

Motor Development Research Group Full Publication List

Books Edited:

1. Kelso, J.A.S., & Clark, J.E. (Eds.) (1982). *The Development of Movement Control and Coordination*. New York: John Wiley.
2. Clark, J.E., & Humphrey, J.H. (Eds.) (1985) *Motor Development: Current Selected Research*. Princeton, N.J.: Princeton Book.
3. Clark, J.E., & Humphrey, J.H. (Eds.) (1987). *Advances in Motor Development Research* (Vol.I). New York: AMS Press.
4. Clark, J.E., & Humphrey, J.H. (Eds.) (1988) *Advances in Motor Development Research* (Vol.II). New York: AMS Press.
5. Clark, J.E., & Humphrey, J.H. (Eds.) (1990). *Advances in Motor Development Research* (Vol. III). New York: AMS Press.
6. Clark, J.E., & Humphrey, J.H. (Eds.) (1997). *Motor Development: Research and Reviews* (Vol. I). Reston Va: NASPE Publications.
7. Clark, J.E., & Humphrey, J.H. (Eds.) (2002). *Motor Development: Research and Reviews* (Vol. II). Reston Va: NASPE Publications.

Book Chapters

(*designates refereed publication; + designates invited publication)

1. +Clark, J.E. (1978). Memory processes in the early acquisition of motor skills. In M. Ridenour (Ed.), *Motor Development: Issues and Applications*. Princeton, NJ: Princeton Book Company.
2. +Clark, J.E. (1982). The role of response mechanisms in motor skill development. In J.A.S. Kelso & J.E. Clark (Eds.), *The Development of Movement Control and Coordination*. London: John Wiley.
3. Phillips, S.J., & Clark, J.E. (1984). An integrative approach to teaching kinesiology: A lifespan approach. In R. Shapiro & J.R. Marett (Eds.), *Second National Conference on Teaching Kinesiology and Biomechanics in Sports*.
4. +Clark, J.E. (1986). The perception–action perspective: A Commentary on von Hofsten. In M.G. Wade & H.T.A. Whiting (Eds.), *Motor Development in Children: Aspects of Coordination and Control*. Dordrecht, The Netherlands: Martinus Nijhoff Publishers.
5. +Clark, J.E. (1988). Development of voluntary skilled movement. In E. Meisami & P.S. Timiras (Eds.), *Handbook of Human Growth and Developmental Biology* (vol.I, Part B, pp. 237–250) Boca Raton, FL: CRC Press
6. +Clark, J.E., & Whittall, J. (1989). Changing patterns of locomotion: From walking to skipping. In M. Woollacott & A. Shumway–Cook (Eds.), *Development of posture and gait across the lifespan* (pp. 128–151). Columbia, SC: University of South Carolina Press.
7. +Clark, J.E., Truly, T.L., & Phillips, S.J. (1990). A dynamical systems approach to understanding the development of lower limb coordination in locomotion. In H. Bloch & B. Bertenthal (Eds.), *Sensory– motor organizations and development in infancy and early childhood* (pp. 363–378). Dordrecht: Kluwer Academic.
8. +Clark, J.E., & Phillips, S.J. (1991). The development of intralimb coordination in the first six months of walking. In J.Fagard & P. Wolff (Eds.), *The development of timing control and temporal organization in coordinated action*(pp. 245–257). Amsterdam: Elsevier Science Publishers.
9. *Clark, J.E., & Phillips, S.J. (1992). A dynamical systems approach to the development of intralimb coordination in the first year of walking. In M.H. Woollacott & F. Horak (Eds.), *Posture and Gait: Control Mechanisms* (Vol. II, pp. 350–353). Eugene, OR: University of Oregon Books.
10. *Whittall, J., Block, M.E., & Clark, J.E. (1992). The development of walking: Interlimb coordination as coupled limit cycle systems. In M.H. Woollacott & F. Horak (Eds.), *Posture and Gait: Control Mechanisms* (Vol II, pp.315–318). Eugene,

