# THE COGNITIVE CORRELATES OF ASPECT AND THE ENGLISH PRESENT PERFECT

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The English Present Perfect (PrP) conveys the notion of perfect aspect in the syntactic representation of an event. However, when aspectual systems are viewed from a cross-linguistic perspective, it is seen that the perfect parameter interacts with a perfective parameter to distinguish several underlying event structures. It is argued that variation along the perfect and perfective parameters in the temporal domain can be explained using cognitive principles that have correlates in the spatial domain. Using this analyis, it is proposed that the PrP is a polysemous form with two possible cognitive representations, sometimes coded differently in languages, and that it combines componentially with other aspectual and tense forms of English. A third cognitive representation is argued not to attach to the PrP, but to be a consequence of lexical aspect or a formal perfective component. Finally, no convincing evidence is seen for non-componential (idiomatic) readings of the PrP.\*

1. INTRODUCTION. Two approaches dominate explanations in the literature of systems of aspect. One, exemplified by Dowty 1979 and Parsons 1990, seeks to define meaning in aspectual systems through the use of truth conditional formalisms applied compositionally; the other attaches semantic and pragmatic distinctions to aspectual forms and calls on these to define both language-specific constructions—which may be either wholely compositional (Klein 1992) or partially idiomatic (Michaelis 1994)—and broader typological variation (Comrie 1976). Of these, the latter approach is perhaps closer in spirit to the explanation presented in this paper. I seek to provide a motivation for the semantic range of aspectual forms found in languages, and in particular an account of the usage of the Present Perfect form (PrP) of English, by appealing to cognitive principles that are fundamental to all areas of grammar. The principles that will be proposed are universal building blocks of the cognitive schematization of thought which initiates the production process.

A basic assumption of this paper is, thus, a model of language production in which an underlying cognitive representation drives the selection of grammatical forms. Representations originate in the ongoing episodic processes of thought and correlate with the intention to produce language. We can broadly differentiate two sets of motivating principles, each perhaps with a distinct schematization, that together select grammatical forms. One is a mental abstraction of a spatial schema, and the other comprises the tracking information necessary to maintain connected discourse. We can refer to these schemata as the Scene Schematization (SS) and the Information Schematization (IS), respectively.

The basic principles structuring the SS of language have begun to be delineated by researchers in the field of cognitive grammar, such as Talmy 1988, Jackendoff 1983, and Langacker 1986. Their principles apply primarily to the spatial organization of a scene, and hence the SS. These principles construct a model of space by indicating the topological relationships between and distribution of entities in the spatial domain. The temporal domain is structured by a metaphorical mapping from the spatial domain (cf. Talmy 1988), and so this domain is modeled using grammatical forms selected by principles analogous to those that select forms to represent the spatial domain.

Other researchers have worked to identify the principles underlying an IS, including Lambrecht 1994 and Chafe 1987. Principles identified include phenomena of anaphoricity, topic, focus, discourse structure, and perhaps modality. As with the SS, the structuring principles adduced to hold in an IS must be applicable to the temporal domain as well as the spatial.

It is the overarching metaphorical structuring of the temporal domain to which the present analysis appeals. I will conclude that the PrP has two readings, and that these both combine componentially with the English tense system and lexical aspect to produce the semantic and pragmatic phenomena that can be observed in the use of perfect constructions in English.

The paper is organized as follows. A general overview of aspectual systems based on cross-linguistic data will first be presented. Aspectual universals will then be analyzed in terms of cognitive structuring principles recognizable in the spatial as well as the temporal domain. An analysis of the PrP will then be proposed, looking at data that have been employed in the literature, but arguing for a componential analysis of the PrP based on the cognitive principles identified.

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<sup>\*</sup> I owe my curiosity about the PrP, and more generally the revelation that constructions have meanings, to Laura Michaelis, and would like to thank her for many valuable discussions and the guidance she provided during the research and preparation of this paper.

