

# Unmarked *already*: Aspectual expressions in two varieties of English

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## Abstract

This paper examines variation in the expression of aspect both from a language-internal and a cross-linguistic perspective. We make the following proposals: (i) the morpheme *already* encodes the meaning of two contrasting phases; (ii) several types of event structures, including that of the Perfect, also encode a similar meaning of contrasting phases, but with particular orderings of phases specified. If in addition we assume Optimality Theory with partial ordering, we derive a range of expressions of a given aspectual meaning that is cross-linguistically supported, and show that *already* emerges as an unmarked aspectual operator in Colloquial Singapore English.

## 1. INTRODUCTION

Colloquial Singapore English (CSE) allows more ways of expressing a given temporal meaning than Standard English (StE).<sup>1</sup> The main reason for this is that tense/aspect, person, and number marking on verbs is optional. For example, the habitual present can be expressed in two ways in CSE: with tense marking on the verb as in (1a), or without tense marking but with an adverbial (*every day*) to express the habitual meaning as in (1b):

- (1) a. He goes to office at twelve o'clock. (adapted from GSEC<sup>2</sup>)  
'He goes to the office at twelve o'clock.'
- b. He go to office at twelve o'clock every day.  
'He goes to the office at twelve o'clock every day.'

Apart from employing temporal adverbials in the absence of verbal inflections, CSE also uses aspectual markers such as *already/ still/ always* to express various types of aspectuality (see Platt and Weber 1980, Alsagoff 2001).

This paper examines the use of one such aspectual marker in CSE: the morpheme *already*. The morpheme *already* is interesting for two reasons. Firstly, a sentence with *already* is compatible with more than one aspectual meaning. While the meaning of *already* has been discussed extensively in the

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<sup>1</sup> The variety of CSE described here is one that educated speakers of English use in casual conversation, in informal contexts. These speakers have command of Standard English.

<sup>2</sup> GSEC = Grammar of Singapore English Corpus database, developed under the National University of Singapore Academic Research Grant R-103-000-003-112 for the project, *Towards a Reference Grammar of Singapore English* (Lisa Lim, Joseph A. Foley, Vivienne Fong, Ni Yi-Bin, and Lionel Wee).

semantics literature (e.g. Löbner 1989, 1999, Mittwoch 1993, Michaelis 1992, 1996), its behavior in CSE invites a closer look: in particular, we will need to identify the core meaning of *already* to explain its compatibility with a range of aspectual meanings in CSE. Secondly, the use of *already* is but one variant in CSE for expressing a given aspectual meaning. The question is how linguistic theory should deal with the CSE-internal variation patterns, as well as cross-linguistic variation patterns (e.g. CSE versus StE).

The exploration of these two issues will be structured as follows. Section 2 illustrates the range of INTERPRETATIONS that a sentence with *already* permits in CSE (ambiguity), and the range of EXPRESSIONS available for a given aspectual meaning (variation). In section 3, I propose a core meaning for *already* that accounts for its compatibility with a range of aspectual meanings in CSE. In section 4, I derive the language-internal and cross-linguistic variation in the expression of the Perfect meaning using Optimality Theory (OT) (Prince and Smolensky 1993) with partial ordering (Kiparsky 1993a, Nagy and Reynolds 1997, Anttila 1997, among others). From this analysis, we will see that *already* is the emergent unmarked aspectual operator for expressing change of state. Section 5 presents a cross-linguistic aspectual typology predicted by the re-ranking of the proposed constraints. Section 6 concludes the paper.

## 2. ALREADY IN CSE

### 2.1 The ambiguity of *already*

*Already* exhibits a range of interpretations in CSE. Bao (1995) claims that *already* marks what he terms an ‘inchoative’ reading (2i) and also a ‘perfective’ reading (2ii), and is a direct translation of the Chinese aspectual marker *le*:

- (2) My baby speak already. (Bao 1995, with his glosses)
- i. ‘My baby has started to speak.’
  - ii. ‘My baby has spoken.’

In fact, three distinct readings are attested (Lim 2001). This is illustrated in (3). To facilitate the discussion, I give each reading in (3i)–(3iii) an informal label: ‘near future’, ‘just started’, and ‘ended’ respectively. Notice that in (3iii), the ‘ended’ reading is that of the meaning denoted by the English Perfect.

