**CHAOS THEORY AND COMPLEXITY THEORY: SELECTED REFERENCES**

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Agar, M. **(**2004). We have met the other and we’re all nonlinear: Ethnography as a nonlinear dynamic system. *Complexity, 10*(2), 16-24.

Ahmadi, A. (2011). Chaos theory and language assessment: The effect of sensitivity to initial conditions on test performance. *International Journal of Humanities and Social Science, 1*(17), 293-296.

Arbib, M. **(**2002). The mirror system, imitation and the evolution of language. In C. Nehaniv & K. Dautenhahn (Eds.). *Imitation in animals and artifacts* (pp. 229-280). Cambridge, MA: The MIT Press.

Bak, P.(1997). *How nature works: The science of self-organized criticality*. New York, NY: Oxford University Press.

Barlow, M., & Kemmer, S. (Eds.). (2000). *Usage based models of language*. Stanford, CA: CSLI Publications.

Bates, E.(1999). Plasticity, localization and language development. In S. Broman & J. Fletcher (Eds.), *The changing nervous system: Neurobehavioral consequences of early brain disorders* (pp. 214-253). New York, NY: Oxford University Press.

Bates, E., & Goodman, J**. (**1999). On the emergence of grammar from lexicon, In B. MacWhinney (Ed.). *The emergence of language* (pp. 29-80). Mahwah, NJ: Lawrence Erlbaum Associates.

Bates, E., & MacWhinney, B. **(**1989). Functionalism and the competition model. In B. MacWhinney & E. Bates (Eds.), *The cross-linguistic study of sentence processing* (pp. 3-73). Cambridge, UK: Cambridge University Press.

Beckner, C., Blythe, R., Bybee, J., Christiansen, M. H., Croft, W., Ellis, N. C., Holland, J., Ke, J., Larsen-Freeman, D., & Schonemann, T. (2009).Language is a complex adaptive system: Positionpaper. *Language Learning,* 59(*Suppl.* 1),1-27.

Bronfenbrenner, U.(1989). Ecological systems theory. *Annals of Child Development, 6*, 187-251.

Bybee, J**. (**2006). From usage to grammar: The mind’s response to repetition. *Language, 82*(4), 711-733.

Bybee, J., & Hopper, P. (Eds.). (2001). *Frequency and the emergence of linguistic structure*. Amsterdam, the Netherlands: John Benjamins.

Cameron, L., & Deignan, A. (2006). The emergence of metaphor in discourse. *Applied Linguistics,* 27(4), 671-690.

Cameron, L., & Stelma, J. (2004). Metaphor clusters in discourse. *Journal of Applied Linguistics, 1*(1) 7-36.

Caspi, T. (2010). A dynamic perspective on second language acquisition. (Doctoral dissertation). University of Groningen, The Netherlands. Retrieved from <http://dissertations.ub.rug.nl/faculties/arts/2010/t.caspi/>

Christiansen, M. H., & Chater, N. (Eds.) (2001). *Connectionist psycholinguistics*. Westport, CO: Ablex.

Cilliers, P. (1998). *Complexity and postmodernism: Understanding complex systems*. New York, NY: Routledge.

Cilliers, P. (2001). Boundaries, hierarchies and networks in complex systems. *International Journal of Innovation Management, 5*, 135-147.

Cilliers, P. (2005). Knowledge, limits and boundaries. *Futures, 37,* 605-613.

Cilliers, P. (2008). Knowing complex systems: The limits of understanding. In F. Darbellay, M. Cockell, J. Billotte, & F. Waldvogel (Eds.), *A vision of transdiciplinarity* (pp. 43-50)*.* Lausanne: EPFL Press & CRC Press.

Cvetek, S. (2008). Applying chaos theory to lesson planning and delivery. *European Journal of Teacher Education, 31*(3), 247-256.

de Bot, K., Lowie, W., & Verspoor, M. (2007). A dynamic systems theory to second language acquisition. *Bilingualism: Language and Cognition, 10*, 7-21.

Dörnyei , Z. (2009). *The psychology of second language acquisition.* Oxford, UK: Oxford University Press.

