



Prepositional Phrases in English as Phases of the Weak Kind

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ABSTRACT

A phase is an instance of derivation or “spell out” of a chunk or whole of a sentence construction. It is standardly assumed that only complementizer phrases and little v(erb) phrases are phases, and tense and verb phrases are not phases. Other categories such as determiner phrases and applicative phrases have been tested positive for phases. However, no claim is made about the status of prepositional phrases as phases. This paper investigated whether prepositional phrases in English can have the status of a phase as defined in phase theory. It was hypothesised that prepositional phrases are phases of the ‘weak’ kind. To determine the phase status of prepositional phrases, the method of standard phase diagnostics tests such as computational complexity, phonological independence, semantic independence, and case checking, and theta completeness were used. It was found out that computational complexity is not a valid test to test prepositional phrases for phasehood. While prepositional phrases bear very strong evidence to be labelled phases with respect to phonological independence, PPs fail to be phases in the case of semantic independence, and case checking and theta completeness. Given these findings, it was concluded that prepositional phrases in English are phases of the ‘weak’ kind. A sample of sentence constructions in English selected by the author and borrowed from the existing literature were used for the tests to draw conclusions. The study is expected to help better understand and analyze the cognitive processes involved in the acquisition and production of the English language specifically and any language in general.

1. Introduction

Since its introduction (Chomsky, 2000) following the minimalist program (Chomsky, 1995), Phase Theory has been very influential in accounting for both acquisition and production of natural language. A phase is an instance of “spell out” of part or whole of a sentence. Under the Phase Theory, the derivation of a sentence is assumed to operate through phases or multiple spell outs (Uriageraka 1999; Chomsky, 2000; 2001). Chomsky (2000) identifies complementizer phrases (CPs) and little v(erb) phrases (v*Ps) as phases, and tense phrases (TPs) and verb phrases (VPs) as non-phases. Chomsky does not make any claim about the phase status of prepositional phrases (PPs), which implies that PPs may not have the status of a phase. At the same time, though Chomsky (2000) limits phases to v*Ps and CPs, there are other categories that have been tested and identified as phases: DPs (Adger, 2003); ApplP (McGinnis, 2004); M-Domains and N-domains for morphology (Di Sciullo, 2003). Chomsky (2000) also makes a distinction further between CP/v*P phases and ‘other’ categories. He refers to the former as ‘strong’ and latter as ‘weak’. He also refers to ‘non phases’ (Chomsky, 2000, p. 217), which may be ‘weak’ phases or phases that are not phases at all. Since PPs pass some of the diagnostic tests such as computational complexity, phonological independence, semantic independence, and case checking and theta completeness for phases (Legate, 1998; Chomsky, 2000; Legate, 2003 and Chomsky, 2008), it is still viable to test them.

In this background, the aim of this paper is to investigate whether PPs in English can have the status of a phase as defined in phase theory. Following Chomsky (2000), it was maintained that phases could be either ‘strong’, ‘weak’ or ‘non’ depending on the strength that they bear against phase related criteria. It was hypothesized that PPs in English are phases of the ‘weak’ kind. Standard phase diagnostics tests such as computational complexity, phonological

independence, semantic independence, and case checking, and theta completeness were used to draw co conclusions with respect to the phase status of the PPs in English. It was found out that computational complexity is not a valid test to test PPs for phasehood. As far as phonological independence is concerned PPs bear very strong evidence to be labelled phases. It was also found out that PPs in English do not pass in the tests of semantic independence, and case checking and theta completeness. Based on the evidence from these findings, it was concluded that prepositional phrases in English are phases of the ‘weak’ kind.

As far as the theoretical implications are concerned, it is expected that this study will contribute to better analysis of the PPs in terms of their argument structure, which will pave the way for further research. At the same time, insights drawn from the analysis of the argument structure of the PPs in English can be utilised in ESL contexts in teaching the structure of PPs in English. It is also expected that the study will help better understand and analyze the cognitive processes involved in the acquisition and production of the English language specifically and any language in general.