- OR: University of Oregon Books.
11. *+Forrester, L.F., Phillips, S.J., & Clark, J.E. (1993). Locomotor coordination in infancy: The transition from walking to running. In G.J.P. Savelsbergh (Ed.), *The development of coordination in infancy* (pp. 359–393). Amsterdam: Advances in Psychology Series, North Holland.
 12. +Clark, J.E., Trully, T.L., & Phillips, S.J. (1993). On the development of walking as a limit cycle system. In E. Thelen & L. Smith (Eds.), *Dynamical systems in development: Application* (pp. 71–93). Cambridge: MIT Press.
 13. *+Whitall, J., & Clark, J.E. (1994). The development of bipedal interlimb coordination. In S.P. Swinnen, H. Heuer, J. Massion, & P. Casaer (Eds.), *Interlimb coordination: Neural, dynamical, and cognitive constraints*. NY: Academic Press.
 14. +Clark, J.E. (1994) Motor development. In V.S. Ramachandran (Ed.), *Encyclopedia of Human Behavior* (Vol. 3, pp. 245–255). NY: Academic Press.
 15. +Clark, J.E. (1995). Dynamical systems perspective on gait. In R.L. Craik & C.A. Oatis (Eds.), *Gait analysis: Theory and application*. (pp. 79–86). St. Louis, MO: C.V. Mosby.
 16. +Clark, J.E. (1995). Dynamical systems perspective. In R.L. Craik & C.A. Oatis (Eds.), *Gait analysis: Theory and application*. (pp. 25–27). St. Louis, MO: C.V. Mosby.
 17. *+Clark, J.E. (1997). A dynamical systems perspective on the development of complex adaptive skill. In C. Dent-Read & P. Zukow-Goldring (Eds.), *Evolving explanations of development: Ecological approaches to organism-environment systems* (pp. 383–406). Washington, DC: APA Publications.
 18. +Clark, J.E. (2001). Infancy. In Patrick, K., Spear, B., Holt, K., & Sofka, D. Eds., *Bright Futures in Practice: Physical Activity*. (pp. 19–30) Arlington, VA: National Center for Education in Maternal and Child Health.
 19. +Clark, J.E. (2001). Developmental Coordination Disorder. In Patrick, K., Spear, B., Holt, K., & Sofka, D. Eds., *Bright Futures in Practice: Physical Activity*. (pp. 102–107). Arlington, VA: National Center for Education in Maternal and Child Health.
 20. Metcalfe, J.S., Chen, L.C., Kopp, M.A., Jeka, J.J., & Clark, J.E. (2001). Beyond postural sway reduction: Do newly walking infants couple to a driving somatosensory stimulus? In J. van der Kamp, A. Ledebt, G. Savelsbergh, & E. Thelen (Eds.), *Advances in motor development and learning in infancy*. Amsterdam, NL: Research Institute for Fundamental and Clinical Human Movement Sciences.
 21. Clark, J.E., & Metcalfe, J.S. (2002). The mountain of motor development: A metaphor. In J.E. Clark & J.H. Humphrey (Eds.), *Motor Development: Research & Reviews, Vol. 2*. pp. 163–190. Reston, VA: NASPE.
 22. Clark, J.E. (2005). Development of locomotion. In Hopkins, B. *The Cambridge Encyclopedia of Child Development*. Cambridge: Cambridge University Press.
 23. Chen, L-C., & Clark, J.E. (2008). Growth and motor development during infancy. In G. Payne & P. Geng (Eds.), *Introduction to Human Motor Development*. Beijing, China: People's Education Press of Beijing. [in Chinese]
 24. Bo, J., & Clark, J.E. (2008). Fine motor skill development in infants and children. In G. Payne & P. Geng (Eds.), *Introduction to Human Motor Development*. Beijing, China: People's Education Press of Beijing. [in Chinese]

Research Publications:

(*designates refereed publication; +designates invited publication; after 1990, senior authorship is either first OR last in author order)

1. *Clark, J.E. (1978). Compatibility and complexity in response decision processing. *Psychology of Motor Behavior and Sport*, 174–181.
2. *Clark, J.E., Stamm, C.L., & Urquia, M.G. (1978). Developmental variability: The issue of reliability. *Psychology of Motor Behavior and Sport*, 251–257.
3. *Clark, J.E., & Moore, J.E. (1981). Young children's ability to use precued