Dörnyei, Z. (2009). Individual differences: Interplay of learner characteristics and learning
environment. *Language Learning, 59*(*Suppl.* 1), 237-255.

Ellis, N. C., & Ferreira-Junior, F. (2009). Construction learning as a function of frequency, frequency distribution, and function. *Modern Language Journal, 93*, 370-386.

Ellis, N. C., & Larsen-Freeman, D. (2006). Language emergence: Implications for applied linguistics. *Applied Linguistics, 27*, 558-89.

Ellis, N. C., with Larsen-Freeman, D. (2009). Constructing a second language: Analyses and computational simulations of the emergence of linguistic constructions from usage. *Language Learning,* 59(*Suppl.* 1),93-128.

Ellis, N. C., & Larsen-Freeman, D. (Eds.). (2009). *Language as a complex adaptive system*. Malden, MA: Blackwell Publishing.

Feldman, J. (2006). *From molecule to metaphor*. Cambridge, MA: Bradford/MIT Books.

Gleick, J. (1987). *Chaos: Making a new science*. New York, NY: Penguin Group.

Gibson, E. (2000). The dependency locality theory: A distance-based theory of linguistic complexity. In A. Marantz, Y. Miyashita, & W. O'Neil (Eds.), *Image, language, brain: Papers from the first mind articulation project symposium* (pp. 94-126). Cambridge, MA: The MIT Press.

Hadidi Tamjid, N. (2014). Chaos/complexity theory in second language acquisition. *Novitas-Royal, 1*(1), 10-17. Retrieved from <http://dergipark.gov.tr/download/article-file/111899>

Haggis, T. (2008). Knowledge must be contextual: Exploring some possible implications of complexity and dynamic systems theories for educational research. *Educational Philosophy and Theory, 40*(1), 159-176.

Harshbarger, B. (2007). Chaos, complexity and language learning. *Language Research Bulletin, 22,* 17-31. Retrieved from <https://pdfs.semanticscholar.org/354f/1298e1828c320ad353c7f1e1d62d97fe697c.pdf>

## Heylighen, F. (1989). Self-organization, emergence and the architecture of complexity. *Proceedings of the 1st European Conference on System Science* (pp. 23-32). Paris: AFCET, Association Francaise pour la Cybernetique Economique et Technique (Association of French Computer Scientists).

Heylighen, F. (2008). [Complexity and self-organization](http://pespmc1.vub.ac.be/Papers/ELIS-complexity.pdf). In M. J. Bates & M. N. Maack (Eds.),
*Encyclopedia of library and information sciences*. Oxford, UK: Taylor & Francis.

Hopper, P. (1998). Emergent grammar. In M. Tomasello (Ed.), *The new psychology of language* (pp. 155-175). Mahwah, NJ: Lawrence Erlbaum Associates.

Hunter, W. J., & Benson, G. D. (2010). Arrows in time: The misapplication of chaos theory education. *Journal of Curriculum Studies, 29*(1), 87-100.

Jessner, U. (2008). A DST model of multilingualism and the role of metalinguistic awareness. *Modern Language Journal,* *92,* 270-283.

Kramsch, C. (2008). Ecological perspectives on foreign language education. *Language Teacher,*
*41*, 389-408.

Kramsch, C. (2009). Third culture and language education. In L. Wei & V. Cook (Eds.), *Continuum contemporary applied linguistics* (pp. 233-254)*.* London, UK: Continuum.

Kramsch, C., & Whiteside, A. (2008). Language ecology in multilingual settings: Towards a theory of symbolic competence. *Applied Linguistics,* *29*, 645-671.

Kusters, W. (2008). Complexity in linguistic theory, language learning and language change. In M. Miestamo, K. Sinnemäki, & F. Karlsson (Eds.), *Language complexity: Typology, contact, change* (pp. 3-22). Amsterdam, the Netherlands: John Benjamins.

Larsen-Freeman, D. (1997). Chaos/complexity science and second language acquisition. *Applied Linguistics*, *18*(2), 141-165.

