

## Research Article

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# The Present Perfect Puzzle in US-American English: an FDG Analysis

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**Abstract:** This paper examines the rare but well-attested combinations of the Present Perfect with definite temporal adverbials denoting past time in US-American English. The goal of this paper is twofold. For one thing, it outlines the disemous analysis FDG proposes for the form *have* + past participle in its prototypical use, arguing that two different operators can reliably trigger this form, one marking anteriority and one encoding phasal resultativeness. For another, it shows how, via synchronic inferential mechanisms, the Present Perfect may have absorbed discourse pragmatic functions that now permit the felicitous use of definite temporal adverbials together with the Present Perfect in certain contexts. It is argued that this combination has routinized, taking over certain functions typically associated with the Present Perfect in a manner that suggests this development as potentially part of a grammaticalization process. The paper proposes that they are not as such part of the function the Present Perfect encodes, but that they currently represent a switch stage in the development of the US-American Present Perfect. It further suggests that in this switch stage, the combination of the Present Perfect with an adverb specifying past reference can be read as signaling the relationship between two Discourse Acts as justificational or can encompass the temporal specification as a necessary part of the action that is then available for a Resultative reading.

**Keywords:** Present perfect, US-American English, Context-induced reinterpretation, Grammaticalization, Functional Discourse Grammar, tense, Adverbials of time

## 1 Introduction

In the rich literature on the English perfect, and the Present Perfect (PrP) in particular, Jespersen (1931: 61) was one of the first to look at this tense-aspect combination also in terms of the adverbials of time it can or cannot co-occur with, considering them an important element in a speaker's choice to use the PrP rather than another form. In his paper, Klein (1992) coined the memorable term “the Present Perfect Puzzle” for the apparent incompatibility of the English PrP with definite temporal adverbials (dtAdv) like *yesterday* or *last week*, in other words with those temporal adverbials that he classifies as “specify[ing] the position of a time span on the time axis” (1992: 528). From a semantic point of view, this restriction is indeed a puzzle; why should the PrP, which is clearly used for events that have occurred in the past, be incompatible with information on when in the past said event took place? Linguistic reality shows that this restriction clearly exists, however, and it is stressed as well as integrated into the respective theories they work with by Declerck (2006) and Klein (1992), as well as many others (e.g. Comrie 1976; Pancheva and Stechow 2004; Rothstein 2008).

In this, these authors are not completely unjustified, of course; in the clear majority of cases, the PrP is not anchored in time by means of dtAdv (such as, for example, *two days ago* or *in 1995*). However,

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researchers who have conducted corpus studies on the use of the PrP (e.g. Schlüter 2002; Hundt and Smith 2009; Werner 2014) have found that, while comparatively infrequent, such combinations do occur. Their stable presence is noted across time (e.g. Hundt and Smith 2009) as well as variety (Werner 2013) and genre. While quite a number of researchers therefore agree with Rastall's (1999: 81) assertion that, quite possibly, these combinations "are not 'errors' or the products of non-standard speakers", little headway has since been made regarding the circumstances that license these co-occurrences.

Interest in this matter is growing, however, especially where Australian English is concerned. Engel and Ritz (2000) propose a meaning extension for the Australian PrP, among other reasons because of the form's co-occurrence with dtAds. They initially based this proposal on their findings in spoken data, but Ritz (2010) has since been able to corroborate this, using written data from Australian police media reports. She concludes that, at least in narrative Australian English, the PrP can have two reference times, one of which is the point in time at which the event took place, which permits a variety of "inferred readings, such as mirative, indirective and evidential" (Ritz 2010: 3415), and thus is open to temporal modification by dtAdv<sub>s</sub>. Richard and Rodríguez Louro (2016) build on these findings and show that, quite surprisingly, it is rather older men who use the combination of PrP + dtAdv<sub>s</sub> in Australia, suggesting that this meaning extension is not a recent one, but rather a marginal but long-established phenomenon that has only recently caught linguists' interest.

Walker's conclusion on the use of the PrP, especially by British footballers (2008), initially followed a similar path. He proposed a narrative function for the PrP in British English that might have a long, understudied history (Walker 2011). While the narrative PrP itself does not function in combination with dtAdv<sub>s</sub>, it might then have served as a basis for analogy for PrP sentences with a dtAdv. Recently, however, he has called this into question, since he could find little evidence of its existence before the mid-nineteenth century (Walker 2017). He now tentatively concludes that it might represent an intermediate stage between the perfect and the aorist (Walker 2017: 35).

The present paper intends to add to this body of research by making a foray into a third variety, that of US-American English. The aim of the paper is twofold. First, it aims to contribute to the work in Functional Discourse Grammar by laying out an FDG analysis of the English PrP in its various uses, based on attested examples from the Corpus of Contemporary American English (COCA, Davies 1990–2015)<sup>1</sup>. In this, it underlines the clear difference between the Anterior operator and the Resultative operator, as the Anterior operator, expressing relative tense, can only apply to arrangements with multiple States-of-Affairs (SoA) within an Episode, whereas the Resultative operator, expressing phase, can also (and mainly does) act on a single Configurational Property. Second, the paper makes use of the different components and levels of FDG to offer an interpretation of the co-occurrence of the PrP form with dtAdv<sub>s</sub> in US-American English. Using Giomi's (2017) proposal, this paper shows how a stronger integration of the Contextual Component can help account for the context-induced reinterpretation of the PrP, which, in turn, opens the form up for modification by a dtAdv. A central suggestion put forth in this paper is that a distinction needs to be made between those cases where the dtAdv constitutes an integral bit of information for a successful interpretation of the utterance and those where it does not. In the case of the first group, the function that triggers the PrP interacts much more closely with the dtAdv<sub>s</sub>. This is especially typical for the many restrictive relative clauses found in the dataset. Where the dtAdv does not play such a role, two interpretations suggest themselves. Considering the change in function the 'have + past participle' form has undergone in other languages of the world (cf. e.g. Bybee et al. 1994; Hengeveld 2011; Gelderen 2011), a possible development towards a perfective gram (as defined by Bybee et al. 1994: 54), or a full past tense marker could in theory be proposed. The data set analyzed for this study, however, rather suggests that it might be the discourse-pragmatic inference (cf. Nishiyama and Koenig's "common sense entailment" [2006: 273]) that semantizes and allows the dtAdv modification in specific contexts.

<sup>1</sup> The COCA is a balanced corpus of contemporary US-American English consisting of roughly 20 million words from each year, evenly divided between the five genres it contains mark-up for, namely academic journals, newspapers, magazines, fictional texts and spoken language (for the most part from TV talk shows and radio programs), courteously provided online by Mark Davies and his team at Brigham Young University (BYU).

The article is organized as follows: After a brief sketch of previous work on the English PrP in Section 2, focusing on two linguistic phenomena that are particularly relevant for the present analysis – the functions of the English PrP, and, in combination with this, the role of adverbials – Section 3 lays out an analysis of the PrP within the framework of FDG. Particular attention is paid to the different functions with regard to the operators and modifiers at the respective layers. Section 4 then discusses the data that is at the heart of this paper, namely the COCA examples where speakers combine the PrP with dtAdvs. The data is categorized into two groups by the difference in contextual inference they allow for. Making use of Giomi's (2017) application of Heine's (2002) context-based model of grammaticalization, the internal make-up of these different groups of combinations of dtAdvs and the PrP is discussed. Section 5 concludes the article.

## 2 The English Present Perfect – a brief overview

An account of previous work conducted on the PrP must, by necessity, be selective; giving but a brief overview, Davydova alone named more than thirty different publications on this form in her 2011 monograph, and many have since been added to this impressive body of research (cf. e.g. Werner et al.'s "extensive – yet, in all probability, still not exhaustive – literature review of newer works" [2016: 7]). This section, therefore, limits itself to a discussion of the two elements most central to the following analysis, namely that of the number and kinds of functions that can be encoded using the PrP and the role played by the temporal adverbials in the clause.

