

Expanding the definition of aspect in L2 acquisition: Assessing advanced levels of competence to understand aspectual knowledge

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Recibido: 25 de octubre de 2020 / Aceptado: 5 de febrero de 2021

Abstract. In part due to the significant influence of Andersen's Lexical Aspect Hypothesis, research on the L2 acquisition of tense and aspect has focused primarily on the construct of aspect representative of the beginning and intermediate stages of acquisition. In the present article, I review the significance of two recent developments in the study of aspectual knowledge: the expansive view of recent research proposals (e.g., shifted effect of lexical aspect toward intermediate and advanced stages), and the focus on specific sub-constructs that provide a more precise target to assess ultimate attainment (e.g., iterativity versus habituality). I argue that the relevance of advanced stages of development of aspect is central to the analysis of L2 aspectual knowledge. To that effect, the objective of future studies needs to incorporate the explicit description of the connection between lexical aspect and viewpoint aspect.

Key words: lexical aspect; viewpoint aspect; non-prototypical; advanced knowledge

[es] Expandiendo la definición de aspecto en la adquisición de segunda lengua: Evaluación de niveles de competencia avanzados en el conocimiento de aspecto.

Resumen. Debido a la enorme influencia de la hipótesis del aspecto léxico de Andersen, la investigación del tiempo y aspecto en una L2 se ha enfocado principalmente en el análisis de este constructo en niveles de adquisición iniciales e intermedios. En el presente artículo evalúo la importancia de dos fenómenos recientes: la expansión de la perspectiva teórica de las últimas propuestas (p.e., el creciente efecto del aspecto léxico en las etapas intermedias y avanzadas) y el estudio de sub-constructos específicos, los cuales proveen un objetivo de estudio más preciso para evaluar la adquisición completa del constructo (p.e., iteratividad y habitualidad). Argumento que es crítico expandir el análisis de los estadios más avanzados del desarrollo del concepto de aspecto. Para ello, el objetivo de futuros estudios necesita incorporar una descripción explícita de la conexión entre los constructos del aspecto léxico y el del aspecto de perspectiva.

Palabras clave: aspecto léxico; aspecto de perspectiva; no prototípico; conocimiento avanzado

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Cómo citar: Salaberry, R. (2021) Expanding the definition of aspect in L2 acquisition: Assessing advanced levels of competence to understand aspectual knowledge. In *Tense, Aspect and Modality in L2. Recent Applied Studies*, L. Quintana Hernández and B. Rodríguez Arrizabalaga (eds.), *Círculo de Lingüística Aplicada a la Comunicación*. <https://dx.doi.org/10.5209/clac.76709>

1. Introduction

In a recent state of the art review of previous studies on the acquisition of aspect, Bardovi-Harlig and Comajoan-Colomé (2020, p. 24, italics added) argue that one of the most promising area of research on this topic is the study of “nonprototypical associations of past morphology and lexical aspectual categories, *an area that leads back to the semantics of aspect.*” It is surprising, however, that after four decades of research on the acquisition of tense and aspect, it bears emphasizing that a definition of aspect that does NOT include the range of options that are

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classified as non-prototypical does NOT properly address the concept of aspect. In fact, the topic of non-prototypical associations has always been part of the original claim about the lexical aspect hypothesis (LAH).

In the original set of articles that launched the LAH, Andersen (1986, 1991) proposed that L2 learners follow a developmental sequence composed of eight stages in the acquisition of aspectual markers. More importantly, Andersen argued that this sequence comprised not just the stages that were correlated with the classification of lexical aspectual classes (essentially the first four), but that the subsequent four stages were also necessary to describe the full extent of the semantic and discursive values of aspectual distinctions. In part, it is unavoidable that the attention on the initial stages of acquisition shifted the focus of researchers away from central but complex components of the concept of aspect to numerous other, and equally important, research topics. For instance, some of the topics that became prominent in the initial studies prompted by Andersen's proposal were the range and magnitude of the effect of lexical aspectual categories on aspectual morphology, whether lexical aspectual knowledge is universal, whether the effect of L1 typologies or frequency of input data have a significant (confounding) effect on the marking of past tense aspect, etc.