Some of the data/example sentences were adopted from the existing literature and a sample of sentence constructions by the author in the English language was also used for the tests. The investigation was limited to English PPs and PPs in other languages may have syntactic and semantic properties different from English. At the same time, different prepositions in the English language have their own distinct and unique characterises and an investigation focusing on a subset of prepositions might produce different results.

1.1 Literature and Theoretical Background

In this section, I discuss the literature and theoretical background pertaining to the

investigation as to whether PPs can be placed in the category of phases. First, I introduce phase theory in detail analysing the seminal work that introduced and established it. Second, I explain the difference between strong and weak/non-phases referring to their implications for the analysis and conclusions in this paper.

1.2 Phase Theory

Mainly for the purpose of derivational economy Chomsky (1995) introduced the concept of *Lexical Array* (LA), a pre-syntactic domain related to lexicon which stores lexical items (LIs) that will enter the narrow syntax for derivations. Addressing the issue of the load and complexity of LIs that might enter for computation, Chomsky (2000) brought forth the idea that the lexical array will be restricted only to a subpart for derivation; a *phase* to be placed in the 'active memory'. So the idea is that derivations operate through phases or multiple spell outs (Uriageraka, 1999; Chomsky, 2000; 2001) and a key goal of phase theory is to reduce the strict cyclicity of derivations and related locality effects of movement to interface (bare output) conditions and economy conditions. Accordingly, Chomsky (2004) identifies only v^* P_s and CP_s as phases.

Phases should have a natural characterization of IC: they should be semantically and phonologically coherent and independent. At SEM v^* P and CP (but not TP) are propositional constructions: v^* P has full argument structure and CP is the minimal construction that includes tense and event structure and (at the matrix, at least) force. At PHON, these categories are relatively isolable (in clefts, VP-movement, etc) (Chomsky, 2004, p. 124).

In more recent work, Chomsky (2008) has argued that phases are more related to Case/agreement systems rather than interface properties.

It makes sense to assume that Agree and Tense features are inherited from C, the phase head. If C-T agrees with the goal DP, the latter can remain in situ under long distance Agree, with all uninterpretable features valued; or it can raise as far as Spec-T, at which point it is inactivated, with all features valued and can not raise further to Spec-C. (Chomsky, 2008, p. 12)

However, Chomsky's key assumption (Chomsky, 2001; 2004; 2007; 2008) that computation proceeds phase by phase with recursive access to LAs still remains dominant. Once completed, a phase is handed over to LF and PF components by cyclic transfer.

(1) Cyclic transfer

Transfer hands D[erivation]-NS over to [PHON] and [SEM]. (Chomsky, 2001, p. 5)

Related to this is the condition of Phase Impenetrability Condition (PIC), which asserts that once the computations within a given phase have been completed, the domain of the phase (the complement of its head) becomes impenetrable to further syntactic operations. PIC is a constraint which forces the system to forget about transferred chunks, thus reducing computational burden.

(2) Phase Impenetrability Condition (PIC)

In phase α with head H, the domain of H is not accessible to operations outside α ; only H and its edge are accessible to such operations. (Chomsky, 2000, p. 108)

The idea here is that once the phase is transferred to the interfaces by cyclic transfer, the next phase starts and even if the head of the previous phase is still visible, it is not accessible for further computations. Thus, PIC is a constraint which forces the system to forget about transferred chunks, thus reducing computational burden, which is the essence of the concept of phase.

Chomsky (2000) makes a distinction further between CP/v*P phases and other categories.

Suppose then we take CPs/v*Ps to be phases. Nonetheless there remains an important distinction between CP/v*P phases and others. Call the former strong phases and the latter weak. The strong phases are potential targets for movement. C and v* may have an Extended Projection Principal feature (EPP), which provides a position for XP-movement. (Chomsky, 2000, p. 9)

Thus, the Extended Projection Principle (EPP) is a major criterion for a category to be a phase. Chomsky (2000) in the same paper refers to 'non phases' (also Chomsky, 2001), which may be phrases that are not phases at all.

