

CURRICULUM VITAE

(last updated October 2009)

Personal Data

Name: Nikolaus Friedrich Troje

Affiliations: Department of Psychology
Queen's University
Kingston, Ontario K7L3N6

School of Computing
Queen's University
Kingston, Ontario K7L3N6

Centre of Vision Research
York University
Toronto, Ontario M3J 1P3

Phone: 613 533 6017

Fax: 613 533 2499

Email: troje@queensu.ca

Web page: <http://biomotionlab.ca>

Education

1980-1981 Philosophy, Johann-Wolfgang-Goethe Universität, Frankfurt

1983-1984 Apprenticeship in agriculture, completing the "Landwirtschaftliche Gehilfenprüfung" at the Landwirtschaftskammer Rheinland-Pfalz

1984-1987 Physics, Mathematics, Albert-Ludwigs Universität, Freiburg

1984-1990 Biology, Albert-Ludwigs Universität, Freiburg

1989 "Diplom-Arbeit"^a (Polarization Vision in Honeybees). Supervisor: Prof. Dr. S. Rossel

1990 "Biologie-Diplom"^a with a focus on Animal Physiology, Biophysics and Genetics (grade: 1.1)

1990-1994 Ph. D. Program and Dissertation (Colour Vision in Blowflies). Supervisor: Prof. Dr. K. Vogt (grade: summa cum laude)

- 1998 Habilitation^b and Venia legendi for Animal Physiologie at the Eberhard-Karls-Universität, Tübingen
- 1999 Habilitation^b and Venia legendi for Biopsychology at the Ruhr-Universität, Bochum

^a *All my training took place in Germany. The German “Diplom” is equivalent to the North American Master degree. It involves a one year research project, the “Diplom-Arbeit”. Grades range from 1(highest) to 6. Grades for the Dissertation follow the old latin categories. “summa cum laude” is the highest possible grade which is awarded only rarely.*

^b *The German “Habilitation” is another promotion required to become eligible for full professorship in Germany. After a number of years (typically 6 to 8) in postdoctoral research and teaching, the candidate has to document his/her scholarship by providing a board of external and internal senior professors with a dossier of collected publications and a cumulative teaching record. If the evaluation is successful, a “Venia legendi” is granted that specifies the area in which the candidate is considered an expert.*

Professional Experience

- 1994-1997 “Wissenschaftlicher Assistent”^c at the Max Planck-Institute for Biological Cybernetics in Tübingen, Germany.
- 1997-1999 Visiting Professor at the Department of Psychology, Queen’s University, Kingston, Ontario, Canada.
- April - Dec 1999 Consultant for Xerox PARC, Palo Alto, California
- 1999-2005 Research group leader at the Department of Psychology, Ruhr-Universität, Bochum, Germany
- 2003 - 2008 Canada Research Chair in Vision and Behavioural Sciences (1st term)
- 2003 - 2008 Associate Professor at the Department of Psychology, Queen’s University, Kingston, Ontario
- 2004 - 2008 Associate Professor at the School of Computing, Queen’s University (cross-appointed)
- since July 2006 Adjunct Professor at the Centre of Vision Research, York University
- 2008 - 2013 Canada Research Chair in Vision and Behavioural Sciences (2nd term)
- since July 2008 Full Professor at the Department of Psychology, Queen’s University, Kingston, Ontario
- since July 2008 Full Professor at the School of Computing, Queen’s University (cross-

appointed)

^c *The German academic system is very different from the North American tenure track system. The only permanent academic positions are full professorships. Full professors share research, teaching and administrative work with researchers on the level of “wissenschaftlicher Assistent” who are in many respects comparable to the North American assistant professor.*

