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Introduction

This book is an investigation of telicity in child Romanian using experimentally collected child data. It builds on previous research by expanding the empirical domain with telic constructions that were not previously explored: incremental theme predicates with definite DP objects and manner of motion predicates with complex Goal of Motion prepositional phrases.

The more general research question it asks is the following: given the early sensitivity that children have for telicity, demonstrated in a vast array of studies on their production in the line of work that explored the Aspect First Hypothesis and other related hypotheses (Aksu-Koç 1988, Bloom et al. 1980, Bloom and Harner 1989, Buja 2008, Delidaki and Varlokosta 2003, Johnson and Fey 2006, Li and Shirai 2000, Olsen and Weinberg 1999, Sankaran 2011, Stephany 1981, Smith 1980, Shirai and Andersen 1995, Boland 2006, Antinucci & Miller 1976, Weist et. al. 1984, Stoicescu 2013, Bertinetto et al. 2015 a.o.), to what extent is this sensitivity apparent in comprehension as well, when the data are collected through an experimental method? Are young children sensitive to culmination when interpreting various types of telic sentences while witnessing complete and incomplete events? Are there any differences with respect to the ease with which they assign telic interpretations at various ages? Is their performance dependent on the type of telic construction they interpret or is there a uniform response to all telic structures from early on?

To set these questions in context, we need to answer the question what is it that we already know about the acquisition of aspect in Romanian? Since telicity and situation-type aspect are intrinsically connected to grammatical aspect, we will discuss findings related to both categories.

Prior studies related to the acquisition of grammatical aspect in child Romanian revealed several findings. Children have different response patterns with respect to the perfective and imperfective aspects when these two viewpoints are tested in forced choice tasks, in interaction with telic predicates of creation. Stoicescu (2019) tested Romanian-speaking children's comprehension of perfective and imperfective creation predicates with picture selection tasks in non-narrative and narrative set-ups. The results indicated sensitivity to the perfective and a delay with respect to the entailment patterns of the imperfective.

In the non-narrative task, the 3-year-old children demonstrated their sensitivity to the completion entailment of the perfective *perfect compus* with creation predicates, as their results were above the chance level but not yet adult-like. In the imperfective

condition (tested using the past *imperfect* tense), their results did not go higher than the chance level.

In the narrative task, three-to-six-year-olds also performed better in the perfective than in the imperfective condition, without being adult-like. They went over the chance level at age three in the perfective condition and around age five (average age 5;0) in the imperfective condition.

In another picture selection task, Stoicescu (2018) also found a delay with respect to the imperfective. She tested three-year-olds, five-year-olds and seven-year-olds and found evidence that the effect of the imperfective feature on telic predicates was only known at adult-like levels as late as 7;7, and not earlier. At five (average age 5;3), the children's scores went above the chance level for both the perfective and imperfective in this task, but were not adult-like. The three-year-olds' performance was also significantly higher than the chance level in the perfective but not in the imperfective condition (and also non-adult-like in both conditions).

Summing up the results of the two studies (see also Table 1, Annex 1), at ages three-to-four Romanian-speaking children are sensitive to telicity (i.e. the completion entailments of the perfective) but not yet adult-like (see Stoicescu 2018, 2019 for a justification of this finding). With the imperfective, the results go above the chance level later (from five onwards) and become adult-like at seven.

The findings related to the perfective echo other studies that reported early sensitivity to perfectivity: Weist et al. (1991) reported that Polish and English-speaking children were aware of the perfective-imperfective distinction before age 3; Van Hout (2008b) also found sensitivity to the completion entailment of the perfective for child Dutch and Polish at age three (see also Van Hout 2016 for a review of other grammatical aspect acquisition studies).

The findings related to the perfective in child Romanian and other child languages is highly relevant for the investigation pursued in this book, as the acquisition of culmination entailments depends on both knowledge of perfectivity and telicity. As Van Hout (2018: 111) writes, "if children do not yet know the target semantics of perfective markers, acceptance of culmination could indicate incomplete acquisition of grammatical aspect, rather than telicity (lexical aspect)."

The studies presented above, however, show that children's problems with telicity, if any, do not stem from immature knowledge of the perfective.

Situational aspect in child Romanian was investigated with naturalistic data. Stoicescu (2013) looked at longitudinally collected Romanian child and adult data and explored the Aspect First Hypothesis. Her analysis showed that, before the age of three, Romanian-speaking children correlate grammatical aspect (perfectivity/imperfectivity) inflectional morphology with the (a)telicity of the predicate. The perfective temporal-aspectual form most commonly used in Romanian, namely the *perfect compus* (similar to the Italian *passato prossimo* or the French *passé composé*) was predominantly