Larsen-Freeman, D. (2002). Language acquisition and language use from a chaos/complexity theory perspective. In C. Kramsch (Ed.), *Language acquisition and language socialization: Ecological perspectives* (pp. 33-46). London, UK: Continuum.

Larsen-Freeman, D. (2006). On the need for a new understanding of language and its development. *Journal of Applied Linguistics*, *3*(3), 281-304.

Larsen-Freeman, D. (2007). On the complementarity of chaos/complexity theory and dynamic systems theory in understanding the second language acquisition process. *Bilingualism: Language and Cognition, 10*(1), 35-37.

Larsen-Freeman, D. (2009). Adjusting expectations: The study of complexity, accuracy, and fluency in second language acquisition. *Applied Linguistics, 30*(4), 579-589.

Larsen-Freeman, D. (2010). Having and doing: Learning from a complexity theory perspective. In P. Seedhouse, S. Walsh, & C. Jenks (Eds.), *Conceptualising learning in applied linguistics* (pp. 52-68). Hampshire, UK: Palgrave MacMillan.

Larsen-Freeman, D. (2010). The dynamic co-adaptation of cognitive and social views: A complexity theory perspective. In R. Batstone (Ed.), *Sociocognitive perspectives on language use and language learning* (pp. 40-53). Oxford, UK: Oxford University Press.

Larsen-Freeman, D. (2011). Introduction. In W. Lowie & M. Schmid (Eds.), *From structure to chaos: Twenty years of modeling bilingualism*. Amsterdam, the Netherlands: John Benjamins.

Larsen-Freeman, D. (2011). A complexity theory approach to second language development/acquisition. In Atkinson, D. (Ed.), *Alternative approaches to second language acquisition* (pp. 48-72)*.* London, UK: Routledge.

Larsen-Freeman, D. (2011). Complex, dynamic systems: A new transdisciplinary theme for applied linguistics? *Language Teaching 45*(2), 202-214*.* doi:10.1017/S0261444811000061

Larsen-Freeman, D. (2012). Complexity theory. In S. Gass & A. Mackey, (Eds.), *The Routledge handbook of second language acquisition* (pp. 73-88). London, UK: Routledge.

Larsen-Freeman, D., & Cameron, L. (2008). *Complex systems and applied linguistics*. Oxford, UK: Oxford University Press.

Larsen-Freeman, D., & Cameron, L. (2008). Research methodology on language development
from a complex systems perspective. *Modern Language Journal, 92*, 200-213.

Lee, N., Mikesell, L., Joaquin, A.D.L., Mates, A.W., & Schumann, J.H. (2009). *The interactional instinct: The evolution and acquisition of language*. Oxford, UK: Oxford University Press.

Lemke, J. (2002). Language development and identity: Multiple timescales in the social ecology of learning. In C. Kramsch (Ed.), *Language acquisition and language socialization* (pp. 68-87). London, UK: Continuum.

Lewontin R. (1998). The evolution of cognition: Questions we will never answer. In D. Scarborough & S. Sternberg (Eds.), *An invitation to cognitive science: Methods, models, and conceptual Issues* (Vol. 4, pp. 107-132)*.* Cambridge, MA: MIT Press.

Macqueen, S. M. (2009). *The emergence of patterns in second language writing: A sociocognitive exploration of lexical trails* (Unpublished doctoral dissertation). University of Melbourne, Australia.

MacWhinney, B. (2006). Emergentism: Use often and with care. *Applied Linguistics, 27*, 729-
40.

Mason, M. (2008). Complexity theory and the philosophy of education. *Educational Philosophy and Theory, 40*(1), 4-18.

Maxcy, S. J. (1995). *Democracy, chaos, and the new school order.* Thousand Oaks, CA: Corwin Press, Inc.

Meara, P. (2006). Emergent properties of multilingual lexicons. *Applied Linguistics, 27*, 620-44.

Mitchell, S. (2003). *Biological complexity and integrative pluralism.* Cambridge, MA: Cambridge University Press.

Ortega, L., & Han, Z. H. (Eds.). (2017). *Complexity theory and language development: In celebration of Diane Larsen-Freeman*. Amsterdam, Netherlands: John Benjamins.