- (3) She beat the eggs already. (Lim 2001, glosses mine)
- i. ‘She is (already) going to start beating the eggs.’ (*near future*)
  - ii. ‘She has (already) started to beat the eggs.’ (*just started*)
  - iii. ‘She has (already) beaten the eggs.’<sup>3</sup> (*ended*)

The contexts to illustrate the readings in (3) (adapted from Lim 2001) are given below:

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<sup>3</sup> The ‘already’ meaning in the glosses is optional (hence the parantheses). This will be discussed shortly.

- (4) a. Hurry up and break the eggs into this bowl. **She beat the eggs already.**  
 ‘...She is going to start beating the eggs.’
- b. You stop hurrying me, can or not? **I beat the eggs already**, wait you make me spill the egg out of the bowl, then everything gone!  
 ‘Can you stop hurrying me? I have started beating the eggs, if you make me spill the egg, then everything is finished!’
- c. Okay. **I beat the eggs already.** Finally! All the ingredients are ready!  
 ‘...I have beaten the eggs.’

This is a case of ambiguity. One form – in this case the verb *beat* plus *already* – has three possible interpretations: NEAR FUTURE, JUST STARTED, ENDED.

Further, *already* occurs with eventualities of any aspectual type – processes, events, and states.<sup>4</sup> Again, multiple interpretations for each are available (see (5)–(7)).

- (5) She sing already. [Process]  
 i. ‘She is (already) going to sing.’ (*near future*)  
 ii. ‘She has (already) started to sing.’ (*just started*)  
 iii. ‘She has (already) sung.’ (*ended*)
- (6) I break the vase already. [Event]  
 i. ‘I am (already) going to break the vase.’ (*near future*)  
 ii. ‘I have (already) started breaking the vase.’ (*just started*)  
 iii. ‘I have (already) broken the vase.’ (*ended*)
- (7) I love her already.<sup>5</sup> [State]  
 i. ‘I have (already) come to love her.’ (*just started*)  
 ii. ‘I have (already) loved her.’ (*ended*)  
*Unavailable reading:* ‘I am (already) going to love her.’ (*near future*)

With states, *already* is usually found with a change of state reading. In a sentence like (8), the speaker did not find the Wax Museum boring before:

- (8) Wax Museum quite boring already lah, now. (GSEC)  
 ‘The Wax Museum is quite boring (by) now.’

<sup>4</sup> The term *event* subsumes the Vendler (1957) classes, achievements and accomplishments.

<sup>5</sup> For some reason I do not yet understand, *already* does not have a ‘near future’ reading with states. This puzzle will be left for future work.

Apart from its use as a marker of aspectual meaning, *already* in CSE otherwise retains the properties familiar from StE. For example, as pointed out by Michaelis (1992: 326) ‘*already* not only encodes the existence of a given state of affairs at reference time, but also presupposes the *anteriority* [emphasis mine] of that state of affairs to an interval of a specific type.’ (9) below illustrates that the state of having curly hair obtains prior to any procedure (e.g. a permanent wave) designed to bring about that state. An example from GSEC with a similar effect is given in (10).

(9) Why would you need a permanent? You already have curly hair. (Michaelis 1992)

(10) B: Seeds or soil? [*B asks A whether A wants to buy seeds or soil.*]  
A: I already have the seeds, you damn idiot!  
B: Then you want the soil? (GSEC)

I adopt Michaelis’ (1992, 1996) view that a full account of *already*’s function must refer to its ANTERIORITY PRESUPPOSITION (ANTP). What is striking, however, is that the anteriority interpretation may be suspended when *already* functions as an aspectual marker in CSE. Consider a context where a couple has been waiting for a very long time for their baby to wake up. When the baby does at last wake up, it is felicitous for the couple to utter (11), but not (12), in both StE and CSE:

(11) Finally! **The baby has woken up!** Now we can leave.

(12) #Finally! **The baby has woken up already!** Now we can leave.