Regarding the PrP's function, one central matter of contention is that of the number of different meanings the PrP has. For a table detailing ten different categorization schemes as well as their more than 30 different proponents, see Werner (2014: 72), who lists approaches ranging from as few as one central one (e.g. also Comrie 1976) to as many as five (e.g. Walker 2008). Those authors who postulate only one meaning for the PrP do not deny the versatile nature of the PrP, but rather refer to them as uses and relate them all back to one central function. Declerck, for example, clearly identifies one central underlying meaning, stating that "[t]he semantics of the Present Perfect is therefore: 'The situation time is located in the pre-present zone of the present time sphere'" (2006: 212), but at the same time also identifies four different 'readings' for the form. Other advocates of the monosemous view have selected one of various different senses as the central one. Palmer, for example, postulates that the superordinate meaning of the PrP is "that in some way or other [...] the action is relevant to something observable at the present" (1974: 50), similar to Comrie, who identifies "the continuing relevance of a past situation" (1976: 52) as the epitomical sense of the PrP.

These definitions hinge on an almost intuitive understanding of rather opaque concepts. The 'pre-present zone' is not clearly delineated from the past-zone by any other means than its being viewed as the time span stretching towards the moment of speech (Declerck 2006: 109) and thus defined in relationship to speech time, whereas, presumably, the past time-zone is not (Declerck 2006: 146–147). Declerck himself to an extent concedes this difficulty, and assigns the difference to the choice the speaker makes regarding "temporal focus" (Declerck 2006: 150).

This, Declerck (2006: 110) actually links to the other opaque concept to be addressed here, that of 'current relevance'. While, according to Werner (2014: 62), the notion of current relevance is one of the oldest and most prevalent meanings ascribed to the PrP, it has also repeatedly been questioned as a semantic principle due to its inherently subjective nature (e.g. Fleischmann 1983: 191–192; Binnick 1991: 382; Wynne 2000: 168). A case has been made for this notion to, in fact, be a pragmatic rather than a semantic one (e.g. Binnick 1991: 459; Rastall 1999: 83; Werner 2014: 65). Then, however, it becomes difficult to ascribe this to the PrP in particular. Presumably, on a pragmatic level, an addressee expects a speaker to adhere to Grice's Maxim of Relation and therefore assumes her "contribution to be appropriate to immediate needs at each stage of the transaction" (Grice 1975: 47) in any case (cf. also Harder 1997: 382 and Werner 2014: 64).

What has often been termed the "classic analysis" of the English PrP (e.g. Miller 2004: 230) is actually a four-way split of the PrP functions, as shown in (1), based on Comrie (1976: 56–61):

- (1) a. **Experiential Perfect**  
*Sara has danced here before.*
- b. **Perfect of Result**  
*You won't be able to see Sara. She has already danced.*
- c. **Perfect of Continuous/Persistent<sup>2</sup> Situation**  
*Sara has danced here for two years now.*
- d. **Perfect of Recent Past**  
*Sara has just danced.*

(1a), the “experiential perfect” is closely related to Declerck’s pre-present reading discussed above. (1b), the “perfect of result” constitutes a very prototypical instantiation of a current relevance (cf. also Elsness 1997: 68). The third function of the PrP, that of encoding that the situation referred to is a “persistent situation”, suggests that the described event or situation continues at speech point. Lastly, there is the rather self-explanatory “recent past”. This fourth type is listed here for completeness sake only; in US American English the Past Simple has largely replaced the PrP in these instances (cf. e.g. Panzner 1995: 146), which is why it will not receive any further attention in this paper.

While the different meanings encoded by the sentences in (1) a–d, and thus the different functions of the PrP, may appear obvious at first glance, a closer look calls this classic categorization into question. Note, for instance, that if one strips these sample sentences of their contextualizations and temporal adverbs, it would be very difficult to distinguish between these four meanings (cf. observations that go as far back as e.g. Crystal 1966).

Using the adverbs *ever* and *yet* for the Experiential and the Resultative function respectively, Miller (2000: 334–335) makes a similar point, and argues that “[t]he perfect construction in itself is vague and signals only that the speaker focuses on the consequences of some past action. The adverbs make it clear which interpretation is intended” (Miller 2000: 335). This is inarguably true for the sentences in (1) and any other such set of sentences provided in isolation and meant to illustrate different functions encoded by the PrP. At the same time, however, it clearly leaves something to be desired. While, indeed, a comparatively high percentage of sentences in the PrP include an adverbial of time,<sup>3</sup> the majority of them still does not. If addressees could not infer the meaning contribution of the PrP in these cases, this would be rather problematic from a communicative point of view.

The fact that temporal adverbials in general co-occur comparatively frequently with the PrP and their meaning contribution is perceived by some as essential to an understanding of a given PrP sentence, or overlapping with a central function of this form, can quite plausibly be accounted for within the framework of Construction Grammar. The frequent occurrences of certain adverbials in clauses containing the PrP can be argued to provide comparatively concrete lexical meanings that are then associated with the PrP to an extent that the PrP itself carries these meanings even without the lexical modifications present. What cannot be answered that way, however, is how many different constructions to postulate then, if it is frequent co-occurrence with certain lexical items, the meaning of which is adopted by the construction, that determines the senses of the PrP. There are more than four sets of such adverbials, many of which lend themselves to different readings because of their inherent ambiguity (cf. Quirk et al.’s [1985: 195] discussion of *I have seen him* once [my emphasis]), or because of the generally open interpretation of the function of the clause as a whole. A sentence like (2), for example, can be assigned either a Resultative or a Continuative meaning.

- (2) a. *I have always spoken out regarding my life experiences, women’s issues and the need to bring a faster and more decisive shift in the collective consciousness that will help bring about true women’s equality.*  
 (COCA, magazine)

<sup>2</sup> ‘Continuous’ and ‘Persistent’ will be used interchangeably throughout the paper.

<sup>3</sup> In his comparison of various corpus studies, Schlüter (2006: 143) demonstrates that there is some variation between corpora when it comes to temporal specification of the PrP, but that anything from 34% to 45% of the PrP sentences are modified by an adverbial, compared to only 2% of sentences in Past Simple.

Presumably, the state described, that of the speaker generally speaking out when it comes to his experiences, women's issues, and the need for social change still holds. However, at the same time there is an implied result. In this case, the speaker argues that he is an adamant advocate of women's rights and, therefore, would never lay a hand on a woman who did not give her consent to do so, which becomes clear when one considers the preceding co-text in (2b).

- (2) b. “[...] *Let me be crystal clear and very direct. Abusing women in any way shape or form violates the very core of my being,*” he said. *“I have always spoken out regarding my life experiences, women’s issues and the need to bring a faster and more decisive shift in the collective consciousness that will help bring about true women’s equality. [...]”* (COCA, magazine)

This clearly apparent overlap between senses, together with the fact that no formal differences can be described between the four classic readings, serves as basis for an analysis of the PrP in FDG that conflates the four meanings described by Comrie (1976: 65–61). Taking the restrictions regarding the use of the form as a basis for distinguishing between different senses, FDG arrives at a disemous description of the PrP, which will be discussed in the following section.

### 3 The English Present Perfect in FDG

So far, the English PrP as such has not received detailed attention in FDG. Being a textbook on FDG rather than a description of the English language, *A Functional Discourse Grammar for English* (Keizer 2015) mentions, but naturally does not discuss in any detail, how this form is triggered. On the Morphosyntactic Level (ML), the past participle affix in combination with the auxiliary *have* in Present Tense (and, thus, the PrP) is said to be triggered by the “absolute tense operator ‘present’ + phasal aspect operator ‘perfect’” (Keizer 2015: 238). Said phasal operator is described as “indicating the result or relevance of a SoA that started in the past” (Keizer 2015: 144).