Andersen's core claim was based on the Congruence Principle (i.e., learners choose the morpheme whose aspectual meaning is most congruent with the lexical aspectual category of the verbal predicate) and Prototype Theory (i.e., learners acquire grammatical categories starting with the prototype of that category later extending it to less prototypical cases). Other principles such as the Relevance Principle were not as central to his main claim, or in other cases, as is the case of the Discourse Principle, they were proposed in subsequent expansions of the main hypothesis (e.g., Andersen, 2002; Andersen & Shirai, 1994). The application of the Congruence Principle entailed that past marking is first applied to telic events (i.e., achievements and accomplishments), eventually extending its use to atelic events (activities) and states. Conversely, the imperfective past was expected to appear later than perfective past in the sequence beginning with statives, extending next to activities, and then to telic events (i.e., accomplishments and achievements). However, beginning with developmental stage 5, the use of verbal morphology cannot be solely determined by lexical aspectual category. In Andersen's model, stage 5 shows that accomplishments (telic events) can be marked with imperfective or perfective markers of tense-aspect. Furthermore, moving out on the scale, the use of both perfective and imperfective morphology can be used with activities at stage 6, with achievements at stage 7 and finally with states at stage 8. Thus, we must conclude that we cannot account for the use of the perfective and imperfective markers of tense-aspect after the fifth stage of Andersen's proposed developmental sequence solely on the basis of the analysis of the effect of lexical aspectual categories.

Even though the focus of most research of the past four decades has been primarily on the beginning and intermediate stages of acquisition, in part due to the significant influence of the LAH, the relevance of advanced stages of development of aspectual knowledge is starting to become central to the analysis of the overall developmental arc. To that effect, the objective of future studies on the L2 acquisition of aspect needs to incorporate the explicit description of the connection between lexical aspect and viewpoint aspect in the overall analysis of the development of tense-aspect knowledge. In the following pages, I will review the significance of two recent developments in the study of the L2 acquisition of aspectual knowledge: the expansive view of recent modifications of the LAH to encompass a wider range of stages of development of tense-aspect marking (e.g., shifted effect of lexical aspect toward intermediate and advanced stages), and the focus on specific aspectual constructs that provide a more precise target to assess ultimate attainment of the concept of aspect (e.g., iterativity versus habituality).

2. An encompassing definition of aspect

Within the scope of research of non-prototypical associations of past morphology and lexical aspectual categories, Bardovi-Harlig and Comajoan-Colomé (2020) identify three specific research questions that future studies should address: (a) whether learners produce non prototypical associations, (b) whether they understand them and (c) when they may be able to do so. That is to say, the attention of research should be directed toward the analysis of the production, understanding and timing of non-prototypical associations of aspectual marking. Needless to say, these research questions cannot be addressed without a proper conceptualization of the construct of aspect. The problem, however, is that there is more than one definition of aspect. Or, at a minimum, even if there is agreement on the broad and comprehensive range of meanings conveyed by the construct of aspect (e.g., Binnick, 1991; Caudal & Roussarie, 2005; Comrie, 1976; Giorgi & Pianesi, 1997; Klein, 1994; Michaelis, 2004; Smith, 1997; Verkuyl, 1989, 1993), only a sub-set of these meanings may have been considered relevant for the evaluation of developmental sequences of acquisition in specific studies of L2 acquisition (see Salaberry, 2013b for a review). To that effect, the focus on non-prototypical meanings requires that we clearly demarcate the semantics of aspect.

In this section, I will describe the significance of the theoretical and methodological compartmentalization of the concept of aspect and how it may lead to multiple sub-definitions (implicit or explicit) of aspectual knowledge. This expanded definition of aspect (prototypical and non-prototypical) points in the direction of a much-needed emphasis on the advanced stages of acquisition of aspectual knowledge. Ultimately, the search for an integrated theoretical framework would include the full range of stages first identified by Andersen (including both prototypical and non-prototypical meanings).