Honors, Awards, Grants

1989-1993	Member of the “Studienstiftung des deutschen Volkes” ^d
1990-1993	Scholarship from the “Landes-Graduierten-Förderung” ^e
1994	Hans Spemann Award of the Albert-Ludwigs Universität, Freiburg for the best Ph.D. thesis in life sciences in a given year.
1995	DAGM-Preis 1995 of the Deutsche Arbeitsgemeinschaft für Mustererkennung (German Association for Pattern Recognition) for: T. Vetter and N. Troje: Separation of texture and two-dimensional shape in images of human faces.
1997-1999	Feodor-Lynen Award from the Alexander-von-Humboldt Foundation ^f
1999	Research grant from Xerox PARC.
1999-2005	Nachwuchsgruppen Förderung (Young Researcher Award) from the Volkswagen-Stiftung ^g , equivalent to \$2,000,000 CAD for six years)
2002-2004	German Research Foundation (DFG) grant within SFB 509 (\$300,000 CAD for three years)
2003-2008	Canada Research Chair in Vision and Behavioural Sciences
2003	Infrastructure grant from Canada Foundation for Innovation (CFI) and Ontario Innovation Fund (OIT), together (\$500,000 CAD)
2004	Premier's Research Excellence Award (PREA, \$150,000 CAD)
2005	Ontario Distinguished Researcher Award
2005 - 2009	Associate of CIFAR group: Neural Computation and Adaptive Perception
2005- 2010	NSERC Discovery Grant
2006	Queen's Chancellor's Research Award
2007	NSERC E.W.R. Steacie Fellowship
2008-2013	Canada Research Chair in Vision and Behavioural Sciences (2 nd term)

2009 - 2013 Fellow of CIFAR group: Neural Computation and Adaptive Perception

^d *The “Studienstiftung des deutschen Volkes” is the oldest and most prestigious German foundation for highly gifted students.*

^e *“Landes-Gradierten-Förderung” provides provincial funding for exceptional graduate students.*

^f *The “Feodor-Lynen Award” grants highly qualified German scholars from all disciplines the opportunity to carry out long-term research projects at institutions outside Germany. I used the award to spend two years at Queen’s University.*

^g *The “Nachwuchsgruppen Förderung” of the Volkswagen Foundation is one of the most prestigious awards available in Germany. Every year from 1997 until 2003 between 8 and 10 young researchers were chosen across all academic disciplines and awarded with a very generous and flexible funding to set up and run a whole research group for up to 6 years. In fall 1999, I received the equivalent of \$2,000,000 CAD to set up an independent research group at Ruhr University in Bochum, Germany. As a group leader, I was granted the status of a full professor in the Department of Psychology.*

Teaching Experience

1990, 1991	Summerpractica (6 week courses): orientation of honeybees: landmarks or cognitive maps?
1991, 1992	Animal physiology course, part: colour vision
1992	Organisation of sensory physiology seminar: comparative colour vision
1994	Seminar: psychophysics of colorvision, together with C. Wehrhahn
1995	Seminar: orientation and navigation, together with D. Varju
1995	Biocybernetics course: psychophysical methods
1996	Practica: psychophysics of cognitive processes
1996	Seminar: symmetry and symmetry detection
1996	Biocybernetics course: psychophysical methods.
1997	Praktika: psychophysics of cognitive processes
1999	Seminar: comparative sensory physiology (Queen’s University)
2000	Seminar: learning and memory

2000	Lecture: Vision (Summerschool Neuroscience, Konstanz, Germany)
2001	Seminar: Mechanisms of visual perception
2001	Seminar: Cognitive neuroscience
2001	Lecture: Brain science: From light to vision
2002	Seminar: Cognitive neuroscience
2002	Course: Scientific computing: An introduction into Matlab
2003	Course: Motion analysis
2004 - 2006	Experimental Psychology: Sensation and Perception (PSYC 215)
2004	Advanced Special Topics in Cognitive Science (PSYC 971)
2005	Visual and Auditory Processes: Multisensory Integration (PSYC 921)
2005 - 2006	Advanced Perception Lab Course (PSYC 380)
2008	Directed lab course (PSYC 570): Pigeon operant conditioning
2009	Visual and Auditory Processes: Vision and Visual Illusion (PSYC 921)

Administrative duties

2002 - 2003	Education Committee of the International Graduate School for Neuroscience, Ruhr-University, Bochum, Germany.
since 2004	Education and Training Committee, Centre for Neuroscience Studies, Queen's University
since 2004	Animal Care Advisory Group
2005 - 2007	Library Officer, Department of Psychology, Queen's University.
since 2009	Chair Animal Advisory Group

Other services

2008	Served as a judge on the Best Visual Illusion of the Year Contest
since 2009	Member of the Editorial Board of the journal Perception
since 2009	Advisory Committee member for Viperlib (viperlib.york.ac.uk)

Reviewing referee for journals

acta psychologica
Biological Cybernetics
Cerebral Cortex
Cognitive Brain Research
Cognitive Science Society
Current Biology
Human Movement Science
Journal of Comparative Physiology
Journal of Experimental Psychology:Animal Behavior Processes
Journal of Neuroscience
Journal of Neuroscience Methods
Journal of Vision
Laterality
Neuroreport
Neuroscience Letters
Pattern Recognition
Perception & Psychophysics
PLoS Biology
Proceedings of the National Academy of Science
Proceedings of the Royal Society of London
Psychological Research
Psychological Science
Psychonomic Bulletin & Review
Science
Vision Research