While Hengeveld and Mackenzie (2008) also mention a phasal operator in this context, namely one called “Resultative” (Hengeveld and Mackenzie 2008: 211), they analyze the form *have heard* in the sentence *As for the students, they have heard the news already* in terms of “the auxiliary verb *have* [being] the expression of the operator Ant(erior) in the presence of a higher episodic tense operator Pres(ent)” (Hengeveld and Mackenzie 2008: 417). In part, this seems to actually correspond to their description of the Resultative Aspect, which they describe as the SoA “having happened before the reference point” (Hengeveld and Mackenzie 2008: 211), even if its name suggests a function similar to the phasal operator ‘Perfect’ described by Keizer. She, in turn, – while clearly not excluding an application to present Episodes – illustrates the relative tense operator ‘ant’ in connection with past Episodes only (Keizer 2015: 144; 238).<sup>4</sup>

Connolly on the other hand proposes that the phasal quality “[r]esultative, centered upon the retrospective phase of the event” (Connolly 2015: 7) is in fact mainly an issue of conceptualizing a SoA as such, an act that he assigns to what he calls the Conceptual Level (CL). In doing so, he takes the process of conceptualization, which in standard FDG is seen as prelinguistic in nature (cf. e.g. Hengeveld and Mackenzie 2008; Keizer 2015), to the linguistic plain. This conceptualization then, together with the overlap of the SoA in question with a point in time that is not the event time, leads to an insertion of the ‘ant’ operator on the Representational Level (RL), which then, in turn, brings about the morphosyntactic form of the PrP in the encoding process, according to Connolly (2015: 12–13).

The present section is dedicated to clarifying the FDG analysis of the English PrP by bringing together the various operators and modifiers that can be seen as playing a role in triggering the morphosyntactic form *have* + past participle in English (summarized in Table 1).

<sup>4</sup> This is not to say that she in any way suggests that the combination of a Present Tense operator on the level of the Episode with the Anterior operator on the level of a SoA would be unlikely. I do, however, find it indicative of the notion that, possibly, this combination, while natural from a typological point of view, might not come readily with English as the language of analysis in mind.

**Table 1.** Overview of operators, modifiers and discourse functions relevant in a discussion of the English PrP in FDG

REPRESENTATIONAL LEVEL				
LAYER	OPERATORS		MODIFIERS	
Episode (ep)	Absolute Tense:	present	Absolute Time:	<i>in 1993</i> (calendric)
				<i>now</i> (deictic)
SoA (e)	Relative Tense:	anterior	Relative Time:	<i>when ...</i> (non-deictic)
				<i>last X, yesterday, X ago</i>
	Phasal Polarity:	<sup>neg</sup> pos ( <i>already</i> ) <sup>neg</sup> pos ( <i>not yet</i> )	Quantification:	<i>before X, after X</i> <i>ever, never</i>
Configurational Property (f)	Duration:	continuous	Duration:	<i>since, for</i>
	Phasal Aspect:	resultative/perfect progressive	Frequency:	<i>once</i>

Its aim is to explicitly make a case for a two-way distinction in FDG when it comes to the uses of the PrP into the phasal operator ‘Resultative’ and the relative tense operator ‘Anterior’. This is done taking into account the ‘Principle of Formal Encoding’, in other words the FDG community’s commitment to only include those semantic and pragmatic distinctions in the model that are indeed reflected in the form of the language analyzed (cf. e.g. Keizer 2015: 15). To that end, each of the readings of the PrP discussed in the previous section is addressed separately, starting with the resultative reading, followed by the experiential one and finishing with the perfect of continuous/persistent situation. Special attention is again given to the different readings of the PrP and the presence, absence and kind of adverbial modification.

### 3.1 Perfect of Result

Most straightforward to describe, since it directly corresponds to the phasal operator, is the Perfect of Result. According to Schlüter (2002: 181), about 67% of the individual SoAs in PrP constructions that are not Perfects of Continuous/Persistent Situation, appear to explicitly encode resultativeness in the classic sense of the Resultative operator focusing on the inherent result of a SoA. Most naturally, this can be seen with Accomplishments and Changes, where the inherent conclusion of a telic situation is brought to the fore. A sentence like *She has died her hair* or *She has torn up the manuscript* have such clear results that these are easily recognized and foregrounded. So, within the entire situation that is described by the sentence, from, to take the first one, the woman applying die, washing it out, drying her hair, and eventually sporting a new hair color, it is the last step that is of interest. The phenomenon is not limited to telic situations with such clearly inherent results, however. In (3) we can see that there must be evidence for the atelic, uncontrolled, dynamic SoA *progress*, as can be seen from the use of *obviously*.

- (3) *Obviously her condition has progressed much faster than anyone expected. Unfortunately, one of the worst things has happened. The paralysis has affected her breathing muscles.* (COCA, MAG)

This evidence is further specified in the subsequent sentence. In atelic SoAs, the Resultative operator must therefore be able to affect more than just the steps that explicitly structure a SoA internally. It can not only zoom in on and foreground a step within the SoA but must also be able to bring to the discourse such results of the SoA as are only implicit. In fact, this is what seems to be the case for Experiential Perfects once their larger context is considered.

### 3.2 Experiential Perfect

From a functional point of view, the experiential PrP is rather opaque. Comrie (1976: 58), focusing on the form's semantics, states that an experiential Perfect "indicates that a given situation has held at least once during some time in the past leading up to the present". This is certainly true for (4), but equally holds for (5) as well, where the Past Simple is used instead of the PrP.

- (4) *Yet even though China's leaders struggle to rationalize a conflicted policy, it would be wrong to conclude that yuan internationalization is doomed. After all, China has managed such contradictions successfully before.* (COCA, academic)
- (5) *In 1971, McDowell and Richard and Mary Woodward started the Woodward and McDowell political consulting firm in Burlingame. They managed many of the state's best-known campaigns, including defeat of a pay limits proposition, creation of the California lottery, election of Sen. S.I. Hayakawa and the re-election of Gov. Ronald Reagan.* (COCA, news)

It is, therefore, difficult to say what functionality an experiential PrP in that sense might have, i.e. what it is that triggers the morphosyntactic form PrP. The example sentences used to illustrate this reading, like the one in (6) typically involve frequency modification, which is located at the layer of the Configurational Property.

- (6) *Harry has visited twice this week* (Michaelis 1998: 115; my emphasis)<sup>5</sup>

This would suggest that the corresponding operator should also be found there as well. Looking at the co-text of such uses of the PrP in the COCA supports this notion. Clauses that include the PrP as well as a frequency modifier tend to follow a pattern similar to the one in (7).

- (7) *Toms has won twice this year and would be a prime Player of the Year candidate with a victory this week at Oak Hill.* (COCA, news)

While it is not the final step within the SoA that is foregrounded and marked as relevant for the addressee, the fact that this particular SoA has come to pass twice is important for the interaction. The two previous winnings set the player named Tom up for the Player of the Year award. The connection in Existential Readings might not be quite as strong as in those typically classified as Resultative. In (3) in the previous section, the direct result of the SoA, the paralyzed breathing muscles, was relevant for the situation (in this case medical interventions). The difference to the examples of Experiential Perfects is minor, though. While in (4) the SoA that took place at some point in the past might not have had a tangible direct result that can be highlighted, it is the fact that China has managed to deal with such situations that is foregrounded.

For Comrie (1976) of course, this reading constitutes a subtype of the PrP, subordinate to the overarching notion of current relevance. The notion of a phasal operator that, as Hengeveld and Mackenzie (2008: 210) put it, "indicate[s] the relation between the temporal reference point and a phase within the development of a State-of-Affairs" can be applied in a somewhat similar way as with resultative readings; the result that is relevant at the temporal reference point is not the direct result of the SoA but the result of the past existence of the SoA itself and the implications thereof. With prototypical examples, this distinction is small, and no difference in the syntactic behavior of these two reading can be detected. Therefore, at this point, employing the phasal operator 'Resultative' for this group of PrP sentences is the logical choice and true to the Principle of Formal Encoding.

<sup>5</sup> Michaelis (1998), as well as others call this reading "Existential" rather than 'Experiential'. Following Werner (2014: 72), this is seen as a difference in terminology rather than in reference.