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## ASPECTUAL SYSTEMS

2.1. A TYPOLOGY OF ASPECT. Aspect is often represented in the verb complex of languages, either morphologically or periphrastically (Comrie 1976), and so are tenses. These concepts are to be necessarily distinguished in a theory of grammar, in that tenses are anaphoric devices which index locations along the time line (Green 1989), while aspect is a way 'of viewing the internal temporal constituency of a situation' (Comrie 1976:3). We can align this division with the separation between SS and IS made above. Tense, like referent anaphora in the spatial domain, is assigned to the IS of a cognitive representation. Aspect, on the other hand, is part of the SS. We might expect to see other formal similarities between each of these temporal categories and the corresponding spatial ones in their respective schematizations. We will return to this after discussing aspectual categories in more detail.

Comrie 1976 classifies aspectual distinctions based on cross-linguistic data. He distinguishes two orthogonal dimensions along which aspect can vary, paralleling traditional accounts of aspect systems. The parameters he identifies are PERFECTIVE/IMPERFECTIVE and PERFECT/NON-PERFECT. The first pair differentiates between schematizations in which an event is seen as having internal structure (imperfective aspect) or as an undifferentiated whole (perfective aspect). This distinction is coded in many languages, such as Spanish, which in the past tense has verb forms Simple Past (perfective) and Imperfect (imperfective), contrasted here (from Comrie 1976:25):

(1) Juan llegaba. John arrive.PST.IMP 'John was arriving' Juan llegó. John arrive.PST.PERF 'John arrived'

As in its English counterpart, 1b codes a PUNCTUAL event. We translate 1a as 'John was arriving', a PROGRESSIVE form, which is one type of imperfective. The progressive performs a stativizing function, reflecting an event schematization with temporal extent. Stativization renders an event non-punctual and allows reference to the internal structure by, for example, permitting other events to be placed within its extent, such as in John was just arriving

But the progressive is not the only formal reflex of a schema with temporal extent; the distribution of an event in time can alternatively be accomplished through an ITERATIVE or HABITUAL structuring. A formal distinction between the iterative and progressive imperfectives is made in some Romance languages, as seen in this Portuguese example (from Comrie 1976:34):

(2)Todas as tardes. auando êle chegava casa every DET evening when arrive.PST.IMP 3MS in house as criancas estavam brincando. children be.PST.IMP play.PRG 'Every evening, when he arrived home, the children were playing.'

Here an (iterative) imperfective form chegava is used to indicate habitual action (a series of events in time, each viewed as punctual), while the periphrastic progressive (imperfective) form estavam brincando represents a stativized event with temporal extent encompassing the events comprising the habitual series.

Note that the habitual interpretation in 2 is conveyed in English only lexically, by every evening, since the verb form in English is simple past. A lexical description of a schema is always an option in languages which do not possess unique grammatical forms for two distinct aspectual schematizations. Only a cross-linguistic survey such as Comrie's reveals, then, the range of universally grammaticalizable aspectual variability.

Though Comrie distinguishes habitual and iterative imperfective, both these imperfective types span an interval of time consisting of a series of punctual subevents; we will apply the cover term ITERATIVE to these discontinuous forms. The progressive and other (non-iterative) imperfective forms represent events spanning a CONTINUOUS interval of time. I will use the term intervalic to refer to both iterative and continuous imperfective schematizations. The intervalic imperfective is thus opposed to the punctual perfective.

The PERFECT aspect is defined by Comrie as indicating 'the continuing present relevance of a past situation' (Comrie 1976:52), and is observed to relate some reference point to a preceding situation. There does seem to be a strong intuitive connection between the perfect and present relevance, as below (this connection has been noted by many; cf. Klein 1992, Michaelis 1994:

- I've found my wallet.
  - I found my wallet.