Zeitschrift für experimentelle Psychologie

Reviewing referee for funding agencies

Deutsche Forschungsgemeinschaft (DFG)

Canada Foundation for Innovation (CFI)

Canada Research Chair program

Israel Science Foundation (ISF)

National Science Foundation (NSF)

National Science and Engineering Research Council of Canada (NSERC)

The Wellcome Trust

Volkswagen Foundation

Current professional affiliations

Canadian Society for Brain, Behaviour and Cognitive Science

Centre for Neuroscience Studies at Queen's University

Deutsche Gesellschaft für Psychologie

Deutscher Hochschulverband

Deutsche Zoologische Gesellschaft

International Society for Neuroethology

Neural Computation & Adaptive Perception (NCAP) Program of CIFAR

Queen's Biological Communication Centre

Invited talks

72. Department of Psychology, Freiburg University (2009)

71. Frankfurt Institute for Advance Studies (2009)

70. Bernstein Center for Computational Neuroscience, Freiburg (2008)

69. School of Optometry, Université de Montréal (2008)
68. CERNEC, Université de Montréal (2007)
67. Department of Psychology, Carleton University, Ottawa (2007)
66. Department of Psychology, University of Alberta, Edmonton (2007)
65. Department of Psychology, Kyoto University, Tokyo, Japan (2007)
64. Primate Research Institute, Inuyama, Japan (2007)
63. Department of Computer Science and Engineering, Kagoshima University, Japan (2007).
62. Global COE symposium on Biological Motion Perception, Keio University, Tokyo (2007)
61. Faculty of Life Sciences, University of Vienna (2007)
60. Department of Psychology, University of Manitoba (2007)
59. Department of Psychology, Indiana University, Bloomington (2006)
58. International Symposium: Social Cognition as a Higher Brain Function, Keio University, Tokyo (2006)
57. Department of Ophthalmology, McGill University (2006)
56. Center for Vision Research, York University (2006)
55. Department of Psychology, Concordia University (2005)
54. Department of Mathematics, Queen's University (2005)
53. Max-Planck-Institute for Biological Cybernetics, Tübingen (2005)
52. Max-Planck-Institute for Human Development, Berlin (2005)
51. Center for Neuroscience Studies, Queen's University (2005)
50. Department of Psychology, McMaster University (2004)
49. Department of Physical Education, Queen's University (2004)
48. Department of Psychology, New York University (2004)
47. Laboratoire Électronique Informatique, University of Dijon (2004)
46. Department of Computer Science, University of Toronto (2004)
45. Department of Psychology, Harvard University (2004)

44. Queen's University: EEB Seminar, Biology (2003)
43. CNUCs meeting: Field's Institute, University of Toronto (2003)
42. Sheridan College, Oakville, Ontario: School of Animation (2003)
41. HPCVL, Queen's University, Kingston, Ontario (2003)
40. Queen's University: BBCS Seminar, Psychology (2003)
39. University of Saarbrücken, Psychology (2003)
38. University of Bremen, Center for Brain Research (2003)
37. EURESCO Conference on Three Dimensional Sensory and Motor Space, Acquafredda di Maratea, Italy (2003)
36. Vicon User Meeting, Heidelberg (2002)
35. Queen's University, Kingston, Ontario: Psychology (2002)
34. University of Giessen, Psychology (2002)
33. LMU, München, Graduate School Neurosensoric (2002)
32. ATR, Kyoto, Japan (2002)
31. University of Oldenburg: Biology (2001)
30. University of Freiburg: Biology and Neurology (2001)
29. Max-Planck-Institute for Cognitive Neuroscience, Leipzig (2001)
28. Max-Planck-Institute for Biological Cybernetics, Tübingen (2001)
27. University of Konstanz: Psychology (2001)
26. University of Essen: Anatomy (2001)
25. Max-Planck-Institut für Verhaltensphysiologie, Seewiesen, (2000)
24. Queen's University, Kingston, Ontario: Psychology (2000)
23. University of Bielefeld: Mathematics (2000)
22. University of Aachen: Biology (2000)
21. University of South Florida, Tampa: Psychology (2000)
20. University of Minnesota, Minneapolis: Psychology (1999)
19. McMaster University, Hamilton, Canada: Psychology (1999)