### 3.3 Perfect of Continuous/Persistent Situation

According to Schlüter (2002: 197), about half of the PrP constructions of persistence in US American English contain non-dynamic SoAs. This, in and of itself, is noteworthy. If a speaker wants to code that a non-dynamic SoA persists at speech time, it would be sufficient to use the present simple. If one considers, for example, sentences (8a) and (8b), it is (8a) that invites a continuous interpretation; (8b) is, at best, ambivalent regarding a state persisting at speech time (cf. also Nishiyama and Koenig 2006: 267).

- (8) a. *His family lives in North Carolina*  
 b. *His family has lived in North Carolina.*  
 c. *His family has lived in North Carolina for eight generations, as has Aiken for most of his life.* (COCA, magazine)

What makes a persistence reading likely is a modification of such a combination by a temporal adverbial indicating duration, as can be seen in (8c). According to Schlüter, about two thirds of the PrPs with a non-dynamic SoA that he classified as continuative are modified by an adverbial of time (Schlüter 2002: 254).<sup>6</sup> Neither the non-dynamic SoA nor the modification by a temporal adverbial indicating duration is a guarantee for a Perfect of Persistent Situation however. If one considers the context in (9), one can clearly see that Garcia no longer lives in another part of Atlanta, but has moved back to the neighborhood where she used to live, namely the one which resembles a small Mexican pueblo. The time living elsewhere has changed her; she now perceives the men living in her old neighborhood as “hard headed”, so the result is still present, but her time in a part of Atlanta other than her current place of residence is clearly over.

- (9) *A Mexican market opened three years ago, called ‘The San Marca’, to serve them. Garcia came to the United States when she was 11, lived in the neighborhood, went to high school in Atlanta and now speaks perfect English. She has lived in other parts of Atlanta for several years and is a few steps removed from the ways of a small Mexican pueblo. She complains that the men living in the apartments are “hard-headed.” “You won’t make them change their minds,” Garcia said.* (COCA, newspaper)

It might, therefore, be more accurate to talk about a durational reading. This duration, however, is not brought to the sentence by the PrP but by the durational modifier *for several years*, or possibly in part by the non-dynamic nature of the SoA. Unfortunately, Schlüter does not provide an example for the 50 sentences he has found that show predications including a non-dynamic SoA without a durational modifier, something that is borne out by the data of the present study as well.

The few examples from the small control corpus of prototypical PrPs compiled for the present paper fall into two groups, those of restrictive relative clauses, many of which in fact also get their durational element from co-textual elements such as the *years of deprivation* in (10)<sup>7</sup> and those like (11) that, in essence, could be classified as resultatives if one takes into account the co-textual elements surrounding the SoA in question.

- (10) *Cuba’s fate will be decided by those who have stayed in Cuba and suffered years of deprivation, hunger, abuse, imprisonment and humiliation at Castro’s hands.* (COCA, newspaper)
- (11) *Becoming Spanish of Basque origins is exactly what the Basques in Spain have been resisting for generations. They are not immigrants, they have stayed home, why should they not on their own ground be a nation as well as a culture?* (COCA, academic)

<sup>6</sup> Schlüter does not exclude dtAdvs from his study, so the percentages provided here do include both those adverbial specifications that one would typically expect in combination with the PrP, like, for example, *for two years* or *since 1999*, and those that specify a point or stretch of time in the past, like *two years ago*, or *in 1999*. In general, however, it can be said that, for the most part, it is the expected temporal adverbials he refers to. Only 3% of the temporal adverbial specifications he found are classified as anchoring a situation in time at a point before the point of speech (Schlüter 2002: 236). This small fraction has little bearing on the numbers he provides.

<sup>7</sup> Many thanks to the anonymous reviewer who has pointed this out.



The same holds for those PrPs with a Continuous reading that include a dynamic SoA and do not fall into the 70% that are accompanied by a durational modifier found by Schlüter (2002: 253). They do occur, as can be seen in example (12). The talk show *Larry King Live* is still running at speech time. Elizabeth Smart is, presumably, still doing great in Larry King's eyes.

- (12) KING: *And, Ed, did you have any qualms about asking Elizabeth to come on here tonight?*  
 ED-SMART: *You know, Elizabeth doesn't like to deal with the media and ...*  
 KING: *She's done great.*  
 ED-SMART: *She has. She is wonderful and I am so proud of her.* (COCA, spoken)

However, persistence does not seem to be the main point. A resultative interpretation, where Elizabeth's apparent ease in the situation justifies that it was okay to ask her to be in a radio show seems more likely. If the speakers wanted to put emphasis on the fact that Elizabeth indeed continues to do great at that point, opting for the Present Progressive might suggest itself as the more natural choice. *She is doing great* would make clear that it is ongoingness that is encoded, and so would *She has been doing great*. Indeed, Schlüter's analysis shows that in about a third of the continuative readings with a dynamic SoA, a progressive form is used (Schlüter 2002: 197), suggesting that ongoingness is encoded via the phasal operator 'Progressive'.

It follows, then, that, while a large number of sentences in the PrP indeed refer to a situation that holds at speech time, this does not seem to be what triggers the combination of the auxiliary *have* and a past participle on the Morphosyntactic Level. Durational modifiers or the phasal operator 'Progressive' are largely responsible in formulating and encoding the notion of persistence. There is, however, a result that becomes available for the discourse situation. This result is not marked in any other way. The PrP form of 'do great', is an atelic action, which does not, as such have a direct result that can be foregrounded in the prototypical manner of a phasal aspect, nevertheless stresses that there indeed is a result of this 'doing great'. So, even in these cases the most straight-forward analysis is that the PrP is triggered by the operator 'Resultative'.

### 3.4 Summary of the classical readings in FDG

At the lowest layers on the RL we have seen that, in the majority of cases, the notion of continuity associated with the PrP appears to be encoded not via the PrP but through durational adverbials triggered by duration modifiers or by the phasal operator 'Progressive', expressed by '*be + V-ing*.' The phasal operator 'Resultative' on the other hand does appear to reliably trigger the PrP construction and can be said to account for the instances of the reading called the Perfect of Result in that the final step in telic SoAs and the immediate result of atelic ones is foregrounded. A similar analysis holds for the Experiential PrP as well. The following section moves up one layer, addressing the role of a PrP form if the SoA in question forms part of a larger Episode.

### 3.5 Relative tense

So far, the morphosyntactic form auxiliary *have* + past participle has been considered in terms of its representation at the layer of the SoA and the Configurational Property. Returning to the notion of the PrP as signaling that a SoA has taken place in the 'pre-present zone' discussed in Section 2, as well as to Hengeveld and Mackenzie's (2008: 417) analysis of *they have heard the news already* as being triggered by a combination of the two operators relative tense 'Anterior' and absolute tense 'Present', this section now looks at the next-higher layer, that of the Episode. It will be argued that the notion of a SoA-organizing relative tense operator 'Anterior' does apply to the English PrP independent of the operator 'Resultative' discussed so far, so, pace Connolly (2015) a difference between these two operators needs to be made.

Hengeveld and Mackenzie (2008: 157) define an Episode as "one or more States-of-Affairs that are thematically coherent, in the sense that they show unity or continuity of Time (t), Location (l), and

Individuals (x)". At this layer, the absolute temporal location of all SoAs that fall within this Episode is determined; therefore both operators and modifiers specifying absolute time have scope over all the SoAs within the Episode.

Presumably, the Episode containing the PrP must have a Present Tense operator. Only this can trigger the Present Tense inflection of the auxiliary verb *have* in English. If this Episode contains more than one SoA, and there is one that took place at an earlier point than the other(s), then it is the operator 'Anterior' that triggers *have* + past participle on the Morphosyntactic Level. In this case, the PrP can be seen as analogous to the English Past Perfect, as illustrated in (13) and (14).