Phases are then (close to) functionally headed XPs. Like TP, NP can not be extracted, stranding its functional head. The same should be true for other non-phases. Some phases are strong and others weak-with or without EPP option, respectively, hence, relevant or not for spell out. (Chomsky, 2001, p. 14)

Thus, in my analysis, I maintain that phases could be either 'strong', 'weak' or 'non' depending on the level at which a grammatical category satisfies the phase related criteria. I extend this notion of phase categories to apply it to PPs to test my hypothesis.

2. Materials and Methods

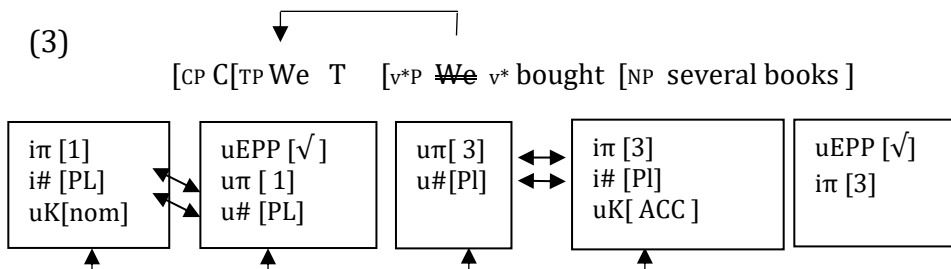
2.1 Method of data collection

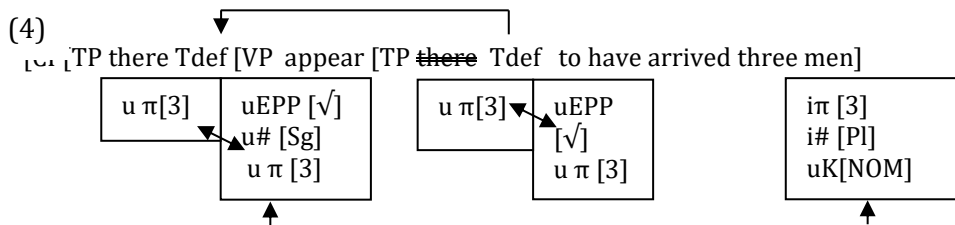
As standardly adopted in the discipline of linguistics, some of the example sentences taken for testing and analysis in the paper are sentence constructions containing PPs that are commonly used in the English language. Besides, some examples were directly adopted from the existing literature and are provided with references wherever relevant.

2.2 Diagnostic tests for Phases

Following the introduction to phase theory in the Minimalist Program (MP), Chomsky (2000), Legate (1998; 2003) and Chomsky (2008) have postulated and developed certain diagnostics for Phases. This is based on the assumption that phases are units of computation sent to Spell-Out as independent chunks of structure. As such, they should exhibit independence at interfaces. However, though there is a debate over the legitimacy and validity of these diagnostics (Matushansky, 2005), these are still applicable to test items for phasehood. The CPs and v*Ps as seen in (3) and (4) satisfy these criteria and could be said to spell out as independent 'chunks' or phases.

As seen in (3), the computation and spell-out of the construction *We bought several books* happens in two phases, one at v*P level, which represents a complete thematic complex (argument structure with an external argument) and again at CP level which represent a complete clausal complex (including a specification of force).





In the sentence in (4) *There appear to have arrived three men.*, computation and spell-out happens in one phase or chunk at CP level, because VP; *appear to have arrived three men* is not a phase.

The tests can be basically divided into four categories; Computational complexity; Phonological (PF) independence; Semantic (LF) independence and Case checking and ϕ completeness requirements.