18. NEC Research Institute, Princeton, New Jersey (1998)
17. New York University, Center of Neural Sciences (1998)
16. University of Berlin, Biology (1997)
15. Max-Planck-Institute for Biological Cybernetics, Tübingen (1997)
14. University of Munich: Psychology (1997)
13. University of Glasgow, UK: Psychology (1996)
12. University of Tübingen: Neurology (1996)
11. Salk Institute, La Jolla (1996)
10. University of California, Irvine: Psychology (1996)
9. University of Southern California, Los Angeles: Psychology (1996)
8. University of California, Santa Barbara: Psychology (1996)
7. University of Tübingen: Eye Clinic (1995)
6. University of Minnesota, Minneapolis: Psychology (1995)
5. University of Berlin: Biology (1994)
4. University of Aachen, Germany: Biology (1994)
3. Max-Planck-Institute for Biological Cybernetics, Tübingen (1994)
2. Cambridge, UK: Psychology (1993)
1. University of Erlangen, Germany: Biology (1993)

List of publications

a. Refereed journal articles

60. Perry, A., Troje, N. F., Bentin, S. (in press) Exploring motor system contributions to the perception of social information: Evidence from EEG activity in the mu/alpha frequency range. *Social Neuroscience*.
59. Legenbauer, T., Vocks, V., Betz, S., Báguena Puigcerver, M. J., Benecke, A., Troje, N. F., Rüdell, H. (in press) Differences in the nature of body image disturbances between female obese individuals with versus without a co-morbid Binge Eating Disorder: an exploratory study including static and dynamic aspects of body image. *Journal of Clinical Psychology*.
58. Jiménez Ortega, L., Stoppa, K., Güntürkün, O., Troje, N. F. (in press) Vision during head-bobbing: are pigeons capable of shape discrimination during the thrust phase? *Experimental Brain Research*. Published online.
57. Bockemühl, T., Troje, N. F., Dürr, V. (in press) Principal components as motor synergies of human catching movements. *Human Movement Science*.
56. Murphy, P., Brady, N., Fitzgerald, M., Troje, N. F. (2009) No evidence for impaired perception of biological motion in adults with autistic spectrum disorders. *Neuropsychologia* 47:3225–3235.
55. van der Zwan, R., MacHatch, C., Kozłowski, D., Troje, N. F., Blanke, O., Brooks, A. (2009) Gender Bending: Auditory cues affect visual judgements of gender in biological motion displays. *Experimental Brain Research* 198:373 – 382.
54. Michalak, J., Troje, N., Fischer, J., Vollmar, P., Heidenreich, T. & Schulte, D. (2009). The embodiment of sadness and depression - gait patterns associated with dysphoric mood. *Psychosomatic Medicine* 71:580 –587.
53. Kuhlmeier, V. A., Troje, N. F., Lee, V. (in press) Young infants detect the direction of biological motion in point-light displays. *Infancy*.
52. Chang, D. H. F., Troje, N. F. (2009) Characterizing global and local mechanisms in biological motion perception. *Journal of Vision* 9(5):8, 1-10.
51. Saunders, D. R., Suchan, J., Troje, N. F. (2009) Off on the wrong foot: local features in biological motion. *Perception* 38:522–532.
50. Chang, D. H. F. and Troje, N. F. (2009) Acceleration carries the local inversion effect in biological motion perception. *Journal of Vision* 9(1):19, 1–17.
49. Gurnsey, R., Roddy, G., Ouhana, M., Troje, N. F. (2008) Stimulus magnification equates identification and discrimination of biological motion across the visual field. *Vision Research* 48:2827-2834.