produced with telic predicates rather than atelic ones. By contrast, imperfective morphology (the *prezent* and the *imperfect*, similar to the Italian *imperfetto* or the Italian *imparfait*) were mainly used with atelic predicates. This striking distribution was more skewed, tighter, with fewer exceptions at the earliest ages of data collection (namely around the age of two). The analysis revealed only a probabilistic pattern though, not a rigid rule, as perfective-atelic or imperfective-telic combinations were also attested. Moreover, the distribution was also present in adult speech (both adult-addressed and child-addressed). This suggested that previous explanations formulated along the lines of the Aspect First Hypothesis, namely that grammatical aspect inflections are initially used to mark *aktionsart* or situation-type aspect (Smith 1991/1997), are not on the right track. Stoicescu (2013) proposed the Optimal Computation account, which echoed the Semantic Complexity Hypothesis (Van Hout 2008b, Van Hout and Veenstra 2010, see also Slabakova 2002). In this framework, the associations described above are the result of a tendency to avoid the semantic operation of coercion (triggered by non-matching viewpoint aspect-situation type aspect combinations), which comes with a heavy computational cost (see, for instance, Piñango, Zurif and Jackendoff 1999). Stoicescu's proposal supported the idea of continuity between child and adult grammars – both adults and children have the tendency to avoid the costs of coercion and this explains the pattern similarities seen in child and adult data (other accounts argued that coercion was only difficult for children, not adults addressing other adults – see Boland 2006).

What does the previous experimental research on the comprehension of telicity in various child languages reveal? Van Hout (2008a: 263-264) distinguished between *predicate telicity*, signalled overtly by verb particles (*drink up*) in Germanic languages and aspectual perfective prefixes in Slavic languages, and *compositional telicity*, resulting from the incremental semantics of the verb and the quantization of an incremental theme argument (*drink a can of soda*). Additionally, Van Hout (1998, 2008a) proposed that compositional telicity is delayed in language acquisition as opposed to predicate telicity. This proposal was motivated by several studies showing that aspectual particles/prefixes in child Dutch, English and German, and the clitic *se* in Spanish are recognized as markers of culmination by child speakers more systematically than direct objects (van Hout 1998, Hodgson 2001, Schulz et al. 2001, Schulz and Penner 2002, Schulz and Wittek 2003, Jeschull 2007, Ogiela 2007). The literature reports higher rates of non-culmination acceptance or (henceforth) “non-culminating responses” (Martin et al. 2020) (responses in which a telic perfective sentence is accepted even if the event does not reach culmination) for compositional telicity instantiated by predicates such as *eat the cheese* than for predicate telicity such as *eat up the cheese*.

Van Hout (1998) claimed that this happens because compositional telicity is less transparently marked than predicate telicity. The semantic role of the direct object is harder to grasp because it is not only related to telicity, it may encode several senses simultaneously: determination, quantization, specificity.

Van Hout (2008a: 273-274) advanced two other (yet to be tested) hypotheses as well: (i) starting from the idea in Bybee (1985: 11-12) that inflections differ in the extent to which they are “relevant” for a certain lexical category, it could be said that predicate telicity marking is highly relevant for the verb, because it particularizes the event that the verb describes, hence it is easier to acquire; (ii) another possibility is that the composition of the verb and the object is more difficult because it is based on an extra syntactic step - telicity checking (van Hout 1996) or movement of the object to an aspectual projection (Borer 1994, 2005).

Another explanation couched in scalar semantics is that it is easier to learn telicity with closed scale predicates, especially those where the end of the scale is overtly marked by morphological material such as prefixes/particles, than with open scale predicates that evince compositional telicity (Van Hout 2018).

At the same time, prior work also indicated that there is no consistent treatment of verbs either – for incremental theme predicates, different verbs might lead to higher rates of non-culmination acceptance than others (for instance, *eat* and *drink* vs *build* and *fix* – Ogiela 2007, *eat, drink, unzip, cut* vs *build, fix, cross, empty* – Anderson 2017, *eat, drink, paint, draw* vs *build, empty, peel, make* - Stoicescu 2022). Van Hout (2018), in a later review of the cross-linguistic data, argues that these differences between verbs cannot be explained by the mereological account of telicity in which the only factor crucial for telicity is that the verb instantiates an incremental thematic relation with a quantized incremental theme argument. This property is exhibited by all the verbs above. Van Hout (2018: 109) states that the variation in the comprehension patterns for these verbs is more easily explained by a scalar theory of telicity, “as this framework present a more ‘fluid’ definition of telicity by incorporating effects of verb class. Verbs with a closed scale are unambiguously telic. For verbs with an open scale, on the other hand, the scalar theory offers room for ambiguity and/or underspecification of the endstate.”

Another stream of research pointed out that perfective sentences with change of state verbs (*He opened the box*) are more systematically correlated to culmination than sentences with incremental theme predicates (*He ate the cake*) (García del Real Marco 2015, Stoicescu and Dressler 2022). To account for this, Van Hout (2018) proposes that incremental theme predicates instantiate open scales, whereas change of state predicates instantiate closed scales, the latter being learnt faster.