- Computational complexity
Phase Theory asserts that computational complexity be made minimum to reduce the computational burden in the syntactic workspace, which means that there must be some limit on the number of maximal projections in the workspace.
- Phonological (PF) independence
PF diagnostics for phasehood assert that phases be isolated, phases can be moved and targeted by movement like operations such as Extra Position, Clefting, Pseudo-clefting, Though-Constructions, Predicate-fronting and Real movement. It also claims that phases are assigned phrasal stress through the nuclear stress rule.
- Semantic (LF) independence
LF tests for phases demand that a phase expresses a proposition and quantifier raising, reconstruction, successive cyclic wh- movement should target edges of phases.
- Case checking and ϕ completeness.
Syntactic facts that phases involve are Case checking and ϕ completeness. Chomsky (2000) asserts that phases must be ϕ complete. This follows from the idea

that as an uninterpretable feature, Case must delete before spell out to avoid a derivation from crashing. Case-checking points must therefore correspond to the earliest phase spell out points that a derivation must reach. In more recent work, Chomsky (2008) argues that the most important criteria in determining phases is not related to interface properties, but to the Case/agreement systems.

3. Results and Discussion

In this section, I offer an analysis of different types of PPs and discuss their implications for phase status. First, I analyze the structure of PPs. Second, I discuss the functional status and functions of a P. Third, I apply different types of phase diagnostics tests to PPs and discuss the implications to determine their status with respect to phases.

3.1 Prepositional Phrases (PPs)

A phrase whose head is a preposition is identified as a PP. Svenonius (2007) defines prepositions (Ps); "Spatial relations, and certain other relations among entities and events, are expressed in many languages by Caseless, tenseless words that grammarians often call prepositions or postpositions" (Svenonius, 2007, p. 63).

In English, there are three structures that constitute PPs. They are:

- Preposition + noun phrase as seen in (5).

(5) I pasted it on the wall

- Preposition + wh- clause as seen in (6).

(6) I am thinking about what you said

- Preposition + -ing clause as seen in (7).

(7) You will hurt yourself by doing that

3.1.1 Prepositions: a lexical or functional category?

Based on the non- computational nature and the amount of meanings certain prepositions denote, it has been argued that the head preposition (P) in a PP in a language like English must be lexical or of encyclopaedic content, not functional. However, based on the absence of derivational morphology and patterns of incorporation, Baker (2003) argues that Ps are a functional category in English. This is further confirmed by Svenonius (2010). When PPs adjoin to projections of verbs (V), P designates a relation between the event (e) of the verbal projection and the complement (DP) of the P, which indicates that P performs a function of a kind. As seen in (8), this functional approach to PPs can be observed in relation to theta roles that Ps introduce in clauses as well.

(8)

- The elephants remained in the boat.
(location-(ground))
- They cast a wistful glance to the shore.
(goal- (path))
- The boat drifted further from the beach.
(source-(path))
- Their ears sank down several notches.
(trajectory-(path)) (Svenonius, 2010, p. 127)

This argument as PPs as related to functions is a crucial fact for our analysis and the argument in question here.

3.1.2 PPs and their basic functions

Prepositional phrases in sentences in English can function in several ways;

- A PP in a sentence can function as an adverbial as seen in (9)

(9) Children are playing in the basement.

PPs functioning as adverbials are modifiers and are projected as adjuncts in the clausal architecture, which indicates that PPs as adverbials do not play a very important role in the argument structure of a sentence. But this paper, in favour of its main claim attempts to highlight the significance of the adverbial PP in the argument structure of a sentence. It does not make an attempt to deal with its projection in the architectural structure of a sentence, since it is not the primary essay of this paper.

- A PP in a sentence can function as a post modifier.

(10) The books on that table are mine.

PPs can function as post modifiers of nouns. Though they are not projected as adjuncts in syntax, for the current analysis they do not seem to play an important role in the argument structure of a sentence.

- A PP in a sentence can function as a verb complement.

(11) It depends on what you want to do in the future.

The PPs that function as verb complements are part of the argument structure of a sentence, because the PP is mandatory for the predicate to be complete.

