

CURRICULUM VITA**RUTH BRECKINRIDGE CHURCH****January 2018****Work Address:**

Department of Psychology
Northeastern Illinois University
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Honors, Awards and Funding

- 1975 B.A., Cum Laude. Coe College
- 1980-1983 Division of Social Science Scholarship. The University of Chicago
- 1985-1987 Center for Developmental Studies Scholarship. The University of Chicago
- 1986-1988 Fellowship; Clinical Research Training Program in Adolescence Michael Reese
Hospital
- 1988 Rosenburger Educational Prize for outstanding doctoral dissertation research,
Department of Education, The University of Chicago
- 1989-1990 Individual National

1994-1995

Refereed Journal Publications

- Church, R. B., & Goldin-Meadow, S. (1986). The mismatch between gesture and speech as an index of transitional knowledge. *Cognition*, 23(1), 43-71. doi: [10.1016/0010-0277\(86\)90053-3](https://doi.org/10.1016/0010-0277(86)90053-3)
- Perry, M., Church, R. B., & Goldin-Meadow, S. (1988). Transitional knowledge in the acquisition of concepts. *Cognitive Development*, 3(4), 359-400. doi: [10.1016/0885-2014\(88\)90021-4](https://doi.org/10.1016/0885-2014(88)90021-4)
- Perry, M., Church, R. B. & Goldin-Meadow, S. (1992). Is gesture-speech mismatch a general index of transitional knowledge? *Cognitive Development*, 7, 109-122. doi: [10.1016/0885-2014\(92\)90007-E](https://doi.org/10.1016/0885-2014(92)90007-E)
- Goldin-Meadow, S., Nusbaum, H., Garber, P. & Church, R. B. (1993). Transitions in learning: Evidence for simultaneously activated strategies. *Journal of Experimental Psychology: Human Perception and Performance*, 19(1), 92-107. doi: [10.1037/0096-1523.19.1.92](https://doi.org/10.1037/0096-1523.19.1.92)
- Goldin-Meadow, S., Alibali, M. W., & Church, R. B. (1993). Transitions in concept acquisition: Using the hand to read the mind. *Psychological review*, 100(2), 279-297. doi: [10.1037/0033-295X.100.2.279](https://doi.org/10.1037/0033-295X.100.2.279)
- Hedricks, C. A., Ghiglieri, M., Church, R. B., Lefevre, J., & McClintock, M. K. (1994). Hormonal and ecological contributions toward interpersonal intimacy in couples. *Annals of the New York Academy of Sciences*, 709(1), 207-209. doi: [10.1111/j.1749-6632.1994.tb30403.x](https://doi.org/10.1111/j.1749-6632.1994.tb30403.x)
- Church, R. B., Hedricks, C., Le Fevre, J., McClintock, M. K. (1994). The importance of environmental context in mood and cognitive changes during the menstrual cycle. *In The 1991 Society for Menstrual Cycle Research Conference Proceedings*, Hamilton and Cross: Seattle, WA
- Church, R. B., Schonert-Reichl, K., Goodman, N., & Kelly, S. D. (1995). The role of gesture and speech communication as a reflection of cognitive understanding. *J. Contemp. Legal Issues*, 6, 237.
- Kelly, S. D., & Church, R. B. (1997). Can Children Detect Conceptual Information Conveyed Through Other Children's Nonverbal Behavior's. *Cognition and Instruction*, 15(1), 107-134. doi: [10.1207/s1532690xci1501_4](https://doi.org/10.1207/s1532690xci1501_4)
- Kelly, S. D., & Church, R. B. (1998). A comparison between children's and adults' ability to detect conceptual information conveyed through representational gestures. *Child development*, 69(1), 85-93. doi: [10.1111/j.1467-8624.1998.tb06135.x](https://doi.org/10.1111/j.1467-8624.1998.tb06135.x)

- Church, R. B. (1999). Using gesture and speech to capture transitions in learning. *Cognitive Development, 14*(2), 313-342. doi: [10.1016/S0885-2014\(99\)00007-6](https://doi.org/10.1016/S0885-2014(99)00007-6)
- Kelly, S. D., Barr, D. J., Church, R. B., & Lynch, K. (1999). Offering a hand to pragmatic understanding: The role of speech and gesture in comprehension and memory. *Journal of memory and Language, 40*(4), 577-592.
- Church, R. B., Kelly, S. D., & Lynch, K. (2000). Immediate memory for mismatched speech and representational gesture across development. *Journal of Nonverbal Behavior, 24*(2), 151-174. doi: [10.1023/A:1006610013873](https://doi.org/10.1023/A:1006610013873)
- Church, R. B., Ayman-Nolley, S., & Mahootian, S. (2004). The role of gesture in bilingual education: Does gesture enhance learning?. *International Journal of Bilingual Education and Bilingualism, 7*(4), 303-319. doi: [10.1080/13670050408667815](https://doi.org/10.1080/13670050408667815)
- Church, R. B., Garber, P., & Rogalski, K. (2007). The role of gesture in memory and social communication. *Gesture, 7*(2), 137-158. doi: [10.1075/gest.7.2.02bre](https://doi.org/10.1075/gest.7.2.02bre)
- Church, R. B. (2008). So Could We Have a ‘Planet of the Apes?’. *Human Development, 51*(2), 153-160. doi: [10.1159/000115962](https://doi.org/10.1159/000115962)
- Church, R. B. (2012). It’s not just about drawing and language... It’s really about reconceptualizing the rolesT 50 0 00.2 (w) 12[(z) 0.0.2 (pt)0.2 (ua) 0.2pthe

