

**James W. Tanaka**  
**Publications**

**Peer-reviewed publications**

- Hagen, S., Vunog, Q.C., Scott, L.S., Curran, T. & Tanaka, J.W. (in press). The role of color in expert object recognition. *Journal of Vision*.
- Gordon, I., Pierce, M. S. & Tanaka, J.W. (in press). Training voluntary facial expressions using automated, real-time feedback. *Journal of Autism and Developmental Disorders*.
- Pascalis, O., Loevenbruck, H., Quinn, P. C., Kandel, S., Tanaka, J. W., & Lee, K. (in press). On the linkage between face processing, language processing, and narrowing during development. *Child Development Perspectives*.
- Tanaka, J.W. & Simonyi, D. (in press). The “parts and wholes” of face recognition: A review of the literature. *Quarterly Journal of Experimental Psychology*.
- Anzures, G., Kang, L., Quinn, P., Pascalis, O., Wheeler, A., Heron, M., Slater, A.M., & Tanaka, J. W. (in press). Brief daily exposure to Asian females reverses perceptual narrowing for Asian faces in Caucasian infants. *Journal of Experimental Child Psychology*.
- Xu, B., & Tanaka, J. W. (2014). The cued recognition task: dissociating the abrupt onset effect from the social and arrow cueing effect. *Attention, Perception, & Psychophysics*, 1-14.
- O’Hearn, K., Tanaka, J., Lynn, A., Fedor, J., Minshew, N., & Luna, B. (2014). Developmental plateau in visual object processing from adolescence to adulthood in autism. *Brain and cognition*, 90, 124-134.
- Halliday, D. W., MacDonald, S. W., Sherf, S. K., & Tanaka, J. W. (2014). A Reciprocal Model of Face Recognition and Autistic Traits: Evidence from an Individual Differences Perspective. *PLoS one*, 9(5), e94013.
- Tanaka, J.W., Kaiser, M.D., Hagen & Pierce, L.J. (2014). Losing face: Impaired discrimination of featural and configural information in the mouth region of an inverted face. *Attention, Perception & Psychophysics*, 76, 1000-1014.
- Tanaka, J.W., Quinn, P., Xu, B., Maynard, K., Huxtable, Kang, L. & Pascalis, O. (2014). The effects of information type (features versus configuration) and location (eyes versus mouth) on the development of face perception. *Journal of Experimental Child Psychology*, 124, 36-49.
- Tanaka, J.W. (Ed.). (2013). Recognition of own- and other-race, gender and species faces [Special issue]. *Visual Cognition*, 21, 1-10.
- Tanaka, J.W. & Sung, A. (2013). The “eye avoidance” hypothesis of face processing in autism. *Journal of Autism and Developmental Disorders*, 1 -15.
- Tanaka, J.W., Heptonstall, B. & Hagen, S. (2013). Perceptual expertise and the plasticity of other-race face recognition. *Visual Cognition*, 21, 1183-1201.
- Roos, L. E., Lebrecht, S., Tanaka, J. W., & Tarr, M. J. (2013). Can singular examples change implicit racial attitudes in the real-world? *Frontiers in Psychology*, 4, 59.
- Quinn, P. C., Tanaka, J. W., Lee, K., Pascalis, O., & Slater, A. M. (2013). Are faces special to infants? An investigation of configural and featural processing for the upper and lower regions of houses in 3-to 7-month-olds. *Visual Cognition*, 21(1), 23-37.
- Anzures, G., Kang, L., Quinn, P., Pascalis, O., Slater, A.M., & Tanaka, J. W. (2013). The developmental origins of the other-race effect. *Current Directions in Psychological Science*, 22, 173-178.
- Xu, B., & Tanaka, J. W. (2013). Does face inversion qualitatively change face processing: An eye movement study using a face change detection task. *Journal of Vision*, 13(2), 1-16.
- Liu, S., Anzures, G., Ge, L., Quinn, P.C., Pascalis, O., Slater, A.M., Tanaka, J.W. & Lee, K. (2013). Development of recognition of face parts from unfamiliar faces. *Infant and Child Development*, 22, 165–179.
- Sun, Y. H., Ge, L., Quinn, P. C., Wang, Z., Xiao, N. G., Pascalis, O., Tanaka, J. W. & Lee, K. (2012). A new “fat face” illusion. *Perception*, 41(1), 117.
- Kantner, J. & Tanaka, J. W. (2012). Experience produces the atypicality bias in object perception, *Perception*, 41, 556-568.
- Birmingham, E., Meixner, T., Smilek, D., Iarocci, G., Kanan, C. & Tanaka, J.W. (2012). The Moving Window Technique: a window into developmental changes in attention during facial emotion recognition. *Child Development*, 84, 1407–1424.
- Tanaka, J.W., Wolf J. M, Klaiman, C., Koenig K., Cockburn, J., Herlihy, L., Brown, C., Stahl, S., South, M., McPartland, J., Kaiser, M.D. and Schultz, R.T. (2012) The perception and identification of facial

