The ASL Perfect Formed by Preverbal FINISH

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1   Introduction[1]

It is well known that the American Sign Language (ASL) sign FINISH has various lexical, idiomatic, and grammatical functions. This paper aims to investigate in more detail one of the known grammatical uses of this sign: as a preverbal perfect marker. The ASL perfect has received scant analysis beyond the acknowledgment of its existence. Further consideration of this construction is clearly warranted; the perfect is a slippery aspectual category whose meaning, restrictions, and prevalence vary significantly across languages. The one proposed analysis (Rathmann 2005) claims that preverbal FINISH only marks perfect aspect, but does not mark perfective. The goal of this analysis is to characterize the ASL perfect formed by preverbal FINISH by providing a unified account that explains both the allowable perfect readings and the pattern of compatibility across various types of predicates. On the basis of the fact that, when used as a marker of perfect aspect, preverbal FINISH only allows a bounded reading of an event or situation, but is compatible with (some) otherwise unbounded events, we conclude that preverbal FINISH contributes boundedness to semantically unbounded predicates: FINISH marks *both* perfect and perfective aspect. The incompatibility of preverbal FINISH with individual-level states and (most) temporal aspectual marking is due to the incompatibility of these categories with temporal bounding.

The organization of the paper is as follows: Section 2 provides a brief overview of the expression of tense, aspect, and temporal interpretation in ASL. Section 3 reviews crosslinguistic perspectives on the aspectual categories relevant to the current investigation: viewpoint, perfect, and situation aspect. The many different uses of the sign FINISH are summarized in Section 4, and Section 5 provides data and analysis of

the specific grammatical use of interest in this study, the preverbal perfect marker, based on the crosslinguistic groundwork laid in Section 3.

2   The Expression of Tense and Aspect in ASL

2.1 *Controversy about the existence of tense in ASL*

Early analyses of American Sign Language claimed that the language lacks grammatical tense, instead relying on temporal adverbs and a rich aspectual system to express the time of an event or situation, not unlike Mandarin Chinese (e.g., Friedman 1975; Fischer and Gough 1972, 1979; Padden 1983, 1988). Friedman (1975) claimed that in ASL, the time of the speech act is not maintained when referring to another point in time. Once one temporal reference is established, Friedman claimed, no other time can be referred to until the temporal reference is reset. In the Reichenbachian (Reichenbach 1947) tense system of Speech time (S), Reference time (R), and Event time (E), where tense expresses the relationship between S and R, Friedman's analysis implies that S is not a grammatical reality in ASL, leaving speakers with only R and E as time points expressible by ASL's grammar. This entails that tense marking is impossible in ASL, as the relationship of S and R, which establishes tense, cannot be expressed if S does not exist.

   This earlier claim that ASL lacks tense has been refuted by Neidle, Kegl, MacLaughlin, Bahan, and Lee (2000, henceforth NKMBL), who identify seven lexical markers of tense and aspect that appear in the same position as modals; these markers are listed in Appendix I. They speculate that the earlier claims that ASL lacks tense marking may be attributable to the fact that six of the seven tense markers are related to temporal adverbials, with the exception of the loan sign of habitual past, #EX[2]. The tense/aspect markers differ from their related adverbials both in articulation and in syntactic distribution. The tense markers have a fixed path length, whereas the related adverbials can be modified to indicate temporal distance from the present. In terms of distribution, the tense markers can only occur in preverbal position or in sentence-final tags, but temporal adverbials are acceptable at the start or the end of the sentence, though not in tags. The clearest and least controversial example of a tense marker in ASL is the sign FUTURE$_{TNS}$, sometimes glossed as WILL.

2.2 *Interpretation in the absence of lexical tense markers*

Tense marking as identified by NKMBL is not present in every ASL sentence. With temporal adverbials, sentences that are unmarked grammatically for tense can be interpreted as referring to past or future events, illustrated by (1) and (2).

(1) LAST-WEEK JOHN GO NEW-YORK

   "Last week John went to New York."   (NKMBL 2000:82)

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[2] This sign #EX, used by some but not all signers, is a marker of both tense and aspect: it marks past tense but can only be used to mark habitual events or situations. It has an English counterpart in the periphrastic past/habitual marker "used to" (NKMBL 2000).

(2) NEXT-WEEK JOHN GO NEW-YORK

"Next week John is going to New York."   (NKMBL 2000:81)

This present-tense expression of non-present events also occurs in other languages that indisputably mark tense, such as English, Spanish, and French (NKMBL 2000); this use, illustrated in (3) and (4), is often called the narrative or historical present.

(3) *So, last night, I buy scalped tickets to the game, but when I try to get into Fenway the ticket-taker says they're no good.*

(4) *Next year I take off for college. I can't wait.*

NKMBL argue that ASL sentences without lexical tense markers are syntactically present tense, with non-present reference, just like the English sentences above. Temporal adverbials set the time of reference.

2.3 Aspectual inflection on ASL verbs

ASL has a large inventory of aspects that are expressed through verbal/predicate inflections "marking distinctions of temporal recurrence and duration" (Klima and Bellugi 1979:292). These exploit rate, tension, and repetition to mark the temporal structure of an event or recurrence of an event (Klima and Bellugi 1979). Klima and Bellugi provide a basic meaning for six of these inflections without addressing the exact semantic contribution of each inflection. These temporal inflections are distinct from inflections for subject and object agreement, reciprocity, distribution, or adverbial modification, which tend to exploit spatial rather than temporal patterning in their expression. Klima and Bellugi use the verb LOOK as the base form for their examples of temporal expression.

2.3.1 Protractive

The protractive is characterized by no movement: A verb under this inflection is simply a long hold. The translation provided for LOOKprotractive is "to stare at (uninterruptedly)" (Klima and Bellugi 1979:292).

2.3.2 Incessant

Short, tense iterated movement marks the incessant aspect, which (as the name implies), conveys that an event occurs incessantly over a period of time.

2.3.3 Durational

The durational aspect focuses on an event or situation's durational characteristics, extending the implied length of the event. Circular, reduplicated movement marks durational aspect.

2.3.4 Habitual

The regular repetition of an event is marked by rapid, non-tense repetitions of the sign; LOOKhabitual can be translated as "to watch regularly."

2.3.5 Continuative

Large, smooth elliptical movements add an approximate meaning of "for a long time" to a single event or situation.

2.3.6 Iterative

With a meaning of "over and over," tense, end-marked movements are repeated with a slow, elliptical return.

2.3.7 Semantic contribution of the inflectional aspects

Based on the form of the inflections and the associated meanings, Klima and Bellugi posit that these six aspects actually involve three basic temporal inflections, which vary according to whether or not the base verb is punctual. They group the protractive and the incessant, the durational and the habitual, and the continuative and the iterative as pairs of related inflections.

As mentioned in the introduction to this section, Klima and Bellugi do not provide a semantic account of the meaning that these aspect markers contribute to the sentence. As observed by Rathmann (2005), both bounded and unbounded verb phrases (VPs), when inflected with the temporal aspect markers, are interpreted as present and ongoing in the absence of evidence to the contrary, such as a temporal adverbial or a tense marker. Thus they have an unbounded reading in ASL, which implies that these are markers of imperfective aspect. This is also supported by Klima and Bellugi's characterization of the temporal aspect markers as providing information about the temporal nature or recurrence of an event, which fits the definition of imperfective aspect (presented in Section 3.1.2).

2.4 Default interpretation of tense in ASL

Even without tense markers or temporal adverbials, some ASL sentences may be interpreted as past on the basis of aspectual properties of the verb phrase, while others are interpreted as present. Rathmann (2005) explores default temporal readings of ASL sentences at great length. He argues that—absent any other temporal information—bounded ASL sentences are interpreted as having occurred in the past, while unbounded sentences are interpreted as occurring in the present.

When unmarked by tense, adverbial reference, or viewpoint aspect, telic and durationless events are interpreted as bounded (past, by default), while activities and states give an unbounded reading (default present reading). In addition to giving information on the internal nature of the event, aspectual inflections such as those described in Section 2.3 can also affect the default temporal interpretation by presenting a semantically bounded event as unbounded, thereby causing it to be interpreted as a

present event. Thus IX-1p[3] GO CHURCH is an accomplishment, interpreted in the past ("I went to church"), but IX-1p GOhabitual CHURCH, lacking explicit bounds, is interpreted as present ("I go (regularly) to church") (Rathmann (2005).[4] A perfective gives a bounded reading to both telic and atelic VPs, locating the sentence in the past.

2.5 Summary

Previous claims that ASL lacks tense, and by implication, lacks a grammatical realization of speech time, S, have been refuted by NKMBL 2000. The fact that ASL does not overtly mark tense on every sentence, combined with the similarity between the tense markers and their related temporal adverbials, may have contributed to the misconception that ASL lacks tense altogether. In addition to tense marking, ASL possesses a rich system of inflectional aspect markers, which may be best characterized as imperfective aspect morphemes. When tense is not overtly marked in ASL (which is frequently the case), temporal adverbials, situation aspect, and viewpoint aspect can all contribute to interpretation of tense.

3 Crosslinguistic Perspectives on Aspect

3.1 Viewpoint Aspect: the perfective/imperfective distinction

Viewpoint aspect expresses how the temporal dynamics of an event are presented. It concerns the internal temporal constituency of a situation (Comrie 1976:5). The major contrast is between perfective and imperfective; the imperfective can be subdivided into various categories. Perfective aspect presents an event as a single, bounded whole, while the imperfective highlights the internal temporal structure of an event without referencing its endpoints. Even though any given event most likely has endpoints, the endpoints simply are not relevant, since imperfective expresses an event (or regular repetition of events) in progress—not necessarily in the present, but at some time.

(5) Perfective: *John ran to the store[5]*

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                    I          F
            _____[EEEEEEE]_____
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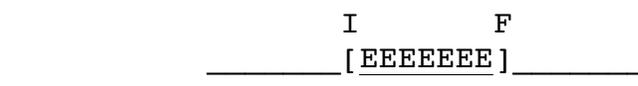
[3] In glossed examples, pronouns are represented by IX- ("index," as it is normally the index finger that points to the location in space associated with the intended referent), followed by the person features. This notation reflects the indexical nature of the ASL pronominal system. Similarly, POSS- is the gloss used for possessives, and IX-loc for locative adverbials (also articulated with the index finger).

[4] Some evidence supports the possibility that either manual or nonmanual inflection can convey tense information, as well as aspectual information; Jacobowitz and Stokoe (1988) claim that forward or upward extension at the wrist, elbow, shoulder and/or neck indicates future tense, and backward or downward flexion of these joints marks past tense. Carol Neidle and Michael Schlang (personal communication) have found minimal pairs of sentences contrasting in temporal reference that differ only in facial expression. The distribution of these temporal indicators in relation to the other ways to convey temporal information in ASL has yet to be explored.

[5] In these schematics, I is the initial point of the event, F is the final point of the event, EEE is the part of the event presented by viewpoint aspect, and [] are the bounds of the event in the perfective viewpoint.

(6) Imperfective: *John was running to the store*

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                I                    F
_____...EEE..._____
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Viewpoint aspect is independent of tense. Aspectual distinctions can be made in past, present, and future tenses (though not all languages make the distinctions in all three tenses). Some languages do this transparently, such as English in its use of the progressive, where tense is marked on the auxiliary *be* and progressive (imperfective) aspect on the verb by *-ing*. Other languages—Spanish, for one—conflate the marking of both tense and aspect into one unanalyzable morpheme.

(7) *Juan jug-ó al futbol*   (Spanish)

John play-past/pfv to-the-soccer

"John played soccer."

(8) *Juan jug-aba al futbol*   (Spanish)

John play-past/impfv to-the-soccer

"John was playing soccer."