(13) *After she has laid the receiver in its cradle, Dedi goes on elaborating the root system of her anacahuíta tree, shading the branches, and then for the fun of it, opening and closing the flap of the envelope.* (COCA, fiction)

(14) *After she had thought for a moment, and after she had given up trying to release her hand from his grasp, Yvonne began to walk, half 'before him' and half 'behind him'.* (COCA, fiction)

(13) is clearly different from the examples discussed in previous sections. There is a relative temporal relationship between the SoA in PrP and the other SoAs, but no result of the act of 'laying the receiver in its cradle' is foregrounded. While in the example sentences in previous sections, SoAs did not typically show a unity of Time or Location with any other SoA, here this necessarily is the case. The PrP here must be presented together with SoAs in Present Tense that are part of the same Episode, and are typically modified by relative tense modifiers, since it serves a different function here, that of establishing the sequence of events.

## 4 An analysis of Present Perfect sentences with time-specifying adverbials

If one takes into account the discussion in the previous section, the restriction on the combinability of the PrP with dtAdv (the "Present Perfect Puzzle") does not come as a surprise. The PrP can be triggered by the Anterior operator. Then the SoA, while anterior to some other SoA, falls within the time-span of the Episode, which takes place in the present. This allows for modifiers of relative, but not absolute time. The other operator that triggers the PrP, the phasal operator 'Resultative', foregrounds results and consequences that hold at the moment of speech. If these are emphasized, then temporal specification of the situation that has brought them about does not suggest itself (cf. e.g. Mittwoch 2014: 228-229). Instead, modifiers at the layer of the Configurational Property can be expected.

Understandably, then, the use of time-specific adverbials in combination with the PrP occur so rarely that several linguists perceive it as a constraint on the use of the PrP (e.g. Dahl 1985; Klein 1992; Portner 2003; Elsness 2009, to name but a few). At the same time, researchers conducting large-scale corpus studies on the PrP (e.g. Schlüter 2002; Hundt and Smith 2009) do find these co-occurrences with a frequency and consistency that has led quite a number of researchers (e.g. Harder 1997: 417; Rastall 1999: 81; Miller 2004: 235) to state explicitly that they consider these combinations felicitous, and to propose analyses of these co-occurrences.

One's first interpretation of such a co-occurrence of dtAdv and the PrP might be that the PrP in US-American English follows the development the form has taken in other languages, such as German and Dutch, and is developing into a periphrastic form signaling full past tense. Indeed, many authors (e.g. Rothstein 2008; Walker 2017; Werner 2017) have remarked upon the typological oddity English represents in this respect. That English should now succumb to this 'aoristic drift', to use Squartini and Bertinetto's (2000: 404) term, would not come as a surprise. Investigations such as Walker's (2017) into the Old Bailey Corpus point towards such a development, at least to the respect that the narrative uses of the PrP he has investigated in this study do not appear to occur sufficiently frequent in the Old Bailey Corpus.

At the same time, his earlier work (Walker 2011) indicates the opposite to be true. Looking at the genre restrictions and the regional distribution of the form, Walker tentatively concluded at that time that what

we might be “witnessing is a much older state of affairs which is only now coming to light” (Walker 2011: 83). That we find narrative uses of the PrP even in the lyrics of folk songs from the 1800s (Walker 2017: 29–30) rather gives weight to his previous interpretation of the phenomenon. In light of this, but especially because in US-American English the PrP is not increasing in proportion to the Past Simple (cf. e.g. Hundt and Smith 2009; Yao 2015: 255), the notion that what we are witnessing is a general shift along the aspect cycle is rejected pending further evidence.

Alternative proposals, like, for example, that by Miller (2004: 235) suggest that “[w]hen speakers refer to an event in the past they are under pragmatic pressure to enable listeners to locate the event accurately in past time. This is achieved by producing an appropriate adverb referring to a specific past time”. Werner (2017: 78) supports this view, describing it as one possible interpretation presenting itself in light of the data.

Taking into account that, as Giomi puts it, a “basic assumption of functional linguistics is that a language is first and foremost a social tool and, as such, is shaped in the first place by the ever-changing communicative needs and strategies that arise among the community of its speakers” (Giomi 2017: 40), a functional theory must then also be able to account for speakers’ responses to such pragmatic pressure, especially if these license new forms within a given language. FDG can, indeed do that by virtue of its integration of the context a given utterance is used in into the model. Using Heine’s (2002) description of context-induced reinterpretation, Giomi has outlined how FDG can successfully model different stages of grammaticalization, from bridging contexts via what Heine (2002: 83) “calls the “switch context stage” to conventionalization, which is summarized in brief in the following section. He proposes a process in which the combination of the construction’s meaning and the relevant shared information, which can be “context-situational, co-textual and/or encyclopedic in nature” (Giomi 2017: 50), is modeled via the interaction between the Grammatical and the Contextual Component.

#### 4.1 A model of meaning change in FDG

According to Giomi “grammaticalization is triggered by the conventionalization (or ‘semanticization’) of a pragmatic inference” (Giomi 2017: 46), which he links back to Grice’s (1975: 58) statement “that conversational implicatures may ‘become conventionalized’”. What happens is that “an alternative, more contextually relevant meaning is thus foregrounded by means of an inference and the construction is reinterpreted” (Giomi 2017: 51).

At this point, though, the underlying representation is still that of the source meaning, while in the Contextual Component, as Giomi proposes, it is the new meaning “that represents the actual contribution of the construction to the shared common ground” (Giomi 2017: 51). Encyclopedic, co-textual or, indeed, contextual information leads to this contextual reinterpretation that is, at that point, not part of the grammatical component. The reanalysis can have an effect on the representation of the structure in the Contextual Component. In this first stage of language change, the bridging context, neither the information on the function, nor the consequent new representation enters the Grammatical Component.

Once an utterance is produced that can only be read in light of the target meaning, this interpretation and the new underlying representation enter the Grammatical Component (Giomi 2017: 54). In the switch context stage, however, the new meaning still depends on a certain kind of context for it to be available. As soon as the form can be used with the new meaning in a context that would usually have favored the source meaning, explicit influence on the inference process in the Contextual Component is no longer necessary; the target meaning has conventionalized and has thus become part of the Grammatical Component (Giomi 2017: 63).

The implication of this for the present analysis is, first and foremost, that any change in meaning needs to be motivated by an implicature that is present in the context a construction is used in. In order to examine this, 100 randomly selected sample sentences from the COCA (stratified in terms of genre and Aktionsart) were extracted and analyzed in terms of their similarities to the patterns described in 4.2. Secondly, there can be different stages of conventionalization for a construction. The fact that the PrP together with dtAdv

still strikes native speakers as decidedly odd if such a sentence is presented to them in isolation suggests that this combination has not conventionalized; after all, it cannot (yet) be used context-independently. On the other hand, it is produced by native speakers in certain contexts, and the very fact that a dtAdv is present excludes a reading of the form as phasal with the final phase that is foregrounded holding at speech time, so a case is made in the following sections that the PrP together with dtAdv may represent a switch context stage for the PrP, where the Contextual Component still plays a large role in the successful interpretation of the utterance.

## 4.2 The Dataset

For the present study, a data set of 497 co-occurrences of the PrP and a dtAdv in the COCA was compiled by automatically isolating all the declarative sentences that include the finite auxiliary verb *have* followed by a past participle no more than four words away, using the BYU search interface. In the interest of eliminating overlapping influences, instances of the Present Perfect Progressive were excluded automatically. The resultant list was then further reduced to those examples that included one of the following dtAdv typically said to not combine with the PrP *ago* / *yesterday* / *last*+part-of-year / *before*+event-in-the-past / *in*+cardinal number / *as far back as*+cardinal number (cf. e.g. McCoard 1978: 135; Declerck 2006: 593), no further than eight words away from the past participle. 500 random integers were generated using the random number generator function in R (R Core Team 2015), corresponding to example sentence numbers in the list. These examples were manually sorted through, in order to ensure that the PrP and the dtAdv were indeed part of the same clause. Examples by non-native speakers or deliberately distorted texts (like the fictional variety of English produced by an alien species), as far as this could be determined from the example sentence itself, were excluded this way as well. For each example sentence that did not meet these criteria, a new random number was generated. The aim was not to draw an exhaustive sample of dtAdv+PrP-constructions from the COCA, but to find a sufficient number of them to be able to describe possible patterns they occur in. Therefore, only a small number of Adv prototypically associated with the Past Simple has been used in the search. Three example sentences were only found to be unsuitable at a later stage, resulting in the somewhat unusual number of 497 total example sentences. Table 2 provides an overview of the text passages that make up the data base.