- emotions in individuals with Autism Spectrum Disorders using the *Let's Face It!* Emotion Skills Battery. *Journal of Child Psychology and Psychiatry*, 53, 1259–1267.
- Tanaka, J. W., Kaiser, M. D., Butler, S. & Le Grand, R. (2012). Mixed emotions: The holistic and analytic perception of facial expressions. *Cognition & Emotion*, 26, 961-77.
- Deriso, D., Susskind, J., Tanaka, J., Winkielman, P., Herrington, J., Schultz, R., and Bartlett, M. (2012). Exploring the facial expression perception-production link using real-time automated facial expression recognition. In A Fitzgibbon, S Lazebnik, Y Sato, and C Schmid (Eds), European Conference on Computer Vision, Workshop on *What's in a Face*, 270-279, Lecture Notes in Computer Science, Springer.
- Tanaka, J. W., Kantner, J. & Bartlett, M. S. (2012). How category structure influences the perception of object similarity: The atypicality bias. *Frontiers in Perception Science*, 3.
- Gordon, I. & Tanaka, J. W. (2011). Putting a name to a face: The role of name labels in the formation of face memories. *Journal of Cognitive Neuroscience*, 23, 3280-3293.
- Pierce, L. J., Scott, L. S., Boddington, S., Droucker, D., Curran, T., & Tanaka, J. W. (2011). The N250 brain potential to personally familiar and newly learned faces and objects. *Frontiers in Human Neuroscience*, 5.
- Herzmann, G., Willenbockel, V., Tanaka, J. W., & Curran, T. (2011). The neural correlates of memory encoding and recognition for own-race and other-race faces. *Neuropsychologia*, 49, 3103-3115.
- Quinn, P.C., Anzures, G., Izard, C.E., Lee, K., Pascalis, O., Slater, A.M., & Tanaka, J.W. (2011). Looking across domains to understand infant representation of emotion. *Emotion Review*, 3, 197-206.
- Pascalis, O., Xavier de Martin de Vivie, X., Anzures, G., Quinn, P.C., Slater, A.M., Tanaka, J.W., Lee, K. (2011). Development of face processing. *WIREs Cognitive Science*, 2, 666–675.
- Heron-Delaney, M., Anzures, G., Herbert, J. S., Quinn, P. C., Slater, A.M., Tanaka, J.W., Lee, K. & Pascalis, O. (2011). Can perceptual training prevent the emergence of the Other Race Effect during infancy? *PLoS ONE*, 6(5): e19858. doi:10.1371/journal.pone.0019858.
- Gordon, I. & Tanaka, J. W. (2011). The electrophysiological correlates of face naming. *The British Journal of Psychology*, 102, 884–898.
- Willenbockel, V., Fiset, D., & Tanaka, J. W. (2011). Relative influences of lightness and facial morphology on perceived race. *Perception*, 40, 621-624.
