of null subjects in Korean, moving away from a pro-based analysis and towards a model that accounts for the flexibility and contextual dependence of these null arguments.

4.2. De Se and De Re Reading Analysis

This section delves into a distinct and noteworthy contrast between the Korean null subject and its overt pronoun in embedded clauses. As is well-established in linguistic theory, the concepts of *de se* and *de re* pertain to the identity of the subject within a belief context, a distinction that originates from philosophy of language. In more specific terms, *de se* refers to self-related beliefs—those that involve the subject's own perspective—while *de re* pertains to beliefs about other entities or individuals, independent of the subject's self-concept. To illustrate these concepts, consider the following hypothetical scenario: imagine a war hero who, due to amnesia, has no memory of his past experiences or heroic exploits. He is now reading a book about a man who was a hero in the same war he fought in. The hero in the book is clearly portrayed as a brave and honorable figure, but the protagonist himself no longer remembers his heroic actions. Now, consider the following two Korean sentences:

(10a) Ku-sanai-ka [ku-ka yengungila]-ko sayngkakhanta.
(That man thinks that he is a hero).

(10b) Ku-sanai-ka [e yengungila]-ko sayngkakhanta.
(That man thinks that he himself is a hero).

From a semantic standpoint, we interpret (10a) as true because the man in the sentence, while reading about the hero in the book, believes the character he's reading about to be a hero. This reflects a *de re* interpretation: the subject is thinking about a particular individual (the hero in the book) but without necessarily relating it to his own identity or memory. Conversely, (10b) is judged to be false. In this case, the belief is about himself—the war hero in the book is presumed to think he himself is the hero. Given that he has amnesia and no memory of his heroic past, the proposition that he thinks of himself as the hero (a *de se* belief) is logically implausible, as his self-representation has been compromised by amnesia. The crux of this distinction lies in the difference between *de re* and *de se* readings. Sentence (10a) is a clear case of *de re*—the belief is about an external individual (the hero in the book). In contrast, (10b) represents a *de se* belief—one that concerns the individual's own identity. This contrast reveals a crucial point: the Korean null subject and the overt pronoun diverge in how they manifest these distinct belief types. Specifically, the null subject, which often appears in Korean in embedded clauses, appears to correlate with *de se* readings, while the overt pronoun typically aligns with *de re*

readings. From these observations, it becomes evident that the Korean null subject is not a simple equivalent of the overt pronoun. Rather, it functions as a null argument that exhibits a different syntactic and semantic behavior, particularly in its treatment of *de re* and *de se* belief contexts. This distinction further supports the notion that the Korean null subject is not merely a placeholder for an overt pronoun but represents a distinct syntactic and semantic entity.

4.3. Bound Variable Analysis

One notable distinction between the Korean empty subject and its overt pronoun concerns how they interact with quantifiers, particularly with respect to their interpretation as bound variables. In languages like English, pronouns can be interpreted as bound variables when associated with universal quantifiers, as illustrated in the following example:

(11) Everyone loves his mother.

In this sentence, the pronoun *his* is interpreted as a bound variable through the c-command relationship established between the quantifier *everyone* and the pronoun. Specifically, the universal quantifier *everyone* c-commands *his* and thus can be understood to refer to different individuals within the domain of discourse: *John loves his mother, Tom loves his mother, Bill loves his mother,* and so on. This interpretation hinges on the syntactic configuration in which the quantifier c-commands the pronoun. In Korean, however, the situation becomes more intricate when it comes to null subjects and overt pronouns. Interestingly, the Korean null subject that appears in embedded clauses is interpreted as a bound variable in a similar manner to the English example, whereas the overt pronoun does not allow for the same interpretation. This distinction is clearly illustrated in the following Korean sentences:

(12) Nwukwuna [e elisekta]-ko sangkakhanta.
(Everyone thinks that he himself is foolish.)

(13) *Nwukwuna [ku-ka elisekta]-ko sangkakhanta.
(Everyone thinks that he himself is foolish.)