Ex. 3a would be appropriate as the conclusion of a search for the lost item, for example, but 3b merely reports a past

event which is perhaps separated from the time of utterance by a number of other events. 1

The almost universal asymmetry of the perfect that permits deictic reference only to past events is a consequence of our asymmetrical experience with time. Moreover, the past is more talked about and more salient than the future. Some languages do, however, allow a prospective aspect (Comrie 1979:64), as in the English locution about to/going to (e.g. I'm just about to/going to leave). However, no examples of a morphological prospective are presented in Comrie, and further discussion of the perfect will center on deictic reference in the past.

2.2. ASPECT AND COGNITIVE SCHEMATA. This recapitulation of Comrie's account of aspect leads us to note similarities between the features he assigns to his perfective aspectual category and cognitive schematizations identified by linguists such as Talmy 1988. Within the perfective aspect we can identify punctual (perfective) and discrete intervalic (iterative imperfective) schematizations. This parallels Talmy's PLEXITY parameter for the distribution of matter in space. In English this dimension is coded in the lexicon for the spatial domain on count nouns through SINGULAR/PLURAL morphology. In the temporal domain, also, English distinguishes events differing along this parameter through inherent lexical aspect (e.g. sigh, punctual; breathe, iterative). We have also distinguished between the aspect types composed of multiple punctual subevents (the iterative imperfective) and the continuous intervalic imperfective (e.g. the progressive imperfective). For English nouns again, continuity is coded lexically as the MASS/COUNT distinction. Inherent lexical aspect is used, once again, for verbs to code this difference on events in the temporal domain (e.g. run, intervalic; die, punctual).

In a cognitive analysis the parameters continuity and plexity '... largely constitute the traditional category of "aspect" (Talmy 1988:184). However, these basic topological properties can be overridden through the grammar. We can, in Talmy's words, alter the DEGREE OF EXTENSION or the PATTERN OF DISTRIBUTION of an event. The addition of the appropriate constituent can force an intervalic interpretation, for example in 4b, over the inherently punctual lexical aspect in 4a, or create an intervalic but iterative interpretation, as in 4c.

- (4) a. She climbed the ladder. (punctual)
  - b. She climbed the ladder for ten minutes. (intervalic/continuous)
  - c. She climbed the ladder every day. (intervalic/iterative)

This grammatical shift of aspect is itself an important principle of language, allowing a speaker to restructure a scene through the use of grammar while using the same basic lexical elements with their inherent aspectual properties, regardless of whether the means for such a schematic restructuring are grammaticalized. Since the schematic restructuring is associated with a grammatical form, the meaning of the utterance remains componential.

Turning to the perfect aspect, there is a suggestive similarity between Comrie's description of the notion of continued relevance at the time of utterance and proximal deixis in the spatial domain, as often noted (cf. Michaelis 1994). Deixis is also a scene structuring mechanism, in which a point of perspective, the deictic center, determines the interpretation of the deictic referent. I propose that this analogy is not a coincidence, but that deixis is a universal cognitive structuring mechanism and may be grammaticalized in the temporal domain as a consequence of the metaphorical transferal of structuring principles from the spatial domain.

As Comrie notes, the perfective and perfect aspects occur independently. This is a consequence of the fact that they represent conceptually independent parameters of an event schematization. We can create a table crossing the values of these two aspects and correlating them with the cognitive parameters EXTENT (punctual vs. intervalic) and REFERENCE TYPE (deictic vs. anaphoric); see Table 1. The anaphoric nature of the past tense has been noted (Partee 1984). It parallels the use of pronouns in the spatial domain in that they must both be indexed (explicitly or implicitly) to R-expressions. There is also a deictic component to tense, with 'now' forming the deictic center (Klein 1992), but we will limit the comparisons in Table 1 to past time.

The entries of Table 1 are representative forms in English from the temporal and spatial domains which 1 propose as the homologies in these domains across all parameter combinations. The extent parameter value intervalic is further subdivided in Table 1 into the previously defined continuity values CONTINUOUS and ITERATIVE.

