Cognition

Clark, M., Schwanenflugel, P., Everhart, V., & Bartini, M. (1996). Theory of mind in deaf adults and the organizations of verbs of knowing. Journal of Deaf Studies and Deaf Education, 1 (3), 179-189. [AN 1547]
The author's research demonstrates that, although deaf adults might be expected to view cognitive processes differently than hearing adults, they nonetheless exhibit a theory of mind that is similar to that of hearing adults.

Everhart, V., & Marschark, M. (1997). Models, modules, and modality. In M. Marschark, P. Siple, D. Lillo-Martin, R Campbell, & V. Everhart (Eds.), Relations of language and thought: The view from sign language and deaf children (pp.173-184). New York: Oxford University Press. [AN 1573]
This chapter talks about what the differences and similarities between deaf and hearing children mean. Questions such as: Are language and thought independent? Does thought determine language? And, Are cognition and language interdependent? are discussed.

Kelly, R., & Mousley, K. (1999). Deaf and hearing students' transfer and application of skill in math problem solving. Paper presented at the 25th Annual Conference of the Association of College Educators for the Deaf and Hard of Hearing, Feb 26-March 1, Rochester, N.Y. [AN 1630]
This research examined the ability of deaf and hearing college students to transfer and apply their math computation and problem-solving skills to similar problems presented under different conditions.

Marschark, M. (1999). Comparing the mental lexicons of deaf and hearing individuals. Journal of Educational Psychology, 91, 1-9. [AN 1652]
This study compared the organization of verbal concept knowledge in deaf and hearing adults. A semantic association task was used to estimate the mental lexicons of deaf and hearing adults for a sample of words that were either sound- related or not sound-related. Observed similarities and differences between deaf and hearing adults were comparable for sound-related and not-sound-related words.

Marschark, M. (in press). Context, cognition, and deafness: Planning the research agenda. In M.D. Clark, M. Marschark, & M. Karchmer (Eds.), Context, cognition, and deafness: The research agenda. Washington, DC: Gallaudet University Press. [AN 1690]
This chapter has two parts. The first half concerns the current opportunities and challenges for research in deaf education and allied fields, together with some of the factors shaping the current and future research agendas. The second halfpresents an informal study of priorities for investigation in the field, as seen by those most centrally involved in day-to-day educational and research activities.

Marschark, M. (1999). Interactions of cognitive processes and reading in deaf learners: Understanding differences. In J. Leybaert & G. Durand (Eds.), SurditÈ et accËs ý la

langue Ècrite: de la recherche ý la pratique. Actes du colloque international (Vol. 1, pp.95-109). Paris: ACFOS. [AN 1650]
This article describes ways in which reading-related cognitive abilities of deaf children may differ from those of hearing children and may vary more broadly across deaf children than they do across hearing children.

Marschark, M. (in press). Memory for language in deaf adults and children. Scandinavian Journal of Audiology. [AN 1654]
This article considers the results of previous studies and some new findings in examining the possible impact of spoken language and sign language fluencies/preferences on the structure and process of memory in deaf individuals.

Marschark, M., Ruiz-Vargas, J., & Cuevas, I. (1996). The effects of concreteness on memory: Dual codes or dual processing? European Journal of Cognitive Psychology, 8 (1), 45-72. [AN 1689]
This research examined the relative importance of encoding and retrieval contexts to the demonstration of concreteness effects in memory. Predictions from relational-distinctive and dual-code positions were evaluated.

Marschark, M., & Mayer, T. (1998). Interactions of language and memory in deaf children and adults. Scandinavian Journal of Psychology, 39, 145-148. [AN 1651]
This article reviews theoretical and empirical issues concerning the relations of language and memory in deaf children and adults. An integration of previous studies together with the presentation of new findings, suggests that there is an intimate relation between spoken language and memory.

Marschark, M., & Mayer, T. (1998). Mental representation and memory in deaf adults and children. In M. Marschark & D. Clark, (Eds.), Psychological perspectives on deafness (Vol. 2, pp.53-77). Mahwah, NJ: Lawrence Erlbaum and Associates. [AN 1649]
This chapter focuses on recent research separating long-term memory and short-term memory. It provides an integration of diverse research findings in order to arrive at a coherent and current understanding of memory and mental representation in deaf individuals, and to use this integration to provide direction for application of research findings in educational and other settings.

Marschark, M., Tinti, C. & Cornoldi, C. (1997). Modality-specific auditory imaging and the interactive imagery effect. European Journal of Cognitive Psychology, 9 (4), 417-436. [AN 1687]
This study demonstrates the possibility of an interactive imagery effect also being found in the auditory modality. In general, the results show that auditory imagery shares with visual imagery the capacity of allowing efficient interactive images, but involves different processes than visual imagery.

Marschark, M., & Everhart, V. (1999). Problem-solving by deaf and hearing students: Twenty questions. Deafness and Education International, 1 (2), 65-82. [AN 1629]
Two experiments examined the problem-solving strategies of deaf and hearing students

from seven years to college age in the context of the "Twenty questions" game. Overall, deaf children were significantly less likely than hearing peers to 'win' the game within "Twenty Questions," and problem-solving appeared less efficient and less cognitively sophisticated among deaf than hearing students at all ages.