3.1.1 Perfective aspect

The perfective aspect presents an event or situation as a whole (Comrie 1976:3). English sentences like *John went to the store*, *Pat ran in the park*, and *Mary ate the sandwich* are perfective sentences. Individual phases within the event are not distinguished, and the start, middle, and end of the event must be included implicitly when an event or situation is presented in perfective aspect. For telic verb constellations, this requires that the event reach its natural end, and for atelic events, termination of the event or situation is necessary. The event is bounded. While perfective aspect makes no grammatical reference to the internal dynamics of an event, adverbials of duration or manner may give implicational information about the event's internal dynamics.

3.1.2 Imperfective aspect

The imperfective aspect highlights the internal structure of either an event or the repetition of an event; crucially, imperfective events are unbounded. As mentioned above, the imperfect can be broken down according to further distinctions that some (but not all) languages encode grammatically. Three aspects widely attested crosslinguistically are the Progressive, the Continuous Nonprogressive, and the Habitual (Comrie 1976). The Continuous Nonprogressive is sometimes simply termed 'Imperfect' (e.g., Smith 1997). Events lacking duration—achievements and semelfactives—do not have any internal structure to which the imperfective can refer. In these cases, the imperfective instead refers to the internal structure of the repetition of events. For example, *hit the jackpot* describes an instantaneous event. When speaking of a one-time hit of the jackpot, it would be odd to say *I was hitting the jackpot (when Mary came over)*. Rather, that sentence implies that there was a consistent string of individual wins; the imperfective can refer to the internal dynamics of such a string, because the string itself

has duration, a start, a middle, and an end. The Habitual aspect refers to a situation that is a characteristic feature of an extended period, either the regular repetition of individual bounded events (*I hit the jackpot every week back then*) or a continuous characteristic (*My uncle's casino stood at the corner of Washington and Fourth*) .

3.1.3 Summary

Viewpoint aspect either shows an event as a bounded whole (perfective aspect) or highlights an event's internal temporal dynamics without referencing the endpoints of the event (imperfective aspect). Aspectual distinctions can be made independently of tense, since tense dictates the relationship of reference time to the time of utterance, while viewpoint aspect portrays the relationship of an event with its own endpoints.

3.2 *The perfect aspect and its subtypes across languages*

In contrast to the perfective/imperfective aspectual distinction, which concerns the internal temporal dynamics of an event, the perfect expresses the relationship between an event E and reference time R. The perfect aspect can combine with past, present, or future tenses, which specify the relationship between speech time, S, and R. Perfect aspect is independent of tense, but can interact with it. Thus we can form the past perfect, *I had run a mile,* the present perfect, *I have run a mile*, and the future perfect, *I will have run a mile* (Comrie 1976). There are three basic accounts of what the perfect is. In the Result State Theory (Giorgi and Pianesi 1998), at R, the result state of E is true, and because of this, E is implicitly established as having occurred before R. Anteriority Theory holds that the perfect specifically establishes that E precedes R (Reichenbach 1947 and others). According to the Extended Now theory, E occurs within an interval whose right boundary is R (McCoard 1978 and others). Iatridou, et al. (2001) adopt a version of the Extended Now theory: a perfect event exists within a *perfect time span* with a left boundary set by adverbials (*since 1998*, for example)—or an indefinite left boundary if there is no adverbial—and a right boundary set by tense, i.e., it coincides with R. Because the right boundary of the perfect time span is R and the event is included in the span, it occurs (or at least begins, in the case of universal perfects) before R. According to Iatridou, et al., anteriority of E relative to R is not directly expressed by the perfect, but rather implied by it. Their definition, which we will use here, is provided in (9).

(9) Perfect:
        There is an interval (the perfect time span) in/throughout which there is a
        bounded/unbounded eventuality. (Iatridou, et al. 2001:212)

The perfect is only used when E or the result state of E is somehow relevant to the situation or events at R. Comrie 1976 identifies four relevance conditions where the relationship between a past event and the time of reference merits the use of the perfect; these four types of perfect are listed below. Various authors have identified the same four types of perfect, but in some cases have used different terminology. The four descriptions in 3.2.1 through 3.2.4 include some of the other terms that have been used for each type.

3.2.1 Perfect of result

In this use, also known as the *resultative perfect*, a present state is expressed as the result of a past event: *The baby has woken up* means that the baby is now awake, whereas past tense *the baby woke up* makes no such claim (though it is certainly possible that the baby is, in fact, awake).[6] Some languages use a "perfect of result" construction where others would use a stative predicate. For example, English would allow either *the baby has woken up* or *the baby is awake*, but other languages are more specific in their selection of one over the other. Swahili is one language that uses a perfect of result where English would use a stative predicate, at least in some contexts, as shown in (10) and (11).

(10) *a-me-choka*

 "He is tired." (Lit. "He has got tired")

(11) *a-me-simama*

 "He is standing." (Lit. "He has stood up")   (Ashton 1947:37 via Comrie 1976:57)

3.2.2 Experiential perfect

The experiential, or existential, perfect expresses that the relevant situation E has occurred at some point previous to R without necessarily specifying the exact time of the event. *I have been to Fenway Park, John has eaten peanuts before,* and *I have fixed flat tires a few times* are all experiential perfects. Comrie notes that most European languages make no grammatical or morphological distinction between the perfect of result and the experiential perfect, but observes that some languages mark the experiential perfect with a specific morpheme. Mandarin Chinese is an example of such a language; the toneless suffix *–guo* is used exclusively for the experiential perfect (Comrie 1976:59).

3.2.3 Perfect of recent past

Sometimes the perfect can be used simply on the basis of proximity of the past situation to the reference time. This perfect of recent past, or "hot news" perfect, does not actually require that the event be recent, but rather that it be new information of present relevance; in most instances, it is a recent event: *The president has died!* or *A tree has fallen on the neighbor's roof.* Comrie (1976) imagines a clever situation in which the perfect can be used to deliver "hot news," despite a longer temporal interval between the event and reference time: to say *The Second World War has ended* in the year 2007 would be infelicitous if it were directed to a passerby on the street, but perfectly appropriate if talking to someone who had been stranded on a desert island since 1944.

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[6] (1a) "The baby woke up; we're ready to go now."

 (1b) "The baby has woken up; we're ready to go now."

 (2a) "The baby woke up; I rocked him back to sleep."

 (2b) #The baby has woken up; I rocked him back to sleep."

3.2.4 Universal perfect

This perfect, also known as the perfect of persistent situation or continuative perfect, has been defined in subtly but crucially different ways. What has been agreed is that it expresses an event that started before R but continues into the present. For Comrie (1976), the universal perfect is any situation that continues into the present (or R), regardless of the boundedness of the predicate. Thus events that pragmatically continue into the present but are bounded either grammatically or by an adverb of specific duration, such as *I've shopped there for years* (Comrie 1976:60), are considered universal perfects. In contrast, Iatridou, et al. (2001) state that one of the defining characteristics of the universal perfect is the perfect event must be unbounded; an eventuality is bounded if it is contained in an interval, and unbounded if it is ongoing throughout the interval. There can be bounded events that pragmatically continue up to R, as in the English perfect+perfective sentence *I have run for five hours, and I'm not stopping now,* but according to Iatridou, et al., these are not semantically universal perfects, despite the fact that the truth conditions are very similar to those of a universal perfect.

3.2.4.1 Identification of this construction

In the current analysis we will adopt Iatridou, et al.'s definition of the universal perfect, as the unboundedness requirement of their definition provides a distinction that we will see later is relevant to the ASL perfect. Thus, the universal perfect refers to a situation that began before reference time but necessarily overlaps with reference time, such as *I have known Bill since college*; *For three years, John has been living in Boston;* or *I have been building the house since May.* Some languages, including French and Spanish, have perfect aspect available but express persistent situations in the simple present instead of in the perfect, as in (12) and (13).

(12) *Jean travaille depuis trois ans/1989.*   (French)

   Jean work.3p.sg.pres since 3 years/1989

  "Jean has been working for 3 years/since 1989."

  (Lit. John works since three years/1989.")

(13) *Juan vive en Madrid desde hace muchos años.*   (Spanish)

  John live.3p.sg.pres in Madrid from since many years

  "John has been living in Madrid for many years."

  (Lit. John lives in Madrid for many years.")

In the universal perfect, the temporal dynamics differ slightly from the three types of perfect discussed so far, in that E overlaps with R, whereas in the other perfects, E precedes R. In Iatridou, et al.'s (2001:191) terms, the eventuality of a universal perfect is unbounded and holds *throughout* the interval specified by the adverbial *and through its endpoints* (italics mine), entailing that the eventuality holds at reference time, which is the right boundary of the perfect time span specified by the adverbial. In any of the other

three perfects, this is not true; the event time is included within the perfect time span, but not throughout it. Examples (14) and (15) illustrate this schematically.

(14) *Experiential perfect (*or *resultative* or *recent past)*

> *I have been in Boston since Tuesday* (Experiential reading: I stopped there on Wednesday for lunch on my way to Cape Cod.)

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                                              R
                             I    F
                            [EEE]_____
        _____
        Tuesday     ←Perfect Time Span→    Now
```
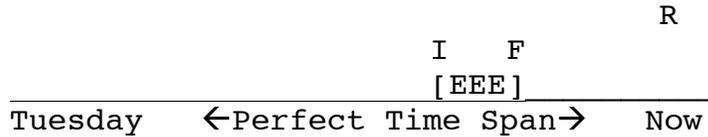
(15) *Universal perfect*

> *I have been in Boston since Tuesday* (Universal reading: I arrived on or before Tuesday, and have been here ever since; Tuesday, the left boundary of the perfect time span is required to be included within E.)

```
                                              R
        …EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE…_____
        Tuesday   ←Perfect Time Span→    Now
```
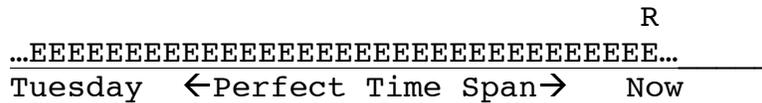
In order for a universal perfect to occur, the perfect event or situation must be unbounded, i.e., incomplete telic events, unterminated atelic ones, or states. So a stative predicate (verb or adjective) or an event verb in imperfective viewpoint is required to form a universal perfect (Iatridou, et al. 2001). The fact that the universal perfect is never available without adverbial modification or contextual support,[7] along with the fact that some languages that have a perfect do not allow any universal perfect readings (Modern Greek is an example, Hedin 1987) has led some to claim that the universal perfect is not a core meaning or use of the perfect (Jesperson 1924 and Comrie 1976, via Iatridou, et al. 2001:191). The universal reading has been said to be just a subcase of the experiential perfect, attributed to vagueness of the duration of the unbounded predicate.

Iatridou, et al. refute this claim by pointing out constructions in English where only a universal reading survives, meaning that the universal cannot be a subcase of the existential, but rather is truly a semantically-based distinction. They also demonstrate differences in the tense of embedded clauses under existential perfects (morphological past is allowed even if the embedded event is contemporaneous with matrix clause event) as compared to universal perfect (morphological past requires that the embedded clause

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[7] *Mary has been sick*, unmodified by adverbials or context, can have an experiential reading, but it can also have a reading where she is still sick at utterance time. However, the utterance does not entail this. It could be continued with either *…and still is* or *…but is fine now*. Iatridou, et al. conclude that this is not a true universal perfect, but rather closest to a perfect of recent past. With the right contextual support, though, a sentence without adverbials can yield a universal perfect: *Stop telling me how to do everything! I've been working here and I know how to do that!*

event be prior to the matrix clause event). Iatridou, et al. argue that the crosslinguistic variation among languages with respect to the existence or nonexistence of the universal perfect is due to the morphosyntactic features of the perfect event: the universal perfect is available only if the event under the perfect can be unbounded.

3.2.4.2 Adverbials and the universal perfect

As mentioned above, an adverbial is usually necessary to obtain a universal perfect reading. Some adverbials, such as *always,* allow only universal readings with the perfect. Others, such as *since* and *for,* allow either a universal reading or an existential one. Still others, e.g., *four times,* allow only existential readings. Adverbials can occur on two levels that differ in scope: perfect-level adverbs are higher in the syntactic structure than eventuality-level adverbs (Iatridou, et al. 2001 following Dowty 1979 and Vlach 1993). Perfect-level adverbs specify the length of the perfect time span, whereas eventuality-level adverbials specify the length of the event or situation itself. In addition to this scope distinction, adverbials referring to intervals can be either durative or inclusive. Perfect-level durative adverbials give a universal perfect, because they require universal quantification over the interval (Iatridou, et al. 2001). Perfect-level inclusive adverbials assert inclusion in the interval, yielding an existential perfect.

Some adverbials, like *since*, can be either durative or inclusive, and therefore yield either universal or existential perfects. *For-* adverbials, on the other hand, are always durative, but are universal when perfect-level, experiential when eventuality-level. This can lead to ambiguity: *I have been playing baseball for three hours* can be either experiential or universal, as illustrated in (16) and (17).

(16) I have [been playing baseball for three hours]   (eventuality-level, experiential)