If we assume that *already* carries an ANTP in both StE and CSE, the contrast between (11) and (12) is predicted under Michaelis’ analysis: in this context, the baby waking up is not any earlier than expected, and the ANTP encoded by *already* proves infelicitous. But in contrast to (12), (13) turns out to be felicitous in CSE:

(13) Finally! **The baby wake up already!** Now we can leave.  
‘...The baby has woken up!...’ [no ANTP]

(13) reveals an important property of *already* when it functions as an aspectual marker in CSE. Even in contexts where there is no ANTP, the use of *already* is countenanced when the morpheme is the only available means of encoding the Perfect meaning. Of course, in contexts compatible with an ANTP, this meaning has no problems surfacing. Therefore, out-of-context CSE examples with V+*already* are interpreted as optionally carrying an anteriority presupposition. For example:

(14) ...I no more tuition. **Stop my tuition already.** (GSEC)  
i. ‘I no longer have tuition. I have stopped my tuition.’ [no ANTP]  
ii. ‘...I have already stopped my tuition.’ [with ANTP]

## 2.2 Variation in the expression of the Perfect meaning

Consider the meaning expressed by the Perfect construction (*have V-en*) in StE. It is generally assumed within the Reichenbachian (1947) tradition that the Perfect has a meaning where event time (E) precedes reference (R) time (i.e. E\_R), and that a state results from the occurrence of that event (see e.g. Moens and Steedman 1988, Herweg 1991, Kamp and Reyle 1993, de Swart 1998).<sup>6</sup> For ease of reference, I will call this the ‘Perfect meaning’. The Perfect meaning finds different forms of expression in CSE:

- (15)
- a. ...something evil has happened... (GSEC)
  - b. She beaten the eggs. (Lim 2001)  
‘She has beaten the eggs.’
  - c. You return the books already? (GSEC)  
‘Have you (already) returned the books?’

(15a) shows that CSE has the option of expressing the Perfect meaning using the StE form (*have V-en*). The Perfect meaning can also be expressed with the main verb retaining its past participle form as in (15b), or with *already* together with the main verb in the base form as in (15c) (Lim 2001; Fong 2003). Note that while (16a) can express the meaning ‘she has beaten the eggs’, (16b) cannot.

- (16)
- Intended meaning:* ‘She has beaten the eggs.’
  - a. She beat the eggs already.
  - b. \*She beat the eggs.<sup>7</sup>

The rest of this paper sets out to (i) identify the core meaning of *already* that explains its compatibility with the various aspectual meanings described in 2.1 (‘just started’, ‘ended’, or ‘near future’); and (ii) derive the variation in the expression of the Perfect meaning within CSE, and cross-linguistically, following the theory of form-meaning mapping laid out in Anttila and Fong (2000, 2003). In particular, I will show how CSE and StE differ.

## 3. THE MEANING OF *ALREADY*

Recall Michaelis’ claim that *already* ‘presupposes the anteriority of [a] state of affairs to an interval of a specific type’ (1992: 326). In section 2.1, we saw that in StE and CSE, *already* carries the anteriority presupposition. We now need to establish what makes *already* compatible with the various aspectual

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<sup>6</sup> The semantics of the Perfect is not uncontroversial. Kiparsky (2002) argues that the perfect is polysemous (cf. the references therein for different views), and proposes enriching the tense semantics, while retaining the Reichenbachian view of the temporal ordering E\_R.

<sup>7</sup> This sentence is well-formed as an expression of the past tense, ‘She beat the eggs.’

meanings ('just started', 'near future', 'ended') that we have observed in CSE. Here, I first consider Michaelis' (1992, 1996) analysis in more detail, focusing now on the 'interval' mentioned in the quote above. I also compare her proposal with those by Löbner (1989), and Mittwoch (1993)<sup>8</sup> (for other proposals, see for example Traugott and Waterhouse 1969, Abraham 1980, and van der Auwera 1993). It should be noted that the observations about StE examples below apply also to CSE.

In earlier work, Löbner (1989, see also 1999) claims that German *schon p* 'already p', presupposes a previous state *not-p*. For example 'the light is already on' in (17) presupposes a previous state of the light not being on.

- (17)        das Licht ist schon an  
              'the light is already on'

Michaelis (1992, 1996) makes the opposite claim, and says *already p* presupposes that the inception of *p* is anterior to a Reference Interval (RI). RI includes within it the inception of a state *p'* of the same situation type as the state denoted by *already p*. In (18), the RI is the interval during which the addressee gets a permanent wave to acquire curly hair; the addressee is attributed with having curly hair prior to getting the permanent wave.