Carlson, C., Jacobs, S. A., Perry, M., & Church, R. B. (2014). The effect of gestured instruction on the learning of physical causality problems. *Gesture*, *14*(1), 26-45. doi: [10.1075/gest.14.1.02car](https://doi.org/10.1075/gest.14.1.02car)

Koumoutsakis, T., Church, R. B., Alibali, M. W., Singer, M., & Ayman-Nolley, S. (2016). Gesture in instruction: evidence from live and video lessons. *Journal of Nonverbal Behavior*, *40*(4), 301-315. doi: [10.1007/s10919-016-0234-z](https://doi.org/10.1007/s10919-016-0234-z)

Rueckert, L., Church, R. B., Avila, A., & Trejo, T. (2017). Gesture enhances learning of a complex statistical concept. *Cognitive Research: Principles and Implications*, *2*(1), 2. doi: [10.1186/s41235-016-0036-1](https://doi.org/10.1186/s41235-016-0036-1)

Yeo, A., Ledesma, I., Nathan, M. J., Alibali, M. W., & Church, R. B.

LeFevre, J., Hedricks, C., Church, R.

- and cognitive mechanism of learning in peer interaction. Paper presented at the meeting of the Jean Piaget Society (JPS), Montreal, Canada.
- Church, R. B., Momeni, C., Williams, T., Garber, P., & Goldin-Meadow, S. (May, 1992). Detection of unstable knowledge: The function of gesture and speech in natural teaching interactions. Paper presented at the meeting of the Jean Piaget Society (JPS), Montreal, Canada.
- Schonert-Reichl, K., Goodman, N., & Church, R. B. (November, 1992). Do the hands hold the key?: The role of gesture in perspective-taking and moral reasoning. Paper presented at the annual meeting of the Association for Moral Education, Toronto, Ontario.
- Church, R. B. (March, 1993). Implicit-explicit knowledge: Theoretical and empirical implications for concept learning. Symposium organized and presented at the meeting of the Society for Research in Child Development (SRCD), New Orleans, LA.
- Ayman-Nolley, S. & Church, R. B. (March, 1993). Social and cognitive mechanisms of learning through interaction with peers. Paper presented at the meeting of the Society for

of San Diego, Ann Arbor, Michigan.

Church, R. B. (January, 1994). Describing the role of gestural representation in social interactions.

income housing project. Paper presented to The National Conference on Violence Prevention, Des Moines, IA.

Church, R. B., Smith, R., Kosmos, C., Goodman, N., & Garber, P. (November 1995). Evaluating the effects of a prosocial intervention and developmental receptivity on adolescents at risk. Paper presented to the Association of Moral Education Meetings, New York, NY.

Singer, M., Kell

- Ayman-Nolley, S., Church, R. B., Oshana, D. & Singer, M. (June, 1997). Peer Interaction: The joint role of knowledge stability, social dominance and scaffolding in learning, Santa Monica, CA.
- Church, R. B., Kelly, S., & Lynch, K. (June, 1998). The link between verbal and nonverbal representations for the observer of communication: A developmental Study. Paper presented at the Jean Piaget Society (JPS) Annual Symposium, Chicago, IL.
- Church, R. B. & Garber, P. (April, 1998). Making use of Implicit knowledge to teach. Symposium organized to be presented to the Society for Research in Child Development (SRCD), Albuquerque, New Mexico.
- Church, R. B., Ayman-Nolley, S., Alibali, M. W., & Kelly, S. (April, 1998). Can we learn something from tel