- Warren, C. M., Tanaka, J. W., & Holroyd, C. B. (2011). What can topology changes in the Oddball N2 reveal about underlying processes? *Neuroreport*, 22(17): 870-874.
- Tanaka, J. W., Meixner, T.R., & Kantner, J. (2011). Exploring the perceptual spaces of faces, cars and birds in children and adults. *Developmental Science*, 14, 762–768.
- McGugin, R., Gauthier, I., & Tanaka, J.W. (2010). Race-specific perceptual discrimination improvement following short individuation training with faces. *Cognitive Science*, 35, 330-347.
- Willenbockel, V., Sadr, S., Fiset, D., Horne, G.O., Gosselin, F., Tanaka, J.W. (2010). Controlling low-level image properties: The SHINE toolbox. *Behavioral Research Methods*, 42, 671-684.
- Kaiser, M. D., Delmolino, L., Tanaka, J. W., and Shiffrar, M. (2010). Comparison of visual sensitivity to human and object motion in Autism Spectrum Disorder. *Autism Research*, 3, 191–195
- Tanaka, J. W, Wolf, J. M., Klaiman, C., Koenig, K., Cockburn, J., Herlihy, L., Brown, C., Stahl, S., Kaiser, M.D., & Schultz, R.T. (2010). Using computerized games to teach face recognition skills to children with autism spectrum disorder: The *Let's Face It!* program. *Journal of Child Psychology & Psychiatry*, 51, 944–95.
- Rhodes G., Lie H., Ewing L., Evangelista E., & Tanaka, J. W. (2010). Does perceived race affect discrimination and recognition of ambiguous-race faces? *Journal of Experimental Psychology: Learning, Memory & Cognition*, 36, 217–223.
- Mondloch C J, Elms N, Maurer D, Rhodes G, Hayward W G, Tanaka J W, Zhou G. (2010). Processes underlying the cross-race effect: An investigation of holistic, featural, and relational processing of own-race versus other-race faces" *Perception*, 39, 1065 – 1085.
- Willenbockel, V., Fiset, D., Chauvin, A., Blais, C., Arguin, M., Tanaka, J.W., Bub & D.N, Gosselin, F. (2010). Does face inversion change spatial frequency tuning? *Journal of Experimental Psychology: Human Perception & Performance*, 36, 122–135
- Rhodes G., Ewing L, Hayward WG, Maurer D, Mondloch CJ, & Tanaka J.W. (2009). Contact and other-race effects in configural and component processing of faces. *British Journal of Psychology*, 100, 717-728.
- Mack, M. L., Wong, A., Gauthier, I., Tanaka, J. W. & Palmeri, T. J. (2009) Time-course of visual object categorization: Fastest does not necessarily mean first. *Vision Research*, 49, 1961–1968.