48. Brooks, A., Schouten, B., Troje, N. F., Verfaillie, K., Blanke, O., van der Zwan, R. (2008) Correlated changes in perceptions of the gender and the orientation of ambiguous biological motion figures. *Current Biology* 18:R728-729.
47. Jiménez Ortega, L., Stoppa, K., Güntürkün, O., Troje, N. F. (2008) Limits of intraocular and interocular transfer in pigeons. *Behavioural Brain Research* 193:69-78.
46. Freitag, C. M., Konrad, C., Häberlen, M., Kleser, C., von Gontard, A., Reith, W., Troje, N. F., Krick, C. (2008) Perception of biological motion in autism spectrum disorders. *Neuropsychologia* 46:1480-1494.
45. Provost, M. P., Quinsey, V. L. and Troje, N. F. (2008) Differences in gait across the menstrual cycle. *Archives of Sexual Behaviour* 37:598–604.
44. Aaen-Stockdale, C., Thompson, B., Hess, R. F., Troje, N. F. (2008) Biological motion perception is cue-invariant. *Journal of Vision* 8(8):6, 1-11.
43. Chang, D. H. F. and Troje, N. F. (2008) Perception of animacy and direction from local biological motion signals. *Journal of Vision* 8(5):3, 1-10.
42. Thompson, B., Troje, N. F., Hansen, B. C. and Hess R. F. (2008) Amblyopic perception of biological motion. *Journal of Vision* 8(4):22, 1-14.
41. König, A., Schölmerich, A., Troje, N. F. (2008) Geschlechtsspezifische Entwicklung der Anatomie und Gangdynamik im Kindes- und Jugendalter. *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie* 40:32-39.
40. Provost, M. P., Troje, N. F. and Quinsey, V. L. (2008) Short term mating strategies and attraction to masculinity in point-light walkers. *Evolution and Human Behavior* 29:65-69.
39. Thompson, B., Hansen, B. C., Hess, R. F., and Troje, N. F. (2007). Peripheral vision: Good for biological motion, bad for signal noise segregation? *Journal of Vision*, 7(10):12, 1-7.
38. Liedvogel, M., Feenders, G., Wada, K., Troje, N. F., Jarvis, E. D. and Mouritsen, H. (2007) Lateralized activation of Cluster N in the brains of migratory songbirds. *European Journal of Neuroscience* 25:1166-1173.
37. Westhoff, C. and Troje, N. F. (2007) Kinematic cues for person identification from biological motion. *Perception & Psychophysics* 69: 241–253.
36. Zhang, Z. and Troje, N. F. (2007) 3D Periodic Human Motion Reconstruction from 2D Motion Sequences. *Neural Computation* 19:1400-1421.
35. Folta, K., Troje, N. F., Güntürkün, O. (2007) Timing of ascending and descending visual signals predicts the response mode of single cells in the thalamic nucleus rotundus of the pigeon (*Columba livia*). *Brain Research* 1132: 100-109.
34. Vocks S., Legenbauer, T., Troje, N. F., Rüdell, H. and Schulte, D. (2007) Static and Dynamic Body Image in Bulimia Nervosa: Mental Representation of Body Dimensions and Biological Motion Patterns. *International Journal of Eating Disorders* 40:59-66.

33. Kersten M., Steward J, Troje, N. F., Ellis, R. (2006) Enhancing depth perception in translucent volumes. *IEEE Transactions on Visualization and Computer Graphics* 12:1117-1124.
32. Watanabe, S. and Troje, N. F. (2006) Towards a "virtual pigeon": A new technique to investigate avian social perception. *Animal Cognition* 9: 271-279.
31. Vocks, S., Legenbauer, T., Troje, N. F. and Schulte, D. (2006) Körperbildtherapie bei Essstörungen: Veränderungen der perzeptiven, kognitiv-affektiven und behavioralen Körperbildkomponente. *Zeitschrift für Klinische Psychologie und Psychotherapie* 35: 286-295.
30. Rotman, G., Troje, N. F., Johansson, R. S. and Flanagan, J. R. (2006) Eye movements when observing predictable and unpredictable actions. *Journal of Neurophysiology* 96:1358-1369.
29. Jokisch, D., Daum, I., and Troje, N. F. (2006) Self recognition versus recognition of others by biological motion: Viewpoint-dependent effects. *Perception* 35:911-920.
28. Troje, N. F., Sadr, J., Geyer, H. and Nakayama, K. (2006) Adaptation after-effects in the perception of gender from biological motion. *Journal of Vision* 6:850-857.
27. Loidolt, M. Aust, U. Steurer, M. Troje, N. F., Huber, L. (2006) Limits of dynamic object perception in pigeons: dynamic stimulus presentation does not enhance perception and discrimination of complex shape. *Learning & Behaviour* 34:71-85.
26. Troje, N. F. and Westhoff, C. (2006) The inversion effect in biological motion perception: Evidence for a "life detector"? *Current Biology* 16:821-824.
25. Hill, H. C. H., Troje, N. F. and Johnston, A. (2005) Range and domain specific exaggeration of facial speech. *Journal of Vision* 10:793-807.
24. Zhang, Z. and Troje, N. F. (2005) View-independent person identification from human gait. *Neurocomputing* 69:250-256.
23. Watson, T. L., Johnston, A., Hill, H. C. H. and Troje N. F. (2005) Motion as a cue for viewpoint invariance. *Visual Cognition* 12:1291-1308.
22. Troje, N. F., Westhoff, C., and Lavrov, M. (2005) Person identification from biological motion: Effects of structural and kinematic cues. *Perception & Psychophysics* 67:667-675.
21. Jokisch, D., Troje, N. F., Koch, B., Schwarz, M., and Daum, I. (2005) Differential involvement of the cerebellum in biological and coherent motion perception. *European Journal of Neuroscience* 21:3439-3444.
20. Jokisch, D., Daum, I., Suchan, B., and Troje, N. F. (2005) Structural encoding and recognition of biological motion: Evidence from event-related potentials and source analysis. *Behavioural Brain Research* 157:195-204.
19. Collin, C. A., Liu, C. H., Troje, N. F., McMullen, P. A., and Chaudhuri, A. (2004) Face recognition is affected by similarity in spatial frequency range to a greater degree than