- A PP in a sentence can function as an adjective complement.

(12) I am very interested in music.

The PPs that function as adjective complements are also part of the argument structure of a sentence, because the PP is mandatory for the adjective and predicate to be complete.

3.2 A split-P hypothesis

Following the split-V hypothesis (Hale and Keyser, 1993; Kratzer, 1994; 1996; Harley, 1995) and strictly considering P a functional head, Svenonius (2007) argues for a split-P hypothesis where he claims that “there is a functional head *p*, analogous to *v*, which introduces the Figure. The sole argument of P is then typically the Ground” (Svenonius, 2007, p. 64). Following Talmy (2000), the Figure-Ground distinction is made based on the claim that spatial adpositions can be characterized as asymmetric:

The Figure is a moving or conceptually movable entity whose path, site, or orientation is conceived as a variable, the particular value of which is the relevant issue. The Ground is a reference entity, one that has a stationary setting relative to a reference frame, with respect to which the Figure’s path, site, or orientation is characterized. (Talmy, 2000, p. 26)

Here, in relation to the preposition, the Figure is the entity, object, or substance which is located or in motion, and the Ground is the location, object, or substance with respect to which the Figure is located or in motion. As in (13)

(13) John put his hand in the hot water.

the direct object *his hand* is claimed to be the Figure and *the hot water* is claimed to be the Ground. And it is argued that the preposition *in* is the functional head that characterises the relationship between the Figure and the Ground. Svenonius (2007) argues,

I suggest that the same considerations that led to the split-V compel us to adopt a split-P. The Figure-Ground asymmetry is quite robust, and neatly captured by assuming that the Ground, an argument of P, is within the syntactic sphere of influence of the adposition, just as the Theme or Patient argument is within the syntactic sphere of influence of the verb; while the Figure, and

argument of *p*, is outside that sphere of influence—external to it—and moves into the higher syntactic domain for licensing, just as the Agent moves into the T domain for nominative case. (Svenonius, 2007, p. 91)

This hypothesis and analysis is very important for PPs to be diagnosed as phases, because as argued above, if a PP functions in the way a *v**P does, following the assertion that *v**P with its external and internal arguments and their distinct theta roles is a phase, based on the split P hypothesis, a PP with its external and internal arguments and the functional head must be a phase. This will be dealt with in detail in the conclusion section.

However, for the current analysis for PPs to be considered phases, I mark a distinction between

- PPs that denote place- path as post nominal modifiers and
- PPs that denote place- path as adverbials or complements that are mapped onto events or as arguments of verbs or adjectives.

The latter should also include PPs that function like applicative phrases (ApplP) as an applied argument of the verb in relation to indirect objects in English. I call the former M-PPs (PPs as post nominal modifiers) and the latter A-PPs (adjunct and argument PPs).

I again divide A-PPs into Ar-PPs to mark argument PPs and Ad-PPs to mark adjunct PPs. Marking of these distinctions is very important and relevant for my claim for PPs as phases of the weak kind. When PPs function as A-PPs as in (09), (11) and (12), they come close to the state of a phase, but when they function as M-PPs as in (10), it is difficult for them to be deemed to have caught phasehood.

3.3 Testing PPs with phase diagnostics

In what follows here, every possible effort has been made to map PPs against all the criteria or diagnostics for a grammatical category to be ladled a phase.

3.3.1 Computational complexity and PPs

Phase theory asserts that computational complexity be made minimum to reduce the computational burden in the syntactic workspace, which means that there must be some limit on the number of maximal projections in the workspace. A PP can be non-complex or very complex, for example, a short PP as in (14) is very simple.

(14) She is fond of cats.

But a PP in an example like the following,

(15) She is fond of your dog which was brought from England by your brother who lives in France, where...

can even include phases of CP and v^*P kind, which questions the legitimacy of the notion of phase and at the same time, which shows that computational complexity is not a valid test to test PPs for phasehood.