2.1. The layering of aspectual information

The role of specific layers of lexical information above the verbal predicate level is a longstanding assumption in the theoretical analysis of aspect. In effect, numerous researchers who figure prominently in the literature review of most empirical studies on the L2 acquisition of aspect have argued forcefully that aspectual knowledge is compositional insofar as it comprises information from not just the predicate, but from its arguments and adjuncts as well (e.g., Arche, 2014; Depraetere, 1995; Doiz, 2002; Klein, 1994, 2009; Michaelis, 2004; Smith, 1997; Verkuyl, 1989, 1993). Among the earliest calls for this componential view, Verkuyl (1972; 1993), most cogently, argued that lexical aspect is inherently compositional dependent on the semantic contribution of several factors such as: external arguments (e.g., number/agency/animacy of the subject), internal arguments (cardinality of the object) as well as adverbial and prepositional adjuncts.

Despite a wide range of layers of information about aspectual meanings, there has been agreement about the existence of one major boundary between lexical aspect and viewpoint aspect. Smith (1997, p. 5), for one, specifically states that “[s]entences present aspectual information about situation type and viewpoint. Although they co-occur, the two types of information are independent.” For clarification, I will use the contrast between lexical aspect and viewpoint aspect as equivalent to similar relationships between situation aspect and viewpoint aspect (Smith, 1997), actionality and grammatical aspect (Rastelli, 2008), and inner aspect and outer aspect (e.g., Verkuyl, 1993) respectively. For instance, overall, while telicity (as part of lexical aspect) is used to describe the aspectual nature of events at the verbal predicate level, the notion of “boundedness” is relevant to describe the properties of viewpoint aspect or grammatical aspect (Depraetere, 1995). As an example, Güell (1998, p. 102) notes that in Spanish the semantic features of punctuality or durativity (pertaining to lexical aspect) are not what helps us make the decision to use perfective and imperfective with the same verbal predicate. In turn, the perfective – imperfective contrast helps us introduce a new dimension of analysis: whether the given situation is temporally delimited or not in association with specific adjuncts, as shown in the following examples:

- (1a) Lo supo (PRET)/*sabía (IMP) durante mucho tiempo.
(temporally delimited) (S/he) knew it for a long time.
- (1b) Lo *supo (PRET)/sabía (IMP) desde hacía mucho tiempo.
(temporally non-delimited) (S/he) knew it from a long time ago.

The autonomous nature of the “partitions” that make up the concept of aspect has been upheld by many researchers (e.g., Arche, 2014; Bertinetto, 1986; Depraetere, 1995; Smith, 1997; Tatevosov, 2002). The proposed independence of the “layered” nature of aspectual meanings is also supported by studies that look at the processing of aspectual information. Yap, Chu, Yiu, Wong, Kwan, Matthews, Tan, Li, and Shirai (2006, 2009), for instance, provide experimental evidence about the strong correlation of the perfective form with events and, concurrently, the imperfective form with activities. That is, perfective sentences are processed more quickly with telic events, whereas imperfective sentences are processed more quickly with atelic events. In essence, the compatibility of meanings associated with each level of aspectual marking (i.e., lexical and viewpoint) lead to faster cognitive processing times. Yet, despite the apparent effect of processing constraints (e.g., faster reaction times to mark congruent markers of lexical and grammatical aspect), Yap et al. (2009, p. 593) contend that the distinct nature of each level of aspectual meanings remains an important factor to consider: “lexical aspect ... behaves more like perceptual input in bottom-up processing, whereas grammatical aspect behaves more like symbols in top-down processing.” That is, top-down processing seems to be aligned with discourse-level conceptualizations, whereas bottom-up processing is associated with lexical and morphological classifications.

2.2. Contextualization of the concept of aspect is critical to define the construct

The above-mentioned description of the independent nature of lexical and viewpoint aspect leads to a subsequent logical question: is it possible that one of these levels of description is more representative of the concept of aspect? Klein (2009, p. 16), for one, claimed that “the investigation of how time is encoded in natural languages suffers from ... substantial shortcomings,” and, in particular, he remarks on the limited focus on topics that are useful to expand our perspective on the broad range of aspectual meanings. With regards to components that make up the construct of aspect most removed from the verbal predicate (and thus from lexical aspect), Klein “wonders whether tense and aspect are not completely superfluous in view of what temporal adverbials allow us to do.” More importantly, he notes that there has been “much less work on temporal adverbials, particles, and discourse principles.” The distinct “division of labor” of different layers of meaning of aspectual information shows that the more difficult stages of acquisition are the ones in which lexical aspectual values can be superseded by viewpoint or grammatical aspectual values. In fact, most definitions of aspect explicitly underline the broad range of “subjective” meanings conveyed by viewpoint aspect. Klein (1994, p. 16), for instance, notes that aspect ‘concerns the different perspectives which a speaker can take and express with regards to the temporal course of some event, action, process, etc.’ Similarly, Michaelis (1998, p. 5) points out that “aspectual categorization . . . [represents] the manner in which people, as