We have seen languages, such as Portuguese, in which the three-way distinction of the extent dimension in Table 1 is directly coded for non-perfect aspectual schemata. A binary distinction of perfect aspect is coded in some languages, such as Mandarin Chinese (Li, Thompson & Thompson 1982, Comrie 1979) and Kpelle (Comrie 1979). Comrie elicits no languages in which more than three distinct forms are employed for the perfect aspect, however, though this analysis predicts that it should be possible for a language to make a three-way distinction. We have no evidence of other cognitive parameters that could select additional forms, so we conclude that these three values exhaust the range of aspectual categories that can be represented in language.

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I claim this contrast from the point of view of dialects of English which maintain the PrP/Past distinction. The distinction is being lost in many forms of American English.

it,	'was eating'	'ale (twice)'
sic (rpcu),	'it'	'they'
'has eaten (already)'	'has been eating'	'has eaten (twice)'
'this'	'this'	'seshi'

Pronoun SPACE: Anaphoric TIME: Non-Perfect **VANAPHORIC** Determiner SPACE: Deictic TIME: Perfect DEICLIC

extent and reference type in the temporal and spatial domains. TABLE 1. Interaction of the perfect and perfective aspectual parameters with correlative cognitive parameters

turn to the question of whether the PrP codes all and only the three cognitive schemata that have been identified. constructions. It may also employ the perfect construction for other (perhaps non-aspectual) distinctions. We now schemata in the temporal domain. However, the grammar of English may be sensitive to these parameters in some componential) forms for deictic and anaphoric reference. English aspect thus does not formally distinguish perfect domain of singular/mass indexicals (and R-expressions) as opposed to the plural indexicals with different (i.e. nonto code the entire range of possible cognitive schemata. This situation differs from the unified coding in the spatial Note that there is only one perfect construction in English, which seems to combine with the non-perfect forms

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distinguishing perfect from non-perfect:2 distinction. As the following German example illustrates, some dialects of German have no construction of cognitive schemata. The aspectual ambiguity of a construction can also conflate the perfect/non-perfect a language often serve double or multiple functional duty. English has only one form which seems to code the range language for parameters of a given domain. Therefore, as in the English examples in Table 1, the forms available to 3. The full range of cognitive schematizations is rarely coded by distinct forms in the grammar of any one

'I have seen him/I saw him.' 3M2ACC นอนุอรอชิ ųэį

in the case of lexical polysemy, structural disambiguation is accomplished lexically or contextually. from lexical items to grammatical constructions, with a 'meaning' being defined as a schema-to-form mapping. As a single construction may have several related but distinct meanings. This extends the traditional notion of polysemy Mappings from more than one schema to a single form result in polysemy, in the sense of Michaelia 1994 that

componentially. In disentangling the PrP we will explore both possibilities. attached to it certain idiomatic meanings which allow it to be used in situations that cannot be predicted distinctions would not enter into a linguistic explanation. However, a second possibility is that a form may have for four distinct readings. It may be that Comrie's categories are philosophical and not linguistic, in which case these made so far count as related meanings, and so could contribute to the polysemy of the PrP, but this does not account types truly reflect different cognitive representations given the discussion in \$2.2. Clearly the cognitive distinctions experiential perfect, the perfect of persistent situation, and the perfect of recent past.3 It is not clear that these four Commie 1979 describes four different perfect types all coded in English by the PrP: the perfect of result, the

perfect construction must be established. with the punctual perfect schema. Even if these equivalences are indicated, the existence of a componentially applied schemata. It is not as clear that the residue of PrP usage, the Resultative Perfect Construction (RPC), can be equated resultative readings. Her continuative and existential readings are readily equated with continuous and iterative the PrP (Michaelis 1994, McCawley 1981). Michaelis identifies the continuative, existential (or experiential), and To simplify the situation, more recent investigation has led some researchers to claim three-way polysemy in

differentiating it from other readings. Leaving saide the question of the RPC for the moment let's examine the Perfect (PP); and (b) the RPC has attached to it idiosyncratic meanings qualifying it as a formal idiom and because (a) certain grammatical characteristics of the PrP do not carry over to other perfect forms, such as the Past 3.1. COMPONENTIALITY OF THE PRP. Michaelis claims that no componential analysis of the PrP is possible

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'.mid was I'

<sup>3</sup> McCawley 1971 makes a similar claim for English.