**Table 2.** Overview of database of non-prototypical Present Perfect constructions isolated from the COCA

dtAdv	Examples	total	spoken	written	news
absolute dtAdv	<i>yesterday</i>	318	231	57	30
calendric dtAdv	<i>in 1998</i>	99	14	57	28
relative Adv + specification	<i>before dinner</i>	80	29	35	16
total		497	274	149	74

What can be seen here is that, clearly, the combinations of the PrP and dtAdv occur most frequently in spoken discourse, especially if one takes into account that the genre “News” is also, at least in part, characterized by spoken utterances. This is unsurprising, as this is where one would expect a form that prescriptively is certainly discouraged. The same can be said, if this should eventually be identified as a first instance of language change. It is, however, also obvious that this combination of PrP and dtAdv is not only a characteristic of spoken language. Texts from all genres include these combinations, as well as a number of academic texts.

What should not be inferred from Table 2 is that absolute dtAdv are far more common in such a setting than calendric or other kinds of dtAdv. The difference in frequency between the adverbial types must largely be ascribed to the nature of the search parameters the COCA interface permits. Since for all dtAdv except for *yesterday* and *ago* sets of NPs (like *last* + *Monday/Tuesday/week/...*) had to be entered to find the relevant instances, many other instances of such a specification will not have been found. Since the

aim was to arrive at a set that was large enough to be analyzed in terms of grammatical patterns rather than an exhaustive list that would permit a quantitative analysis, this limitation was deemed acceptable. Consequently, however, no quantitative claims will be made in this paper.

In addition to this data set, a second set of sentences was extracted from the COCA, consisting of 100 uses of the PrP, balanced in Aktionsart and genre, that are not modified by a dtAdv. This set served as source for conversational implicatures that might be open to entering the process of grammaticalization. Two patterns that have emerged in both sets will be described in the following section.

### 4.3 Data description

Before relating two of the most prominent patterns in the PrP + dtAdv data set to the conversational implicatures found in examples from the second data set, the two patterns are here described in isolation.

#### 4.3.1 Reference identification pattern

One grouping made within the data set again underlines the notion of a relevant result, but this result is relevant in a different manner, namely when it comes to accurately identifying a referent. These come to a large extent in the form of restrictive relative clauses, like in (15).

(15) *With Iran's refineries uninterested in producing gasoline for such meager prices, the Iranian government is now forced to rely on imports. Those importers who have already built up their supply lines in 2006 are now the only companies that still look at comparatively stable revenue.* (COCA, academic)

It is only those importers who now have supply lines built up – because they did built them up early, already in 2006 – that are selected as referents in this sentence. Again, both the current result and the point in time at which this result was brought about are relevant for the discourse, in this case for a successful identification of the intended referent set.

#### 4.3.2 Justification pattern

More than half of the data examined are paragraphs in which the SoA in the PrP justifies another part of the discourse. What exactly is justified, however, differs between the examples. In (16), for example, the speaker's action of uttering an apologetic formula is justified by the following discourse act, as if in answer to the question why the speaker is making this apologetic statement.

(16) *I have some very bad news for you, sir. I'm terrible sorry to have to tell you this, but Monsieur Kane has passed away almost two weeks ago.* (COCA, fiction)

That the actual production of a Discourse Act is justified is comparatively rare, though. A more common pattern among the set of examples classified as Justifications is that where the speaker justifies his or her opinion regarding the truth of a statement via such a Discourse Act. (17) is an example of this group.

(17) *Newly elected Senate President Bill Rodmorow, a Colorado Springs Republican who was very influential during the 2013 gun control debate, said it is much too early to tell how the session will turn out. But he is optimistic that he can at least keep the peace during the session, as he is a man who has successfully played the role of mediator in November 2008 during the elections and feels this is not much different. "Also, I have five children," he adds with a grin.* (COCA, newspaper)

It is a specific event in the past that serves as Justification for the Senate President's optimism regarding his ability to keep the peace. This instance is used as evidence, as it were.

The dataset includes quite a number of examples that, as Hannay and Keizer (2005: 174) put it, function to "explain why the state of affairs expressed in the matrix prediction holds". This type of Justification (Just<sup>8</sup>) is illustrated in (18). Because the male figure in this text has already left, the second cup of coffee is for the French secretary.

(18) *"C'est pour Monsieur?" Nanon said, glancing at the second cup." Oh," said Madame Fortier. "He has gone to the terraces, long ago. The second coffee is yours, my dear."* (COCA, fiction)

This connection between the two Discourse Acts is not made explicit, except through the PrP, which indicates that it is the result of Monsieur's leaving that is important, and that from this an inference can be made. This inference takes the form of the second Discourse Act.

There are also a number of example sentences that justify a speaker's assertion that a certain entity is assigned a property by the speaker, as can be seen in (19).

(19) *It's a great program. We have expanded Medicaid here twenty years ago. And for twenty years every child in Vermont has been eligible for health insurance.* (COCA, spoken)

In this context, the speaker assigns the program the property of being *great*. In order to justify the claim, the speaker needs to emphasize the relevance of the expansion at speech time as well as provide a description of the situation forming the basis of their claim (including a specification of when it happened). Had they only expanded Medicaid recently, the program could probably not have had a major effect yet.

While these example sentences might seem very different at first glance, each of them has a co-textual element that is clearly justified by the SoA in PrP, a similarity that is illustrated in Figure 1.

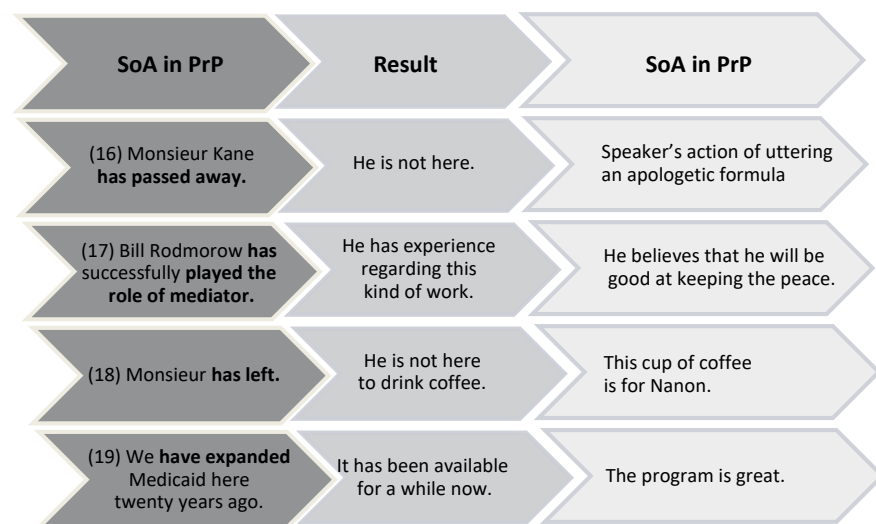


Figure 1. Parallels between examples of different Justifications

<sup>8</sup> In their 2005 paper, Hannay and Keizer use the symbol 'Rel' for this operator. Since, in the context of the PrP, this might be misleading, suggesting terms like 'relevance' or 'relative', 'Just' is suggested here instead. In the following, it will be used to indicate where the PrP appears to be used because the speaker wishes to mark that an Episode that took place in the past is used to justify a piece of discourse at speech time.