producers and processors of texts, construe scenes, rather than as a reflection of the properties which situations have ‘in the world.’” That is, beyond the lexical semantic effect of additional layers of given contextual information, it is assumed that aspectual meanings are very much dependent on speakers’ (and listeners’) perspectives, and as such in terms of discursive and pragmatic meanings.

As we add additional layers of contextual information to our interpretation of aspectual meanings, we continuously increase the likelihood that speakers will not converge on the same interpretation. And yet, contextualization of the meanings of aspect also seems to bring about some degree of consistency to the representation of aspectual perspectives. Among one of the earliest studies to highlight the critical effect of contextualization of aspectual meanings, Coppieters (1989, p. 567) noted that the locus of discrepancies in the judgments of native and near-native speakers in his study was probably due to the highly contextualized nature of aspectual markers: “it may be difficult (particularly for one whose native language does not formally mark the category or distinction in question) to separate contextual from grammatical information” (see Salaberry, 2017 for an extended analysis). Native speakers must have access to some type of knowledge that allows them to converge on similar answers. In effect, there may be specific features of a more expansive context that may still indicate or signal specific stable meanings. For instance, several studies of the L2 acquisition of Spanish (García & Van Putte, 1988; Güell, 1998; Salaberry, 2013a) show that whereas local contextual conditions closest to the verbal predicate (cf., internal and external arguments) may favor the imperfective (or perfective), speakers may nevertheless contradict such local clues given relevant contexts provided by extended pieces of discourse (such as adverbial expressions). In essence, if the selection of perfective and imperfective past tense forms becomes more ambiguous, as we constantly incorporate more layers of contextual information to any given situation (i.e., rich contextualization), how can native speakers remain a homogeneous group converging on similar responses?

3. Expanding the LAH hypotheses

In the following section, I briefly summarize the main claims advanced by three hypotheses that turn upside down the core claim of the LAH: The Default Past Tense Hypothesis (DPTH), the Lexical Underspecification Hypothesis (LUH) and the Lexical Insensitivity Hypothesis (LIH). In effect, all three hypotheses essentially propose that lexical aspect has an effect on the acquisition of aspect in general, although not during the beginning stages (as claimed by the LAH), but rather in stages subsequent to the initial period of the developmental sequence. Even though the rationale offered by each hypothesis to account for this particular trend is different, all proposals point in the direction of an apparent symbiotic relationship between lexical and viewpoint aspect. This new perspective points us in the direction of a different theoretical framework that we can use to reanalyze previous data on the L2 acquisition of aspect (both beginning and advanced levels of acquisition) and, more importantly, to design future research studies.

3.1. The Default Past Tense Hypothesis

Among the early empirical studies that expanded the basic argument advanced by the LAH, Salaberry (1999, 2003, 2011) proposed that (L1 English – L2 Spanish) beginning learners were marking tense and not aspect due to an inherent typological mismatch between the L1 and the L2. The basic claim of the DPTH is that (contrary to the core claim of the LAH) the use of perfective morphemes among beginning (tutored) learners does not indicate aspectual categories, but it is, instead, used to oppose present and past tenses (i.e., morphology as a marker of tense). On the other hand, the construct lexical aspect seems to have an effect on aspectual marking, but only insofar as improvements in L2 knowledge leads to increased use of prototypical pairings (McManus, 2013; Salaberry, 2011).

