

Second language acquisition, instructional design, Dynamic Systems Theory and the crosslinguistic expression of motion events in a second language.

This paper attempts to articulate, conceptually and operationally, research in second language acquisition and instructional theory, with issues in dynamic systems theory and cognitive linguistics (de Bot, 2008; Author, 2008; Talmy, 2000; Zlatev, 2007). We begin with an important issue in current theories of instructional design for second language (L2) learning programs. A theory of task-based syllabus design aims to facilitate the most optimally effective *change over time* in classroom second language learners when compared to program-exit outcomes resulting from all other rival theories, as demonstrated by their improved ability to *act* on what they *know* of a non-natively acquired language during *situated performance outside* the language classroom. In this paper we briefly describe such a theory and an initial specification, and taxonomy, of the categories and components involved in L2 pedagogic task performance (Author, 2005, 2007). We can call the resulting *taxonomy* of categories and task components, using a term from dynamic/complex systems theory (see Ellis & Larsen-Freeman, 2006), the '*phase-space*' for task design, representing all the possible ways in which pedagogic tasks can differ. Within this phase-space, actual *pedagogic task design* is the result of mapping the coordinates of specific real-world tasks identified by a needs analysis to all the parameters of tasks specified by the classification system and taxonomy as available for systematic manipulation. So individual pedagogic tasks will have their own '*parameter-space*'. For example—in ways which we will describe—the parameter space for one sequence of pedagogic tasks could be +/- planning time, and +/- spatial reasoning demands.

We then describe research into increasing the cognitive complexity of tasks along the dimension of spatial reasoning demands and show how it leads to changes in the conceptualization of, and reference to, space as reflected in the use of lexicalization patterns for describing motion events (Author, 2004, 2008; Filipovic, 2007; Odlin, 2008; Slobin, 1996, 2004; Talmy, 2000, 2008) during narratives performed by 40 L2 learners of English from typologically distinct (20 satellite-framed L1 Danish, and 20 verb-framed L1 Japanese) backgrounds. We examine the influence of crosslinguistic typological similarity and difference from English on the L2 description of motion events using a number of theoretically motivated, novel clause-based ratio units of analysis, including % target-like lexicalisation pattern, % satellite-path encoding, % event conflation, as well as lexical measures of the semantic complexity of motion verbs and motion clauses, amongst others. We argue increasing cognitive task complexity in the way we describe destabilizes the current interlanguage system—itsself a *phase space*, where all possible states of the system are represented (van Geert, 2008). Increasing task complexity by sequencing shifts in task demands induces similar shifts in the structure of interlanguage resources used to accomplish them, and we describe results of analyses of interlanguage expression of motion events in our data, adopting the units of analysis just mentioned, that show such shifts—in the small window of time within which our sequences of tasks were performed.

(487 words)

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