In sentence (12), the empty subject (*e*) occurring in the embedded clause is understood as a bound variable, and this interpretation is consistent with the c-command relationship between the quantifier *Nwukwuna* ("everyone") and the empty subject. In other words, the null subject in (12) is

interpreted as referring to different individuals within the domain of *everyone*, much like how *his* in the English sentence (11) is interpreted. Thus, the sentence is well-formed and interpretable. However, in sentence (13), where the overt pronoun *ku-ka* ("he") appears, the interpretation as a bound variable is not available. The sentence becomes ungrammatical if one attempts to interpret *ku-ka* as a bound variable under the scope of the quantifier *Nwukwuna*. This results in an ungrammatical reading, as shown by the asterisk before the sentence. This contrast highlights an important point: while the Korean null subject can be interpreted as a bound variable in the presence of a quantifier, the same is not true for the overt pronoun. The presence of a null subject allows for a bound-variable interpretation, whereas the overt pronoun resists such an interpretation, thus rendering the sentence ungrammatical if one attempts to apply it. Therefore, it is crucial to recognize that the Korean empty subject and its overt pronoun differ significantly in their syntactic and interpretive behavior. The empty subject behaves in a way similar to bound-variable pronouns in other languages, while the overt pronoun does not, indicating that they are not equivalent linguistic phenomena. This distinction suggests that the Korean empty subject should not be considered a mere equivalent of the overt pronoun, but rather as a separate and distinct grammatical entity that interacts with quantification and binding in a unique way. However, when one attempts to interpret the overt pronoun *ku* ("he") as a bound variable, a crucial adjustment must be made to maintain grammaticality. Specifically, *ku* must be replaced with the Korean reflexive *caki* ("self"), as shown in the following example:

(14) Nwukwuna [caki-ka elisekta]-ko sayngkakhanta.
(Everyone thinks that he himself is foolish.)

In sentence (14), the reflexive *caki* ('self') replaces the pronoun *ku* and is now the subject of the embedded clause. The universal quantifier *Nwukwuna* ("everyone") c-commands *caki*, and this results in an interpretation where *caki* is bound by the quantifier, referring to different individuals within the domain of discourse. In this way, the sentence can be understood as: *John thinks that he himself is foolish*, *Bill thinks that he himself is foolish*, *Tom thinks that he himself is foolish*, and so forth. The shift from *ku* to *caki* allows for the appropriate bound-variable interpretation because reflexive pronouns like *caki* are syntactically designed to be bound by an antecedent, typically a c-commanding quanti-

fier in such constructions. This contrasts with *ku*, the overt pronoun, which resists being interpreted as a bound variable under the same syntactic conditions. Therefore, when *ku* is used, it does not conform to the binding conditions of universal quantifiers in the same way that reflexive pronouns do. The necessity of substituting *ku* with *caki* in order to achieve grammaticality when attempting a bound-variable interpretation strongly suggests that the Korean empty subject and the Korean overt pronoun should not be considered interchangeable. The use of *caki* highlights a crucial distinction between the two: the empty subject can function as a bound variable in a similar manner to reflexive pronouns, but the overt pronoun *ku* does not behave in the same way. This divergence further reinforces the idea that the Korean empty subject is a distinct grammatical phenomenon, one that operates differently from overt pronouns in terms of syntactic binding and quantifier interactions. In conclusion, the shift from *ku* to *caki* in these contexts is not merely a matter of lexical substitution; it signals an essential difference in how pronouns and reflexives interact with quantifiers in Korean syntax. This observation strengthens the argument that the Korean empty subject and overt pronoun are not equivalent, and it further emphasizes the unique role that the empty subject plays in syntactic structures involving quantification and binding.

4.4. Many-Type Quantificational Phrase Analysis

In the following discussion, we aim to explore the interpretive differences between the Korean empty subject and the Korean overt pronoun. A compelling piece of evidence supporting the distinct interpretive behaviors of these two forms comes from the contrast between sentences like the following:

(15) Manun haksayng-i [e ttokttokhata]-ko sayngkakhanta.
(Many students think that they are intelligent.)

(16) Manun haksayng-i [kutul-i ttokttokhata]-ko sayngkakhanta.
(Many students think that they are intelligent.)

What is particularly interesting about these sentences is that sentence (16) is highly ambiguous, with three distinct interpretations available depending on how the overt pronoun *kutul* ('they') is understood. These interpretations are as follows:

1. Deictic Interpretation: The overt pronoun *kutul* 'they' could be understood in a deictic sense, referring to a specific group of individuals in the discourse context. In this case, *kutul* 'they' would simply denote a set of students, with the meaning that these students (who could be identified in the conversation) think some other people are intelligent.