- Quinn, P.C. and Tanaka, J.W. (2009). Infants' processing of featural and configural information in the upper and lower halves of the face. *Infancy*, *14*, 474 – 487.
- Krigolson, O. E., Pierce, L. J., Holroyd, C.B. & Tanaka, J.W. (2009). Learning to become an expert: Reinforcement learning and the acquisition of perceptual expertise. *Journal of Cognitive Neuroscience*, *21*, 1833-1840.
- Rossion, B., Kaiser, M.D., Bub, D., Tanaka, J.W. (2009). Is the loss of diagnosticity of the eye region a common feature of acquired prosopagnosia? *Journal of Neuropsychology*, *3*, 69-78.
- Tottenham, N., Tanaka, J. W., Borscheid, A., Ellertson, K., Casey, B.J., and Nelson, C.A. (2009). Validation of the NimStim set of facial expressions. *Psychiatry Research*, *168*, 242-249.
- Tanaka, J.W. and Pierce, L.J. (2009). The neural plasticity of other-race face recognition. *Cognitive, Affective and Behavioral Neuroscience*, *9*, 122-131.
- Lebrecht, S., Pierce, L.J., Tarr, M. J., Tanaka, J. W. (2009) Perceptual other-race training reduces implicit racial bias. *PLoS ONE 4(1)*: e4215. doi:10.1371/ journal.pone.0004215.
- Wolf, J.M., Tanaka, J.W., Klaiman, C., Cockburn, J. Herlihy, L., Brown, C., South, M., McPartland, J., Kaiser, M. D., Phillips, R. and Schultz, R. T. (2008). Specific impairment of face processing abilities in children with autism spectrum disorder using the *Let's Face It!* Skills Battery, *Autism Research*, *1*, 329-340.
- Richler, J.,J, Tanaka, J.W., Brown, D.D., & Gauthier, I. (2008). Why does selective attention to parts fail in face processing? *Journal of Experimental Psychology: Learning, Memory & Cognition*, *34*, 1356-1368.
- Bukach, C.M., Le Grand, R., Kaiser, M., Bub, D. & Tanaka, J.W. (2008). Preservation of mouth region processing in two cases of prosopagnosia. *Journal of Neuropsychology*, *2*, 227-244.
- D'Lauro, C., Tanaka, J. W., & Curran, T. (2008). The preferred level of face categorization depends on discriminability. *Psychonomic Bulletin & Review*, *15*, 623-629
- Scott, L. S., Tanaka, J. W., Sheinberg, D. L., & Curran, T. (2008). The role of category learning in the acquisition and retention of perceptual expertise: A behavioral and neurophysiological study. *Brain Research*, *1210*, 204-215.
- Cockburn, J., Bartlett, M., Tanaka, J. Movellan, J. & Schultz, R. (2008). SmileMaze: A tutoring system in real-time facial expression perception and production in children with Autism Spectrum Disorder, Proceedings from the IEEE International Conference on Automatic Face & Gesture Recognition (peer-reviewed conference proceeding), 978-986.
- Kiefer, M., Sim, E., Liebich, S., Hauk, J. & Tanaka, J.W. (2007). Experience-dependent plasticity of conceptual representations in human sensory-motor areas. *Journal of Cognitive Neuroscience*. *19*, 525-542
- Mack, M.L., Wong, A.C.-N., Gauthier, I., Tanaka, J.W., & Palmeri, T.J. (2007). Unraveling the time-course of perceptual categorization: Does fastest mean first? *Proceedings of the Twenty-Ninth Annual Meeting of the Cognitive Science Society*, 1253-1258.
- Tanaka, J.W. & Cornille, O (2007). Atypicality bias in face and object perception: Further tests of an attractor model. *Perception & Psychophysics*. *69*, 619-627.
- Hayden, A., Bhatt, R.S., Joseph, J. E. & Tanaka, J.W. (2007). The other-race effect in infancy: evidence using a morphing technique. *Infancy*, *12*, 95-104.
- Zeman, P.M., Till, B.C., Livingston, N., Tanaka, J.W. & Driessen, P.F. (2007). Independent component analysis and clustering improve signal-to-noise ratio for statistical analysis of event-related potentials. *Clinical neurophysiology*, *118*, 2591-2604.
- Quinn, P. C. & Tanaka, J. W. (2007). Evidence for the early development of perceptual expertise: 6- to 7-month-old infants can be trained to form subordinate-level category representations. *Memory & Cognition*. *35*, 1422-1431.
- Tanaka, J.W., Curran, T, Porterfield, A., & Collins (2006). The activation of pre-existing and acquired face representations: The N250 ERP as an index of face familiarity. *Journal of Cognitive Neuroscience*, *18*, 1488-1497.
- Scott, L.S., Tanaka, J.W., Sheinberg, D.L. & Curran, T. (2006). A reevaluation of the electrophysiological correlates of expert object processing. *Journal of Cognitive Neuroscience*, *18*, 1453-1465.
- Tanaka, J.W., Curran, T., & Sheinberg, D. L. (2005). The training and transfer of real-world, perceptual expertise. *Psychological Science*, *16*, 145-151.
- Tanaka, J.W., Kiefer, M., & Bukach, C. M. (2004). A holistic account of the own-race effect in face recognition: evidence from a cross-cultural study, *Cognition*, *93*, B1-B9.
- Reed, C.L., Stone, V.E., Bozova, S., & Tanaka, J.W. (2003). The body inversion effect. *Psychological Science*, *14*, 302-308.