- within-category object recognition. *Journal of Experimental Psychology: Human Perception and Performance* 30:975-987.
18. Guski, R. and Troje, N. F. (2003) Audio-visual phenomenal causality. *Perception and Psychophysics* 65:789–800.
 17. Jokisch, D. and Troje, N. F. (2003) Biological motion as a cue for the perception of size. *Journal of Vision*. *Journal of Vision* 3:252-264.
 16. Troje, N. F. (2003) Reference frames for the inversion effect in face recognition and biological motion perception. *Perception* 32:201-210.
 15. Troje, N. F. (2002). Decomposing biological motion: A framework for analysis and synthesis of human gait patterns. *Journal of Vision*, 2:371-387. **This paper heads the list of the most downloaded papers from Journal of Vision: <http://journalofvision.org/7/7/i/>**
 14. Diekamp, B., Hellmann, B., Troje, N. F., Wang, S. R., and Güntürkün, O. (2001) Electrophysiological and anatomical evidence for a direct projection from the nucleus of the basal optic root to the nucleus rotundus in pigeons. *Neuroscience Letters* 305:103-106.
 13. Huber, L., Troje, N. F., Loidolt, M., Aust, U. and Grass, D. (2000) Natural categorization through multiple feature learning in pigeons. *The Quarterly Journal of Experimental Psychology* 53B:341-357.
 12. Troje, N. F. and Frost, B. J. (2000) Head-bobbing in pigeons: how stable is the hold phase? *Journal of Experimental Biology* 203:935-940.
 11. Troje, N. F. and Kersten, D. (1999) Viewpoint-dependent recognition of familiar faces. *Perception* 28:483-487.
 10. Troje, N. F., Huber, H., Loidolt, M. Aust, U., and Fieder, M. (1999) Categorical learning in pigeons: The role of texture and shape in complex static stimuli. *Vision Research* 39:353-366.
 9. Braje, W., Kersten, D. Tarr, M. J., and Troje, N. F. (1998) Illumination effects in face recognition. *Psychobiology* 26:371-380.
 8. Troje, N. F. and Siebeck, U. (1998) Illumination induced apparent shift in orientation of human heads. *Perception* 27:671-680.
 7. Troje, N. F. and Bühlhoff, H. H. (1998) How is bilateral symmetry of human faces used for recognition of novel views. *Vision Research* 38:79-89.
 6. Vetter, T. and Troje, N. F. (1997) Separation of texture and shape in images of faces for image coding and synthesis. *Journal of the Optical Society of America A* 14:2152-2161.
 5. O’Toole, A., Vetter T., Troje, N. F. and Bühlhoff, H. H. (1997) Sex classification is better with three-dimensional head structure than with image intensity information. *Perception* 26:75-84.

4. Kersten D., Troje N. F. and Bülthoff H. H. (1996) Phenomenal competition for poses of the human head. *Perception* 25:367-368
3. Troje, N. F. and Bülthoff, H. H. (1996) Face recognition under varying pose: The role of texture and shape. *Vision Research* 36:1761-1771
2. Chittka, L., Shmida, A., Troje, N., Menzel, R. (1994) Ultraviolet as a component of flower reflections, and the colour perception of Hymenoptera. *Vision Research* 34:1489-1508.
1. Troje, N. (1993) Spectral categories in the learning behaviour of blowflies. *Z. Naturforsch.* 48c:96-104.