- information to select and maintain a response. *Perceptual and Motor Skills*, 52, 655-658.
4. *Clark, J.E. (1982). Developmental differences in response processing. *Journal of Motor Behavior*, 14, 247-254.
 5. *Clark, J.E., & Watkins, D. (1984). Static balance in young children. *Child Development*, 55, 854-857.
 6. *Clark, J.E., & Phillips, S.J. (1985). Validating a developmental sequence for the standing long jump. *Motor Development: Current Selected Research*, 1, 73-85.
 7. *Phillips, S.J., Clark, J.E., & Petersen, R.D. (1985). Developmental differences in standing long jump takeoff parameters. *Journal of Human Movement Studies*, 11, 75-87.
 8. +Clark, J.E. (1985). Movement Skill Development. *Adapted Physical Activity Quarterly*, 2, 353-355.
 9. *Clark, J.E. (1987). Age-related differences in programming a movement. *Advances in Motor Development Research*, 1, 95-104.
 10. *Phillips, S.J., & Clark, J.E. (1987). Infants' first unassisted walking steps: Relationships to speed. *Biomechanics X-A*, 425-428.
 11. *DiRocco, P.J., Clark, J.E., & Phillips, S.J. (1987). Jumping patterns of mentally retarded children. *Adapted Physical Activity Quarterly*, 4, 178-191.
 12. *Clark, J.E., & Phillips, S.J. (1987). The step cycle organization of infant walkers. *Journal of Motor Behavior*, 19, 421-433.
 13. *Clark, J.E., & Phillips, S.J. (1987). An examination of the contributions of selected anthropometric factors to gender differences in motor skill development. *Advances in Motor Development Research*, 1, 171-178.
 14. *Clark, J.E., Lanphear, A., & Riddick, C. (1987). The effects of videogames on the response selection processing of the elderly. *Journal of Gerontology*, 42, 82-85.
 15. *Clark, J.E., Whitall, J., & Phillips, S.J. (1988). Human interlimb coordination: The first 6 months of independent walking. *Developmental Psychobiology*, 21, 445-456.
 16. *+Clark, J.E., & Whitall, J. (1989). What is motor development: The lessons of history. *Quest*, 41, 183-202.
 17. *+Clark, J.E., Phillips, S.J., & Petersen, R. (1989). Developmental stability in jumping. *Developmental Psychology*, 25, 929-935.
 18. +Clark, J.E. (1990). Understanding Motor Development. *Pediatric Exercise Science*, 2, 281-282.
 19. *Caldwell, G.E., & Clark, J.E. (1990). The measurement of skill within the dynamical systems perspective. *Advances in Motor Development Research*, 3, 165-200.
 20. *Haller, C.F., & Clark, J.E. (1990). Effects of occluding a ball's trajectory on the interception performance of adults and children. *Advances in Motor Development Research*, 3, 80-90.
 21. *Lanphear, A.K., Whitall, J., Overby, L.Y., Tyler, R.W., & Clark, J.E. (1991). Comparison of four types of feedback on the golf putting task performance of novice adults. *Journal of Human Movement Studies*, 21, 201-215.
 22. *+Clark, J.E., & Phillips, S.J. (1993). A longitudinal study of intralimb coordination in the first year of independent walking: A dynamical systems analysis. *Child Development*, 64, 1143-1157.
 23. *Jensen, J.L., Phillips, S.J., & Clark, J.E. (1994). For young jumpers, differences are in the movement's control not its coordination. *Research Quarterly for Exercise and Sport*, 65, 258-268.
 24. *+Clark, J.E. (1995). On becoming skillful: Patterns and constraints. *Research Quarterly for Exercise and Sport*, 66, 173-183.
 25. *Phillips, S.J., & Clark, J.E. (1997). Temporal coordination and control in the development of the standing long jump. *Motor Development: Research and Reviews*, 1, 99-121.