A series of studies propose that children’s difficulties with the compositional telicity of incremental theme predicates stem from immature pragmatics rather than immature semantics. According to Schulz (2018), Schulz and Ose (2008), Jeschull (2007), quantized objects only operate as weak telicity markers in predicates of consumption, telicity being a pragmatic implicature, not a semantic entailment (see also Hacoen 2009). Since pragmatic implicatures are known to be a vulnerable area for children (Noveck 2001, a.o.), culmination for incremental theme predicates, also an implicature, will also be delayed in child language. In another pragmatic account, Martin

et al. (2020) claimed that quantized objects have both maximal and non-maximal readings (Križ 2016), leading to both maximal and non-maximal readings for all incremental theme verbal predicates. The ambiguity is resolved only when children acquire the requisite pragmatic knowledge, which is, naturally, a matter of time.

In the line of research which found different patterns *within* the incremental theme class of verbs, a different proposal was made, based on findings by Wright (2014) for adult English: some incremental theme predicates entail telicity (and are called “strictly telic” – Anderson 2017 or “semantically telic” – Stoicescu and Dressler 2022), whereas others pragmatically imply telicity (being called “variably telic” – Anderson 2017, “pragmatically telic” – Stoicescu and Dressler 2022) (e.g., predicates of consumption). Stoicescu and Dressler (2022) showed that, for a long time, pragmatically telic incremental theme predicates are interpreted as both telic and atelic by children speaking Romanian (up until the age of six); by contrast, when it comes to semantically telic predicates, children’s sensitivity develops at a faster rate, with non-culminating readings gradually decreasing from age four onwards.

As previously noted by Van Hout (2018), most prior studies investigated the role of verb semantics in the acquisition of telicity. The conclusion was that the largest obstacle that children have to overcome is acquiring the aspectual features in the lexical meaning of the verb and its intricate involvement in the establishment of telicity (Van Hout 2018: 113).

However, not enough attention has been paid to potential variability induced by the semantics of the direct object. The few studies that address this issue indicated either no distinctions between definite and indefinite object DPs (Hacohen 2009) or proved that a cardinal object (*eat two brownies*) can remove non-culminating responses (Ogiela 2007).

This book will investigate the comprehension of (a)telicity for three structures previously uninvestigated for child Romanian: (i) an incremental theme verb + quantized definite DP object; (ii) incremental theme verb + non-quantized mass object; (iii) manner of motion verb + complex Goal PP. By investigating incremental theme verbs and definite count objects/mass objects, it will add to the findings in Stoicescu and Dressler (2022), a study which looked at incremental theme verbs and indefinite DP objects, using a similar methodology. It will thus provide a full picture of the comprehension of culmination entailments in child Romanian.

The book will address the following research questions:

Experiment 1: (i) Do Romanian-speaking children interpret incremental theme predicates comprising an incremental theme verb and a definite DP object as telic? (ii) Are there detectable differences between age groups or the verbs used? A tentative additional question will also be the following: (iii) How do the results of Experiment 1 that focuses on definite objects compare to the results related to indefinite objects in Stoicescu and Dressler (2022)? How can the differences be explained?

Most previous accounts predict that Romanian-speaking children will find it difficult to assign telic readings to incremental theme predicates with definite objects – as we saw earlier, prior research suggests that compositional telicity is hard regardless of the (in)definiteness of the quantized object.

Experiment 2: (i) Do Romanian-speaking children interpret incremental theme predicates comprising an incremental theme verb and a mass object as atelic? Previous research suggests that atelicity is not problematic in acquisition (Van Hout 1998).

Experiment 3: (i) Do Romanian-speaking children assign telic readings to manner of motion predicates with a selected complex Goal PP? This structure is not frequently used in Romanian, which has the typology of a verb-framed language (Talmy 1985), encoding Path on the verb rather than an adjunct. This experiment will thus address two competing factors: the accessible semantics of the predicate and the potential insufficient exposure in the input.

The above-mentioned research questions will be investigated using a similar experimental methodology. In three binary judgment tasks, Romanian-speaking children (aged three-to-five) will assess the relevant experimental items in culmination setups, in which the event progresses until it reaches its natural endpoint, and in non-culmination setups.

The book is structured as follows. Chapter 1 presents the main theoretical approaches to telicity. It reflects on the tension that exists in the literature between purely semantic accounts and syntactic treatments, arguing for the necessity of a theoretical framework that encompasses insights from both perspectives. Chapter 2 delves on the previous experimental research on the acquisition of telicity in several child languages (English, Dutch, German, Spanish, Hebrew). It highlights the main findings and lays the foundation for the investigation of child Romanian in the remainder of the book. Chapter 3 explores the comprehension of telic predicates made up of an incremental theme verb and a definite DP object (*a mânca prăjitura* “eat the cake”) by typically developing Romanian-speaking children at the ages of three, four and five. In the same chapter, a second experiment examines three-year-old Romanian-speaking children’s comprehension of atelic predicates made up of an incremental theme verb and a mass direct object (*a mânca orez* “eat rice”). Chapter 4 looks at the comprehension of telic manner of motion predicates made up of a manner of motion verb followed by a complex Goal PP (*a zbura până la copac* “fly as far as the tree”) by two-to-five-year-old Romanian-speaking children. The last chapter concludes the book.