b. Full papers in refereed conference proceedings

9. Zeiler, M. D., Taylor G. W., Troje, N. F., Hinton, G. E. (2009) Modeling pigeon behaviour using a Conditional Restricted Boltzmann Machine. 17th European Symposium on Artificial Neural Networks (ESANN), Bruges, Belgium. pp. 1-6.
8. Holman, D., Vertegaal, R. and Troje, N. (2005) Paper windows: Interaction techniques for digital paper. In: *Proceedings of ACM CHI 2005 Conference on Human Factors in Computing Systems*, Portland, pp. 591-599.
7. Zhang, Z. and Troje, N. F. (2004) 3D periodic human motion reconstruction from 2D motion sequences. *Proceedings of Computer Vision and Pattern Recognition. Conference on Computer Vision and Pattern Recognition Workshop (CVPRW'04) Volume 12* pp. 186-192.
6. Troje N. F. (2002) The little difference: Fourier based gender classification from biological motion. In: *Dynamic Perception*, R. P. Würtz and M. Lappe (eds), Aka Verlag, Berlin, pp. 115-120.
5. Watson, T. L., Johnston, A., Hill, H. C., Troje, N. F. (2002) Differential processing of facial motion. In: *Dynamic Perception*, R. P. Würtz and M. Lappe (eds), Aka Verlag, Berlin, pp. 271-275.
4. Troje, N. F. (1998) Generalization to novel views of faces: Psychophysics and models concerning the role of bilateral symmetry. In: *Downward processes in the perception representation mechanisms*, C. Taddei-Ferretti and C. Musio (eds), World Scientific, Singapore, New Jersey, London, Hong Kong, pp. 171-188.
3. Troje, N. F. and Vetter, T. (1998) Representations of human faces. In: *Downward processes in the perception representation mechanisms*, C. Taddei-Ferretti and C. Musio (eds), World Scientific, Singapore, New Jersey, London, Hong Kong, pp.189-205.
2. O'Toole, A., Bülthoff, H. H., Troje, N. F., and Vetter, T. (1995) Face Recognition across large viewpoint changes. *Proceedings of the International Workshop on Automatic Face- and Gesture-Recognition*, pp. 326-331.
1. Vetter, T. and Troje, N. F. (1995) Separation of texture and two-dimensional shape in images

of human faces. In: Sagerer, G., Posch, S. and Kummert F., *Mustererkennung 1995*, Reihe Informatik aktuell, pp. 118-125, Springer Verlag. **Awarded with the DAGM award 1995**

c. Book Chapters

4. Troje, N. F. (2008) Biological motion perception. In: Allan Basbaum et al (eds.) *The Senses: A Comprehensive References*. Elsevier, Oxford, pp. 231-238.
3. Troje, N. F. (2008) Retrieving information from human movement patterns. In: Shipley, T. F. and Zacks, J. M. (eds.) *Understanding Events: How Humans See, Represent, and Act on Events*. Oxford University Press, pp. 308-334.
2. Ware, E. L. R. and Troje, N. F. (2007) Social Contingency Perception in Animal Interaction. In: Watanabe, S. et al. (eds.) *Comparative Social Cognition*. Keio University Press, pp 147-170.
1. Westhoff, C. and Troje, N. T. (2006) Personenidentifikation anhand von biologischer Bewegung: strukturelle und kinematische Parameter. In: *Bewegungs-Sonofication und Musteranalyse im Sport*, Effenberg, A. O. (ed), Cuvillier Verlag, Göttingen, pp13-17.

d. Technical Reports

7. Troje, N. F., Huber, L., Loidolt, M., Aust, U., Fieder, M. (1998) Categorical learning in pigeons: The role of texture and shape in complex static stimuli. MPI-memo No. 59, Max-Planck-Institut für biologische Kybernetik, Tübingen.
6. Troje, N. F., Kersten, D. (1998) Viewer-centered recognition of familiar faces. MPI-memo No. 55, Max-Planck-Institut für biologische Kybernetik, Tübingen.
5. Troje, N. F., Vetter, T. (1996) Representations of human faces. MPI-memo No. 41, Max-Planck-Institut für biologische Kybernetik, Tübingen.
4. Troje, N. F., Bühlhoff, H. H. (1996) How is bilateral symmetry of human faces used for recognition of novel views? MPI-memo No. 38, Max-Planck-Institut für biologische Kybernetik, Tübingen.
3. Troje, N. F., Bühlhoff, H. H. (1996) Face recognition under varying pose: The role of texture and shape. MPI-memo No. 17, Max-Planck-Institut für biologische Kybernetik, Tübingen.
2. Vetter, T., Troje, N. F. (1995) A separated linear shape and texture space for modeling two-dimensional images of human faces. MPI-memo No. 15, Max-Planck-Institut für biologische Kybernetik, Tübingen.
1. O'Toole, A. J., Bühlhoff, H. H., Troje, N. F., Vetter, T. (1995) Face recognition across Large Viewpoint Changes. MPI-memo No. 9, Max-Planck-Institut für biologische Kybernetik, Tübingen.