Overall, the empirical data used to substantiate the DPTH typically show the lack of demarcation of prototypical associations of past tense morphological marking with lexical aspectual classes among beginning level learners. Furthermore, the transition from prototypical to non-prototypical associations seems to happen as learners gain access to increasing amounts of L2 input data and gain experience and proficiency in the L2. Even though the original theoretical claim for the DPTH was based on the specific combination of L1 English-L2 Spanish, its empirical base has now been expanded to data collected with an increasingly broad range of L2s: L2 Chinese (Tong & Shirai, 2016), L2 Russian (Martelle, 2011), L2 Italian (Notarianni-Burk, 2018; Wiberg, 1996), and, of course, L2 Spanish (e.g., Amenós-Pons, Ahern, & Guijarro-Fuentes, 2017; Salaberry, 1999, 2002, 2003, 2011; Terán, 2020). It should be noted that the study carried out by Amenós-Pons, Ahern, and Guijarro-Fuentes (2017) used another Romance language as the L1 (i.e., French), whereas other language pairs use L1 English as the source language.

Another important finding from studies that have assessed the relevance of a default marker of past tense is that the actual default marker of past tense may vary depending on the type of task used (Martelle, 2011; Salaberry, 2003) or the L1 (e.g., González & Quintana Hernández, 2018). For instance, when the specific contextual conditions of the language samples provided as input data are “loaded” with imperfective cases the preponderant use of the imperfective form over the perfective one will make the imperfective the default past tense marker (e.g., Salaberry, 2003). Similarly, as shown by González and Quintana Hernández (2018), whereas the default marker for L1 English

learners is expected to be the Simple Past, for Dutch L1 learners it is the Present Perfect. Finally, in consideration of an expanded database, the theoretical claim inherent to the DPTH has been extended to more advanced stages of acquisition and to other aspectual markers. Salaberry (2018), for instance, draws on an increasingly significant body of research relying on sociolinguistic interviews and metalinguistic retrospective protocol analysis that adds support to the idea that even advanced near-native speakers do not properly focus on viewpoint aspect to mark past tense morphology (e.g., Howard, 2002; Liskin Gasparro, 2000; Lubbers-Quesada, 2007; Yáñez Prieto, 2008).

3.2. The Lexical Insensitivity Hypothesis (LIH)

Some studies have expanded the scope of application of the DPTH to include not just past tense but progressive aspect as well. Tong and Shirai (2016), for instance, investigated the effect of lexical aspectual semantics in L2 Chinese (Mandarin) on two aspectual markers (i.e., perfective *-le* and progressive *-zai*) among L1 English speakers. In line with Salaberry's (1999) DPTH, their findings show that beginning learners used primarily the perfective marker *-le* across all lexical aspectual classes, thus acting as a default form for past tense. Eventually, however, as their proficiency increases, learners show a stronger association between the lexical semantic information of verbal predicates and past tense markers, thus revealing that learners become aware of the inherent aspectual meanings of verbs (demonstrated mostly with the use of progressive *-zai*). Given that both the perfective and the progressive markers show the lack of an effect on learners' performance, Tong and Shirai proposed the Lexical Insensitivity Hypothesis (LIH) as an expansion of the DPTH: "L2 learners at beginning stages are insensitive to lexical aspect; as the learners' proficiency goes up, they become more sensitive to lexical aspect, and they produce tense-aspect markers in a way more restricted by the lexical aspectual meanings of the predicates" (p. 20). In essence, lexical aspect becomes more important in direct correlation with more experience with the L2. This position directly contradicts the claim advanced by the LAH with regards to the timing of the effect of lexical aspect.

3.3. The Lexical Underspecification Hypothesis (LUH)

The LUH represents another theoretical expansion of (and alternative to) the LAH (e.g., Giacalone-Ramat & Rastelli, 2008; Rastelli, 2009, 2019; Rastelli & Vernice, 2013). The LUH proposes that lexical aspect "cannot be held as the triggering factor for paving the way to the acquisition of the whole Tense-Aspect system" (Rastelli, 2009, p. 272). More specifically, Giacalone-Ramat and Rastelli (2008, p. 242) propose that beginning L2 learners will not be able to use information about the inherent semantic meanings postulated to be part of lexical aspect because they "are not aware of lexical properties of verbs in the sense of Vendler's lexical classes." They conjecture that if no innate predisposition is assumed, L2 learners need to learn about lexical aspect. To address this learning problem, the LUH proposes that L2 learners will have to reconstruct the actional meaning of verbal predicates (lexical aspectual categories) even in the case of frequently used verbs (e.g., the atelic verb *andare* 'go' may be converted into a telic one with the use of additional lexical information). That is, learners will need to develop a compositional representation of lexical aspect that requires information from other lexical components that are associated with the given verbal predicate: "Learners could possibly break their way to the meaning of some lexically underspecified Vs through the meaning of the elements that compose their whole VPs." (Giacalone-Ramat & Rastelli, 2008, p. 249).