3.3.2 Phonological independence (PF) and PPs

The PF tests for phonological independence include operations such as isolation and movement like operations such as Extra Position, Clefting, Pseudo-clefting, Though-Constructions, Predicate-fronting and Real movement. As seen in what follows here, PPs have been tested with these.

Isolation

This follows from the idea that if syntactic derivation proceeds in phases, then a minimally convergent derivation must be a phase. As seen in the following examples, a PP can be a minimally convergent derivation that can be isolated.

(16) (Did you have the party in the garden?)-
In the garden?

In the garden? can be isolated and taken as a phase.

(17) (Where did you keep the book?)- On the table.

On the table., can be isolated and taken as a phase.

(18) (It all depends on your decision.)- On what? On your decision.

On what? and *On your decision* can be isolated and considered as phases.

This test is applicable to PPs as A-PPs only and PPs then can be isolated in the same contexts and under the same conditions as v^*Ps and deemed phases.

Movement-like operations

These include movement operations such as Extra Position, Clefting, Pseudo-clefting, Though-Constructions, Predicate-fronting and Real movement.

Like CPs, PPs can undergo extraposition.

(19) It's [pp on Tuesday] that they came here.

Like CPs, PPs can also undergo clefting.

(20) It's [pp in the garden] that we had the party.

Like CPs, DPs and v^*Ps , PPs can undergo pseudoclefting.

(21) Where we had the party was [PP in the garden].

As seen in (22) PPs can be fronted (for focus movement or stylistic fronting) and have more phonological independence than any other category.

(22) In the garden, i we had the party ti

Predicate fronting and though-fronting in though- constructions target predicates and since it is hard to argue for PPs to be predicates, they can not be tested with criteria related to though-constructions and predicate-fronting.

Thus, as it is very obvious here, in terms of phonological independence, PPs bear very strong evidence to be labelled phases. However, this claim is valid only as far as PPs as A-PPs are concerned, and is not applicable to PPs as M-PPs.

Escape hatch Escape hatch is related to PIC (i.e. (2)) which claims that an item can not move out of a phase unless it first moves to the periphery. PPs of Ad-PP (adverbial adjuncts) and PPs of type M-PP are strong islands. As seen in the examples in (23) nothing moves in and out of a PP as a modifier or an adjunct.

(23)

- a. The children in the garden are happy.
- b. The birds playing on the roof are beautiful.
- c. I placed all the books on the shelf.

Phases are more akin to strong islands, and escape hatch in relation phasehood diagnostics seem to have a strong bearing on our argument of PPs as phases.

Violating Escape hatch: However, NPs as complements of P of Ar-PPs can be extracted out of the PP (with preposition stranding) violating PIC.

(24)

- a. John _i is the person I am talking with _{ti}.
- b. What_i are you talking about _{ti} ?
- c. Who_i did you give it to _{ti} ?
- d. What_i are you interested in _{ti}

How this happens is that P is not a functional head in the sense that it can not function as a probe to attract a goal to its edge as a PP, which means that P as the head of the phrase

does not have an EPP feature to attract a probe to its edge. This also confirms that PPs can not be phases.

3.3.3 Semantic (LF) independence and PPs

While the QR, reconstruction and successive cyclic wh-movement tests have nothing to do with PPs, we can test them with the criteria related to the notion of “proposition”. In semantic terms a proposition is argued to be of type <t>. Then, CPs and v*Ps are said to be of type <t> that express a full proposition with a full argument structure.

However, PPs neither as A-PPs nor as M-PPs can have the status of a proposition. Even the PP, *on the table*, in a construction like (17); (*Where did you keep the book?*) *On the table*, does not express a proposition. Even though it can be phonologically isolated, *on the table* can not be semantically isolated and it can not express a proposition (of type <t>). For it to express a proposition, it has to be related to the main question or needs to be given a full argument structure.

But, exclamation marked constructions like the following as PPs seem to express a proposition or have both phonological and semantic independence and cause problems for our analysis.