- Philadelphia, PN.
- Church, R. B., Ayman-Nolley, S., & Gordon, E. (June, 2002). Levels of embodiment and learning: "Do as I do not as I say." Paper submitted to the 32st Annual Meeting of the Jean Piaget Society (JPS), Philadelphia, PN.
- Church, R. B., Ayman-Nolley, S., Arnold, M., & Anderson, W. (April 2003). Lab innovation in application: What role does gesture play in the lab and in the classroom? Paper presented to the Society for Research in Child Development (SRCD), Tampa, FL.
- Ayman-Nolley, S., Church, R. B., Nolley, O., & Gordon, L. (April, 2003). Lab innovation in application: Can the constructivist approach to teaching really work in the classroom? Paper presented to the Society for Research in Child Development (SRCD), Tampa, FL.
- Church, R. B. (October, 2003). The embodied representation as a mechanism of learning: Evidence from neurological, cognitive and social research. Symposium organized and presented to The Cognitive Development Society (CDS), Park City, UT.
- Church, R. B. (October, 2003). The embodied representation as a mechanism of learning: Evidence from neurological, cognitive and social research. Paper presented to The Cognitive Development Society (CDS), Park City, UT.
- Church, R. B., Ayman-Nolley, S., Glover, D., Vasich, M., & Alibali, M. (October, 2003). The role of multi-modal instruction in deep learning: Does the instructor's gesture embody the concept for the learner? Paper presented to The Cognitive Development Society (CDS), Park City, UT.
- Church, R. B., Ayman-Nolley, S., & Maldonado, L. (June, 2005). Using gesture in the classroom: Can we apply what we learned in the lab? Paper presented at the Jean Piaget Society (JPS), Vancouver, British Columbia.
- Malone, T., Church, R. B., & Ayman-Nolley, S. (October, 2005). The role of gesture and speech in children's learning of mathematical concepts. Paper presented at the Cognitive Development Society (CDS) meeting, San Diego, CA.
- Gross, I. & Church, R.

Development (SRCD), Denver, CO.

Jablonska, J., Church, R. B., & Ayman-Nolley, S. (April, 2009). Gesture-speech linguistic mismatches may be an index of a critical period in language learning. Presented at the Society for Research in Child Development (SRCD), Denver, CO.

Alibali, M.,

Alibali, M. W., Wolfgram, M., Young, A. G., Church, R. B., Johnson, C. H., Jacobs, S. J., & Nathan, M. J. (April, 2012). Linking mathematical ideas multimodally enhances learning. Paper presented at AERA, Vancouver, CA.

- Brown, A., Quiros, L., Burgo, I., Church, R. B., & Mahootian, S. (June, 2013). The effect of activating multiple language systems on working memory. Presentation at the Jean Piaget Society (JPS) Conference, Chicago, IL.
- Koumoutsakis, T., Kaltenhauser, A., Silva, A., Brown, A., Church, R. B., & Ayman-Nolley, S. (October, 2013). Gestures provide more than a helping hand: Gestures' impact on learning. Poster presented as part of the Cognitive Development Society (CDS) VIII Biennial Meeting, Memphis, TN.
- Brown, A., Quiros, L., Koumoutsakis, T., Kaltenhauser, A., Silva, A., Church, R. B., & Mahootian, S. (October, 2013). Measuring cognitive resources in early-acquisition bilinguals. Poster presented as part of the Cognitive Development Society (CDS) VIII Biennial Meeting, Memphis, TN.
- Koumoutsakis, T., Church, R. B., & Ayman-Nolley, S. (July, 2014). Exploring transitional knowledge in response to gestured instructional input across live and video mediums. Poster presented as part of the Sixth Conference of the International Society for Gesture Studies (ISGS), Memphis, TN.

- Koumoutsakis, T., Church, R. B., Alibali, M., Singer, M., & Ayman-Nolley, S. (June, 2015). Does gesture enhance mathematical learning when presented live and on video? Paper presented as part of the 45th Annual Meeting of the Jean Piaget Society (JPS) Neuroplasticity & Change Conference, Toronto, Canada.
- Monroy, A., Church, R. B., & Rueckert, L. (October, 2015). Does short exercise impact the learning of polynomials before or after instruction? Poster presented at the Cognitive Development Society (CDS), Columbus, OH.
- Kazi, M., Dupaya, K., Rustum, H., Brylak, J., Church, R. B., Parrill, F., & Ping, R. (May, 2016). The effect of action-based instruction on learning a chemistry concept. Presented at American Psychological Society (APS), Chicago, IL.
- Koumoutsakis, T., Khan, A., Mistak, A., Ayman-Nolley, S., & Church, R. B. (June, 2016). How gesture affects math learning: Do male and female children respond differently? Poster presented as part of the 47th Annual Meeting of the Jean Piaget Society (JPS) Neuroplasticity & Change Conference, Chicago, IL.
- Koumoutsakis, T., Khan, A., Mistak, A., Ayman-Nolley, S., & Church, R. B. (July, 2016). Under what circumstances does gesture in instruction exert an effect on learning: The role of gender and context. Poster presented as part of the Gesture--Creativity--Multimodality at the seventh Conference of the International Society for Gesture Studies (ISGS), Paris, France.
- Mistak, A., Khan, A., Koumoutsakis, T., & Church, R. B. (October, 2016). The contribution of children's misconceptions and gestured instruction to math learning. Poster presented as part of the 2016 Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) The National Diversity