What is most significant about the core claim of the LUH is that it challenges the purported independence between lexical aspect and viewpoint aspect insofar as learners make use of a compositional definition of aspect comprising layers of information above the verbal predicate level (e.g., PP or AdvP), starting at the very beginning of the learning process. In other words, the development of aspectual morphology will be guided by all types of lexical information above the level of the verbal predicate (i.e., internal arguments, external arguments, and especially adjuncts), effectively turning upside down the core argument advanced by the LAH. As a corollary of that claim, the LUH raises an important question about the important role of prototypical associations in subsequent stages of development: "the presence of prototypical associations in learners' data should be seen as a leg along the journey of the learning process and as the pointing direction, but not as the starting point of the journey" (Rastelli, 2008, p. 8). That is, the under-specification of lexical aspect may be relevant among intermediate and even advanced learners who "may know the meaning of a verb and may use it despite leaving its actional content largely underspecified even for a long period" (Rastelli, 2008, p. 26).

4. Shifting the focus of attention from beginning to advanced levels of competence

The arguments advanced by the DPTH, the LIH and the LUH have effectively shifted the focus of attention from the beginning stages of acquisition to subsequent steps in the developmental process. More importantly, each hypothesis has provided a rationale for the integration of data across developmental stages. By connecting the first four stages in Andersen's sequence with the last four stages integrates the full range of options afforded by aspectual knowledge (cf. a comprehensive definition of aspect). In fact, it appears that all three hypotheses presented above are converging on the same phenomena and, not surprisingly, on a similar description of the theoretical challenge. For instance, it is

not easy to clearly demarcate the main theoretical boundaries between, on the one hand, Tong and Shirai's concept of lexical insensitivity and, on the other hand, Giacalone-Ramat and Rastelli's construct of lexical underspecification.

The practical consequence is that, by shifting attention to subsequent developmental stages in a convergent manner, these hypotheses have raised additional questions as they attempt to expand the perspective on aspectual knowledge beyond just the scope of application of lexical aspect. For instance, considering the proposal of the LUH, if learning lexical aspectual categories necessitates the promotion of adjuncts to the role of arguments of the verbal predicate, how will learners disentangle such associations to further extend their learning and capture the meanings conveyed by viewpoint aspect when the latter is largely determined by adjuncts? Along the same lines, the DPTH seems to indicate that learners may be overly dependent on prototypical markings over a protracted period of time, thus raising questions about any possible transition out of that progression into a discourse-based approach to assessing the meaning of aspect. In essence, as all three hypotheses converge on the concept of an apparently symbiotic relationship between lexical and viewpoint aspect, they strengthen the rationale for developing a distinct theoretical framework different than the one offered by the LAH whereby we can reanalyze previous data on the L2 acquisition of aspect and, more importantly design future research studies. And it is precisely at this juncture of the theoretical discussion that the role of non-prototypical uses of past tense aspectual morphology becomes relevant to address the comprehensive definition of the construct of aspect that was summarized in previous sections.

4.1. Non-prototypical aspectual morphology

The problem space (as described in the previous section) has been expanded further with the publication of studies focused on the acquisition of complex constructs of aspect at advanced stages of development (i.e., non-prototypical associations of aspectual marking). One important contribution of the studies addressing non-prototypical associations is that they tend to focus on specific aspectual constructs that provide a more precise target to assess ultimate attainment of the concept of aspect (e.g., iterativity versus habituality). On this point, Bardovi-Harlig and Comajoan-Colomé identify only four studies that address the analysis of non-prototypical associations of aspectual marking. To that list, however, we could add other published studies over the last two decades (e.g., Diabulich, Eibensteiner, & Salaberry, 2020; Diabulich & Guijarro-Fuentes, 2019; Pérez-Leroux, Cuza, Majzlanova, & Sánchez-Naranjo, 2007; Salaberry, 2013a, 2017; Salaberry & Martins, 2014). Furthermore, there are additional empirical studies that, even if they do not incorporate the construct of viewpoint aspect as a central determinant of the grammatical concept of aspect to their studies, they are worth considering for our summary because they have included the analysis of data representative of non-prototypical cases (e.g., Rothman & Iverson, 2008; Slabakova & Montrul, 2007).