TSA9.552 21 3MS.ACC lch sah 2 Many dialects of German retain the Simple Past form, which distinguishes the non-perfect from the perfect

componentiality of the PrP in combination with tense.

I have claimed that the PrP is a temporal grammaticalization of a deictic indexical, in that it codes an event that is contiguous with and prior to the Time of Utterance (TU) in the cognitive representation of a scene. The TU acts as the deictic center for the PrP. A consequence of the property of temporal deixis is the constraint against definite time adverbials, as demonstrated here:

## (6) John has left (\*yesterday).

The adverbial 'yesterday' is itself a deictic specification which place the event time 'away' from TU—'yesterday' is necessarily before 'today'—and not contiguous with it (unlike 'today'). The homologue in the spatial domain is the inability to say *Pick up this chair* when the chair meant is separated from the speaker by another, closer chair (barring the possibility of pointing over the first chair and at the second, the equivalent of which is impossible in the temporal domain). The priorness constraint is a consequence of the asymmetry of the temporal domain. Unlike our freedom in the spatial domain, we can only move forward in time, and what is in the past can never be revisited. We have identified a deictic component in the PrP, which we must show holds in combination with tense and in all PrP categories.

It is often noted that a perfect form is possible in the equivalent of 6 in some languages, such as Spanish, where it is possible to say *Me he levantado a las cinco* 'I've gotten up at five', in response to 'Why are you looking so tired?' It is not clear at this point what the explanation for this fact may be. Further research may reveal that the time modification 'at five' has different aspectual properties in Spanish and English. It may also be that the deictic boundary is defined somewhat differently in the two languages. We can compare the 'rule of twenty-four hours' in French, which explicitly defined current relevance. Barring these componential explanations, it is possible that the difference is idiomatic (in one language or the other).

To proceed, it is argued by Michaelis 1994 that a compositional account of the PrP cannot be correct, since, among other facts, this constraint does not apply to the Past Perfect (PP). Klein 1992 explains the difference between the PrP and the PP by use of a pragmatic constraint against the simultaneous use in a utterance of two definite time specifications, allowing him to maintain compositionality. However, a constraint parallel to that in 6 does appear to apply to the PP, as demonstrated here:

- (7) a. When Mary arrived, John had left (\*the day before).
  - b. Mary arrived on Tuesday, but John had left (the day before).

Ex. 7a is, I argue, schematically parallel to 6. The PP construction has- PST V-en is deictic, with the reference time at Mary's arrival in the past functioning as 'now'. Just as in the PrP, 7a exhibits the same intuitive 'current relevance' to the reference situation (viz. Mary's arrival). In contrast, the PP in 7b is being used solely as a 'past in past' construction in a sequence of tenses, in which the auxiliary had is anaphoric with respect to the reference situation. This allows the definite time adverbial. I claim this is an example of polysemy in the PP made possible by two different schematizations. This ambiguity in the PP accounts for the differences in behavior of it and the PrP with respect to the definite time adverbials.

The same ambiguity is avoided in the present, since we have separate forms to express the perfect (the PrP) and an anaphoric past time reference (the Simple Past). It remains to be seen whether this distinction is grammaticalized in some languages for the past-in-past, though I predict it is. The conflation in English goes even further in those languages, such as French, Italian, and German, where the perfect and past forms have merged. Markedness would predict that this conflation would occur first between past-in-past and past perfect forms (as in English) before that between the present and present perfect forms, and that the latter conflation would imply the former (e.g. in German). This predicts that no language exists in which the deictic and anaphoric components are distinguished in past time reference but not present.