Marschark, M., & Everhart, V. (1997). Relations of language and cognition: What do deaf children tell us? In M. Marschark, P. Siple, M. Lillo-Martin, D. Campbell, & V. Everhart (Eds.), Relations of language and thought: The view from sign language and deaf children (pp.3-23). New York: Oxford University Press. [AN 1603]
This chapter discusses the relationship between language and thought in the context of children who grow up deaf. The relations between language development and cognitive development, and the role of language in the cognitive functioning of deaf children are discussed.

Marschark, M., & Lukomski, J. (in press). Understanding language and learning in deaf children. In M.D. Clark, M. Marschark, & M. Karchmer (Eds.), Cognition, context and deafness. Washington, DC: Gallaudet University Press. [AN 1688]
This chapter examines the cognitive functioning of deaf learners and the extent to which any reliable differences between them and hearing peers might explain other observed differences in academic achievement.

Marschark, M., & Everhart, V. (1996). Understanding problem solving by deaf children. In G. Kaufmann, T. Helstrup, & K. Teigen (Eds.), Problem solving and cognitive processes (pp.315-338). Sweden: Fagbokforlaget. [AN 1571]
This article discusses the cognitive development and the problem solving abilities of deaf children. The goals are to identify: those differences as they relate to language, social, and cognitive development; to make use of the characteristics that can facilitate normal individual and academic development; and; and remediate those which might impede personal or educational success.

Parasnis, I, Samar, V., & Mandke, K. (1996). Deaf adults' attitudes toward career choices for deaf and hearing people in India. American Annals of the Deaf, 141 (5), 333-339. [AN 1163]
This paper was based on a study that investigated the expressed attitudes of deaf people in India toward career choices for deaf and hearing people.

Parasnis, I., Samar, V., Bettger, J., & Sathe, K. (1996) Does deafness lead to enhancement of visual spatial cognition in children? Negative evidence from deaf non-signers. Journal of Deaf Studies and Deaf Education, 1 (2), 145-152. [AN 1554]
This study investigated whether deafness contributes to enhancement of visual spatial cognition independent of knowledge of sign language. Results of testing indicated that early exposure to a sign language and fluent sign skills may be the critical factors that lead to differential development of visual spatial skills in deaf people.

Samar, V. (1999). Introduction: Wavelet analysis of neuroelectric waveforms. Brain and Language, 66, 1-6. [AN 1694]

This introduction describes this special issue, which contains articles that illustrate a new analysis tool for resolving the entire range of scales of time and space variation evident in neuroelectric waveforms, namely, wavelet analysis.

Samar, V. (1999). Wavelet analysis of neuroelectric waveforms: A conceptual tutorial. Brain and Language, 66, 7-60. [AN 1693]
This paper presents a non-technical, conceptually-oriented introduction to wavelet analysis and its application to neuroelectric waveforms such as the EEG and event related potentials (ERP).

Samar, V. J., Parasnis, I., & Berent, G. (1999). Deaf poor readers' pattern reversal VEPs reveal magnocellular system deficits: Implications for diagnostic neuroimaging of dyslexia in deaf individuals. Paper Presented at the 11th Annual Meeting of the American Psychological Society, Denver, June 3-6. [AN 1713]
We present visual evoked response evidence that deaf adult poor readers, compared with deaf adult good readers, have deficient occipital lobe responses and hyper-reactive frontal lobe responses to very low-contrast visual patterns. These findings are consistent with earlier literature indicating that dyslexia is associated with magnocellular visual system deficits and frontal-lobe hyperactivation in hearing people. Our findings provide the first neurobiological evidence that developmental dyslexia occurs in deaf individuals. Measures of magnocellular system dysfunction may eventually provide a specific diagnostic marker for dyslexia in deaf individuals.

Samar, V., Demiralp, T., Yordanova, J., Kolev, B., Ademoglu, A., & Devrim, M. (1999). Time-frequency analysis of single-sweep event-related potentials by means of fast wavelet transform. Brain and Language, 66, 129-145. [AN 1695]
A time-frequency decomposition was applied to the event-related potentials (ERPs) elicited in an auditory oddball condition to assess differences in cognitive information processing. Analysis in the time domain has revealed that cognitive processes are reflected by various ERP components such as N1, P2, N2, P300, and late positive complex.

Samar, V., & De Filippo, C. (1998). Round-off error, blind faith, and the powers that be: A caution on numerical error in polynomial coefficients for curves fit to psychophysical data. Journal of Outcome Measurement, 2 (2), 159-167. [AN 1702]
Graphing and statistics software often permits users to fit polynomial curves, like a parabola or sigmoid, to scatter plots of psycholphysical data points. The programs typically calculate the curve using double or extended precision numerical algorithms and display the resulting curve overlaid graphically on the scatter plot. If this equation is used for experimental or clinical applications, the round-off error can produce anomalous findings due to systematic and extreme distortions of the fitted curve.

Snell, K. (1997). Age-related changes in temporal gap detection. Journal of the Acoustical Society of America, 101 (4), 2214-2220. [AN 1159]
This article discusses a study on age-related effects on temporal resolution. Analysis of

the data supports the conclusion that the mean difference between groups reflect shifts in the distributions of gap thresholds of older subjects toward poorer temporal resolution.