Overall, the findings from studies assessing the knowledge of non-prototypical cases tend to converge on the same finding, that is, non-native speakers have difficulty with non-prototypicality in aspectual marking. Even though some studies use a narrow definition of aspect that classifies the use of non-prototypical cases outside of the scope of a proper grammatical definition of aspect (i.e., as part of pragmatics and world knowledge as described by de Swart, 1998), their empirical data (e.g., Slabakova & Montrul, 2007) also converge on the same outcome once we consider a broad definition of aspect. Among the studies that specifically addressed the nature of non-prototypical morphological selections of aspectual marking as part of the comprehensive definition of the construct of aspect, the data from Salaberry (2013a), for instance, showed Spanish near-native speakers' were not able to distinguish fine-grained representations of the aspectual concepts of iterativity versus habituality even though they demonstrated to have native-like judgments of prototypical uses of aspect (see also Pérez-Leroux et al, 2007; Salaberry & Martins, 2014). Given the protracted effect of prototypical markings, Salaberry (2011, 2018) proposed that even advanced learners may continue to mark viewpoint aspect in close alignment with congruent lexical aspectual categories. Other recent studies, also focused on L2 Spanish, but using data from L1 German learners contrasted with speakers of L1 Romance languages seem to converge on a similar outcome (e.g., Diabulich, Eibensteiner, & Salaberry, 2020; Diabulich & Guijarro-Fuentes, 2019). As non-native speakers gain more experience with the target language, they may develop an increasingly accurate system of proceduralized knowledge based on probabilistic frequencies associated mostly with lexical aspectual values and, to some extent, discourse grounding (associated with an expanded scope of information – as provided by viewpoint aspect).

Some studies have addressed the specific effect of an L1 with similar morphological marking of aspect as the L2 under the assumption that typological similarity will be helpful to achieve native-like competence in the selection of non-prototypical cases. The contrast has been investigated primarily with the pairing of L1 Spanish-L2 French (e.g., Izquierdo, 2014; Izquierdo & Collins, 2008; Izquierdo & Kihlstedt, 2019), and vice versa with the pairing L1 French-L2 Spanish (e.g., Amenós-Pons, Ahern, & Guijarro-Fuentes, 2017; Amenós-Pons, Ahern, & Guijarro-Fuentes, 2019), and with a combination of Romance languages on advanced L2 Spanish (e.g., Diabulich & Guijarro-Fuentes, 2017, 2019) and with intermediate-advanced L2 French (e.g., Howard, 2002; Kihlstedt, 2002; Labeau, 2005). Overall, the findings from Izquierdo and colleagues confirmed that L1 Spanish speakers are able to use their knowledge of aspectual morphology of a Romance language (Preterite-Imperfect) to learn a similar contrast in another Romance language (*Passé Composé-Imparfait*) to their advantage relative to the L1 English learners. On the other hand, Izquierdo (2014) and Izquierdo and Kihlstedt (2019) revealed the difficulty to properly mark non-prototypical cases even in the case of L1-L2 pairs that are closely matched in terms of morphological marking of

viewpoint aspect. In their analysis of L1 Spanish-L2 French data, Izquierdo and Kihlstedt succinctly summarize the situation as follows: “the expression of temporality for [L1 Spanish] L2 learners remains subject to form–meaning prototypes even at advanced stages of L2 development, and despite the potential benefit of L1 influence” (p. 304). With regards to the L1 French-L2 Spanish pairing, Amenós-Pons, Ahern and Guijarro-Fuentes (2017) showed that beginning learners (A2 level on the CEFR scale) used the perfective form (i.e., Preterite) across all lexical aspectual classes. Furthermore, the data from both studies from Amenós-Pons, Ahern and Guijarro-Fuentes (2017, 2019) reveal that advanced learners (B2 and C1 on the CEFR scale) show difficulties with “nonprototypical tense/aspect associations and pragmatically based temporal reference” (2019, p. 183). On the other hand, there seems to be an L1 effect at play given that the 2019 study shows that data from L1 Portuguese speakers do not show the same effect evidenced among L1 French learners.