- (18)        Why would you need a permanent? You already have curly hair. (Michaelis 1992)

Michaelis treats the RI as being lexically underspecified. The upshot is that *already* is pragmatically ambiguous (in the sense of Horn 1985); the variety of uses *already* exhibits are derived from interpretation in context.<sup>9</sup> Mittwoch (1993) makes a similar argument in questioning Löbner's treatment of *already*. If *already p* presupposes a previous state *not-p*, then why does it not behave like *stop*, which has the same type of presupposition? The contrast in presupposition between the two is illustrated in (19).

- (19)        a. He is already American, for he was born in America.  
              b. \*John has stopped eating meat, for he has always been a vegetarian. (Mittwoch 1993)

Mittwoch (1993: 75) points out that the preceding phrase of *not-p* 'derives solely from the pragmatic meaning of *schon/already*...which involves temporal comparison of some kind.' In an example like (20), the baby being rich is compared to a norm where people take time to attain riches, and the baby is depicted as being rich earlier than the norm.

- (20)        The baby is already rich. [*Of a baby who gets an inheritance at birth.*]

From Michaelis' and Mittwoch's discussions, we distill the following points. One, the eventuality that *already* depicts is a state. Two, *already* introduces a meaning of CONTRASTING PHASES: two distinct

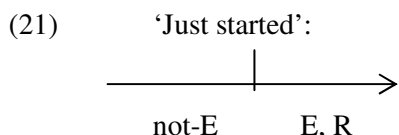
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<sup>8</sup> Mittwoch (1993) and Michaelis (1992, 1996) assume that Löbner's (1989) claims about German *schon* generalize to English *already*.

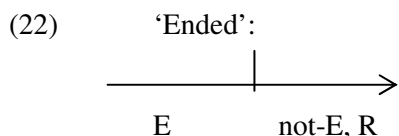
<sup>9</sup> The reader is referred to Michaelis' discussions of various examples involving temporal, as well as non-temporal types of RIs.

phases separated by a transition point. In sentences like *The mice have already eaten the cheese*, the first phase is one where the mice have not yet eaten the cheese; in the second phase they have. In (18), (19a), and (20) above, the sentences assert states that do not involve any change, but the RI contains the notion of contrasting phases. Take for instance the example in (20), which Mittwoch says involves a comparison of some kind. When we make comparisons, we have in mind points on a scale (Cresswell 1976). In (20), the RI is a ‘richness’ scale where, from an arbitrary point on, one is depicted as being (increasingly) rich; prior to that point, one is not rich. In the context of (20), to talk about attaining riches is to introduce a temporal dimension to the scale. So the baby is rich at a point earlier than the point within RI depicting the time people usually take to become rich.

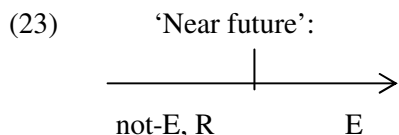
Turning now to CSE where *already* also functions as an aspectual marker, we note that the situation types associated with *already* (‘just started’, ‘ended’, ‘near future’) also have structures with contrasting phases. These situation types differ only in the way the phases are ordered with respect to each other. An eventuality E described as having ‘just started’ highlights the change from not-E to E (not-E<E). This is illustrated in (21) below (I use the Reichenbachian ‘R’ to indicate the reference time):



An ‘ended’ situation type (i.e. the situation type of the Perfect) comprises an event E that ends, and is followed by a state not-E (E<not-E):<sup>10</sup>



When referring to an eventuality E that is expected to start in the near future, the reference point is within a state not-E before the expected start of E (not-E<E):<sup>11</sup>



Based on the above observations, I propose the following generalization:

<sup>10</sup> More accurately, this should be E<S for the Perfect, but I use E<not-E here to parallel the illustrations in (21) and (23).

<sup>11</sup> In addition to the CSE examples, the futurate in StE (e.g. *We leave tomorrow*) also has the ‘near future’ structure. Smith (1991: 247) describes the futurate as a situation type that is heterogenous, involving a preliminary stage and a final stage that is different from it.

- (24) In both StE and CSE, *already* encodes the meaning of contrasting phases, but entails nothing about the ordering of phases.

What fixes the ordering of phases in eventuality descriptions must come from elsewhere. For English, I assume that temporal and aspectual meanings expressed by verbal morphology determine the exact ordering of phases. Ambiguity arises in precisely those contexts where verbal morphology is dropped, an option available in CSE.