2. Variable Interpretation: The pronoun *kutul* 'they' could also be interpreted as a variable bound by the quantifier *manun* ('many'). Under this interpretation, the sentence would mean something like: *For many students (x), each student x thinks that x is intelligent.*

3. Group Interpretation: Another possible reading of *kutul* 'they' is a group interpretation. Here, *kutul* 'they' is not merely a collection of individual students, but instead refers to a group of many students as a whole. The interpretation in this case would be something like: *There is a group G of many students, each of whom is an x such that x thinks that G are all are intelligent.* This suggests that the students in question believe that the entire group shares a collective intelligence.

Interestingly, sentence (15) with the Korean empty subject is not ambiguous in the same way. The empty subject *e* in (15) can only be interpreted as a bound variable in association with the quantifier *manun* ('many'). Specifically, the sentence could be understood as: *John thinks that he himself is intelligent, Tom thinks that he himself is intelligent, Bill thinks that he himself is intelligent,* and so on, for each of the many students in question. This interpretation mirrors the variable reading seen in (16), but crucially, it lacks the other two deictic and group interpretations available with the overt pronoun *kutul* 'they' in (16). From these observations, it is clear that the Korean empty subject and the overt pronoun exhibit distinct interpretive behaviors with respect to quantification. While both can be associated with

the quantifier *manun* ('many'), the overt pronoun allows for a broader range of interpretations, including deictic and group readings, whereas the empty subject is strictly bound by the quantifier and does not admit these alternative readings. This divergence in interpretive behavior suggests that the Korean empty pronoun does not behave in the same way as the overt pronoun in terms of quantification and reference. The fact that the empty subject is constrained to a variable interpretation linked directly to the quantifier, while the overt pronoun can take on multiple interpretations, further reinforces the idea that the empty pronoun in Korean cannot be equated with the overt pronoun. Consequently, it is reasonable to conclude that *pro* does not exist in Korean, although null arguments are present. The overt pronoun can be omitted when contextually appropriate, allowing the speaker to rely on the syntactic structure and discourse to convey meaning.

4.5. Group Reading Analysis and Distributive Reading Analysis

There is another context in which the Korean empty pronoun and the overt pronoun exhibit a divergence, specifically when a conjunct noun phrase (NP) serves as the antecedent. It is generally assumed that when the empty pronoun co-occurs with a plural NP antecedent, it allows for both a group reading and a distributive reading. This distinction is clearly illustrated in the following example:

(17) John kwa Mary-ka e cip-ul ciessta.
a. (Distributive reading)
   (John built his house and Mary built her house.)
b. (Group reading)
   (John and Mary built their house.)

In sentence (17), the empty pronoun *e*, which is bound by the conjunct NP *John* and *Mary*, allows for two possible interpretations. On the one hand, the sentence can be understood distributively, meaning that John built his house and Mary built her house individually. On the other hand, the sentence can also be interpreted as a group reading, where John and Mary together built a single house. This dual interpretation is facilitated by the empty pronoun, which can

flexibly support both the distributive and group readings depending on the context. However, the situation is different when the overt pronoun is used in the same construction. The following example illustrates this contrast:

(18) John kwa Mary-ka ku-tul-uy cip-ul ciessta.
a. (Distributive reading)
   (*John built his house and Mary built her house.)
b. (Group reading)
   (John and Mary built their house.)

In sentence (18), the overt pronoun *kutul* ("they") is bound by the conjunct NP *John* and *Mary*, but it can only trigger the group reading. The distributive reading, where John and Mary are understood to have each built their own house, is unavailable. This is due to the nature of the overt pronoun, which does not allow for the same flexible interpretation as the empty pronoun. The overt pronoun *kutul* 'they' enforces a collective interpretation, where the action of building the house is attributed to John and Mary together as a group. This contrast between (17) and (18) highlights an important difference in the interpretive behavior of the Korean empty pronoun and the overt pronoun. While the empty pronoun can accommodate both the distributive and group readings when bound by a conjunct NP, the overt pronoun is constrained to the group reading, preventing the distributive interpretation. Thus, it is reasonable to conclude that the Korean empty pronoun and overt pronoun diverge significantly in terms of their interpretive flexibility, particularly when it comes to readings involving conjunct NPs. The empty pronoun allows for a broader range of interpretations, whereas the overt pronoun is more rigid in its interpretation. This further supports the argument that the empty pronoun and overt pronoun in Korean are distinct grammatical elements, with different syntactic and semantic properties.