To better understand the underlying schematic, or semantic, differences in 6, we can compare them with some analogous sentences in the spatial domain:

- (8) a. When he arrived there, he said, 'This is the place.'
  - b. When he arrived there, he said that was the place.

In 8a we have a deictic pronoun with a referent anaphoric pronoun, while in 8b the deictic pronouns has as a referent the speaker, necessitating the use of the distal deictic form.

Perfect aspect would seem, then, to be attached to the PrP in English constructions. This aspectual distinction can be componentially combined in English with tense, and in PP constructions retains its perfect meaning.

3.2. POLYSEMY OF THE PRP. The combination of perfect and past tense in the PrP is so far analyzable componentially without resort to polysemy for the deictic parameter. But this does not exclude the possibility of a polysemous form residing in the perfect component along some other parameter (which should then, of course, also be extensible to the PP). The best candidate, the existential reading of the PrP, is clearly separable from the continuative/resultative in that it accepts cardinal modification:

(9) Mary has been to France twice.

In fact, inclusion of such a modifier forces an iterated reading where a construction might otherwise be ambiguous:

Harry has been in Cleveland (twice) since the beginning of the year.

But without an overt indication of iteration, is the existential PrP formally distinguishable from non-existential readings? Klein claims that they are not; he relies on context to differentiate the meanings, maintaining that no underlying semantic differences distinguishes two readings, the existential and the resultative. This conclusion seems untenable in light of evidence presented by Michaelis. She presents convincing evidence of this through grammatical reflexes in English of the two distinct readings, in particular, co-occurrence restrictions on manner modification, as in 11 (modified from Michaelis 1994, ex. 24):

a. The chair has (\*angrily) tendered her resignation.

b. The chair has (angrily) tendered her resignation twice before.

The existential reading can also be distinguished from the continuative in sentences with time span modification (cf. Dowty 1979):

a. Mary has been in Bali for two days (twice). (12)

b. For two days, Mary has been in Bali (\*twice).

Ex. 12a is ambiguous between existential and continuative readings without the inclusion of twice. The existential reading decouples the situation from speech time and allows iteration. But 12b can only be interpreted as a nonexistential PrP, since it does not allow inclusion of an iterative modifier. The difference clearly involves a difference

in scope of the time span modifier, with wide scope precluding iteration.

We can thus clearly distinguish the existential reading of the PrP from other forms. But can we be sure that there are more than one alternative readings of the PrP? McCawley 1981 conflates the resultative with the existential by attaching an implicature to the resultative. This conflation seems unwarranted in light of the co-occurrence restrictions discussed above, as does a conflation of existential with continuative, for the same reason (and cf. Michaelis 1994 for further discussion of this issue). Can we do away with the continuative/resultative distinction then? Michaelis' maintenance of a three-way distinction appears to have some weaknesses. First, a three-way test is never proposed. Second, no grammatical co-occurrence restriction for one pair is applied to the other. Finally, the sentences clearly evinced as continuative all seem to be distinguishable from resultatives lexically or through the inclusion of a stativizing component:

- a. We've been sitting in traffic for an hour.
  - b. Harry has been in Bali for two days.
  - c. Myron has been upset {for an hour / since three}.

These sentences all contain stative verbs or verb forms (the Progressive).

We can attempt to apply Michaelis' grammatical tests to a resultative/continuative pair to see if they are distinguishable. For example, consider the use of manner adverbs here:

- a. The President has (??angrily) called a halt to the press conference.
  - b. The President has been (??angrily) calling a halt to the press conference.

The presumably continuative construction in 13b seems no better than the resultative presented in Michaelis (1994:63, ex. 82).

In summary, I conclude that there are two readings attached to the PrP, the existential and non-existential, or continuative. These correspond to the cognitive parameters iterative and continuous in the aspectual analysis of §2.2.

- 3.3. NON-IDIOMATICITY OF THE PRP. It remains to discuss the possible idiomatic meanings attaching to the PrP suggested by Michaelis and defining the resultative perfect construction (RPC). The main restriction suggested by Michaelis (p. 143) is
  - The RPC cannot be used to further describe ('elaborate upon') a pragmatically presupposed event.