We can now describe the function of *already* as an aspectual operator in CSE. Aspectual operators impose a viewpoint on the eventuality denoted by the eventuality description (Bach 1986, de Swart 1998). Like other aspectual operators, *already* imposes a certain viewpoint on the eventuality denoted by the eventuality description. Let us first consider an example of how the Perfect aspectual operator works. According to de Swart, the Perfect is a function that maps any kind of eventuality onto a state. It introduces the consequent state that starts when the eventuality ends (in Kamp and Reyle (1993), this is expressed as  $e \supset c s$ :  $e$  and  $s$  abut). The viewpoint that the Perfect imposes is an interval containing two contrasting phases (E versus S), plus the condition that the two phases are ordered  $E < S$ .

I will refer to an interval containing two contrasting phases as a DIPHASIC interval. A diphasic interval is defined as follows:

- (25) An interval  $I$  is diphasic if and only if it starts with a phase of not- $p$  and is monotone in terms of  $p$ ; i.e., starting with points  $t$  for which  $p(t)=0$ , it must extend to later points  $t'$  with  $p(t')=1$ , but must not contain any yet later points  $t''$  with  $p(t'')=0$  again. (Adapted from Löbner 1989: 178)

In addition to the Perfect event structure, there are many other examples of diphasic structures in the domain of aspectuality.<sup>12</sup> At the level of inner aspectuality (Verkuyl 1993, 2002),<sup>13</sup> accomplishments and achievements have diphasic event structures: both aspectual classes specify an achieved state (Rappaport Hovav and Levin 1995), that is, a change from one state to another. At the level of outer aspectuality, we have seen examples of situation types such as ‘just started’, ‘ended’, and ‘near future’.

In the CSE data above ((5)–(8)), eventuality descriptions of states, processes and events are all given diphasic viewpoints when they occur with *already*, giving rise to interpretations of ‘just started’, ‘ended’, or ‘near future’. The operator *already* and the Perfect operator are similar in that they both restrict the situation type to having a diphasic structure. They are different in that *already* does not specify the ordering of the two phases within that interval, while the Perfect operator does. For this reason, I analyze *already* as a function that maps sets of eventualities  $E$  to sets of diphasic situation types, without

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<sup>12</sup> The notion of phases appears also in the description of the ‘event nucleus’ in the work of Moens and Steedman (1988) (see also Steedman 1997, and Verkuyl’s (2002) discussion of Moens and Steedman). See also Fong 2001 and Fong to appear for further linguistic motivation for a diphasic interval in event semantics.

<sup>13</sup> The level of inner aspectuality is also called the level of ‘atomic eventuality description’ by de Swart (1998), the level where the verb has all its argument positions filled.

imposing a condition on the ordering of the phases.<sup>14</sup> The truth condition for a proposition with the aspectual operator *already* is given below:

(26) *already*(E) is true if and only if there is a diphasic interval containing E and not-E.

Notice then that the range of the Perfect function is a proper subset of the range of the *already* aspectual function. This means that under certain circumstances, *already* can perform the same operation as the Perfect, and more. What remains to be explained is how exactly the interpretations of ‘just started’, ‘ended’ (the Perfect), or ‘near future’ get associated with the aspectual operator *already*. This will be addressed in section 4 below.

If this approach is correct, and *already* entails a diphasic viewpoint, we would then expect it not to occur with inalterable states. This turns out to be a correct prediction, as the examples in (27) show:

(27) a. #A square already has four sides. [StE, CSE]  
b. #A square has four sides already [CSE’s preferred word order]

To sum up, we have analyzed *already* as an aspectual operator that gives a diphasic viewpoint to an eventuality description. We have also seen that *already* carries with it an anteriority presupposition. Interestingly, the morpheme can appear in contexts that do not license this presupposition if that is the only means of expressing the Perfect meaning. In what follows, we will need to compare the semantic contribution of the morpheme *already* with the semantic contribution of other verbal morphemes. To facilitate the discussion, I will use the feature representation in (28) as a short-hand for the core meaning of *already* in both StE and CSE:

(28) *already* [DIPHASIC; ANTERIORITY]

#### 4. EXPRESSING THE PERFECT MEANING

This section addresses the question of how exactly the aspectual operator *already* gets a particular aspectual interpretation. Consider the meaning components in the Present Perfect. As discussed above, the Perfect is a state S that results from the occurrence of a certain event E, and thus has an event structure comprising contrasting phases (E versus S) – depicted as DIPHASIC below. In addition, E and S are ordered in a particular way: E<S. The Present tense is treated as having the FINITE feature.