```
                                       R
            I    ←3 hours→   F
                         [Playing baseball]___
     _____
     …          ←Perfect Time Span→       Now
```
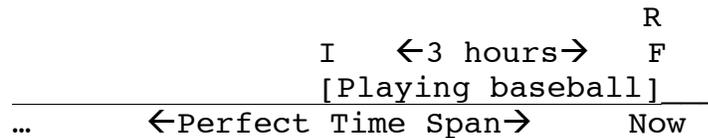
(17) I have [been playing baseball] for three hours   (perfect-level, universal)

```
                                    R
               …Playing  baseball…
     _____
               3 hrs ago          Now
               [Perfect Time Span]
```
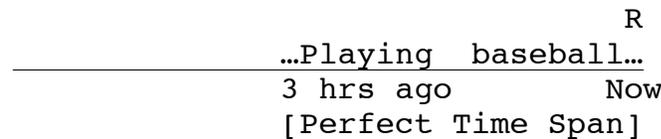
The ambiguity disappears when the *for*-adverbial is sentence-initial, as in (18). Only the perfect-level adverbial *for-* is possible in this position.

(18) <u>For three hours</u>, I have [been playing baseball]   (perfect-level, universal)

As mentioned before, universal perfects require unboundedness, which entails that the eventuality holds throughout the entire interval and is subject to the subinterval property.[8] When a *for-* adverbial is eventuality-level as in (16), the event does not have the subinterval property: [playing baseball for three hours] is not true of every subinterval of the interval; one cannot say he has been [playing baseball for three hours] in the second hour of doing so. In contrast, the perfect-level *for-* allows the interval to maintain the subinterval property, because [playing baseball] is true at every subinterval throughout the interval.

3.2.5 Combination of the perfect with other aspects

In languages that possess both a perfect/non-perfect distinction and other aspectual distinctions, such as perfective/imperfective, the two types of aspect may be combined so that perfect+perfective and perfect+imperfective can be expressed. This is demonstrated by the compatibility of the English perfect with the progressive, which is an imperfective aspect (Comrie 1976), *I have been studying since Tuesday*, and the perfect with the perfective, *John has studied chapter three.* The perfect+imperfective combination is frequently used for universal perfects such as *John has been watching football since nine this morning*, but can also be used for experiential or recent past/hot news perfects as well, such as *Have you ever been watching TV when the tube exploded?* (Comrie 1976) or *Johnny has been stealing cookies from the pantry!*

3.2.6 Summary

The perfect aspect places an event E in or throughout a perfect time span whose right boundary is R (set by tense) and whose left boundary is infinite unless specified by a perfect-level temporal adverbial. Crosslinguistically, either bounded or unbounded eventualities can be expressed in the perfect, though some languages only allow bounded events in the perfect. There are four types of perfect: the experiential, the perfect of recent past, the resultative perfect, and the universal perfect. The first three typically involve bounded events (but can tolerate unbounded ones). However, on the universal perfect reading, the perfect event is necessarily unbounded, and the sentence includes a perfect-level durative adverbial or is spoken in a context where the event clearly overlaps with reference time.

3.3 *Situation Aspect*

Situation aspect refers to the temporal properties intrinsic to a verb constellation—a verb and its arguments—in contrast to viewpoint aspect, which portrays that event or situation as a part or a whole. There are five basic situation types, differentiated by the combinations of three temporal features: dynamism, telicity, and duration. The *dynamic/stative* distinction separates events, which require some energy input to happen, from states, which are undifferentiated situations that do not require any energy input to persist. *Telic* events have a natural endpoint of some change of state and cannot continue once that endpoint is reached. Once someone drinks a gallon of milk, for example, he

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[8] The subinterval property holds of an interval *iff* the eventuality holds at every subinterval of that interval.

cannot continue to drink that gallon of milk. Telic events are countable: If they take an object, there will be a specified quantity of that object. *Atelic* events, on the other hand, are processes that lack an outcome, so the endpoint is arbitrary, simply the time when the process is stopped. Events that are *durative* occur over time and have a beginning, middle, and end, whereas *instantaneous* events have no internal structure or duration; they happen in an idealized instant (Smith 1997). Figure 3-1 illustrates the temporal features of the basic event types.

	Dynamic	Durative	Telic
State	-	+	-
Activity	+	+	-
Accomplishment	+	+	+
Semelfactive	+	-	-
Achievement	+	-	+

Figure 3-1: Temporal features of situation types (Smith 1997)

3.3.1 Dynamic Event Types

3.3.1.1 Activities

Activities are dynamic, durative, atelic events. They have an arbitrary endpoint, so activities stop but do not finish (Smith 1997). Example activities are *chat, laugh, run in the park,* and *drink water*. There are three types of activities: continuous processes that are at least potentially unlimited, like *run in the park*; activities built by many internal stages, e.g., a telic verb with an object of unspecified quantity (*eat cherries*); and coerced activities: instantaneous events that are iterated (the series of iterations has duration).

3.3.1.2 Accomplishments

Accomplishments are dynamic, durative, telic events; they involve a process and an outcome, which is to say that they have natural temporal bounds. *Eat a sandwich*, *walk to the store*, and *run thirty miles* are accomplishments. Smith also includes activities with an adverbial of specific duration, such as *run for an hour*, in the category of coerced accomplishments. Although the verb constellation does not entail an outcome, these events are bounded by the durative adverbial because now the event has specific start and end points.

3.3.1.3 Semelfactives

Semelfactives are dynamic, instantaneous, atelic events. They are single-stage events with no result, such as *knock*, *flicker*, or *cough*. Because they have no internal structure, when semelfactives are presented in the imperfective viewpoint, they are usually interpreted as occurring repeatedly and become coerced activities.

3.3.1.4 Achievements

Achievements are dynamic, instantaneous, telic events such as *win the game* or *explode*. These events have no internal structure, but result in some change. As with

semelfactives, referring to them in imperfective aspect usually coerces an activity reading of repeated events.[9]

3.3.2 States

States lack dynamism, differentiating them from all four types of events above. They do not describe a dynamic event but rather a property of the subject. When a state holds of an interval, it also holds of every subinterval of that interval, and there are no natural endpoints to a state. There are two types of states: individual-level (inherent) and stage-level (temporary).

3.3.2.1 Individual-level States

Individual-level states are relatively intrinsic, stable properties of the subject, such as *be extinct* or *be tall*: they hold true of an individual throughout the individual's existence, i.e., they are considered to be permanent properties.

3.3.2.2 Stage-level states

Stage-level states describe a temporary stage of a subject, relatively transitory properties like *be hungry* or *be in the next room*. Like individual-level states, there is no inherent endpoint to the property, but the fact that stage-level states are by definition temporary means that implicitly, endpoints to the state exist.

3.3.2.3 Differences in the behavior of individual-level and stage-level states

Crosslinguistic evidence shows that patterns of syntactic behavior and semantic interpretation can be predicted by the individual/stage-level distinction. It must be noted that there is not a one-to-one correlation between a state and a classification of state type. For example, *have blue eyes* is an inherent, individual-level state for most, but a stage-level state for someone who changes colored contacts on a daily basis, since for that person having blue eyes is not an inherent property of the person, but rather a temporary stage (Kratzer 1995). Still, the state *has blue eyes* would behave differently on the basis of which type of state it was expressing. Some of the varying behaviors that point to the temporary nature of stage-level states are discussed in this section.

Lifetime effect. Individual-level states in the past tense in English are interpreted to have held throughout the existence of the subject, while stage-level states are interpreted as no longer holding true.

(19) *John was tall/liked chocolate/had blue eyes.*   (Individual-level)

(20) *John was hungry/was in the next room/ was sick.*   (Stage-level)

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[9] *The Red Sox were winning*, an apparent example of an imperfective achievement that is not iterated, really has the meaning "they were ahead," not "they were in the transition moment from the game happening (when no team has won) to the game being over, when a winner has been established. The imperfective can be used with achievements to slow down the event in order to express simultaneity: *As the bomb was exploding, the lieutenant threw on his helmet. It saved his life.*

The reading of the individual-level states is unbounded—it continues indefinitely—because an inherent state lacks endpoints. In contrast, the stage-level state is interpreted as a bounded situation, one that is not true anymore, because the state is known to be temporary.

Compatibility in Mandarin with the perfective marker –le. Stage-level states are compatible with the Mandarin perfective marker –*le*, but individual-level states are not (Chang 2003).

(21) Stage-level states
      a. Ta e le.
         He hungry LE
   "He got hungry."

      b. Ta lei le.
         He tired LE
   "He got tired."

(22) Individual-level states
      a. *Ta haoke le.
       *He hospitable LE

      b. *Ta pa she le.
       *He afraid snake LE   (from Chang 2003)

This analysis does not aim to delve into the semantics of –*le*, but we will characterize it as a morpheme of perfective aspect. In Chang's analysis, -*le* is able to evoke a boundary when occurring with stage-level states but cannot do so with individual-level states because the permanence of the state entails that there are no endpoints to it.

There are still other diverging behaviors of individual-level and stage-level states including *ser/estar* selection for "to be" in Spanish, grammaticality of *There-* insertion in English,[10] and specification of the time and place of situation. The differences in behavior in these cases relate to the notion that stage-level states are temporary and therefore have implicit endpoints that can be evoked to bound a stage-level state (despite the fact that the state has no natural endpoint, unlike telics), whereas individual-level states are permanent features of the subject and thus have no endpoints, implicit or otherwise.

3.4 (Un)boundedness

In Section 3 we have seen two different types of bounded and unbounded eventualities. At the level of situation aspect, each VP has intrinsic characteristics with regard to

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[10] (1)   There are firemen available. (stage)
  (2)   *There are firemen altruistic. (individual)   (Kratzer 1995)

endpoints. Telic and durationless VPs have intrinsic bounds at which the eventuality ends: once one [eats four eggs], a (telic) accomplishment, he cannot continue to eat the same four eggs. On the other hand, one can [run in the park], and then continue to run in the park; an activity is an example of an atelic VP, which does not reach a natural endpoint but rather only an arbitrary, external one (whenever the runner gets tired or bored or hit by a bus). States also have no natural endpoints.

Although a sentence may or may not have intrinsic endpoints, viewpoint aspect can provide extrinsic endpoints where only arbitrary ones exist, in the perfective, or hide intrinsic endpoints from view, in the imperfective. One situation class does not tolerate extrinsic bounds: individual-level states. As discussed in Section 3.3.2.3, individual-level states hold throughout the existence of the subject. Not even arbitrary, implicit endpoints are available to which the extrinsic bounds can apply. Individual-level states are inherently unbounded, in contrast with the implicitly unbounded stage-level states and activities that can have extrinsic bounds provided to them.

In the perfect, Comrie (1976) notes an asymmetry: some languages allow both unbounded and bounded eventualities in the perfect; and some only allow bounded eventualities in the perfect—Modern Greek, for one; but it seems no languages allow exclusively unbounded eventualities in the perfect. The languages that only allow bounded eventualities in the perfect do not have a universal perfect. The following sections will suggest that ASL patterns with Greek, and the ability of the VP to be bounded is relevant to this classification.

3.5 Summary

Aspect, in general, concerns the temporal characteristics of an event or situation. Viewpoint aspect presents the temporal constituency of a situation, and it either presents an event as a single, bounded whole (perfective aspect) or it highlights an event's internal structure without referencing its endpoints (imperfective aspect), giving an unbounded interpretation. The imperfective aspect can be subdivided into various categories (the inventories vary crosslinguistically) that can express the continuousness of a single event, the progression of an event, or the internal structure of a series of iterations of events.

The perfect aspect does not express the structure of the event itself but rather its relationship to the time of reference. The perfect asserts that there is a perfect time span continuing up to reference time, and that an event either occurs in the perfect time span (if the event is bounded) or throughout it (if the event has an unbounded reading). The event occurring in the perfect time span must somehow be relevant to reference time; there are four relevance conditions for use of the perfect. The four types are the experiential perfect, the perfect of result, the perfect of recent past, and the universal perfect. The universal perfect asserts that E persists throughout the perfect time span; it is only available if the event is unbounded. In languages such as English where a perfective/imperfective distinction is separable from the perfect/nonperfect distinction, these two types of aspect can be combined. Other languages, such as Modern Greek, restrict the perfect to use with perfective verbs only.