26. +Clark, J.E. (1998). Learning in the development of infant locomotion. *American Journal of Human Biology*, 10, 807–810.
27. *Barela, J.A., Jeka, J.J., & Clark, J.E. (1999). The use of somatosensory information during the acquisition of independent upright stance. *Infant behavior & development*, 22, 89–104.
28. *Barela, J.A., Whitall, J., Black, P., & Clark, J.E. (2000). Can intralimb coordination in hemiplegic gait be explained by speed and mechanical constraints? *Human Movement Science*, 19, 251–273.
29. *Metcalf, J.S., & Clark, J.E. (2000). Sensory information affords exploration of posture in newly walking infants and toddlers. *Infant Behavior & Development*, 23, 391–405.
30. +Clark, J.E. (2002). Stepping into a new paradigm with an old reflex. A commentary on “The relationship between physical growth and a newborn reflex” by Esther Thelen, Donna A. Fisher, and Robyn Ridley-Johnson. *Infant Behavior & Development*, 128, 1–3
31. *Barela, J.A., Black, P., Whitall, J., Getchell, N., & Clark, J.E. (2002). Hemiplegic intralimb coordination: A dynamical systems analysis. *Brazilian Journal of Biomechanics*, 3(4), 5–14.
32. +Clark, J.E. (2003). The changing role of mentoring the future professorate with special attention to being a low-consensus discipline. *Quest*, 55, 51–61. 33.
33. *Barela, J.A., Jeka, J.J., & Clark, J.E. (2003). Postural control in children: Coupling to dynamics somatosensory information. *Experimental Brain Research*, 150, 434–442.
34. *Kagerer, F.A., Bo, J., Contreras-Vidal, J.L., & Clark, J.E. (2003). Visuomotor adaptation in children with Developmental Coordination Disorder. *Proceedings of the International Graphonomics Society*, 59–62.
35. *Kagerer, F., Bo, J., Contreras-Vidal, J.L., & Clark, J.E. (2004). Visuomotor adaptation in children with Developmental Coordination Disorder. *Motor Control*, 8, 450–460.
36. *Metcalf, J.S., Chen, L-C., Chang, T.Y., McDowell, K., Jeka, J.J., & Clark, J.E. (2005). The changing temporal organization of posture across the first year of independent walking. *Experimental Brain Research*, 161, 405–416
37. *Metcalf, J.S., McDowell, K., Chang, T.Y., Chen, L-C., Jeka, J.J., & Clark, J.E. (2005). Development of somatosensory-motor integration: An event-related analysis of infant posture in the first year of independent walking. *Developmental Psychobiology*, 46, 19–35.
38. *Contreras-Vidal, J.L., Bo, J., Boudreau, P., & Clark J.E. (2005). Development of visuo-motor representations for hand movement in young children. *Experimental Brain Research*, 162, 155–164.
39. +Clark, J.E. (2005). From the beginning: A developmental perspective on movement and mobility. *Quest*, 57, 37–45.
40. *Clark, J.E., Getchell, N., Smiley-Oyen, A.L., & Whitall, J. (2005). Developmental Coordination Disorder: Issues, Identification, and Intervention. *Journal of Physical Education, Recreation, and Dance*, 76(4), 49–53.
41. *Kagerer, F.A., Contreras-Vidal, J.L., Bo, J., & Clark, J.E. (2006). Abrupt, but not gradual visuo-motor distortion facilitates adaptation in children with Developmental Coordination Disorder. *Human Movement Science*, 25, 622–633
42. +Clark, J.E., & Oliveira, M. A. (2006). Motor behavior as a scientific field: a view from the start of the 21st century. *Brazilian Journal of Motor Behavior*, 1, 1–19.
43. *Bo, J., Contreras-Vidal, J.L., Kagerer, F.A., & Clark, J.E. (2006). Effects of increased complexity of visuomotor transformations on children’s arm movements. *Human Movement Science*. 25, 553–567.
44. *Whitall, J., Getchell, N., McMenamin, S., Horn, C., Pabreja, P., Wilms-Floet, A., & Clark, J.E. (2006). Perception-action coupling in children with and without DCD: Frequency locking between task relevant auditory signals and motor responses