4.6. Maximality Implication Analysis

There is another context in which the Korean empty pronoun and the overt pronoun are interpreted differently, specifically in cases where quantifiers do not bind them. This contrast, as discussed by Kim (1994)[5], is exemplified by the following pair of sentences:

(19) Tom-eykey chayk-i myech-kwon issta.

Ku-ka Bill-eykey kukesstul-ul pillyecwuessta.

(Tom has some books. He rented them (all the books he has) to Bill.)

(20) Tom-eykey chayk-i myech-kwon issta.

Ku-ka Bill-eykey e pillyecwuessta.

(Tom has some books. He rented some (some books he has) to Bill.)

As Kim (1994) points out, this pair of sentences illustrates a key distinction between the interpretations of the empty pronoun and the overt pronoun in anaphoric contexts[5]. The sentences in (19) and (20) are quite similar in structure, yet they differ in how the anaphoric pronoun is interpreted. In (19), the overt pronoun *kukesstul* ("them") refers to the totality of books Tom owns, which implies that all of Tom's books are being rented to Bill. In contrast, in (20), the empty pronoun *e* (which is understood as a null object) refers to a subset of the books Tom owns, indicating that only some of the books are being rented to Bill. Kim (1994) further examines this contrast by considering the felicity of the resulting discourse when the following sentence is added to each case:

(21) Nameci-nun ku-ka Mary-eykey pillyecwuessta.

(He lent the rest to Mary.)

The sentence in (21) is felicitous when added to (20), where the empty pronoun *e* is used, but it is not felicitous when added to (19), where the overt pronoun *ku* appears. This distinction highlights the different implications carried by the empty and overt pronouns. In (19), the overt pronoun *kukesstul* "them" carries a maximality implication, suggesting that all of the books Tom owns have been rented to Bill. The use of *kukesstul* "them" in this case implies that there are no remaining books. On the other hand, the empty pronoun *e* in (20) does not invoke any such maximality implication,

allowing for the possibility that some of the books are still available to be lent to someone else, such as Mary. From this, it becomes evident that the Korean empty pronoun and overt pronoun differ significantly in their interpretive behavior. The empty pronoun does not impose the same constraints on interpretation as the overt pronoun, particularly in contexts where the maximality of the antecedent is a key feature of the discourse. This suggests that the two pronouns are not interchangeable in such contexts, and that the Korean empty pronoun is not equivalent to the Korean overt pronoun. In conclusion, these observations further reinforce the idea that the empty pronoun in Korean has distinct syntactic and semantic properties compared to the overt pronoun, and they highlight the importance of understanding the nuanced ways in which these forms interact with discourse and quantification.

4.7. E-Type Pronoun Analysis

In the following discussion, we will examine the definite reading of both the Korean empty pronoun and the Korean overt pronoun. While Kim (1994) provides an insightful analysis of the behavior of these pronouns, there are certain issues with her approach that need further clarification[5]. Specifically, Kim's framework does not fully account for the fact that the Korean empty pronoun can only take on a definite reading in specific contexts, such as in sentences (22) and (23) below:

(22) Motun emeni-ka kutul-uy ai-lul party-ey ponayssko,

Kekise ku-tul-un e ai-lul mannassta.

(Every mother sent their child to the party and they met their child there.)

