

## A Discussion of Studies in CDST: An Introduction

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In this special issue on Complex Dynamic Systems Theory (CDST), four empirical studies (by Ahmed, Choe, Ciriani Dean, and Van Horn) investigate interlanguage through a CDST perspective. As a way of extending the discussion on CDST, students in the Second Language Acquisition (SLA) doctoral seminar in the Applied Linguistics and TESOL Program at Teachers College, Columbia University were asked to select and discuss one empirical study published in the current issue, reflecting on the following: the theoretical viewpoint, the findings, the methodology, and/or the significance and implications. In response, three papers were submitted to the present forum.

Jordan Gonzalez discusses Jordan Van Horn's study (*Exploring the dynamism between propositional complexity and error rate: A case study*), focusing on the finding that complexity and accuracy had a positive correlational relationship, contrary to the predictions of the Trade-Off Hypothesis and inconsistent with previous findings. Gonzalez questions whether the difference between Van Horn's finding and that of previous research may be a result of differences between written and oral language production, or differences in the methods used to measure accuracy and complexity.

Peter Kim reflects on Ann Tai Choe's study (*Exploring the dynamics of willingness to communicate in written communication: A case study*), questioning the appropriateness of measuring Willingness to Communicate (WTC) through indirect methods such as counting the total number of words. Kim makes the point that rather than the total number of words, the frequency with which a participant initiates conversations may be a more accurate measure of WTC. He also points out that the total number of words may be a better measure of fluency rather than a measure of WTC. Kim concludes by making the argument that caution is needed in interpreting the results of studies that claim to measure WTC through indirect methods of analysis, given that WTC is a psychological variable that is impervious to direct observation.

Wai Man Adrienne Lew comments on how Shafinaz Ahmed's study (*Exploring the variability of the preposition "in" in written communication*) manifests the CDST approach, particularly in utilizing multiple methods of data analysis. Lew suggests a method through which future studies may adopt a more rigorous form of data analysis, e.g., by thoroughly documenting the discourse context in which each instance of a target form appears in the dataset.

As second language acquisition is a complex, dynamic, and nonlinear process (Larsen-Freeman, 1997), CDST has much to offer to the field of SLA, for it provides a wide range of ideas and tools to explore inherently complex SLA processes (De Bot, Lowie, & Verspoor, 2007). It is our hope that this forum will stimulate further discussion on the empirical studies contained in this special issue, as well as future studies that attempt to approach the study of SLA through a CDST perspective.

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## REFERENCES

- De Bot, K., Lowie, W., & Verspoor, M. (2007). A dynamic systems theory approach to second language acquisition. *Bilingualism: Language and Cognition*, 10, 7-21.
- Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, 18, 141-165.

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## COMMENTARIES

1. Trade-off or Connected Growers: Implications on Accuracy and Complexity in L2 Writing  
Jordan Gonzalez
2. Why an Indirect Measure of L2 Learner's Willingness to Communicate in L2 Writing Requires Cautious Inferencing  
Peter Kim
3. Complex Dynamic Systems Research: Some Insights on Data Analysis  
Wai Man Adrienne Lew