Situation aspect refers to the temporal properties of a sentence before viewpoint is applied. The distinguishing features are dynamism, telicity, and duration. The situation types are achievements, accomplishments, semelfactives, and activities—the four dynamic event types—as well as states. States have no natural endpoints, but the category is further divided into stage-level states, which are temporary, and individual-level states, which are inherent properties of the subject. The transience of stage-level states allows boundaries to be evoked for these, but not for individual-level states.

4   FINISH in ASL

The sign FINISH has many different uses in ASL. Fischer and Gough (1972, 1999) found seven meanings and four grammatical uses of the sign FINISH, most of them semantically related, and their list is not exhaustive. Crosslinguistically, verbs of termination, with a meaning of "to finish" or similar have a tendency to become grammaticalized as markers of perfect or perfective aspect. For example, the Swahili perfect prefix *me-* is thought to have come from the main verb *meele*, "to finish" (Heine and Reh 1984); the Mandarin perfective suffix *–le* may have been derived from *liao*, "to finish" (Li and Thompson 1981); and "done" marks perfect in African American Vernacular English (Dayton 1996). So it is not particularly surprising that this sign has become a target of grammaticalization in ASL, as it has been in other signed languages as well, including Israeli Sign Language (Meir 1999), Italian Sign Language (Zucchi 2003), and German and Dutch Sign Languages (Pfau & Steinbach 2006).

A newly created grammatical morpheme and its lexical cousin are disambiguated by diverging behavior in certain contexts, and sometimes later in linear order. English *have* exemplifies this: it is a main verb meaning "to possess," but also a grammatical auxiliary marking perfect aspect. The syntactic behavior of *have* differs when used for those two functions, at least in American English, in the requirement of *do*-support for questions and negation and in patterns of contraction. In their identification of lexical markers of tense and aspect in ASL, NKMBL (2000) identify lexical markers of tense and aspect that have been grammaticalized. The grammatical markers differ in articulatory pathlength and in syntactic position and behavior from the adverbials from which they presumably derived. Similarly, some of the different uses of FINISH can be distinguished by articulatory or prosodic characteristics, syntactic position, and interaction with negation. Section 4 discusses the various lexical, idiomatic, and grammatical uses of FINISH previously identified in the literature or found in the current study. Section 5 provides an analysis of one of the grammatical uses of FINISH, a marker of perfect aspect.

4.1 Note on data sources

The current analysis is based on data found in the NCSLGR[11] database, plus new data collected specifically for this project. All data come exclusively from Deaf users of ASL who are the children of Deaf parents; these native signers have shared their intuitions about the grammaticality and usage of particular constructions.

4.2 FINISH as a main verb

In English, the verb 'finish' takes either a noun phrase (NP) complement or a verbal complement with progressive verbal morphology, as in "I finished my homework" or "I finished painting the house yesterday." When used as a main verb in ASL, FINISH can similarly take an NP or VP complement. This presumably is the original source for the meaning that led to the grammatical uses of FINISH. This "finish," both in English and ASL, is compatible only with dynamic event VPs that have duration. It is infelicitous with individual-level states and most stage-level states (*I finished having blue eyes, *I finished being hungry), as well as with durationless events: *I finished arriving is also odd. In ASL, the same is true (though as we will see later that there is a grammatical marker FINISH, not the main verb, that is acceptable with durationless events).

The ASL verb FINISH is a two-handed symmetrical sign articulated with the '5' handshape. The hands begin with the palms facing the body, and turn outwards and down. An example of its production can be seen in Figure 4-1 below:

Figure 4-1: The main verb FINISH [NCSLGR vol. 1, ncslgr10a, U 2]

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[11] Some of the examples are taken from the National Center for Sign Language and Gesture Resources (NCSLGR) database of video examples of ASL sentences and narratives collected at Boston University and annotated with SignStream™ (Neidle & MacLaughlin 1998; Neidle, Sclaroff & Athitsos 2001, http://www.bu.edu/asllrp/SignStream/). The video and annotations, as well as the SignStream software, are accessible on the Internet (http://www.bu.edu/asllrp/SignStream/, http://www.bu.edu/asllrp/cslgr/) and on CD-ROM (Neidle 2003, 2004, 2007). For examples from the *NCSLGR SignStream™ Databases* CD-ROMs, the volume number, database file, and utterance number are listed in brackets. Additional data for this project were collected in conjunction with the American Sign Language Linguistic Research Project (ASLLRP); data without a source cited were collected specifically for this investigation.

An affirmative sentence with this FINISH can be negated with NOT FINISH or NOT-YET FINISH (or other regular negators, e.g., NEVER), as shown in (23) and (24).

(23) JOHN NOT FINISH READ BOOK

"John did not finish reading the book (because he hated it and couldn't go on)"

(24) JOHN NOT-YET FINISH READ BOOK

"John hasn't yet finished reading the book (but he will next week)"

4.3 Idiomatic uses

That's all: A double-articulated or restrained FINISH means "that's all" when placed at the end of the sentence.

(25) MOTHER SURPRISE, FINISH?

"Is surprising Mother all that's going to happen?" (Fischer and Gough 1972/1999:70)

Basta: Used—often with children—to mean 'That's enough!' or 'Knock it off!' This can also be used in a question to a child to ask if he has had enough. It can take on a directional articulation, which most other FINISHes do not, and is often articulated with only one hand. Fischer and Gough mostly find imperative examples.

Crap, it is/was too late: "I swerved out of the way of the deer but lost control of the car; FINISH; I flipped over an embankment." This use of FINISH, illustrated in Figure 4-2, is most often found in narrative contexts. It involves an emphatic downward articulation, often with a prominent 'fsh' mouth gesture, as well.

Figure 4-2: FINISH "Crap, it is/was too late" [NCSLGR vol. 3, Close Call, U 30]

"It'll be all over": One of our informants wryly recounted her mother's old warnings: a conditional clause, followed by FINISH, repeated with a high location of the hands, as glossed in (26) and shown in figure Figure 4-3.

Figure 4-3: FINISH "It will be all over"

(26) SUPPOSE IX-2p MAKEUP, FINISH, ALL BOY SCL"flocking to person"

   "If you put on makeup, it will be all over—the boys will flock to you."

The meaning is approximately, "It'll be all over" or "That will be the end of it."

4.4 Lexical and grammatical uses

4.4.1 As an adverb meaning "already"

The adverbial FINISH also occurs preverbally, but is usually articulated with restrained motion and is reduplicated or repeated, as can be seen in figure Figure 4-4.

Figure 4-4: ALREADY/FINISH [NCSLGR vol. 7, Roadtrip 1, U 25]

This FINISH sometimes even receives a different gloss, ALREADY, but the signs, although distinguishable in articulation, are clearly related. Unlike the main verb above, FINISH/ALREADY is compatible with states, as shown by (27), in contrast with (28).

(27) IX-3p FINISH/ALREADY WANT EARRING

   "She already wants earrings."

(28) *IX-3p FINISH WANT EARRING

   * "She has wanted earrings"/*She finished wanting earrings."

As with the perfect marker (to be discussed in Section 5), the replacement of FINISH/ALREADY by NOT-YET is required to negate an affirmative sentence.

4.4.2 As an adjective meaning "finished"

ASL is a null-copula language, and FINISH can be used as a predicate adjective meaning "finished," as in "Are you finished?" or "I am finished." Janzen (1995) identifies this as BE.FINISHED in the example reproduced as (29).

(29) DRAMA FINISH

    "The play is finished."   (Janzen 1995:121)

4.4.3 Past tense marking: restricted to interactions with children

Fischer and Gough identify a few instances in their corpus in which adults signing with children use FINISH to mark past time. Interestingly, their glossed example, reproduced as (30) below, shows FINISH at the start and end of a sentence, where one would expect temporal adverbials in adult signing. Indeed, the authors note that as the child's grammar develops, this FINISH is replaced by BEFORE, indicating that the adult speakers in this example are using a sort of "baby talk."

(30) FINISH DRIVE DADDY, MOMMA, BERNARD, SHIRLEY, LISA, ROBERTA, YOU REMEMBER, YOU IX-1p GO SWIM, FINISH?

    "Remember that Daddy Mommy, Bernard, Shirley, Lisa, and Roberta went for a drive and went swimming?" (From Fischer and Gough 1972/99:69).

4.4.4 As a VP-final marker of perfective aspect

There is also a VP-final FINISH that Rathmann[12] and others have described as a clause-final morpheme of perfective aspect. This is found in sentences like these:

(31) YESTERDAY MOTHER BUY BOOK FINISH

    "Yesterday Mom bought a book."   (NCSLGR vol. 1, ncslgr10e, U 3)

(32) 3-PIG GROW-UP FINISH

    "The three pigs grew up."   (NCSLGR vol. 3, Three Pigs, U 2)

(33) JOHN BOOK READ FINISH IX-3p

    "John read a book."   (NCLSGR vol. 1, ncslgr10p, U 6)

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[12] Some of the evidence Rathmann cites to support the position that VP-final FINISH is a perfective marker appears to be drawn from sentences containing a different use of FINISH, that of sentence-external discourse marker (Section 4.4.5), but we agree with his conclusion that there is a VP-final FINISH that marks perfective viewpoint.

According to the Bounded Event Constraint (Smith and Erbaugh 2005), perfective events may not be located in the present. Indeed, this is the case with sentences with VP-final FINISH: they are incompatible with an adverbial that locates reference time (and event time) in the present.

(34) *NOW MOTHER BUY BOOK FINISH

Rathmann correctly notes that the VP-final perfective marker is incompatible with individual-level states, since individual-level states do not have any bounds. (This is the same account we have seen earlier for the incompatibility of Mandarin –le with individual-level states in Section 3.3.2.3.)

4.4.5 As a clause-external discourse marker, conveying "and after that," "when that was over," or "and then"

The sign FINISH can be used between sentences to induce narrative advancement, as a discourse marker rather than a marker of aspect. It is compatible with imperfective aspectual inflection in the preceding sentence, and unlike the VP-final FINISH, it can refer to present recurring events (Janzen 2003),[13] which—if the Bounded Event Constraint holds—should be impossible if FINISH were a perfective marker in this case (as Rathmann claims it is). Its articulation varies depending on context; Figure 4-5 shows one example taken from the NCSLGR database.

(35) IX-1p CAN FEEL PULL SEW SAME SEW "quote" TIE POSS-2p SHOE
ALMOST SAME SEW++ FEEL fs-IT BCL"holding hand out", **FINISH**,
ICL"wrapping up finger"

"I could feel the pulling of the stitches, like tying your shoe, it was almost like that. He sewed me and I could feel it—I was holding my hand out and looking at it; when all that was over, they bandaged it…   (NCSLGR vol. 4, Accident, U 57-58)

Figure 4-5: The discourse marker FINISH [NCSLGR vol. 4, Accident, U 58]

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[13] From Janzen 2003:2 (with glosses modified for consistency):

(1) GO:i IX-loc:i READ BOOK FINISH GO:j GYM fs-OR GO:k fs-ROOF IX-loc:k PLAY OUT+
"We go read a book, and then go out to the gym or out on the roof to play."

The discourse marker can tolerate a large prosodic break before and/or after the sign FINISH. It does not even need to occur between sentences: there are instances in which the discourse marker is signed without a sentence following, or without a sentence before. The discourse marker can refer to a whole sequence of narrated events preceding FINISH, not just the immediately preceding clause.

In these respects, this use of FINISH is quite distinct from that of the clause-internal, VP-final FINISH discussed in Section 4.4.4, although Rathmann conflates the two. In fact, Rathmann uses the narrative advancement characteristic of this Discourse Marker FINISH to argue for his claim that the uses of FINISH described in both 4.4.4 and 4.4.5 (which he does not distinguish) express perfective aspect. Narrative advancement is consistent with perfective viewpoint, but is not diagnostic of it (contrary to his claim). For example, in English, *and then* advances narrative but does not mark perfective aspect.

4.5 Summary

The sign FINISH has many semantically related lexical, idiomatic, and grammatical functions in ASL, including that of a main verb, a predicate adjective, an adverb meaning "already," various idiomatic expressions, a discourse marker, and a marker of perfective viewpoint. The different uses can often be distinguished by articulation, syntactic position and behavior, and interpretation. One use has been omitted from this list, since the rest of the investigation will focus on it: preverbal FINISH, marking the perfect.

5 Preverbal FINISH in ASL: data and analysis

5.1 Preverbal FINISH as a perfect marker in ASL

Fischer and Gough make no direct claim that FINISH functions as a marker of perfect aspect, but acknowledge this possibility in a footnote (1972,1999:72). Rathmann (2005) discusses it in more depth, and others have also recognized that preverbal FINISH participates in a perfect construction (Janzen 1995, NKMBL 2000). The perfect FINISH locates an event as having occurred before reference time, but with relevance at reference time. In the sentence IX-1p FINISH TOUCH FRANCE, "I have visited France," the visiting of France occurred before the moment of utterance. This sentence is, however, compatible with the adverbial NOW, which demonstrates that the reference time in this construction is the present. Thus, the perfect FINISH establishes that the event E has been completed before reference time R. Preverbal FINISH only marks aspect, but is unmarked for tense. Thus FINISH is compatible both with adverbial time reference to past, present, or future, and with lexical tense markers, such as FUTURE, demonstrated in example (36) below.