In these sentences, the empty pronoun *e* is interpreted definitively, referring to a specific entity mentioned earlier in the discourse: their child in (22). However, nothing in Kim's approach addresses why the empty pronoun *e* in these cases must take on a definite reading. The key observation here is that, while the quantifier phrase *every mother* in this

sentence do not directly bind the empty pronoun, there is still a clear, definite reference that the empty pronoun must adopt. The specific interpretation of *e* in (22) is not indefinite. This situation invites us to consider the role of the so-called E-type pronoun. Quantifiers do not bind pronouns in the usual way, but the pronouns still refer to entities within the scope of

those quantifiers. In the examples above, the empty pronoun *e* seems to function as an E-type pronoun, referring to *their child*. Kim (1994) suggested that the indefinite reading of a pronoun is only possible when it is bound by an indefinite NP. This idea aligns with the general assumption that indefinite readings are triggered by the absence of a referent in the context. However, as we have observed in sentences (22), the Korean empty pronoun exhibits a greater range of interpretive possibilities. It can have both indefinite and definite readings depending on the context, while the overt pronoun typically only takes on a definite reading, as demonstrated in sentence (19). For example, in sentence (19), the overt pronoun *kukesstul* ("they") can only be interpreted definitively, referring to all of Tom's books. In contrast, as shown in (20) and (22), the empty pronoun *e* can take on both indefinite and definite readings, depending on the discourse context. In (22), *e* refers to their child. The possibility of the empty pronoun *e* shifting between these readings highlights a crucial difference between the empty and overt pronouns in Korean. These observations suggest that the Korean empty pronoun does not behave identically to the Korean overt pronoun. The ability of the empty pronoun to shift between indefinite and definite readings, depending on the context, reveals its greater interpretive flexibility compared to the overt pronoun, which generally only allows for a definite reading. This contrast further supports the argument that the Korean empty pronoun and the Korean overt pronoun are distinct grammatical elements. In conclusion, while Kim (1994) offers a valuable framework for understanding pronoun interpretation in Korean, her analysis does not fully account for the empty pronoun's behavior in definite and indefinite contexts [5]. The empty pronoun's capacity to take on both indefinite and definite readings in various contexts, as seen in examples like (22), reinforces the idea that the Korean empty pronoun and overt pronoun are not equivalent, and that they should be understood as distinct forms with different interpretive potentials.

4.8. Dual Interpretation Analysis

This section is dedicated to investigating the interpretive distinction between the plural overt pronoun and the empty pronoun in Korean. Specifically, we will examine how the Korean plural suffix *-tul* interacts with overt pronouns and contrasts with the interpretation of the empty pronoun. The suffix *-tul* can be attached to an overt pronoun to indicate plurality, which leads to the possibility of both a bound variable reading and a group reading. However, the empty pronoun, by contrast, allows for only a bound variable reading, highlighting a crucial difference between the two forms. The suffix *-tul* is used in Korean to mark plural reference. For instance, the combination *caki-casin-tul* ("self-self-pl") refers to oneself as well as others. Similarly, *ku-tul* refers to they in the plural, meaning "he and someone else". This plural marker *-tul* thus facilitates both the group reading and the bound variable reading when used with overt pronouns. Let's consider the following example:

(23) Montuni-ka ku-tul-uy sensayngnim-i cochtako malhayssta.
    (Everyone said that their teacher is good.)

In sentence (23), the overt plural pronoun *ku-tul* introduces a three-way ambiguity, depending on how it is interpreted. First, the pronoun can refer to other individuals who are not bound by the quantifier phrase (QP) *Montuni* ("everyone"). In this case, the plural pronoun would simply refer to a group of people, with no direct binding relationship to the quantifier. Second, the plural pronoun can be interpreted as a bound variable, where the sentence means something like: *John said that his teacher is good, Bill said that his teacher is good, Tom said that his teacher is good, and so on*. This interpretation arises when *ku-tul* is bound by the quantifier *Montuni*, yielding a distributive reading.

Finally, *ku-tul* can also induce a group reading, meaning that the sentence could be understood as: *Everyone said that all of their teachers are good*. This interpretation suggests that the group of people (everyone) is collectively considering their respective teachers. In contrast, the empty pronoun in Korean does not allow for the same range of interpretations.

(24) Montuni-ka e sensayngnim-i cochtako malhayssta.
    (Everyone said that their teacher is good.)