- Walker, P. M. & Tanaka, J.W. (2003). A perceptual encoding advantage for own-race versus other-race faces. *Perception*, 32, 1117-1125.
- Curran, T., Tanaka, J.W., & Weiskopf, D. M. (2002). An electrophysiological comparison of visual categorization and recognition memory. *Cognitive, Affective & Behavioral Neuroscience*, 2, 1-18.
- Joseph, R. & Tanaka, J. (2002). Holistic and part-based recognition in children with autism. *Journal of Child Psychiatry and Psychology*, 43, 1-14.
- Tanaka, J. W. & Curran, T. (2001). A neural basis for expert object recognition. *Psychological Science*, 12, 43-47.
- Tanaka, J.W., Weiskopf, D., & Williams, P. (2001). The role of color in higher level vision. *Trends in Cognitive Sciences*, 211-215.
- Tanaka, J.W. (2001). The entry point of face recognition: Evidence for face expertise. *Journal of Experimental Psychology: General*, 130, 534-543.
- Tanaka, J.W., Luu, P., Weisbrod, M. & Kiefer, M. (1999). Tracking the time course of object categorization using event-related potentials. *NeuroReport*, 10, 829-835.
- Tanaka, J. W. & Presnell, L.M. (1999). Color diagnosticity in object recognition. *Perception & Psychophysics*, 61, 1140-1153
- Gauthier, I., Williams, P., Tarr, M.J., & Tanaka, J.W. (1998). Training "Greeble" experts: a framework for studying expert object recognition processes. *Vision Research*, 38, 2401-2428.
- Tanaka, J.W., Giles, M., Kremen, S. & Simon, V. (1998). Mapping attractor fields in face space: The atypicality bias in face recognition. *Cognition*, 68, 199-220.
- Farah, M.J., Wilson, K.D., Drain, M.H., & Tanaka, J.W. (1998). What is "special" about face perception? *Psychological Review*, 105482-498.
- Tanaka, J.W., Kay, J.B., Grinnell, E., Stansfield, B., & Szechter, L. (1998). Face recognition in young children: When the whole is greater than the sum of its parts. *Visual Cognition*, 5, 479-496.
- Tanaka, J.W. & Sengco, J. (1997). Features and their configuration in face recognition. *Memory & Cognition*, 25, 583-592.
- Tanaka, J.W. & Simon, V. (1996). Caricature recognition in a neural network. *Visual Cognition*, 3, 301-320.
- Farah, M.J., Tanaka, J.W., & Drain, M. (1995). What causes the face inversion effect. *Journal of Experimental Psychology: Human Perception and Performance*, 21, 628-634.
- Farah, M.J., Wilson, K.D., Drain, H.M., Tanaka, J.W. (1995). The inverted face inversion effect in prosopagnosia: evidence for mandatory, face-specific perceptual mechanisms. *Vision Research*, 35, 2089-2093.
- Tanaka, J.W. & Farah, M.J. (1993). Parts and wholes in face recognition. *Quarterly Journal of Experimental Psychology*, 46A, 225-245.
- Tanaka, J.W. & Farah, M.J. (1991). Second-order relational properties and the inversion effect: Testing a theory of face perception. *Perception and Psychophysics*, 50, 367-372.
- Tanaka, J.W. & Taylor, M. (1991). Object categories and expertise: Is the basic level in the eye of the beholder? *Cognitive Psychology*, 23, 457-482.
- Schooler, J.M. & Tanaka, J.W. (1990). Composites, compromises, and distributed memory models: What is the evidence for memory blend representations? *Journal of Experimental Psychology: General*, 20, 96-100.
- Tanaka, J.W. (1990). Caricature recognition and connectionist models. *Proceedings of the Twelfth Annual Conference of the Cognitive Science Society*, (pp.622-628), Hillsdale, N.J.: Erlbaum.

