

The present study reports on the development of epistemic constructions in Norwegian as a second language, analysed through the lenses of usage-based theory (UBL). The study zooms in on epistemic verb-argument constructions (VACs), such as *jeg tror / jeg vet* ('I think' / 'I know') in the speech of four adult learners following an intensive language class, collected over the course of four months. Epistemic verb-argument constructions have been shown to be the most frequent epistemic marker in two learners' spoken Norwegian (Horbowicz et al. in press), thus providing an interesting topic for further investigation.

Within UBL, linguistic knowledge is said to emerge from experience (Bybee, 2006), and to consist of a network of thousands of constructions, defined as "conventionalized form-meaning pairings used for communicative purposes" (Ellis & Ferreira-Junior, 2009b, p. 188), varying in level of abstractness and complexity. Verb-argument constructions (VACs) are central components of knowing a language, as they encode "event types that are basic to human experience" (Goldberg, 1995, p. 37). In L1 acquisition studies, it has been suggested that VAC learning is driven by a few 'pathbreaking' verbs with generic meaning (Ninio, 1999). Learning is further optimized by a Zipfian type/token frequency of verbs distribution providing one very frequent exemplar of each VAC (Goldberg, 2006). This pattern was also detected in L2 English by Ellis & Ferreira-Junior (2009a), who reported that the distribution of verbs in three different VACs followed the Zipfian curve. By extending the analyses to the whole VAC-construction, Ellis & Ferreira-Junior (2009b) found that these verbs occurred in a set of fixed phrases, thus suggesting that L2 construction learning may start from lexically specific exemplars that gradually develop into abstract and productive schemas. This process is known as the *usage-based learning trajectory* (cf. Roehr-Brackin, 2014), and has been attested in several L1 and L2 studies.

The present study asks the following questions:

1. Which verbs appear in epistemic VACs, and what are the inter- and intraindividual differences in the epistemic verb repertoire over time?
2. What are the characteristics of each verb-argument construction type, and how do they develop over time?

The participants are four adult learners with diverse linguistic backgrounds and proficiency in languages besides their first language. The recorded conversations (8–9) took place between each learner and their former teacher, who is also one of the researchers.

The analyses show that while in total there are six epistemic verbs in use, *vite* and *tro* appear much more frequently than the others. Two of the learners use almost exclusively *tro* and *vite*, while the other two employ a greater range of verbs with epistemic meaning, even though their use does not always comply with Norwegian language norms. Although all the learners experience development in their epistemic repertoires, there are clear differences in obtained degrees of complexity, flexibility and thus schematicity of the epistemic VACs. We discuss the findings with reference to the constructions' frequency in input, but also their semantic transparency and discursive functions.

Literature

- Bybee, J. (2006). From usage to grammar: The mind's response to repetition. *Language*, 82(4), 711-733.
- Ellis, N. C. & Ferreira-Junior, F. (2009a). Construction Learning as a Function of Frequency, Frequency Distribution, and Function. *The Modern language journal* 93(3), 370-385. <https://doi.org/10.1111/j.1540-4781.2009.00896.x>
- Ellis, N. C. & Ferreira-Junior, F. (2009b). Constructions and their acquisition: Islands and the distinctiveness of their occupancy. *Annual Review of Cognitive Linguistics*, 7(1), 188-221.
- Goldberg, A. E. (1995). *Constructions: A construction grammar approach to argument structure* University of Chicago Press.
- Horbowicz, P., Nordanger, M. & Randen, G. T. (in press). Utvikling av epistemiske konstruksjoner i norsk som andrespråk: Variabilitet, endring og skjematisering. *NOA norsk som andrespråk*.
- Ninio, A. (1999). Pathbreaking verbs in syntactic development and the question of prototypical transitivity. *Journal of child language*, 26(3), 619-653.
- Roehr-Brackin, K. (2014). Explicit knowledge and processes from a usage-based perspective: The developmental trajectory of an instructed L2 learner. *Language Learning*, 64(4), 771-808.