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<sup>14</sup> In fact, not specifying the ordering of phases predicts four possibilities: ‘just started’, ‘ended’, ‘near future’ and a fourth type E,R<not-E, call it ‘egress’, which is unattested in CSE. This fourth structure is a viewpoint that focuses on ‘egress from an event, the final endpoint of a situation’ (Smith 1991: 79). Smith notes that this viewpoint seems to be cross-linguistically unavailable when the verb under-determines the situation type. Apparently, a verb cannot refer to both beginning and endpoints (see also Talmy 1985), and ‘a general principle blocking such forms has been proposed as a universal constraint.’ (Smith 1991: 79) I will assume that this fourth type is ruled out by an independent constraint. Unfortunately, we cannot explore the nature of this constraint any further here.

- (29) [PRES[PERF[*she beat the eggs*]]]  
 PERFECT = [DIPHASIC; E<S]  
 PRESENT = [FINITE]

In what follows, I will propose an OT analysis that derives a typology of possible expressions of the Present Perfect meaning. Given a semantic input like (29), the analysis will show how the *have V-en* form is the optimal expression of that meaning in StE, and how three different expressions of that meaning are possible in CSE. Once we assume that *already* specifies the [DIPHASIC] feature, it can be shown to emerge as an unmarked aspectual operator in CSE.

Following Bresnan (2001), I assume that the input is the language-independent content in the multidimensional space of possible grammatical and lexical contrasts, and the output comprises language-specific lexical items that carry with them their own interpretation of that content. The relationship between input and output is regulated by ranked and violable constraints. For a given content (e.g. (29)), different linguistic expressions in English can express that meaning to different extents. In (30), I present the lexical specifications for morphemes in English (CSE and StE) (cf. Halle and Marantz 1993).

- (30) Selected lexical entries:<sup>15</sup>
- |    |  |                                |
|----|--|--------------------------------|
| a. | - <i>n</i> [DIPHASIC; E<S]   | (e.g. <i>beaten, sewn</i> )    |
| b. | - <i>ing</i> [PROG]  | (e.g. <i>beating; sewing</i> ) |
| c. | - $\emptyset$ <sub>past</sub> , - <i>t</i> , - <i>d</i> [FINITE; PAST] | (e.g. <i>beat; sewed</i> )     |
| d. | - <i>z</i> [FINITE; 3SG]   | (e.g. <i>beats; sews</i> )     |
| e. | - $\emptyset$ [FINITE]   | (e.g. <i>beat; sew</i> )       |
| f. | <i>beat</i> [ ]; <i>sew</i> [ ]  | (base form)                    |
| g. | <i>already</i> [DIPHASIC; ANTERIORITY]                                 |                                |

In addition to input and output, we need constraints. In OT, there are two types of constraints that are in inherent conflict: (i) MARKEDNESS constraints that exert pressure towards unmarked output structures, obliterating input contrasts; (ii) FAITHFULNESS constraints that require the expression of semantic content. Ranking is the OT way of resolving conflicts among constraints. By hypothesis, systematic variation among languages reduces to different constraint rankings. In addition, I will assume that variation within a language reduces to different constraint rankings as well (see e.g. Anttila and Fong 2000, 2003). I assume the following constraints:

- (31) Markedness constraints:  
 \*VSTR: Avoid verb structure (verbal morphology, structural complexity in the verb phrase, e.g. recursive VP structure).

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<sup>15</sup> (a)–(e) are inflectional suffixes.

- (32) Faithfulness constraints:  
 MAX: Express input features.  
 DEP: Do not express features not present in the input.

The two faithfulness constraints are in fact families of constraints. The special cases in the MAX ('M' for short) family of constraints that are crucial for our purposes are given in (33):

- (33) a. M(ASP): Express input aspectual contrasts.  
 b. M(TNS): Express input finiteness contrasts.  
 c. M(AGR): Express input agreement features.