Valdiviejas, H., Koumoutsakis, T., Khan, A., Mistak, A., Ayman-Nolley, S. & Church, R. B. (April, 2018). TMI: Is Instruction with Gesture Too Much Input for ESL Students? Upcoming poster to be presented as part of the 2018 Midwestern Psychological Association (MPA) Conference, Chicago, IL.

Khan, A., Koumoutsakis, T., Valdiviejas, H., Mistak, A., Ayman-Nolley, S. & Church, R. B. (April, 2018). This is a Man's World: Students Learn More Easily From a Male Math Instructor. Upcoming poster to be presented as part of the 2018 Midwestern Psychological Association (MPA) Conference, Chicago, IL.

Standley, M., Koumoutsakis, T., Levan, Z., Mistak, A., Lepic, R., Church, R. B., & Goldin-Meadow, S. (April, 2018). Timing matters: Gesture preceding or co-occurring with speech enhances math learning. Upcoming poster to be presented as part of the 2018 Midwestern Psychological Association (MPA) Conference, Chicago, IL.

Valdiviejas, H., Morales, D., Koumoutsakis, T., Khan, A., Standley, M., Mistak, A., Ayman-Nolley, A., and Church R. B. (May, 2018). Not a one-size-fits-all: Gesture's questionable role in English-Language-Learning students' mathematical equivalence understanding. Submitted paper for upcoming presentation for 48th Annual Meeting of the Jean Piaget Society, Amsterdam, The Netherlands.

Koumoutsakis, T., Valdiviejas, H., Khan, A., Standley, M., Mistak, A., Ayman-Nolley, S., and Church, R. B. (July, 2018). Male instructors enhance gesture's effect on learning. Submitted poster for upcoming presentation for The International Society of Gesture Studies (ISGS) conference, Cape town, South Africa.

Lepic, R., Lu, J., Koumoutsakis, T., Levan, Z., Mistak, A., Standley, M., Church, R. B.,
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Involved in projects investigating the development of a manual language system in deaf children not exposed to a conventional language. Responsibilities included collecting, coding and analyzing the gestural data of deaf children; helping to develop a system for coding the morphology of the children's gestures; and developing a training protocol for coding gestural data.

- 1979-1987 Research Assistant, "The relationship between biological, psychological and social factors across the human menstrual cycle, supervised by Dr. Martha McClintock. Involvement at all phases of this project including development of a theoretical construct to explain the relationship between hormones and psychological state; data collection, coding and analysis; report writing and presentation preparation.
- 1980-1987 Member of Research group, "Behavioral Endocrinology," led by Dr. Martha McClintock. Involvement at all stages of several research projects carried out by faculty and student members.
- 1980-1990 Member of Research Group, "Language Acquisition and Cognitive Development," led by Dr. Susan Goldin-Meadow. Involvement at all stages of several research projects carried out by faculty and student members.
- 1981-1982 Member of Organizational Committee of the Child Development Colloquia series at The University of Chicago.
- 1984-1987 Research Assistant, "Transitional Knowledge in the Acquisition of Concepts, " supervised by Dr. Susan Goldin-Meadow, funded by NICHD. Involvement at all phases of this project including the preparation of the proposal; data collection, coding and analysis; report writing and presentation preparation.
- 1987-1989

of Chicago in diagnostic assessment and individual therapy. For example, I was a member of the educational staff in the adolescent treatment program at Michael Reese hospital; a program which provides milieu therapy for in-patient adolescents. In addition, I conducted supervised diagnostic and on-going therapy for out-patient adolescents.

- 1990-1996 Assistant Professor, Northeastern Illinois University. I maintained an active research program investigating factors underlying changes in cognitive mental representations over development.
- 1996-2005 Associate Tenured Professor, Northeastern Illinois University. I maintained an active research program investigating factors underlying

Teaching Experience

1982 Teaching Assistant, Introduction to Developmental Psychology (with Dr. Susan Goldin-Meadow), Departments of Education and Behavioral Sciences, The University of Chicago. My duties included planning and organizing the course curriculum, leading the graduate discussion section, lecturing, test construction, and grading exams.

1982-present Research Advisor, The University of Chicago. I have supervised several undergraduate and graduate student research projects in the areas of cognitive development, nonverbal communication and behavioral endocrinology.

1990-1996

Dr. David McNeill
The University of Chicago