New perspectives for research using a Complex Dynamic Systems Theory approach to SLD

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Symposium format:
- **Symposium Multimodal**

Symposium mode:
- **Hybrid**

Sub-themes:
- ☐ (APPLIED) LINGUISTIC THEORY: history, (usage based) approaches, CDST-complexity, theory, approaches and analysis, phonology, psychology
- ☐ RESEARCH: methods, approaches and (collaborative) practices

Summary:

The CDST (Complex Dynamic Systems Theory) approach to second language development has been established as one of the main theoretical approaches in the field (Hiver et al., 2021). Researchers working within the CDST approach have acknowledged the individual nature of second language development, and have applied mostly quantitative techniques for longitudinal individual case studies to investigate how the process of language development evolves over time. A large part of the body of CDST research has focused on intra-learner variability as a meaningful source of information about second language development, and has shown salient patterns of second language development within and among individuals. However, in spite of the merits of the CDST approach, it also comes with several challenges. Critics have expressed the lack of generalizability, and the metaphoric nature of the approach, largely due to the absence of consistent and reliable methodologies. This symposium will critically address these challenges and will include several papers that show new methods of analysis that are likely to contribute to the future of CDST research.

Argument:

After about 25 years, CDST-inspired research in second language development is relatively young and many new methods and techniques are still being introduced. One point of criticism on CDST inspired research is the observation that many (or most) studies do not follow the starting points of conventional research based on falsifiability of hypotheses, as well as generalizations from a sample to a population. The present symposium aims to show that process-focused hypotheses can contribute to our understanding the HOW in addition to the WHAT. Often based on research in adjacent fields, methods and techniques have been developed in Applied Linguistics that help to reveal process-related questions, like time series analyses tracing change points, dynamic modeling of coordinated subsystems, the analysis of fractal structures, the identification of attractor states using space state grids and many more.

For this symposium contributions are invited that have used innovative techniques within a CDST approach, addressing questions around variability and development within and beyond the individual learner. Especially contributions are invited that go beyond the metaphoric interpretation of CDST and that have used methods that provide convincing evidence for principal components of second language development that aim to reveal the process of development.