(25)

- a. Into the dungeon with those prisoners!
- b. Back to England with those hooligans! (Svenonius, 2010. p. 127)

Since, syntax and semantics of this type of constructions is yet to be defined, the current analysis is not going to dwell on this and is left for further research.

3.3.4 Case and φ Completeness

Chomsky (2000) touches on it and claims that phases must be φ complete. In more recent work, Chomsky (2008) confirms this asserting that the most important criteria in determining phases is not related to interface

properties, but to the case/agreement systems. Case in particular, defines a phase domain and makes DPs, AgrPs (or AspectP or ApplP), and TPs potential phases.

English prepositions are often characterized as case-assigners, where it assigns case to its complement DP or marks the complements of the nominalized verb. This is also in keeping with the idea that directionals are always mapped onto the events denoted by verbs, just as direct objects are. This means that PPs denoting paths have a part-whole structure similar to that of nouns and verbs, and participate with the noun-verb mapping relations.

The case assigning and agreement relations introduced by Ps in A-PPs as seen in the following examples seem to play a role in PPs being potential phases.

(26)

- a. John_i speaks only with himself_i/*him.
- b. Mary_i's joke about herself_i/*her.
- c. David_i saw a gun near himself_i/*him.
- d. Ann_i counted five students in the room apart herself_i/*her.
- e. I am afraid of dogs.
- f. Siri bathed in the river.
- g. You shouldn't rely on him.
- h. She slept on the road.

As seen here that P assigns Case to its complements in PPs, and there are agreement relations between the NPs in PPs and the Subjects of the clause (26, a, b, c, d), PPs could potentially define phase domains. But the crucial facts are;

- PPs do not involve Case-checking under spec-head agreement inside the PP and that most Ps actually only assign Case,
- This case is related to theta role assignment,
- Case-checking and agreement feature checking of the NP complement of the PP happens with a functional head outside the PP. Like what happens in a CP, this

does not happen within the PP with its P as the head.

And PPs to be phases fail in this final test as well.

5. Conclusions and Recommendations

This paper investigated whether PPs in English can be considered as phases. It was hypothesised that PPs in English may be considered as 'weak' phases. Standard phase diagnostics tests such as computational complexity, phonological independence, semantic independence, and case checking, and theta completeness were used to test the hypothesis. It was found out that PPs pass several diagnostic tests such as phonological independence where PPs bear very strong evidence to be labelled phases. However, it was also found out that as far as semantic independence is concerned PPs in English fail to account for expressing a proposition with a full argument structure. At the same time, when case checking, and theta completeness were considered, it was found out that English PPs do not carry an EPP feature and do not involve Case-checking under spec-head agreement while most PPs only assign Case. Thus, since, PPs in English pass only some of the standard tests for phasehood status and fail to satisfy the most important criteria, it is concluded that PPs are phases of the weak kind.

Accounting for the Split-P hypothesis and its validity for phasehood analysis, though Svenonius (2010), argues for a PP to have an external argument, i.e. *his finger*, and an internal argument, i.e. *his nose* as in the example; *Max stuck his finger in his nose*, (Svenonius, 2010, p. 1), there is no way for the PP *his finger in his nose* (considering this as a PP based on Svenonius' proposal in relation to PP's external and internal arguments) to be a phase. This also does not express a proposition of type <t>, and even though Svenonius (2007) argues "the Figure, and argument of *p*, is outside that sphere of influence—external to it—and moves into the

higher syntactic domain for licensing" (Svenonius, 2007, p. 91), he does not explain what drives movement. It can not however be EPP. Also, there is no clear accounting for how Case checking, and agreement happen between the internal and external arguments. However, this seems to be a promising account for PPs to be analysed in terms of argument structure, the notion of proposition and phase status, which will pave the way for further research. At the same time, since each preposition in the English language bears its own distinct and unique grammatical properties, a study with a narrow scope may lead to finer grained conclusions, which also shows the way for further research.

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