In sentence (24), where the empty pronoun *e* is used instead of *ku-tul*, only the bound variable reading is possible. This means that the sentence would be interpreted

in a distributive manner, with the empty pronoun referring back to the quantifier *Montuni* and representing different individuals, as in: *John said that his teacher is good, Bill said that his teacher is good, Tom said that his teacher is good, and so on*. Unlike the overt pronoun in (23), the empty pronoun does not allow for a group reading or any interpretation where the pronoun refers to a collective group. This distinction between the plural overt pronoun with the suffix *-tul* and the empty pronoun underscores an important point: the Korean empty pronoun is not equivalent to the overt plural pronoun. The overt pronoun, when marked with *-tul*, can facilitate both a bound variable reading and a group reading, whereas the empty pronoun allows for only a bound variable interpretation. This difference highlights the fact that the two forms are not interchangeable and suggests that the empty pronoun in Korean behaves differently from overt pronouns in certain contexts. Given this evidence, we can infer that the empty pronoun in Korean does not function in the same way as a "pro" form. In English, an empty subject pronoun often serves as a null form that can take on a variety of interpretations, including group readings and bound variable readings. However, the Korean empty pronoun is more restrictive in its interpretation and is confined to the bound variable reading, indicating that the empty pronoun in Korean does not have the same syntactic flexibility as its overt counterpart. This provides further evidence that pro, as traditionally understood in generative grammar, does not exist in Korean.

5. Discussion

This article presents a comprehensive argument that Korean null subjects and null objects should neither be equated with overt pronouns nor analyzed as instantiations of *pro* in the traditional sense. Instead, we contend that these null elements constitute a distinct class of null arguments, whose interpretive properties and syntactic behavior diverge significantly from those of overt pronominal elements. This position challenges the longstanding assumption within generative grammar that pro exists in Korean.

Our proposal invites a fundamental reexamination of the theoretical status of null arguments in Korean. Specifically, we argue that a shift is needed from *pro*-based models, which rely on syntactic binding and fixed antecedent rela-

tions, to a framework that accounts for the more flexible, pragmatically governed nature of Korean null arguments. To substantiate this claim, we present empirical evidence drawn from a series of syntactic and semantic analyses, each designed to probe the interpretive distinctions between null and overt arguments in Korean.

We begin by examining the behavior of null subjects in embedded clauses. Our findings suggest that these null subjects function as free variables—elements whose referents are not determined through traditional syntactic binding mechanisms or strict discourse anaphora. Instead, their interpretation is shaped by the speaker's communicative intention and the broader pragmatic context. In contrast to overt pronouns, which typically refer to a specific antecedent within the discourse, embedded null subjects exhibit a broader referential range, capable of denoting any contextually salient individual as determined by speaker intent.

Next, we turn to the interpretive asymmetry between null subjects and overt pronouns, particularly in relation to *de se* and *de re* readings. Our analysis reveals that Korean null subjects overwhelmingly favor *de se* interpretations—those in which the referent is self-aware or experiences introspective reference. Overt pronouns, by contrast, are more likely to trigger *de re* readings, where the referent is viewed from an external perspective. This distinction indicates that different interpretive mechanisms underlie null and overt forms, further reinforcing the claim that they occupy distinct syntactic and semantic categories.

We also investigate bound variable interpretations, with particular attention to how null subjects and overt pronouns interact with quantificational structures. The data show that null subjects can readily be interpreted as bound variables under the scope of quantifiers, whereas overt pronouns tend to resist such interpretations. Moreover, when bound, the null subject's reference is tightly linked to the quantificational variable, whereas overt pronouns allow for more varied interpretations, including deictic, anaphoric, and group readings. This contrast again points to a fundamental difference in how the two types of elements are integrated into sentence structure and interpreted.

Further support for our position comes from an analysis of maximality implications. We observe that overt pronouns often carry stronger maximality effects, tending toward definite interpretations. In contrast, null objects do not

consistently exhibit such effects, allowing for greater interpretive variability depending on the context. This semantic divergence provides yet another piece of evidence that null arguments are not simply silent versions of overt pronouns, but instead operate according to distinct principles.

A final domain of investigation involves dual readings associated with the plural suffix *-tul*. While overt pronouns may trigger dual interpretations when marked with *-tul*, null subjects do not display comparable flexibility. This interpretive rigidity among null subjects again suggests that they participate in a different syntactic and semantic system than their overt counterparts.

Taken together, these findings call into question the conventional view of Korean null arguments as instantiations of *pro*. Instead, we argue that Korean null subjects and objects should be reclassified as genuine null arguments whose reference is pragmatically determined, rather than structurally bound. This reconceptualization not only deepens our understanding of argument structure in Korean but also has broader implications for theories of null arguments across languages.

