Main session: L1/L2 acquisition, aspect, experimental approaches, typological perspectives

## Learning to produce and understand aspect across languages

We investigated how the structural expression of aspect in a language impacts the L1 acquisition of aspect, comparing the roles of grammaticalization and semantic markedness. Our study included thirteen languages. The research question was: which structural property determines ease of aspect acquisition?

We compared five-year-olds' interpretation and production of perfective and imperfective forms, (1). A total of 266 children participated in this study, plus control groups of 10 adults per language. We used three incremental-theme verbs (*make, build, draw*) and three change-of-state verbs (*open, close, blow out*). Complete and incomplete situations were presented in movies with a clown performing a series of similar actions (e.g., building various objects, see Figure 1). The clown played the statue game: while the music was playing the clown was working, but when it stopped, she had to freeze. In the truth-value judgment task participants judged whether or not a given aspectual form (perfective or imperfective) matched with a certain situation (complete or incomplete). The test sentence was asked right after the freezing moment: *While the music was playing, the clown built a bridge* (= perfective) / *the clown was building a bridge* (= imperfective). For the elicitation task, the participant had to complete the sentence that started with "While the music was playing, ...". The crucial condition involved the incomplete situations: in comprehension perfective aspect targeted rejection, and in production perfective is not allowed, since it entails completion.

The results show that aspect acquisition cuts across language-family boundaries. Instead, it is sensitive to the semantic markedness of aspectual forms. In languages in which the perfective form is semantically marked (i.e., has a uniform function), 5-year-old children firmly acquired the entailment completion of perfective aspect. This holds both in languages with highly grammaticalized aspect (Croatian, Polish, Russian, Serbian, Standard and Cypriot Greek) and medium grammaticalized aspect (Italian, Spanish, Basque). In contrast, if perfective is not semantically marked (English) or there is no or hardly any form of aspectual grammaticalization (Danish, Dutch, Estonian), the children had not fully acquired the completion entailment. These effects showed up both in comprehension and production.

The results lead to two questions: (i) Why should semantic markedness of perfective help aspect acquisition? (ii) Why should aspect grammaticalization affect acquisition? We argue that unambiguous and dedicated meanings are learned easier than unmarked meanings. Moreover, higher grammaticalization means more obligatoriness in the use of certain forms (less optionality), hence the form-meaning cues are more reliable and therefore more easily acquired.

Our results confirm findings in small-sample studies (van Hout, 2008; Wagner, 2002; Weist *et al.*, 1991), and the longitudinal case studies on German (Freiberger, 2008) vs. Italian (Bertinetto & Noccetti, 2006; Bertinetto *et al.*, 2008) vs. Croatian (Hrzica, 2011). Our large crosslinguistic perspective reveals how acquisition is helped or hindered by the language specifics of aspectual encoding—degree of aspect integration into the grammar, obligatoriness of aspectual distinctions, and its homogeneity of expression.

480 words



Figure 1: Set-up for clown building bridge, pyramid, fence, house, plane, stairs

## (1) Perfective-imperfective aspect paradigm in 13 languages

Highly Aspect Grammaticalization		
English	simple past	The clown built a bridge
	past progressive	The clown was building a bridge
Standard Gre	ek past perfective	O kloun ehtise mia yefira
	past imperfective	O kloun ehtize mia yefira
Cypriot Greek past perfective		O kloun ehtise mia yefira
	past imperfective	O kloun ehtize mia yefira
Croatian	past perfective	Klaun je sagradio most
	past imperfective	Klaun je gradio most
Polish	past perfective	Klaun zbudował most.
	past imperfective	Klaun budował most.
Russian	past perfective	Kloun postroil most
	past imperfective	Kloun stroil most
Serbian	past perfective	Klovn je sagradio most
	past imperfective	Klovn je gradio most
Medium Aspect Grammaticalization		
Spanish	simple past perfective-preterito	El payaso construyó un puente
	simple past imperfective-imperfetto	El payaso construía un puente
Italian	present perfect-passato prossimo	Il pagliaccio ha costruito un ponte
_	past-imperfective-imperfetto	Il pagliaccio costruiva un ponte
Basque	present perfect	Pailasoak zubia egin du
	past progressive	Pailasoa zubia egiten ari zen
Low Aspect Grammaticalization		
Danish	present perfect	Klovnen har bygget en bro
Danish	past periphrastic progressive	Klovnen var ved at bygge en bro
Dutch	present perfect	De clown heeft een brug gebouwd
Duton	past periphrastic progressive	De clown was een brug aan het bouwen
Estonian	object partitive case (imperfective)	Kloun ehitas silda
Lounan	object genitive case (imperfective)	Kloun ehitas silla
	object genitive case (penective)	מוומס אוומס אוומ