4.2. Expanding the range of analysis

Notwithstanding the volume of research focused on this topic, there continue to be significant theoretical questions that have not yet been properly addressed, at the same time that there has been limited cross-fertilization of ideas and analysis of data across theoretical frameworks. For instance, whereas the emphasis on the initial stages of acquisition of knowledge about aspect has been extensively addressed by hypotheses from various theoretical perspectives, there has been limited analysis and collection of data to assess the nature of advanced stages of acquisition. Moreover, it is clear that adherence to specific theoretical frameworks has led researchers to unnecessarily overlook the significance of empirical data from other theoretical perspectives when such data can be helpful to understand the full complexity of phenomena that continue to puzzle researchers.

Overall, the expansive view of recent hypotheses that encompass a wider range of stages of development of tense-aspect marking than the LAH (e.g., the DPTH, the LUH and the LIH), along with the focus on specific aspectual constructs that provide a more precise target to assess ultimate attainment of the concept of aspect (e.g., iterativity versus habituality) have already moved the focus of attention of researchers toward the analysis of the ultimate attainment of a comprehensive definition of aspectual meaning. Notwithstanding the logistical constraints of any given study, the design of future studies on the development of aspectual knowledge among L2 learners should be embedded within the framework of a comprehensive approach to the definition of the semantics of aspect. Even when the research objective is relatively narrow (which is common), the use of a broad definition of aspect to assess the relevance of the given empirical data will prove to be useful to assess future empirical findings against the backdrop of a much-needed comprehensive definition of the meaning of aspect.

5. Conclusion

Almost two decades ago, Sasse (2002) noted that there are some basic theoretical concepts on a definition of aspect on which there is general agreement among theorists: the concept of boundaries, (and derived notions of phases, intervals, etc.), the interaction across levels of representation of aspect (e.g., lexical and grammatical), and the perceived need among researchers to integrate theoretical interpretations across levels of analysis (including lexical, morphological, syntactic and contextual information). On the latter “point of consensus,” Sasse remarked that the interacting factors that provide the foundation for the conceptualization of aspect (i.e., the concept of boundaries and the necessity to aggregate information from various levels of analysis) need to be analyzed from the perspective of “a theoretical approach that transgresses the boundaries of linguistic subdisciplines” (p. 202). The goal of crossing disciplinary areas of expertise is, however, no easy task.

Arguably, over the last four decades since the groundbreaking publication of Andersen’s original idea, the integration of information carried across various layers of information about aspect has become a major “fault line” in the description and representation of aspect in L2 acquisition studies. The fact that any given study may address only one component among many that make up the overall theoretical construct of aspect is reasonable given the broad range of factors that apply to such a comprehensive definition of the concept of aspect. Accordingly, there are both theoretical and logistical reasons that researchers may use as a rationale to circumscribe and delimit the very broad concept of aspect (cf. Salaberry & Comajoan, 2013). Notwithstanding the need to delimit the focus of any given research study, there is nevertheless the need (or rather, the advantage) to integrate disparate research approaches into a coherent systematic approach. As an example, Diaubalick & Guijarro-Fuentes (2017) were willing to “cross disciplinary boundaries,” as suggested by Sasse, when they contemplate the possibility that the outcome of their study cannot be properly conceptualized “within the boundaries” of the theoretical approach they initially selected as guidance for their inquiry. In the end, Diaubalick & Guijarro-Fuentes acknowledged that there is a high level of complexity that determines aspectual choices that was not completely captured by their initial hypotheses: “the properties of verbal predicates determine the lexical aspect ... while grammatical aspect depends on the context of the actual use of the verb forms” (p. 12, stress added).

The evaluation of the complex factors that account for the knowledge displayed by advanced learners can be helpful to understand not just advanced stages of acquisition, but the beginning steps of the process as well. The relevance

of advanced stages of development of aspect is critical to acknowledge the significant effect of contextual factors above the sentence level to properly define aspectual knowledge. The benefit of principled and clear demarcations of distinct components of the construct of aspect in some cases, and the integration of meanings on other occasions will lead to increased clarity on the theoretical description of the highly complex definition of aspectual knowledge in L2 acquisition.

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