A ranking that generates the correct Present Perfect output for StE with *have V-en* morphology is given in the tableau in (34). The tableau is simplified, with the harmonically bounded<sup>16</sup> candidates omitted.<sup>17</sup> In (35), I provide a summary of how violation marks are assigned in the tableau.

- (34) Standard English *has V-en*  
 The input: [FINITE[DIPHASIC; E<S[*she beat* 3SG the eggs]]]  
 Ranking: DEP » M(ASP) » M(TNS) » M(AGR) » \*VSTR

Table 1. Standard English *has-en*

	[FIN[DIPHASIC; E<S[ <i>she beat</i> 3SG the eggs]]]	DEP	M(ASP)	M(T)	M(AGR)	*VSTR
1 →	She [has [beaten ...]]					***
2	She beat ...		**!	*	*	
3	She beat ... already	*!	*	*	*	
4	She beats ...		**!			*
5	She beats ... already	*!	*			*
6	She beaten ...			*!	*	*

- (35) What counts as a violation in the tableau:  
 a. any type of verbal affixation (e.g. *-en*, *-z*) incurs a mark under \*VSTR;  
 b. any recursive VP structure (auxiliary+V, e.g. *have+V*) incurs a mark under \*VSTR;  
 c. introducing any feature not given in the input incurs a mark under DEP (e.g. *already* incurs a mark for introducing ANTERIORITY);  
 d. failing to express an aspectual, tense, or finiteness feature given in the input incurs one a mark under each relevant MAX constraint (e.g. the base form *beat* fails on all counts).

<sup>16</sup> Harmonic bounding is defined as follows:

The mapping /A/ → B harmonically bounds the mapping /A/ → C if and only if the /A/ → B mapping incurs a proper subset of the constraint violations incurred by the /A/ → C mapping. (McCarthy 2002: 23)

<sup>17</sup> I assume GEN generates only candidate structures that respect X' theory (see e.g. Legendre 2001), and ignore candidates of the following type: *has beats* (two finite verbs in the VP), *have beats* (non-finite auxiliary, finite main verb), etc. The rankings in (34) and (36) were discovered by the Constraint Demotion Algorithm (Tesar and Smolensky 2000) implemented in OTSoft (Hayes, Tesar and Zuraw 2000).

How is CSE different from StE? The most obvious difference is that verbal morphology can be completely absent. In (36), this is achieved by ranking \*VSTR above all other constraints, thereby punishing any output with verbal morphology (outputs 2-5).<sup>18</sup> Yet since the Perfect meaning is waiting to be expressed, *already*, which expresses part of that meaning (namely DIPHASIC), steps in. On the other hand, an output without *already* (output 6) does not express any aspectual information, and is thus sub-optimal.

- (36) CSE V+*already*  
 Ranking: \*VSTR » M(ASP) » M(TNS) » M(AGR) » DEP

Table 2. CSE V+*already*

	[FIN[DIPHASIC; E<S[ <i>she beat</i> 3SG the eggs]]]	*VSTR	M(ASP)	M(T)	M(AGR)	DEP
1 →	<i>She beat ... already</i>		*	*	*	*
2	<i>She [has [beaten...]]</i>	***!				
3	<i>She beats</i>	*!	**			
4	<i>She beats ... already</i>	*!	*			*
5	<i>She beaten ...</i>	*!		*	*	
6	<i>She beat ...</i>		***!	*	*	

Note that the winning expression V+*already* is less than fully faithful to the input meaning. *Already* is able to express part of the Perfect meaning, namely the DIPHASIC feature, but it does not express the requisite ordering of phases, which results in a MAX violation. Moreover, it introduces a superfluous ANTERIORITY feature, which results in a DEP violation. Nevertheless, V+*already* wins. The high-ranking \*VSTR rules out all the more faithful structures, and *already* emerges as the unmarked aspectual operator.<sup>19</sup> The OT analysis thus reveals how a new variety of English such as CSE utilizes the latent availability of unmarked forms in its grammar, a characteristic that has also been observed in pidgins (Bresnan 2000). As such, the analysis captures a central observation of Jakobson's (1984) that the meaning of the unmarked form is not statically dependent on its inherent feature specifications, but is determined dynamically based on its relation to other elements in opposition to it (Bresnan 2001: 12). The variation in the expression of aspectual meanings in CSE can thus be seen as a competition of different forms to satisfy two requirements that are in inherent conflict: the faithful expression of a given semantic input on the one hand, and the reduction of marked verbal structures on the other.