Robinson, P. (1995). Task complexity and second language narrative discourse. *Language Learning, 45*(1), 99-140.

Semetsky, I. (2008). On the creative logic of education, or re-reading Dewey through the lens of complexity science. *Educational Philosophy & Theory, 40*, 83-95.

Slobin, D. (1996). From “thought and language” to “thinking for speaking.” In J. Gumperz & S.
Levinson (Eds.), *Rethinking linguistic relativity* (pp. 70-96). New York, NY: Cambridge University Press.

Tomasello, M., & Slobin, D.I. (Eds.). (2005). *Beyond nature-nurture: Essays in honor of Elizabeth Bates*. Mahwah, NJ: Lawrence Erlbaum Associates.

Ushioda, E. (2009). A person-in-context relational view of emergent motivation, self and identity. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 215-228). Bristol, UK: Multilingual Matters.

van Geert, P. (2003). Dynamic systems approaches and modeling of developmental processes. In
J. Valsiner & K. Connolly (Eds.), *Handbook of developmental psychology* (pp. 640-672)*.* London, UK: Sage.

van Geert, P., & Steenbeek, H. (2005). Explaining “after” by “before”: Basic aspects of a dynamic systems approach to the study of development. *Developmental Review, 25*, 408-42.

van Geert, P., & van Dijk, M. (2002). Focus on variability: New tools to study intra-individual
variability in developmental data. *Infant Behavior & Development, 25*, 340-74.

van Gelder, T., & Port, R. (1995). It's about time: An overview of the dynamical approach to
cognition. In R. Port & T. van Gelder (Eds.), *Mind as motion: Explorations in the dynamics of cognition* (pp. 1-44). Cambridge, MA: MIT Press.

van Lier, L. (2003). A tale of two computer classrooms: The ecology of project-based language learning. In J. van Dam & J. Leather. (Eds.), *The ecology of language acquisition* (pp. 49-64). Dordrecht, UK: Kluwer Academic Publishers.

van Lier, L. (2004). *The ecology and semiotics of language learning: A sociocultural perspective.* Boston, MA: Kluwer.

van Lier, L., Lafford, B.A., Liskin-Gasparro, J.E., Byrnes, H., & Appel, G. (Eds.). (2008). Second language development as a dynamic process. *Modern Language Journal, 92*(2), 166-178.

Varela, F., Thompson, E., & Rosch, E. (1991). *The embodied mind: Cognitive science and human experience*. Cambridge, MA: MIT Press.

Verspoor, M., Lowie, W., & de Bot, K. (2008). Input and second language development from a dynamic perspective. In T. Piske & M. Young-Scholten (Eds.), *Input matters in SLA* (pp. 77-88). Bristol, UK: Multilingual Matters.

Verspoor, M., Lowie, W., & van Dijk, M. (2008). Variability in second language development from a dynamic systems perspective. *Modern Language Journal, 92*, 214-231.

von Bertalanffy, L. (1950). An outline for general systems theory. *British Journal for the Philosophy of Science*, *12*, 134-165.

Young, G., & Carrol, G. (2010). Complex systems and applied linguistics [Review of the book Complex systems and applied linguistics, by D. Larsen-Freeman & L. Cameron]. *Asian Journal of English Language Teaching, 20*, 225-229.

Waldrop, M. M. (1992). *Complexity: The emerging science at the edge of order and chaos*. New York, NY: Simon and Schuster.

Weaver, W. (1948). Science and complexity. *American Scientist, 36*, 536-544.

Whiteside, A. (2013). Using dynamic systems/complexity theory in linguistic data analysis: A language ecology approach to the study of individual and social process. In L. Cooker & P. Benson (Eds.), *The applied linguistic individual: Sociocultural approaches to autonomy, agency, and identity.* London, UK: Equinox.

Zellermayer, M., & Margolin, I. (2005). Teacher educators’ professional learning described through the lens of complexity theory. *Teachers College Record*, *107*(6), 1275-1304.

Zipf, G. K. (1935). *The psycho-biology of language.* Boston, MA: Houghton Mifflin.