(36) JOHN FUTURE FINISH SEE MARY
       "John will have seen Mary."   (NCSLGR vol. 2, ncslgr10l, U 52)

5.2 Distinguishing the perfect marker from the main verb

Although some sentences may be ambiguous with respect to the status of FINISH as an aspectual marker or a main verb, it is clear that these two uses of FINISH are distinct.

The two FINISHes typically differ in articulation. Figure 5-1 shows the articulation of the perfect marker: it is usually articulated more quickly and less emphatically than its main verb counterpart.

Although the two uses are often distinguished by articulation, phonetic form is not a reliable diagnostic of the difference between main verb and perfect marker. Two syntactic/semantic characteristics also distinguish the main verb from the perfect marker: compatibility with durationless events and patterns of negation.

Figure 5-1: The perfect marker FINISH

5.2.1 Compatibility with negation

Possibilities for negation distinguish the main verb FINISH and the perfect marker. Recall from Section 4.2 that the main verb FINISH can be negated with the usual sentential negators, as shown in (23). However, the perfect aspect marker FINISH is incompatible with sentential negation. To negate an affirmative sentence in the perfect in ASL, the sign NOT-YET is used in lieu of NOT FINISH, as shown in (37)–(39). (The line above the glosses shows the scope of the head shake that marks the VP as negative.)

(37) (affirmative)   IX-1p FINISH TOUCH FRANCE

        "I have visited France"

                                                          neg
                          _____
(38) (negative)   IX-1p NOT-YET TOUCH FRANCE

        "I have not (yet) visited France"

                                                          neg
                          _____
(39) (negative)   *IX-1p NOT FINISH TOUCH FRANCE

A similar restriction is reported by Zucchi (2003) for LIS, Italian Sign Language, which has a perfect marker very much like FINISH in ASL, glossed as FATTO. When used as a marker of perfect aspect, negation requires use of NON-ANCORA ('not yet') (Zucchi 2003). FINISH is also incompatible with other negators such as NEVER, NOTHING, and NO-ONE.

5.2.2   Durationless events

Given the differences in the semantics of these two constructions, it is not surprising that there are cases where one use of FINISH would be appropriate, whereas the other would not be. In cases where the main verb "to finish" is combined with a VP, the complement verb phrase must have duration (in order to be semantically finishable). This logically excludes achievements, which are telic events with no duration. Indeed, it would be strange in English to say *I finished arriving* or *I finished taking off*. However, one can easily combine an achievement with the perfect: *I have arrived, John has taken off*. The same is true in ASL. The grammaticality of (40) demonstrates the existence of a preverbal FINISH distinct from the main verb, which functions as a marker of perfect aspect.

(40) JOHN FINISH ARRIVE

    "John has arrived"   Cannot be used with the meaning: 'John finished arriving.'

    Negation of (40) confirms that only the perfect reading of FINISH is available for durationless events. Constructions such as (41) are not acceptable; variants such as the sentence shown in (42), using the sign NOT-YET, must be used for negation. As previously mentioned, the main verb FINISH can be negated in the usual way (e.g., with NOT, as seen in (23)), whereas for the perfect construction, this is not possible (cf. (39). Thus, (40) involves the perfect use of FINISH as distinguished from the main verb.

                                     neg
(41) *JOHN $\overline{\text{NOT FINISH ARRIVE}}$

                                   neg
(42) JOHN $\overline{\text{NOT-YET ARRIVE}}$

    "John has not yet arrived."

    In this section we have seen that there is a preverbal FINISH distinct from the main verb that marks the perfect in ASL. Little work has been done in analyzing the perfect readings induced by preverbal FINISH, and the current analysis differs from one of the few works that has examined the ASL perfect and its distribution, Rathmann (2005), in that this analysis claims that preverbal FINISH marks both perfect and perfective aspect. The following sections will (a) review the distribution of the ASL perfect across the different event types and in combination with inflected forms, and (b) look into the readings associated with the ASL perfect. Section 5.6 then offers a unified account for both the distribution of preverbal FINISH and readings associated with it.

5.3   *The semantics of the perfect marker FINISH*

The generalization that emerges from the data we have collected on the use of FINISH is the following:

(43) The ASL perfect marks the event or situation being described as having culminated prior to Reference time.

The sections to follow demonstrate that this correctly accounts for the distributional restrictions (5.4) and allowable readings (5.5) of the perfect in ASL. Cecchetto, Geraci, and Zucchi have found that this is also the case for the perfect marker in LIS, Italian Sign Language (personal communication). Section 5.6 then presents conclusions about the status and functions of this preverbal FINISH in ASL.

5.4 The distribution of the perfect marker FINISH

As we have seen in Section 3.2.5, in languages where it is formally possible to combine the perfect/nonperfect with other aspectual distinctions, these combinations do occur. English is one such language: the perfect can be combined with the progressive, giving sentences such as *I have been playing baseball*. Other languages, such as Modern Greek, only form the perfect with bounded VPs.[14] The acceptability of the perfect with unbounded events in a given language correlates with the availability of a universal perfect reading. In this section, it will be argued that the perfect in ASL requires termination of the event or state prior to the reference time. In Section 5.5, this generalization will be shown to explain the unavailability of the universal perfect construction in ASL. In this section we explore the perfect's compatibility with the different event types and aspectual inflections.

5.4.1 Distribution across dynamic event types

5.4.1.1 Semantically bounded dynamic events

The ASL perfect is compatible with the three bounded event types: achievements, accomplishments, and semelfactives. The first two are bounded by their telic feature, which specifies that an event has a natural endpoint. Semelfactives are atelic but bounded by virtue of being instantaneous events: they end right after they begin. Rathmann (2005) correctly claims that preverbal FINISH is compatible with bounded events. The following are examples of sentences from each of the three bounded event types:

(44) Achievement: JOHN FINISH ARRIVE

"John has arrived."

(45) Accomplishment: IX-1p FINISH DRINK 1 #GAL MILK

"I have drunk a gallon of milk."

(46) Semelfactive: IX-1p FINISH SNEEZE

"I have sneezed."

All three bounded event types are compatible with preverbal FINISH.

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[14] Modern Greek only allows perfective-marked verbs under the perfect; every eventuality is bounded by perfective viewpoint. The story in ASL is different in that there is no morpheme marking perfective viewpoint that is separable from the perfect marker or from the VP.

5.4.1.2 Semantically unbounded dynamic events

Preverbal FINISH is also compatible with the unbounded dynamic event type, activities. Rathmann (2005) makes a correct claim in this regard.[15] Our data confirm that the perfect is compatible with activities, as in (47).

(47) Activity: IX-3p FINISH STUDY SPANISH

   "He has studied Spanish."

Thus we see that the ASL perfect is compatible not only with semantically bounded dynamic event types, but also unbounded dynamic event types.

   Having argued that FINISH is compatible with atelic events, Rathmann goes a step further to claim that "A perfect marker in ASL is neutral to whether an event is bounded or not" (2005:155). However, we will see that boundedness is indeed relevant to the use of the perfect in ASL, and that, in fact, termination of the event or state prior to reference time is a condition for its use.

5.4.2 Compatibility with states

Individual-level and stage-level states are both unbounded, but stage-level states are temporary and therefore known to come to an end eventually, whereas individual-level states are more intrinsic, stable properties of the subject and do not have implicit endpoints. ASL is a language in which an inceptive reading can be applied to a state verb or predicate to mean, "become X," an achievement. Thus the same sign ANGRY would be found in a sentence like (48), with the inceptive reading, and (49), with the stative reading.

(48) IX-1p SIT #TV WATCH, MOTHER LOOK, ANGRY   (inceptive)

   "I was watching TV; when mom saw me, she got angry."

(49) MOTHER ANGRY ALL-DAY   (stative)

   "Mom was angry all day."

In this section, we will be restricting attention to the true stative readings.

5.4.2.1 Stage-level (temporary) states

Stage-level states in the perfect are rare in ASL, but they do occur given the right context.

(50) TEACHER FINISH PAST/BEFORE IN HOUSE IX-loc:i QMwg[16]

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[15] Rathmann offers ME FINISH RUN 30 M-I-L-E as evidence that the ASL perfect formed by preverbal FINISH is compatible atelic predicates (2005:144), though this example is a telic predicate. Elsewhere in his paper, he does present atelic predicates with preverbal FINISH: his example (47) contains three: JOHN FINISH RUN, WALK, REST.

[16] The question marker articulated by wiggling the bent index finger, related to the sign QUESTION.

"Has the teacher ever been in the house? (NCSLGR vol. 1, ncslgr10c, U 14)

In order for the sentence to be acceptable, the state must have occurred before the reference time but also no longer be true at the reference time.[17]

5.4.2.2 Individual-level (inherent) states

Rathmann claims that individual-level states are ungrammatical with FINISH. Our data corroborate his claim: Perfect individual-level stative sentences are ungrammatical whether or not the predicate is modified by a temporal adverbial. An example is shown in (51).

(51) *IX-1p FINISH LIKE CHOCOLATE (UP-TO-NOW 5-YEAR)

* "I had/have liked chocolate (for five years)"

As to the reason why individual-level states are incompatible with FINISH in ASL, the explanation offered here differs from Rathmann's. He explains the incompatibility of the perfect and individual-level states in the framework of the Result State Theory of the perfect, saying that if the perfect creates an individual-level (result) state, it gives an individual-level stative reading to a sentence that is already individual-level stative. He attributes the ungrammaticality to pragmatic redundancy.

The difference in compatibility of the perfect with stage-level and individual-level states points to a more principled semantic distinction. Recall that in Section 5.4.2.1, a stage-level stative predicate is only compatible with the perfect if the situation being referred to no longer holds. Now consider that an individual-level state—by definition—is an inherent property of the subject, which is to say that the situation has no endpoint possible and the individual-level situation is always seen as ongoing. The behavior and possible readings given by English individual-level and stage-level states demonstrate this, as shown in (52) and (53).

(52) Stage-level states:
    I have been in the house since I woke up.   (Situation persists at reference time)
    I have been in the house twice since I woke up   (Situation does not persist at
                    reference time)

(53) Individual level states:
    Sugar has always been sweet   (Situation persists at reference time)
    # *Sugar has been sweet twice today.*   (Infelicitous sentence where
                    situation does not persist at reference time)

---

[17] For a discussion of the use of PAST/BEFORE, see Section 5.5.1 on experiential perfects. The generality of the acceptability of stage-level states in the perfect remains unclear. Sandro Zucchi (personal communication) suggests that the reading of stage-level states that are acceptable with preverbal FINISH may be coerced inceptive readings.

The requirement of culmination for use of the perfect construction in ASL is at odds with the continuous, unboundable nature of individual-level states, but not with the temporary nature of stage-level states.

Note that recognition of the perfective component of pre-verbal FINISH makes possible a unified explanation for the incompatibility of both VP-final FINISH (marker of perfective) and preverbal FINISH (marker of both perfect and perfective) with individual-level states: Individual-level states cannot be bounded. Since Rathmann does not analyze preverbal FINISH as contributing boundedness, this explanation (which he proposes solely for VP-final FINISH; see Section 4.4.4) is unavailable to him. He appeals instead to redundancy of the result state that he claims is inherent to the meaning of the perfect and the individual-level state of the predicate. The current analysis observes that FINISH not only marks perfect, but also contributes bounds to predicates that can be bounded (i.e., it is also a perfect marker). Therefore, individual-level states, which cannot be bounded, are also incompatible with the preverbal FINISH.

5.4.3 Distribution with temporal inflected forms

In standard analyses, imperfective aspect is explicitly marked as unbounded. Thus (43) would predict that, like individual-level states, inflected forms should be ungrammatical in the perfect in ASL because they are continuous and unbounded. This is a correct prediction, as will be demonstrated in the remainder of this section.

ASL also has some inflections that provide non-temporal aspectual information, and the perfect can co-occur with such inflections. These are similar in their production to temporal aspectual inflections, but it is important to distinguish them. One salient example from our data is ASK, which can be signed in its one-handed citation form, or with two hands alternating to mark plurality of the direct object ("many questions"), as in examples (54) and (55) and the associated figures.

(54) IX-1p FINISH ASK

"I have asked the/a question."
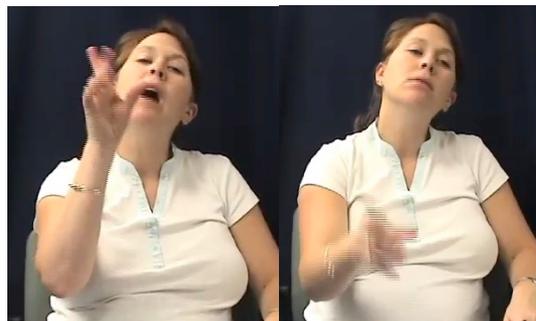
Figure 5-2: One-handed, uninflected ASK

(55) IX-1p FINISH (2h)alt.ASK

    "I have asked (many) questions."

Figure 5-3: 2h.alt.ASK, inflected for plural object agreement