The partial ordering of constraints that characterizes CSE is given in (37). In a total order, all constraints are ranked with respect to one another; in a partial order, some constraint rankings may remain unspecified, which yields a set of possible total orders. Three sample total rankings that generate the three distinct CSE expressions are given in (38).

<sup>18</sup> Again, the tableau in (36) is simplified, with the harmonically bounded candidates omitted.

<sup>19</sup> The Perfect particle also has the (basic) interpretation 'already' in Yoruba (Dahl 1985).

- (37) Partially-ordered grammar for CSE:  
M(ASP) » M(AGR)  
M(ASP) » DEP
- (38) a. M(ASP) » M(AGR) » DEP » \*VSTR : *She has beaten the eggs.*  
b. M(ASP) » \*VSTR » M(AGR) » DEP : *She beaten the eggs.*  
c. \*VSTR » M(ASP) » M(AGR) » DEP : *She beat the eggs already.*

## 5. AN ASPECTUAL TYPOLOGY

The interaction of constraints gives a typology of possible expressions of the Perfect meaning. With 4 constraints,<sup>20</sup> we have a factorial typology of 4! (=24) total rankings. This typology yields only six outputs, as shown in (39). The other eighteen outputs are harmonically bounded.<sup>21</sup>

(39)	<b>Outputs</b>	<b>No. of total rankings</b>
	a. <i>She has beaten the eggs.</i> (StE, CSE)	8
	b. <i>She beat the eggs already.</i> (CSE)	3
	c. <i>She beaten the eggs.</i> (CSE)	4
	d. <i>She beat the eggs.</i>	5
	e. <i>She beats the eggs.</i>	3
	f. <i>She beats the eggs already.</i>	1

Of the six outputs, three (39a–c) are attested. (39d–f) are predicted to be universally possible expressions of the Perfect meaning, but so far I have not found languages that realize this prediction. While we clearly need to look at more languages to check this prediction, there are independent reasons for assuming that this gap is in fact systematic. It has been observed that affixes tend to be ordered from the stem outward according to the hierarchy in (40) (see Bybee 1985, Halle and Marantz 1993, Kiparsky 1993b).

- (40) [ [ [ [ [ ... ] TENSE/ASPECT ] MOOD ] NUMBER ] PERSON ]

Several asymmetries have been noted: for example, central categories are more likely to be expressed by stem suppletion than peripheral categories; peripheral categories neutralize morphological distinctions more readily than central categories (Kiparsky 1993b).

Now, notice that (39e) and (39f) have verb forms that express agreement features, but not aspectual features. These types have one thing in common: they presuppose the ranking M(AGR) » M(ASP). Suppose we propose that the ranking in (41) is universal:

<sup>20</sup> For this particular input (see (34)), M(TNS) is unnecessary, and ignored here.

<sup>21</sup> These results were checked using OTSoft.

(41) Universal ranking: M(ASP) » M(AGR)

(41) defines the grammars that prefer the expression of aspect over the expression of agreement. If the ranking in (41) is fixed, then morphemes of central categories (e.g. aspectual affixes) will be expressed at the expense of morphemes in peripheral categories (e.g., agreement affixes like number/ person) when they are in competition, other things being equal. With this ranking fixed, only the outputs in (42) remain. In other words, the output types (39e) and (39f) are excluded from the typology.

(42)	Outputs	With M(ASP) » M(AGR) fixed
	a. <i>She has beaten the eggs.</i> (StE, CSE)	4
	b. <i>She beat the eggs already.</i> (CSE)	2
	c. <i>She beaten the eggs.</i> (CSE)	4
	d. <i>She beat the eggs.</i>	2

## 6. CONCLUSION

This paper has argued that (i) *already* encodes the meaning of contrasting phases, and (ii) the Perfect also encodes a similar meaning of contrasting phases, plus a particular ordering of these phases. From these two assumptions and OT with partial ordering, we have derived the variable expressions of the Present Perfect within a single language (CSE), including a variant that involves *already* as an unmarked aspectual operator. In addition, we have derived a cross-linguistic typology of possible expressions of the Present Perfect. This typology remains to be validated by future work.

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