## 4.4 Data Analysis and Discussion

An analysis of what characterizes the groups laid out in Section 4.3 must be true to two commitments: it has to account for the similarities in function the patterns show, and it has to resolve the clash of having both an absolute time operator ‘Present’ triggering the Present Tense form of ‘have’, and an absolute time modifier that signals pastness. At the same time an adequate analysis also needs to be in line with the patterns of language change observed in other languages, and adhere to the principles a change in meaning is generally assumed to follow. One such principle there appears to be a consensus on is that if there is grammaticalization, this tends to come in the form of a scope-widening process, so, a move upward in layers or levels (cf. e.g. Gelderen 2011; Hengeveld 2011). Giomi (2017) shows that such scope-widening can adequately be sketched using FDG.

### 4.4.1 Reference identification

The parallels between the group classified as reference identifications and a conversational implicature in prototypical PrP examples is not difficult to pinpoint, especially since the pragmatic motivation behind such a use is fairly clear. In sentences like (15a), reproduced from Section 4.3.1, two things happen at the same time.

- (15) a. *With Iran’s refineries uninterested in producing gasoline for such meager prices, the Iranian government is now forced to rely on imports. Those importers who have already built up their supply lines in 2006 are now the only companies that still look at comparatively stable revenue.* (COCA, academic)

There is a clear result of the action in the past. The companies look at comparatively stable revenue. This result, however, could only have come to pass because of the point in time at which the action was taken. If a temporal specification is necessary for this result – like in this case, where different regulations apply to those companies who might have supply lines but built them up later – then it can be provided.

A more accessible example might be provided by the two different readings of the same sentence in (20).

- (20) a. *I have run around the stadium twice. I know what it looks like.*  
 b. *I have run around the stadium twice. Now the race is done and I can go home.*

In (20a) the frequency modifier *twice* might strengthen the immediate result of having run around the stadium, but the result need not depend on this modification. In (20b) the result is only there if the stadium has been circled twice, it is thus intrinsically necessary for the correct resultative reading that the modifier is present. If *twice* were to be left out, the Episode would not constitute grounds for the unit that follows. Only the result of the two laps has a resultative link to the race being done. This kind of very specific situation appears to be open for an analogy that includes a dtAdv, serving as a bridging context for a construction where modification takes place at a higher layer. The reanalysis that must take place in such a situation is that there is a result that is available in the discourse, but that this result does not come solely from the final phase of a SoA, but also from additional modification thereof.

A representation for such a sentence, representing a switch context stage, would therefore not include a Resultative operator (res) at the layer of the Configurational Property. After all, such an operator would not have scope over the temporal adverbial at the layer of the Episode that is crucial for the distinction between the possible results that have an effect on the Individual. This is the kind of relationship between the Episode, the result and the ascription that has been demonstrated in (15). The dtAdv *in 2006* cannot be left out if one is to arrive at the group of importers the speaker is referring to.

The function of the relative clause is to modify the individual, as illustrated in (15c)

- (15) b. *those importers who have already built up their supply lines in 2006*  
 c. (m dist  $x_i$ : [( $f_i$ : importer<sub>N</sub> ( $f_i$ )) ( $x_i$ )<sub>φ</sub>]: (res ep<sub>i</sub>: (<sup>neg</sup>pos e<sub>i</sub>: [( $f_i^c$ : [( $f_j$ : build-up<sub>V</sub> ( $f_j$ )) ( $x_i$ )<sub>A</sub> (m  $x_j$ : ( $f_k$ : supply lines<sub>N</sub>: ( $f_k$ )): ( $x_i$ )<sub>Ass</sub> ( $x_j$ )<sub>U</sub>] ( $f_i^c$ )) ( $e_i$ )<sub>φ</sub>] (ep<sub>i</sub>: ( $t_i$ : – in 2006 – ( $t_i$ )) (ep<sub>i</sub>)))

That the PrP has such an effect on the individual is, for example, illustrated by Dik (1989: 190), who explains the semantic interpretation of *John has cried* as John having a certain set of properties now that permit the conclusion that at a specific point in time previously John cried. In (15), the Episode modifying the Individual  $x_i$  in such a way is in turn modified: the absolute point in time at which it took place is provided. Since this is a modifier that cannot interact with a present operator, no such operator of absolute tense is included in the representation of ep<sub>i</sub>. Instead, the Resultative operator at the layer of the episode triggers the form *have* + past participle for the entire episode, which can be modified in terms of the time it took place.

#### 4.4.2 Justifications

In the small sample of PrP uses without dtAdv modification, a surprisingly large number could be classified as a Justification of one kind or another. For instance, returning to example (4), (reproduced here for convenience) one could say that the speaker justifies her claim that it would be wrong to conclude that yuan internationalization is doomed by making explicit that China has previously dealt successfully with similar situations.

- (4) *Yet even though China's leaders struggle to rationalize a conflicted policy, it would be wrong to conclude that yuan internationalization is doomed* (nuclear Discourse Act). *After all, China has managed such contradictions successfully before* (justification Discourse Act). (COCA, academic)

- (4) can therefore feasibly be classified as a Propositional Justification.

Such an analysis on the Interpersonal Level would also shed light on what triggers the PrP in some of those example sentences that are typically classified as Perfect of Persistent Situation. In example (11) (again reproduced) a similar relationship holds.

- (11) *Becoming Spanish of Basque origins is exactly what the Basques in Spain have been resisting for generations. They are not immigrants* (nuclear Discourse Act), *they have stayed home* (justification Discourse Act), *why should they not on their own ground be a nation as well as a culture?* (COCA, academic)

Here the speaker makes a case for a difference between Basques and immigrants. People who have moved to Spain from France would be Spanish of French origin. People who originally came from Egypt would be Spanish of Arabic origin. The Basques have not moved to Spain, they have been there for centuries. The ascription of the feature *not immigrants* to *they* is justified by the Discourse Act stating that *they have stayed home* (rather than moved there).

In the example set (21), (21a) also illustrates such a continuative reading. When it says that *his lions will be dependent on him for the rest of their lives. They have all known him since they were a few months old* it does not seem to be the continuous knowing that triggers the PrP. Other alternative events occurring wholly in the past, like the imagined continuation *They have gotten used to being fed* would be expected to trigger the PrP as well, if their purpose is to support and justify the previous discourse act. Similarly, one can argue that in (21b) the low number of high school graduates justifies the Discourse Act *The shift will not be as simple as filing resumes and answering want ads* and that in (21c) Roberta's moment of learning supports her choice to say *Please, doctor*.



- (21) a. *He says that if cub petting and canned hunting were stopped immediately, he would give up all of his lions. He means this as a way to illustrate his commitment to abolishing the practices rather than it being an actual possibility [...] [I]n reality his lions will be dependent on him for the rest of their lives* (nuclear Discourse Act). *They have all known him since they were a few months old* (justification Discourse Act). *But now most of them are middle-aged or elderly.* (COCA, magazine)
- b. *The shift will not be as simple as filing resumes and answering want ads* (nuclear Discourse Act). *Ninety-four percent of Colorado's adult AFDC recipients are women, and 80 percent of recipients are single parents. Only about half the recipients have finished high school* (justification Discourse Act). *The average welfare parent has two children, and statewide, 39 percent of those kids are under age 5.* (COCA, newspaper)
- c. *Dr. Zhang drops Roberta's folder into a wire basket [...] and calls through the intercom for her next patient. Then she sneezes again. "Please, doctor* (nuclear Discourse Act),*" says Roberta. She has learned long ago that addressing all health professionals as 'doctor' – even dental hygienists – makes them feel important and thus generous* (justification Discourse Act). *"I'm not here on a prank."* (COCA, academic [fictional])

Even Schlüter's (2002: 198) proposal of a PrP of persistent situation, can be analyzed along these lines:

- (22) *We've all been rich and spoiled long enough* <sub>Just</sub> *to hate the machine age* (nuclear Discourse Act). (Brown-University Corpus)

The adverbial *long enough* can be seen as constituting a part of the SoA, and it is the entire predication that serves as Justification for the propositional content of the dependent clause. All of these PrPs could, in theory, have been triggered by a frame like (23):

- (23) IL: (M<sub>1</sub>: [(A<sub>1</sub>)<sub>Just</sub> (A<sub>2</sub>)](M<sub>1</sub>))

This connection is so common a pattern that Nishiyama and Koenig (2006: 273) list it as one of their three default inference patterns of the PrP:

Authors sometimes use the perfect to indicate that the occurrence of an event provides evidence or an explanation for the truth of a claim she made or will make. The value of X in these cases is the state description conveyed by a clause that preceded or followed the sentence containing the perfect.