The two-handed alternating inflection here only expresses the plurality of the questions asked; it does not directly give an aspectual value. The inflection in (55) gives no indication whether the signer asked questions over and over again, or asked all the questions at once. We will see that the aspectual inflections that would provide this information—the iterative or incessant aspects—are incompatible with preverbal FINISH. Object agreement, number agreement, distributional agreement, and adverbial modification were considered separately from temporally inflected forms and are compatible with preverbal FINISH.

5.4.3.1 Incompatibility with iterative, incessant, and continuative aspects

As predicted by the formulation in (43), the imperfective inflections iterative, incessant, and continuative are not compatible with the perfect in ASL. These inflections create an unbounded continuous reading. These aspects are incompatible with the preverbal perfect marker FINISH whether or not the predicate is modified by a durative adverbial. This is shown for the iterative by (56) and (57). The same restriction holds for the incessant (58) and continuative (59), although glossed examples of modified sentences for the incessant and continuative are omitted here.

(56) *IX-1p FINISH ASK++iterative

    *"I have been asking (over and over)."

(57) *IX-1p FINISH ASK++iterative UP-TO-NOW[18] 4-WEEK

    * "I have been asking (over and over) for four weeks."

(58) *IX-3p FINISH WORKincessant

    *"He has been working (incessantly)."

(59) *IX-1p FINISH LOOKcontinuative

    *"I have been looking at it."

---

[18] The sign UP-TO-NOW does not necessarily literally mean "up to now," but rather expresses a continuous duration like *for* does in English.

Rathmann only mentions the iterative and continuative morphemes,[19] which he observes to be incompatible with the preverbal FINISH. However, to explain this, he again appeals to Result State Theory. He claims that, by virtue of creating a result state, the perfect cannot be used with the iterative and continuative, since the inflections are incompatible with individual-level states.

Here a different explanation is proposed. Just as individual-level states cannot be used with perfect aspect in ASL because the state cannot be presented as terminated, so it is with predicates that include imperfective inflection. Imperfective viewpoint explicitly portrays an event as unbounded: the endpoints of the event are excluded. The three imperfective inflections describe internal dynamics of the state or event without referencing any endpoints; thus they are in conflict with the semantic requirement of culmination for the perfect in ASL (43). Contrast (56)–(59) with (60)–(62).

(60) IX-1p ASK++iterative UP-TO-NOW 4-WEEK

"I have been asking for four weeks."

"I was asking for four weeks."

(61) IX-1p LOOKcontinuative

"I have been looking"

"I was looking"

 (62) IX-1p WORKincessant UP-TO-NOW 20 HOUR

"I have been working incessantly for twenty hours."

"I was asking incessantly for twenty hours."

The iterative, continuative, and incessant inflections cannot be used in conjunction with the perfect construction (FINISH) in ASL.[20]

The imperfective is inherently unbounded, like individual-level states. The difference between individual-level states and imperfectives is that the states simply have no endpoints, explicit or implicit; imperfectives, on the other hand, explicitly exclude the endpoints of events (although the events may have natural or implicit bounds), in order to portray the event as ongoing and unterminated. In both cases, the situation cannot be presented as a bounded whole and thus clashes with FINISH.

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[19] Rathmann groups what Klima and Bellugi label as protractive, durative, and continuative inflections under the label "continuative," and the incessant and the iterative under the single label "iterative." This analysis will keep them separate.

[20] These inflections are allowed in a sentence that precedes the clause-external discourse marker described in Section 4.4.5; see especially footnote 12. Because Rathmann assumed (incorrectly, we believe) that FINISH in those cases marks perfective aspect, he concluded that the ASL aspectual inflections discussed here cannot be imperfective but rather mark situation aspect (which is an intrinsic property of the verb constellation (Smith 1997), and not something that is typically expressed morphologically, in any case).

5.4.3.2 A problem for the analysis: compatibility with habitual inflection

In most crosslinguistic characterizations of aspect, habitual marking falls into the category of imperfective. Indeed, in ASL, an event—telic or atelic—signed in the habitual aspect is usually interpreted as ongoing, like the other temporal aspects (Rathmann 2005), supporting the classification of the habitual as an imperfective morpheme. It differs somewhat from the continuous aspects such as the ASL incessant or the English progressive in that it refers to the regular repetition of events, rather than the ongoing occurrence of a single event, but the regular repetition is interpreted by default as continuing unbounded.

We have found that habitual inflection can occur with preverbal FINISH, as in (63).[21]

(63) IX-1p FINISH GOhabitual CONFERENCE (UP-TO-NOW 5-YEAR)

"I have gone (regularly) to the conference (for five years)."

The grammaticality of a perfect habitual sentence poses a problem for an analysis that FINISH should not be compatible with imperfective inflection because inherently unbounded events clash with FINISH. However, sentence (61) only gives a bounded reading: It can only be used to discuss a habitual experience whose repetition has ended before reference time. The sentence cannot be signed if the regular repetition of going to the conference is known to overlap with the reference time, e.g., on a plane on the way to the relevant conference. If the regular attendance is known to continue, one signs:

(64) IX-1p GOhabitual CONFERENCE (UP-TO-NOW 5-YEAR)

"I have/had been going to the conference (for five years)."

It is not exactly clear what is happening. The current analysis survives, however, if the habitual is not explicitly unbounded like the other imperfective inflections, but rather neutral with respect to boundedness, not unlike the activities and stage-level states we have seen in Sections 5.4.1.2 and 5.4.2.1, which are interpreted as unbounded by default, but have implicit endpoints that can be utilized to contribute a bounded reading to the eventuality if it is under FINISH. The unavailability of the continuous reading for the habitual in the ASL perfect points in this direction. This habitual inflection necessarily expresses the repetition of singular, bounded events. Although it is possible to refer to a continuous state that was habitual, as in (65), this cannot be done through use of the habitual inflection under discussion here.

(65) JOHN #EX LIKE CHOCOLATE   (NCSLGR vol. 9 ncslgr10s U 181)

"John used to like chocolate."

Furthermore, FINISH cannot be used with the construction illustrated in (65).

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[21] It is not a frequent construction, though. The GOhabitual example is grammatical, but ME FINISH ASKhabitual, "I had asked (regularly)" was rejected.

Rather than a single continuous unbounded event, the habitual inflection describes a repetition of perfective events, with a potential endpoint situated between each pair of successive discrete events. It is, however, unclear why the habitual inflection allows FINISH to impose a bound whereas the iterative inflection does not. Rathmann notes a distinction between the habitual and the iterative in that the iterative refers to a single instance containing repeated events, whereas the habitual refers to the pattern of repeated events where the events are somehow more separable. The reasons for the habitual's compatibility with the perfect when other imperfectives are incompatible are still not completely clear.

5.4.4 Summary of distribution of preverbal FINISH

Preverbal FINISH is compatible with semantically bounded events and with semantically unbounded dynamic events. Stage-level states are rare but possible in the perfect in ASL, but individual-level states are not possible under the perfect marker FINISH. The imperfective inflections iterative, durative, and incessant produce ungrammatical sentences with FINISH, but the habitual inflection can appear with perfect aspect.

For the situation types that are grammatical in the perfect, regardless of whether the VP itself is unbounded, the only available reading of the event under FINISH is bounded. This explains the ungrammaticality of individual-level states and imperfective marking in the perfect in ASL: both categories are explicitly unbounded. The habitual's grammaticality in the perfect challenges this explanation. Although it is not quite clear why the habitual is allowable under FINISH, one possible explanation is that the habitual is not inherently unbounded and has implicit endpoints that can be utilized to bound the eventuality.

5.5 Types of perfect readings with preverbal FINISH

This section will review the readings of the perfect constructions involving preverbal FINISH in the context of the four crosslinguistically attested types: the experiential perfect, the perfect of recent past, the resultative perfect, and the universal perfect.

The majority of the perfects we elicited when testing the range of predicates that are compatible with the ASL perfect could best be described as experiential perfects. This is mostly a function of the testing paradigm we created. Aside from the tests for distribution of predicate types, we also made a concerted effort to elicit perfects of recent past, universal perfects, experiential perfects, and resultative perfects by creating situations in which we would expect to see them.

5.5.1 Experiential perfect

The experiential reading of the perfect came quite easily. We were able to elicit an entire list of experiential perfects in a situation of comparing the previous on-the-job experiences of various job applicants. One example is provided as (66).

(66) IX-3p FINISH PHONE TRANSFER…

"He has transferred calls…"

When in isolation or formulated as a question ("Have you ever…?"), there was a preference to sign PAST/BEFORE at the end of the sentence, though it is not required to get an experiential perfect reading.[22] The experiential perfect in ASL refers to an event that is no longer in progress but has happened some time before reference time; the event is bounded.

5.5.2 The perfect of result

The frequency of the perfect of result varies a great deal crosslinguistically, as noted in the discussion of the perfect in Section 3.2.1. ASL allows the perfect of result, as in (67), although it does not seem to occur frequently.

(67) BABY FINISH WAKE-UP

    "The baby has woken up/the baby is awake"

The perfect of result signifies that the event under the perfect resulted in a change that currently affects the state of the subject. The event is bounded, as the change of state (the event) must be completed for the new result state to be in effect.

5.5.3 The perfect of recent past

The perfect of recent past is not included among the potential uses of the ASL perfect. The adverbial or tense marker RECENT-PAST or the sign PAH/SUCCEED/FINALLY in preverbal position were often substituted when informants were asked to paraphrase English sentences. They rejected preverbal FINISH, both in paraphrasing English and when they were asked to give grammaticality judgments about usage in situations where a perfect of recent past would be expected.

(68) *PRESIDENT FINISH DIE

    "The president has died!"

This perfect of recent past is on the outskirts of the meaning of the perfect. There is no real current relevance other than the newness of information regarding a recent event. It may be that ASL more stringently applies the current relevance condition than English does, and thus excludes the perfect of recent past.

5.5.4 The universal perfect

ASL does not allow the universal perfect. Recall from Iatridou, et al. (2001) that the universal perfect must be unbounded. The unboundedness requirement of the universal perfect is at odds with the fact that any VP under FINISH is interpreted as bounded (43). Rathmann cites the grammatical sentence IX-1p FINISH LIVE HAMBURG 10 YEAR as a universal perfect, as it can refer to any ten year stretch, including a ten year stretch that ends on the day of utterance. His example involves a speaker who has just moved out of

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[22] There is a similar preference in English, using *ever* in experiential perfect questions and *before* in affirmative experiential perfects.

Hamburg when he signs this sentence. There is no dispute about the grammaticality of the sentence or its meaning, as we were able to elicit a similar one. Our informant said that this can be signed if the time period continues up to the present.

(69) IX-1p FINISH LIVE BOSTON 5-YEAR

        a. "I have lived in Boston for five years" (it was in the 1980s)

        b. "I have lived in Boston for five years" (it was for the last five years)

If this sentence were a true universal perfect, however, we would expect that (70) would be felicitous; it is not. That meaning can only be achieved grammatically without FINISH, as in (71).

(70) * IX-1p FINISH LIVE BOSTON 5-YEAR   IX-1p STILL LIVE IX-loc$_{Boston}$ NOW

"I have lived (have been living) in Boston for 5 years. I still live there now."

(71) IX-1p LIVE BOSTON UP-TO-NOW 5-YEAR

        a. "I have been living in Boston for five years." (Lit. "I live in Boston for five years," analogous to the Spanish and French examples (Section 3.2.4)

        b. "I lived/was living in Boston for five years."

On the other hand, FINISH is appropriate if the action is terminated prior to reference time, as in (72).

(72) IX-1p FINISH LIVE BOSTON 5-YEAR   NOW IX-1p LIVE NEW-YORK

"I have lived in Boston for 5 years. Now I'm living in New York."

Although in the reading of (69)-b, the specified time span continues up until the present, and it is therefore tempting to label it a universal perfect, the eventuality does not overlap with the present. Only unbounded events entail that the event must *overlap* with R, not merely to come up to R. Bounded events cannot overlap with the present, and a universal perfect reading is impossible in ASL. Thus, the reading for (69)-b, presented schematically in (73) is significantly different from that of a true universal perfect (74).

(73) Time schema for Rathmann's purported "Universal Perfect" (reading for (69)-b)