By moving beyond *pro*-based models and adopting a framework that accounts for pragmatic influences and variable binding, we can develop a more accurate and theoretically grounded account of Korean grammar. Furthermore, this approach contributes to the broader typological and theoretical study of null arguments, offering insights that may inform the analysis of similar phenomena in other languages. Ultimately, our findings advocate for a revised model of syntactic and semantic interpretation—one that recognizes null arguments as distinct entities governed by their own interpretive principles rather than as silent placeholders for overt pronouns.

6. Conclusions

This article argues that Korean null subjects and objects should not be considered equivalent to overt pronouns or analyzed as instances of *pro*. Instead, we propose that these null elements are distinct types of null arguments. This challenges the prevailing view in generative linguistics that *pro* exists in Korean syntax and directly opposes previous analyses that treat null arguments as *pro*. Our argument calls for a reevaluation of the theoretical status of null arguments

in Korean, advocating for a shift away from pro-based models. To support this claim, we first examine the behavior of null subjects in embedded clauses. We propose that these null subjects act as free variables, whose referents are not determined by syntactic binding or strict discourse anaphora. Instead, their reference is influenced by the speaker's intentions and the broader pragmatic context. Unlike overt pronouns, which refer to specific antecedents, null subjects in embedded contexts can refer to any discourse-salient entity, as chosen by the speaker. This challenges pro-based analyses, which assume that null subjects are syntactically present and bound by antecedents in a predictable way. We also explore the interpretive differences between null subjects and overt pronouns, particularly in terms of their *de se* and *de re* readings. Korean null subjects are more likely to yield *de se* readings, where the referent is self-aware or introspective. In contrast, overt pronouns tend to favor *de re* readings, where the referent is treated as an external entity. This distinction in interpretation suggests that null subjects and overt pronouns occupy different syntactic and semantic positions. Next, we address bound variable interpretations. Korean null subjects can be interpreted as bound variables under quantification, while overt pronouns generally resist such readings. This further reinforces the syntactic and semantic differences between the two. We argue that the interpretation of a null subject is linked to a variable directly tied to the quantifier, whereas overt pronouns have greater interpretive flexibility. Overt pronouns allow for a range of interpretations—deictic, bound variable, and group readings—while null arguments yield vaguer readings with less flexibility. We also examine the maximality effects of null subjects and overt pronouns. Overt pronouns typically carry stronger maximality effects, resulting in a more definite interpretation. Null objects, however, do not consistently exhibit maximality effects, though they can allow for a definite reading depending on the context. This further supports the idea that null arguments and overt pronouns should be treated as distinct categories, as their interpretations diverge in meaningful ways. The empty pronoun *e* can be interpreted definitively, serving as the so-called E-type pronoun. Finally, we look at dual readings triggered by the plural suffix *-tul*. While overt pronouns can take on dual readings when suffixed with *-tul*, null subjects do not show the same interpretive flexibility. This further suggests that null subjects and overt pronouns function

within different syntactic and semantic frameworks, with null arguments adhering to distinct interpretive rules. For more information about null pronouns, refer to Alexiadou, Haegeman, Roberts et al (2009), Aoun and Li (1989), Barbosa (2011), Borer (1986), Camacho (2013), Cardinaletti and Startke(1999), Chomsky (1981, 1982, 1986), Cognola and Casalicchio (2018), Frazier (2015), Jaeggli and Safir (1989), Kuroda (1965), McCloskery (1997), Neeleman and Szendrői, Perlmutter (1971), Rizzi (1986), Roberts (2010), and Tomioka (2003)[6–25].

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To substantiate the claim that Korean null subjects and null objects function as genuine null arguments, rather than as phonologically null counterparts of overt pronouns, we constructed a set of Korean sentences featuring either null subjects and objects or their overt pronominal counterparts. These examples were carefully designed to reflect natural syntactic environments in which null arguments typically occur in Korean. Specifically, the null subjects predominantly appeared in embedded clauses, while the null objects were located in main clauses—an arrangement that reflects attested patterns in Korean discourse. To facilitate our investigation, we devised these example sentences as the basis for eight detailed analyses, each targeting a specific syntactic or semantic aspect of null argument behavior.

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Conflicts of Interest

The authors declare no conflict of interest.

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