In their work on appositions, Hannay and Keizer (2005) describe six different types of Justifications, almost all of which can be found frequently in the database of constructions that include the PrP and dtAdvS compiled for this study. Examples (16–19) from Section 4.3.2 illustrate four of these types.

Speech Act Justifications, i.e. Discourse Acts whose function it is to serve as Justification for another Discourse Act (cf. Hannay and Keizer 2005: 174), are what we find in example (16).

- (16) *I have some very bad news for you, sir. I'm terrible sorry to have to tell you this, but Monsieur Kane has passed away almost two weeks ago.* (COCA, fiction)

A Discourse Act, to use Hannay and Keizer's (2005: 174) words, can also "explain why the speaker thinks something to be true, false, probable, etc., or [...] adduce evidence for the truth of the statement conveyed in the matrix sentence". (17) is an example of this group.

- (17) *Newly elected Senate President Bill Rodmorow, a Colorado Springs Republican who was very influential during the 2013 gun control debate, said it is much too early to tell how the session will turn out. But he is optimistic that he can at least keep the peace during the session, as he is a man who has successfully played the role of mediator in November 2008 during the elections and feels this is not much different. "Also, I have five children," he adds with a grin.* (COCA, newspaper)

It seems not unlikely that with the conceptualization of this previous action as evidence for the

proposition in the nuclear Discourse Act, concrete information about and identifiability of this action is desired. That *after all* could be inserted into the Discourse Act that contains the temporally specified PrP, including the slot between the auxiliary and the past participle, supports the notion of this being used as a Justification (cf. Hannay and Keizer 2005: 174).

Considering the strong resultative function the PrP seems to express, it comes as no surprise that the dataset includes quite a number of examples that, as Hannay and Keizer (2005: 174) put it, function to “explain why the state of affairs expressed in the matrix prediction holds”. This type of Justification, which they call SoA motivation, (Hannay and Keizer 2005: 174) is illustrated in (18):

(18) *“C’est pour Monsieur?” Nanon said, glancing at the second cup. “Oh,” said Madame Fortier. “He has gone to the terraces, long ago. The second coffee is yours, my dear.”* (COCA, fiction)

(19) then is an example of a Property Justification. Again, this seems a logical fit for a situation in which a speaker might choose to employ both the PrP and a modifier that specifies the absolute point in time at which something has taken place.

(19) *It’s a great program. We have expanded Medicaid here twenty years ago. And for twenty years every child in Vermont has been eligible for health insurance* (COCA, spoken)

It stands to reason that addressees can indeed infer this connection between two Discourse Acts in prototypical uses of the PrP and that it is available in the Contextual Component as a pattern that speakers can make use of. At the same time, though, this inference does not necessarily have to be made. A straightforward resultative reading is possible as well. Because both, the source and the target meaning are available here, the example sentences listed in this subsection that do not include a dtAdv may be seen as bridging contexts, characterized by a certain degree of ambiguity. This is no longer the case once a dtAdv is present. Since the SoA is anchored in time, we cannot talk of a phasal operator anymore, through which the PrP is typically understood as being triggered in FDG. Licensed by this co-textual condition, the PrP is instead used as a different operator, namely as one signaling Justification.

## 5 Conclusion

The English PrP does not often appear in combination with a dtAdv. At the same time it has to be admitted that these two forms indeed do co-occur. Evidence for this can be found in a number of studies (e.g. Walker 2008; Ritz 2010) as well as in data from all genres represented in the *Corpus of Contemporary American English*. Consequently, this pattern requires a description as well as an implementation into existing theoretical models.

As basis for such a description serves the assumption that meaning extensions that conventionalize start out from core meanings of a form that contribute to its typical use in context. These typical uses in context, then can act as bridging contexts (Heine 2002: 84–85) where pragmatic inferences can lead to a reanalysis of the form in question. At this point, the form is still ambiguous and can be interpreted as either the source or the target meaning. As Giomi (2017: 50) points out, this reanalysis at this point is not part of the Grammatical Component but is located in the Contextual Component. The PrP, as Michaelis (1994: 130) underlines, “is token ambiguous” and hence by its very nature open to a number of different inferences. It is therefore unsurprising that many different meanings, senses and readings for the PrP have been proposed throughout the literature. Since FDG, adhering to the Principle of Formal Encoding, only models such changes and difference as are reflected in the form of a language, it only recognizes two readings of the PrP, that of a phasal ‘Resultative’ and that of the relative tense ‘Anterior’.

Once a change in grammatical behavior exists, however, this needs to be accounted for within the description of a language. The PrP’s co-occurrence with dtAdv constitutes such a change. Since the existence of an absolute temporal modifier signaling pastness renders impossible a purely phasal (and

even more so, a Present Tense anterior) reading, it is of interest to see what commonly occurring pragmatic inference of the PrP is then available instead.

One such commonly occurring pragmatic inference, illustrated in (24), is that of a Justification (cf. Nishiyama and Koenig 2006: 273).

(24) *We eat things which have been in the dirt only hours ago. They're pure* (COCA, fiction)

In (24), on the Interpersonal Level, the Discourse Act *They're pure* is justified by the previous Discourse Act. The vegetables are evaluated by the speaker as being pure, and this evaluation is justified by them having a certain property, namely that of *hav[ing] been in the dirt only hours ago*. It has been shown in the present paper that this function may well trigger the PrP on the Interpersonal Level and thus not clash with the dtAdv. That this is only possible in certain contextual uses of the PrP makes clear that this is not a conventionalized function of the PrP. It rather can be seen as an intermediate stage on the cline of grammaticalization, which Heine (2002: 83) calls the 'switch context stage', where the specific combination with the dtAdv leads to this re-interpretation on the PrP.

A similar process is proposed for the other pattern described in the paper as well. If the dtAdv is required for the purpose of successful referent identification while at the same time the very same referent is ascribed a property acquired through said action, then the two forms can go hand in hand. This is the case for phrases like *those importers who have already built up their supply lines in 2006* in example (15) as well as other similar examples, like (25).

(25) *The EPA 's position is that we need to go back and revise the report that we have submitted to the Science Advisory Board in 1990.* (COCA, spoken)

Further research in this area is needed in order to describe the synchronic situation of the PrP in (not only) US-American English. The patterns discussed in this paper might lead to an eventual reinterpretation of the PrP, or, indeed, remain a marginal phenomenon that does not, through frequency of use, eventually influence the PrP itself. Patterns that differ from the examples discussed here, which suggest, among others, a genre-specific discourse organizing function of the PrP (cf. e.g. Walker 2008; Ritz 2010; Portero Muñoz [this volume]) have been reported on and discussed. To what extent these constitute inferences that are grammaticalizing, and which, if any of the context-dependent frames might eventually conventionalize into central readings of the PrP remains to be seen.

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## Abbreviations

### General

dtAdv	definite temporal adverbial
FDG	Functional Discourse Grammar
IL	Interpersonal Level
N	noun
PrP	Present Perfect
RL	Representational Level
SoA	State-of-Affairs
V	verb

### Variables

A	Discourse Act
e	State-of-Affairs
ep	Episode
f	Property
f <sup>c</sup>	Configurational Property
l	Location
M	Move
t	Time
x	Individual

#### Operators

ant	anterior
dist	distal
m	plural
<sup>neg</sup> pos	positive phasal polarity
pres	present
res	resultative

#### Functions

A	Actor
Ass	Associative
Just	Justification
U	Undergoer
φ	any function

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