```
                                      R
        I      ←5 years→      F
               [EEEEEEEEEEEEEEEEEE]
   …        ←Perfect time span→      Now
```
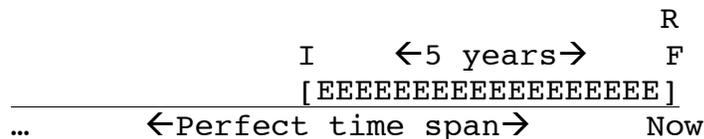
(74) Time schema for true universal perfect

```
                                         R
   …EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE…_____
   5 yrs. ago  ←Perfect Time Span→      Now
```

The sentence (or type of sentence) that Rathmann cites as universal perfect is very similar to a universal perfect. To illustrate the distinction that is critical here, let's consider similar constructions in English. English can have both perfect imperfective (unbounded) events, which include the progressive suffix *–ing* (as in (75)), and perfect perfective (bounded) events (76). Recall from Section 3.2.4.2 that only perfect-level, not eventuality-level durative adverbials can be fronted, and when an unbounded perfect has the durative adverbial fronted, only the universal reading should survive.

(75) *I have been playing baseball for five hours*   (overlaps with present)

(76) *I have played baseball for five hours*   (continues up to present, might overlap)

(77) *For five hours, I have been playing baseball*   (overlaps with present)

(78) *#For five hours, I have played baseball*   (cannot overlap with present)

Sentence (69) is not a universal perfect, despite the fact the sentence can be truthfully uttered if the situation continues up to utterance time, and thus has truth conditions very similar to a universal perfect. This is highlighted by the ungrammaticality of (78). The fact that ASL sentences with perfect FINISH do not overlap with reference time shows that in ASL, there are only counterparts to the English perfect perfectives (like (76) and no counterparts to English perfect progressive sentences like (75) (marked by *–ing*).

Unboundedness is required to obtain a universal perfect; the universal perfect occurs only with unbounded states or imperfectives. As mentioned in Section 5.4.2, the ASL perfect does not occur with individual-level states, and only allows a bounded reading of stage-level states, as shown in (79).

(79) BABY FINISH SICK BEFORE/PAST

  "The baby has been sick before"

  * "The baby has been sick (and still is)."

As for the aspectual inflections, the story is similar: the iterative, incessant, and continuative aspects are all incompatible with FINISH under any reading. On the other hand, the habitual has been observed to co-occur with FINISH. Still, like stage-level states, only bounded (experiential) readings are possible: The event does not overlap with the present. The universal perfect does not occur in ASL. This is consistent with the observation that the perfect in ASL occurs only with events that are terminated prior to reference time (43).

5.5.5 Summary of types of perfect found in ASL

Preverbal FINISH has been found to give both perfect of result and experiential perfect readings, but not perfect of recent past or universal perfect readings. The non-existence of a recent past perfect is most likely simply attributable to a more stringent condition of

current relevance than other languages; recentness is not enough to make the event relevant enough to the present to necessitate the perfect in ASL. The absence of the perfect of recent past does not seem to be a function of any semantic qualities of the ASL perfect, but rather an instance of cross-linguistic variation with respect to the threshold for current relevance.

The exclusion of the universal perfect is more principled. The universal perfect requires an unbounded reading of an event or situation, but any event or situation under perfect FINISH has a bounded reading, regardless of the boundedness of the underlying VP. The universal perfect is not an available reading of the ASL perfect.

5.6 Conclusions: Preverbal FINISH as marker of both perfect and perfective

As Section 5.4 has shown, preverbal FINISH is compatible with all bounded (telic or instantaneous) eventualities, but only some unbounded eventualities and situations. Despite the fact that preverbal FINISH can combine with both bounded and some (otherwise) unbounded VPs, any perfect sentence in ASL is interpreted as bounded and not ongoing at reference time. The requirement for completion prior to reference time is intrinsic to the meaning of the perfect construction in ASL. Preverbal FINISH is, then, a marker of perfect *plus* perfective aspect. The perfective component of preverbal FINISH explains the distribution of unbounded eventualities that are acceptable and unacceptable with the perfect in ASL.

Some, but not all, unbounded events are compatible with preverbal FINISH. Crosslinguistically, unbounded eventualities are attested as compatible with the perfect (though some languages do not allow them). On the other hand, only some unbounded eventualities tolerate bounds imposed by perfective viewpoint; others do not tolerate bounding by the perfective and therefore are incompatible with perfective viewpoint. The unbounded eventualities that are incompatible with preverbal FINISH in ASL are the same ones that tend to be incompatible with perfective viewpoint in other languages: the incompatibility of ASL preverbal FINISH with individual-level states and imperfective verbs is due to the perfectivity contributed by FINISH, not the perfectness.

5.6.1 FINISH and present time reference

Preverbal FINISH, which marks both perfect and perfective aspect, contrasts with the (non-perfect) perfective VP-final FINISH in compatibility with present time reference, by virtue of the perfect aspect contributed by preverbal but not VP-final FINISH. In non-perfect constructions, event time, E, coincides with reference time, R. As briefly noted in Section 4.4.4, VP-final FINISH is incompatible with present time reference because the Bounded Event Constraint dictates that a bounded event cannot be located in the present, as the ungrammaticality of sentence (34), repeated below as (80), shows:

(80) *NOW MOTHER BUY BOOK FINISH

In perfect perfective sentences, however, E precedes R. ASL perfect sentences with preverbal FINISH are compatible with NOW, as seen in example (81).

Situation: Yesterday, John was not able to answer the teacher's question. However, today he has read the book that was assigned and so he is on top of the material.

(81) NOW JOHN FINISH READ BOOK   KNOW ANSWER

"Now John has read the book. He knows the answer."

The bounded reading of the event in a perfect sentence such as (80) and the adverbial NOW do not conflict with respect to the Bounded Event Constraint, because in perfect sentences, E precedes R. When NOW is specified as reference time in a perfect sentence, the event is specified as preceding, not overlapping, the present. Thus, NOW (or any other present time reference) is compatible with the perfect/perfective construction of preverbal FINISH, but not with the purely perfective VP-final FINISH construction.

5.6.2 Narrative advancement and the perfective

Rathmann in part bases his claim that preverbal FINISH marks perfect, but not perfective, on the fact that perfective aspect induces narrative advancement. He states that the ordering of perfective VPs in a sentence also reflects the actual temporal ordering of the events themselves. Rathmann points out the fact that whereas FINISH[23] at the end of a sentence or between sentences induces temporal sequencing, preverbal FINISH does not. Since VP ordering in sentences with preverbal FINISH does not necessarily reflect the temporal sequence of the events the VPs describe, Rathmann concludes that preverbal FINISH is not perfective.

Although the default interpretation of perfective sentences may involve the sequencing of events in the same order as that of the VPs, this is certainly not a requirement of the perfective and does not prove that preverbal FINISH is not perfective. Crosslinguistically, perfective sentences do not always occur in an order that reflects the temporal order of the events. As pointed out by Alessandro Zucchi (personal communication), the Italian sentences below, for example, are perfective, but do not necessarily entail that the events occurred in the order that they are uttered:

(82) Ieri John fece un sacco di cose. Camminò, corse, lavorò in palestra...
    "Yesterday, John did a lot of things. He walked, he ran, he worked out in the
    gym..."   (Alessandro Zucchi, personal communication)

The availability of event orderings other than the one reflecting the sequence of perfect sentences is not evidence that these sentences are not perfective, as we can see clearly from the Italian example. The perfectivity of preverbal FINISH is not disproved by the fact that perfect FINISH does not induce narrative advancement, as narrative advancement is not an absolute characteristic of perfective viewpoint.

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[23] Though remember that he conflates two FINISHes, both the VP-final perfective marker and the sentence-external discourse marker which we here liken to "and then" or "when that was over," which certainly induces narrative advancement but does not mark perfective. The discourse marker is the basis for the claims of narrative advancement.

5.6.3 Restrictions due to perfectivity