This restriction is based on observations of the 'news reporting' function of the PrP. In such uses the PrP is used to introduce the report of an event. Subsequent information is conveyed using the preterit. I suggest that it is not a presupposition that restricts subsequent use of the PrP, but rather the inability of the PrP to sequence events in time, cither previous or subsequent to the introductory event:

- a. The police have arrested a suspect in last night's bombing. #They have located him based on a tip received this morning.
  - b. The police have arrested a suspect in last night's bombing. #They have charged him with murder.

It has been argued that event sequencing is possible for an existential reading, as in 17a. However, 17b brings this into question:

- (17) a. I've left for work and then realized I'd forgotten my keys before.
  - b. #I've left for work and then I've realized I'd forgotten my keys before.

The sequencing in 17a is within the scope of the perfect operator. When it is distributed over the conjoined propositions the result is infelicitous. The inability to sequence perfect states cannot be a consequence of a more general restriction on sequencing states, since 18 is an acceptable sequence of states:

(18) He was running and then suddenly he was lying unconscious on the ground.

That event sequencing cannot be performed using the PrP is perhaps better explained as a result of the deictic nature of the perfect, equivalent to the impossibility of 19a in the spatial domain:

- (19) a. #You sit here and I'll sit here.
  - b. You and I can sit here.

The command in 19a is to be understood as being performed without repositioning or pointing to another location. Of course, a non-distributed deictic is possible, as in 19b.

The restriction given in 15 applies more generally than just to the sequencing of events. Michaelis argues that no construction involving presupposition will allow a PrP, including clefts and WH-questions. The sentences in 20 seem acceptable, so it cannot be the RPC per se which renders some clefts and WH-questions infelicitous:

- (20) a. Don't get so excited. It's MY watch he's found, not yours.
  - b. What have you found?

As a further example of WH-questions, consider this:

(21) Where have the police arrested the suspect?

The difficulty of such a sentence in a non-existential reading lies in conjuring up a scenario for which it would be appropriate. But consider a situation in which a reporter rushes to the scene of police activity and asks an observer 20 in order to be the first media person on the scene. In this case, the event has sufficient present relevance to allow a schematization selecting this proximal deictic construction.

Though the discussion has not excluded the possibility of idiomaticity attached to the PrP, there seems to be no convincing evidence to support claims made regarding non-componential meaning in this construction.

#### CONCLUSION

4. The English PrP is an aspectual form that is both componentially analyzable and polysemous, representing two distinct readings, each reflecting a different underlying cognitive representation. The perfect aspect can be componentially ascribed to the auxiliary in the PrP and remains formally identifiable even when combined with tense or other aspectual forms. But the PrP is also polysemous, representing two different aspectual distinctions, in Comrie's terms of differing 'internal structures' to an event. These are the iterative/discrete existential and the (non-existential) continuative readings, partaking of different values of the cognitive parameter of continuity. Cognitive schemata varying along the parameter plexity are not an alternative meaning of the PrP, but rather are a consequence of the lexical aspect of the sentence's verb, or of a formal component, the Progressive, conveying the continuous perfective meaning.

While I do not rule out the possibility of idiomaticity attaching to grammatical forms, there does not seem to be evidence that would necessitate such an analysis for either reading of the English PrP. Variation in function found language-internally or cross-linguistically may be explainable by appealing, once again, to lexical aspect, while previously identified idiomatic meanings seem better explained using the deictic nature of the perfect aspect.

The meaning of the PrP has been placed within an overarching aspectual system derived from cross-linguistic analysis, and it is interpreted through cognitive principles that apply in both the spatial and temporal domains. The parameters pertinent to the perfect aspect are deixis, plexity, and continuity, parameters which are also found to be grammaticalized in the spatial domain. This correspondence is a consequence of our metaphorical conceptualization of time in terms of space.

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