- in a dual motor task. *Child, Health and Development*, 32, 679–692.
45. * Oliveira, M.A., Shim, J.K., Loss, J.F., Petersen, R.D.S. & **Clark, J.E.** (2006). Effect of kinetic redundancy on hand digit control in children with DCD. *Neuroscience Letters*, 410, 42–46. PMID: PMC1785294
 46. * Chen, L.-C., Metcalfe, J. S., Jeka, J. J., & **Clark, J. E.** (2007). Two steps forward and one back: Learning to walk affects infants' sitting posture. *Infant Behavior and Development*, 30, 16–25.
 47. *Shim, J.K, Oliveira, M.A., Hsu, J., Huang, J., Park, J., & **Clark, J.E.** (2007). Hand digit control in children: Age-related change in hand digit force interactions during maximum flexion and extension force production tasks. *Experimental Brain Research*, 176, 374–386.
 48. +Thomas, J.R., **Clark, J.E.**, Feltz, D.L., Kretchmar, R.S., Morrow, J.R., Reeve, T.G., & Wade, M.G. (2007). The Academy promotes, unifies, and evaluates doctoral education in Kinesiology. *Quest*, 59, 161–181.
 49. +**Clark, J.E.** (2007). On the problem of motor skill development. *Journal of Physical Education, Recreation, and Dance*, 78(5), 39–44.
 50. *Bair, W-N, Kiemel, T., Jeka, J.J. & **Clark, J.E.** (2007). Development of multisensory reweighting for posture control in children. *Experimental Brain Research*, 183,435–446. PMID: PMC2720682
 51. *Bo, J. Bastian, A.J., Contreras-Vidal, J.L., Kagerer, F.A., & **Clark, J.E.** (2008). Continuous and discontinuous drawing: High temporal variability exists only in discontinuous circling in young children. *Journal of Motor Behavior*, 40, 391–399. PMID: PMC2596960
 52. *Chen, L-C, Metcalfe, J.M., Chang, T-Y., Jeka, J.J.,& **Clark, J.E.** (2008). The development of infant upright posture: Sway less or sway differently? *Experimental Brain Research*, 186, 293–303.
 53. *Oliveira, M.A., Hsu, J., Park,J., **Clark, J.E.**, & Shim, J.K. (2008). Age-related changes in multi-finger interactions in adults during maximum voluntary finger force production tasks. *Human Movement Science*, 27, 714–727. PMID: PMC2637388
 54. *Mackenzie, S., Getchell, N., Deutsch, K., Wilms-Floet, A., **Clark, J.E.**, & Whittall, J. (2008). Multi-limb coordination and rhythmic variability under varying sensory availability conditions in children with DCD. *Human Movement Science*, 27, 256–269. PMID: PMC2519152
 55. *Bo, J., Bastian, A.J., Kagerer, F.A., Contreras-Vidal, J.L., & **Clark, J.E.** (2008). Temporal variability in continuous versus discontinuous drawing for children with Developmental Coordination Disorder. *Neuroscience Letters*.431, 215–220. PMID: PMC2596960
 56. *Whittall, J., Chang, T-Y, Horn, C.L., Jung-Potter, J., McMenamin, S., Wilms-Floet, A., & **Clark, J.E.** (2008). Auditory-motor coupling of bilateral finger tapping in children with and without DCD compared to adults. *Human Movement Science*, 27, 914–931. PMID: PMC2630489
 57. +**Clark, J.E.** (2008). Kinesiology in the 21st century: A preface. *Quest*, 60, 1–2.
 58. *Bo, J., Block, H.J., **Clark, J.E.**, & Bastian, A.J. (2008). A cerebellar deficit in sensorimotor prediction can explain movement timing variability. *Journal of Neurophysiology*, 100, 2825–2832. PMID: PMC2585388
 59. *King, B.R., Kagerer, F.A., Contreras-Vidal, J.L., & **Clark, J.E.** (2009). Evidence for multisensory spatial-to-motor transformations in aiming movements of children. *Journal of Neurophysiology*, 101, 315–322. PMID: PMC2637014
 60. King, B.R., Pangelinan, M.M., Kagerer, F.A., &**Clark, J.E.** (2010). Improvements in proprioceptive functioning influence multisensory-motor integration in 7- to 13-year-old children. *Neuroscience Letters*, 483, 36–40
 61. Pangelinan, M.M., Kagerer, F.A., Momen, B., Hatfield, B.D., & **Clark, J.E.** (in press). Electrocortical dynamics reflect age-related differences in movement kinematics in children and adults. *Cerebral Cortex*.

62. King, B.R., Haring, J., Oliveira, M.A., & **Clark, J.E.** (in press). Statistically characterizing intra- and inter-individual variability in children with developmental coordination disorder. *Research in Developmental Disabilities*
63. Pangelinan, M.M., Zhang, G., VanMeter, J.W., **Clark, J.E.**, Hatfield, B.D., & Haufler, A.J. (in press). Beyond age and gender: Relationships between cortical and subcortical brain volume and cognitive- motor ability in school-age children. *NeuroImage*.
64. Roche, R., Wilms-Floet, A.M., **Clark, J.E.**, & Whittall, J. (in press). Auditory and visual information do not self-paced affect bilateral finger tapping in children with DCD. *Human Movement Science*.
65. Bair, W.N., Barela, J.A., Whittall, J., Jeka, J.J., & **Clark, J.E.** (under review). Children with Developmental Coordination Disorder need both touch and vision for static postural control. *Gait & Posture*.