We have three categories relevant to the pattern of distribution of the perfect/perfective FINISH: a) bounded events, which are compatible with FINISH; b) unbounded events that tolerate FINISH and can be bounded by it; and c) unbounded events that do not tolerate FINISH. Of those, (b) and (c) pattern together in that they are interpreted as unbounded by default, while (a) and (b) are the two categories that the data show are acceptable with preverbal FINISH. What differentiates category (b) from category (c) is the existence of implicit endpoints that can be utilized to bound the eventualities.

a)   Bounded eventualities: telics and instantaneous events[24]

	Schema	Unmarked interpretation	Interpretation under FINISH
Achievements	I---F	I---F	**I---F**
Instantaneous events	I,F	I,F	**I,F**

b)   Unbounded eventualities that tolerate FINISH: activities, stage-level states, (possibly habitual aspect)

	Schema	Unmarked interpretation	Interpretation under FINISH
Activities and Stage-level states	(I)…---…(F)	…---…	**I---F**

c)   Unbounded eventualities that do not tolerate FINISH: individual-level states and events in imperfective viewpoint

	Schema	Unmarked interpretation	Interpretation under FINISH
Individual-level states	…---…	…---…	*Incompatible with perfective viewpoint:* I and F are not available for bounding
Imperfectives	I]…---…[F Imperfective viewpoint *explicitly excludes* the endpoints		

The difference between categories (b) and (c) is that the individual-level states and imperfectives of category (c) are *explicitly unbounded* and therefore can never be bounded, whereas the activities and stage-level states are unbounded but since they are temporary eventualities, they have implicit endpoints that are accessible by the perfective. Since the perfective viewpoint can be applied to category (b), preverbal FINISH is compatible with eventualities of this category. Preverbal FINISH is ungrammatical with eventualities of category (c) because perfective viewpoint cannot be applied to category (c).

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[24] For these schemata, I=initial point, F=final point, --- = the eventuality, (I) and (F) = implicit endpoints, bold **I**, **F** = initial and final points bounded by perfective viewpoint, and … = an indefinite continuation of the eventuality

5.7 Summary

Both the types of readings available in sentences with preverbal FINISH and the co-occurrence restrictions with certain types of predicates follow from the observation that preverbal FINISH contributes both perfect and perfective viewpoint to the event. Preverbal FINISH establishes culmination of the event or situation prior to reference time. It is thus compatible with bounded events, contributes bounds to unbounded eventualities that can (because they have implicit endpoints) be bounded, and is ungrammatical with intrinsically unbounded events because the explicit lack of bounds of individual-level states and imperfectives clashes with FINISH's need to bound the eventuality.

Appendix I

Lexical markers of tense/aspect, from NKMBL 2000		
Marker	Meaning	Articulation
PAST$_{tns}$	Past tense	Bent-B handshape taps (or moves towards) shoulder
RECENT-PAST$_{tns}$	Past tense, restricted to recent past	Restrained PAST$_{tns}$ or like the sign RECENT; in either case co-occurring with the 'cs' facial expression
FORMERLY$_{tns}$	Formerly	5 handshape moving in small circular motion with thumb side brushing near collar bone
#EX	Habitual past	Identical to the fingerspelled loan sign used as a nominal prefix
UP-TO-NOW (often glossed SINCE)	From some time in the past to the present	Two index fingers, bent at first knuckle, palm downward, fingertips contacting upper shoulder and moving in an arcing motion to a palm-up orientation at about chest height in front of the body
IMMED-PRESENT$_{tns}$	Immediate present	Similar to the sign NOW, but articulated closer to the body, co-occurring with nonmanual marking in which teeth are clenched, lips are stretched, and mouth corners are pulled downward
FUTURE$_{tns}$	Future tense	B handshape oriented palm sideward, starting near the dominant side of the face and moving forward along a fixed pathlength

Table of lexical tense and aspect markers identified by NKMBL (2000)

References

References

Aarons, D., B. Bahan, J. Kegl, and C. Neidle. 1995. Lexical Tense Markers in American Sign Language. In *Language, Gesture, and Space*, eds. Karen Emmorey and Judy S. Reilly, 225-253. Hillsdale, NJ: Lawrence Erlbaum.

Buckley, E. 2004. The Origin of a Crazy Rule: [du] in the Southern Pomoan Group. Paper presented at SSILA, Boston.

Campbell, L. 2004. *Historical Linguistics: an introduction. 2nd edition.* Cambridge, MA: MIT Press.

Chang, J-H. 2003. State Eventualities and Aspect Marker *le* in Chinese. *Taiwan Journal of Linguistics* Vol. 1.1, pp. 97-110. Taipei: Crane Publishing.

Cokely, D., and C. Baker Shenk. 1980. *American Sign Language: a student text*. Silver Spring, MD: T.J. Publishers.

Comrie, B. 1976. *Aspect: an introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.

Dayton, E., 1996. Grammatical Categories of the Verb in African American Vernacular English. Doctoral Dissertation, University of Pennsylvania.

Dowty, D., 1979. *Word Meaning and Montague Grammar*. Dordrecht: Reidel.

Fischer, S., and B. Gough. 1972. Some unfinished thoughts on FINISH. Rochester, NY: NTID/RIT.

Fischer, S. and Gough, B. 1999. Some Unfinished Thoughts on FINISH. *Sign Language & Linguistics*, 2: 67-77. Amterdam: John Benjamins.

Friedman, Lynn A. 1975. "Space, Time, and Person Reference in American Sign Language" *Language* Vol. 51, No. 4 (Dec., 1975), pp. 940-961.

Giorgi, A., and F. Pianesi. 1998. *Tense and Aspect: From Semantics to Morphosyntax*. New York: Oxford University Press.

Grose, D. 2003. *The Perfect Tenses in American Sign Language: Nonmanually marked compound tenses*. Master's thesis, Purdue University.

Heine, B., and M. Reh. 1984. Grammaticalization and Reanalysis in African Languages. Hamburg: H. Buske.

Iatridou, S., E. Anagnostopoulou, and R. Izvorski. 2001. "Observations about the Form and Meaning of the Perfect." In *Ken Hale: a Life in Language*. Michael Kenstowicz, ed. Cambridge, MA: MIT Press.

Jacobowitz, E.L. and W. Stokoe. 1988. "Signs of Tense in ASL Verbs." *Sign Language Studies* v.60 pp. 331-337.

Janzen, T. 1995. *The Polygrammaticalization of FINISH in ASL*. Master's thesis. University of Manitoba.

Klima, E. S., and U. Bellugi. 1979. *The Signs of Language*. Cambridge, MA: Harvard University Press.

Kratzer, A. 1995. Stage-Level and Individual-Level Predicates. In *The Generic Book*, eds. Gregory Carlson and Francis Pelletier. Chicago: The University of Chicago Press.

Li, C. N., and S. A. Thompson. 1981. *Mandarin Chinese: A Functional Reference Grammar*. Berkeley: University of California Press.

McCoard, R.W. 1978. *The English Perfect: Tense Choice and Pragmatic Inferences*. Amsterdam: North-Holland.

Meir, I. 1999. "A Perfect Marker in Israeli Sign Language." *Sign Language & Linguistics* v. 2 no. 1 pp. 43-62. Amsterdam: John Benjamins.

Neidle, C. 2003. SignStream™ - Version 2.2 CD-ROM. Boston, MA: American Sign Language Linguistics Research Project, Boston University.

Neidle, C. (ed) 2004. NCSLGR SignStream™ Databases Volume 1. Boston, MA: Boston University, American Sign Language Linguistic Research Project (Distributed on CD-ROM).

Neidle, C. (ed) 2007. NCSLGR SignStream™ Databases Volumes 2-7. Boston, MA: Boston University, American Sign Language Linguistic Research Project (Distributed on CD-ROM).

Neidle, C. and MacLaughlin, D. 1998. SignStream™: A Tool for Linguistic Research on Signed Languages. Sign Language & Linguistics, 1: 111-114.

Neidle, C., Sclaroff, S. and Athitsos, V. 2001. SignStream™: A Tool for Linguistic and Computer Vision Research on Visual-Gestural Language Data. Behavior Research Methods, Instruments, and Computers, 33: 311-320.

Neidle, Carol, Judy Kegl, Dawn MacLaughlin, Benjamin Bahan, and Robert G. Lee. 2000. *The Syntax of American Sign Language: functional categories and hierarchical structure*. Cambridge, MA: MIT Press.

Padden, C. 1983. *Interaction of Morphology and Syntax in American Sign Language*. Ph.D dissertation, University of California San Diego.

Padden, C. A.: 1988, *Interaction of Morphology and Syntax in American Sign Language*. New York: Garland Publishing.

Pfau, R. and Steinbach, M.: 2006, Modality-Independent and Modality-Specific Aspects of Grammaticalization in Sign Languages. *Linguistics in Potsdam*, v. 24: 5-98.

Portner, P. 2003. The (temporal) semantics and (modal) pragmatics of the English perfect. *Linguistics and Philosophy* 26, pp.459-510 Dordrecht: Kluwer Academic Publishers

Rathmann, C. 2005. Event Structure in American Sign Language. Ph.D. dissertation, University of Texas at Austin.

Reichenbach, H. 1947. *Elements of Symbolic Logic*. New York: The MacMillan Company.

Smith, C. 1997. *The Parameter of Aspect* (2nd Edition). Dordrecht: Kluwer Academic Publishers

Smith, C. and M. Erbaugh. 2005. "Temporal interpretation in Mandarin Chinese" *Linguistics* 43:4 pp. 713-756 The Hague: Mouton.

Vlach, F. 1993. Temporal adverbials, tenses, and the perfect. *Linguistics and Philosophy*, v. 16: 231-283 Dordrecht: Kluwer Academic Publishers

Zucchi, A. Forthcoming. Along the time line: Tense and time adverbs in Italian Sign Language. *Natural Language Semantics*.

Zucchi, A. 2003. The Semantics of FATTO. Talk given at the *14th Amsterdam Colloquium, Amsterdam, December 2003*.