### **Copyrights and patents**

Tanaka, J. W. & Lo, A. *Let's Face It! Program*. A computer-based intervention to teach face recognition skills to children with autism, 2002 copyright.

### **Book chapters, invited commentaries and reviews**

- Hagen, S., & Tanaka, J. (in press). Perceptual Learning and Expertise. In: Hoffman, R. R., Hancock, A. P., Scerbo, M., Szalma, J. L., and Parasuraman R. (Eds). *Cambridge Handbook of Applied Perception Research*, Cambridge, U.K.
- Xu, B., & Tanaka, J. W. (2014). Teaching children with autism to recognize faces. In V. Patel, V. Preedy, & C. Martin (Eds.), *Comprehensive guide to autism* (pp. 1043–1059). Springer, New York.
- Quinn, P. C., Anzures, G., Lee, K., Pascalis, O., Slater, A., & Tanaka, J. W. (2013). On the developmental origins of differential responding to social category information. In M. R. Banaji & S. A. Gelman (Eds.), *Navigating the social world: What infants, children, and other species can teach us* (pp. 286-291). New York: Oxford University Press.

- Tanaka, J. & Gordon, I. Featural, configural and holistic perception of faces (2011). In A. Calder, J. Haxby & G. Rhodes (Eds.), *Handbook of Face Perception*, 177-194, New York: University Oxford Press.
- Williams, R.N. & Tanaka, J.W. Transfer and interference in perceptual expertise: When expertise helps and when it hurts (2010). In M. Banich & D. Caccamise (Eds.) *Transfer and Generalization in Learning*, 31-52, Mahwah, NJ: Lawrence Erlbaum Publishers.
- Scott, L., Tanaka, J. W. & Curran, T. Degrees of expertise. (2009). In I. Gauthier, M. Tarr & D. Bub (Eds.), *Perceptual Expertise, Modularity and Brain Organization* (Volume 3 in the Advances in Visual Cognition Series), 107-138, New York: University Oxford Press.
- Curby, K. M., Willenbockel, V., Tanaka, J.W. & Schultz, R.T. (2009). Face processing in autism: Insights from the perceptual expertise framework. In I. Gauthier, M. Tarr & D. Bub (Eds.), *Perceptual Expertise, Modularity and Brain Organization* (Volume 3 in the Advances in Visual Cognition Series), 139-166, New York: University Oxford Press.
- Tanaka, J. W. (2004). Object categorization, expertise and neural plasticity. In M. Gazzaniga (Ed.), *The New Cognitive Neurosciences, 3rd Edition*, 876-888, Cambridge, MA: MIT Press.
- Tanaka, J., Lincoln, S., & Hegg, L. (2003). A framework for the study and treatment of face processing deficits in autism. In H. Leder and G. Swartzer (Eds.), 101-119, *The Development of Face Processing*. Berlin: Hogrefe Publishers.
- Tanaka, J. W. & Farah, M.J. (2003). Holistic Face Recognition. In M. Peterson & G. Rhodes (Eds.), *Analytic and Holistic Processes in the Perception of Faces, Objects and Scenes* (Volume 2 in the Advances in Visual Cognition Series), 53-91, New York: University Oxford Press.
- Tanaka, J.W. (1998). Parts, features and expertise. Invited commentary on Schyns, Goldstone & Thibaut's The development of features in object concepts. *Behavioral and Brain Sciences*, 21, 37-38.
- Tanaka, J.W. & Gauthier, I. (1997). Expertise in object and face recognition. In R.L. Goldstone, P.G. Schyns & D.L. Medin (Eds.), *Psychology of Learning and Motivation Series, Special Volume: Perceptual Mechanisms of Learning*. Vol. 36, pp.83-125. San Diego, CA: Academic Press.