e. Other contributions

9. Sadr J., Troje N. F., Nakayama K. (2006) Axes versus averages: High-level representations of dynamic point-light forms. *Visual Cognition* 14:119-122.
8. Troje, N. F. (2004) "Cat Walk" und Westernheld. *Feldenkrais Zeit*. Ausgabe 5. pp.21-26.
7. Troje, N. F. (2003) Cat walk and western hero - motion is expressive. *IGSN Report* pp. 40-43.
6. Troje, N. F. (2003) "Cat Walk" und Westernheld - Was Bewegung ausdrückt. *Rubin* 1/03, pp. 50-56.
5. Troje, N. F. and Giurfa, M. (2001) Visual representations for memory and recognition. In: Elsner, N. and Kreutzberg, G. W. (eds.): *Proceedings of the 28th Göttingen Neurobiology Conference Vol. I*, p. 608-613, Georg Thieme, Stuttgart
4. Troje, N. (1998) Modelle und Psychophysik zur menschlichen Gesichtererkennung. Habilitationsschrift, Eberhard-Karls-Universität Tübingen.
3. Troje, N. (1994) Wellenlängenunterscheidung bei der Goldfliege *Lucilia spec.* Dissertation, Albert-Ludwig-Universität Freiburg im Breisgau.
2. Brünner, H. and Troje, N. (1991) Ein Vorkommen der Hausratte (*Rattus rattus L.*) in Südbaden. *Mitteilungen des badischen Landesverbandes für Naturkunde und Naturschutz* 2:467-468.
1. Troje, N. (1990) Polarisationsmusterorientierung bei der Honigbiene. Diplomarbeit, Albert-Ludwig-Universität Freiburg im Breisgau.

f. Symposia, conference presentations and published abstracts

150. Chang, D. H. F., Harris, L. R., Troje, N. F. (2009) Gravity exploited as a frame of reference for the perception of biological motion but not faces. Paper presented at Neuroscience 09, Washington DC.
149. Chang, D. H. F., Harris, L. R., Troje, N. F. (2009) Reference frames for biological motion and face perception. Poster presented at the CVR Vision Conference, Toronto.
148. Chang, D. H. F., Troje, N. F. (2009) Visual sensitivity to acceleration: Effects of motion orientation, velocity, and size. Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 9(8), 686]
147. Gurnsey, R., Troje, N. F. (2009) Stimulus magnification compensates for eccentricity dependent sensitivity loss for first and second order biological motion stimuli. Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 9(8), 610]
146. Legault, I., Troje, N. F., Faubert, J. (2009) Biological motion targets have to be further away in virtual space for older versus younger adults to maintain good performance. Poster

- presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 9(8), 621]
145. Roddy, G., Troje, N. F., Gurnsey, R. (2009) Peripheral sensitivity to biological motion is unaffected by dividing attention. Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 9(8), 604].
 144. Troje, N. F., Rutherford, M. D. (2009) Intact biological motion processing in adults with autism. Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 9(8), 624]
 143. Perry, A., Troje, N. F., Bentin, S. (2009) Motor System contributions to social interaction skills: Evidence from EEG activity in the mu frequency range. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society, San Francisco.
 142. König, A., Schölmerich, A., Troje, N. F. (2008) Implizite Erfassung sexueller Präferenz bei Kindesmissbrauchern und Kontrollprobanden durch Point-Light-Walker. Paper presented at the 23. Münchener Herbsttagung der Arbeitsgemeinschaft für forensische Psychiatrie.
 141. Murphy, P., Brady, N., Troje, N. F. (2008) Perception of biological motion in individuals with autism spectrum. Poster presented at European Conference of Visual Perception (ECVP), Utrecht. [Abstract published in: *Perception 37 ECVP Abstract Supplement*, page 113].
 140. Ware, E. L. R., Saunders, D. R., Troje, N. F. (2008) Intersubjectivity in Pigeon Courtship: Does it exist? 45th Annual Meeting of the Animal Behavior Society, Snowbird, Utah.
 139. Troje, N. F. (2008) Reference frames for biological motion inversion effects. Poster presented at European Conference of Visual Perception (ECVP), Utrecht. [Abstract published in: *Perception 37 ECVP Abstract Supplement*, page 151].
 138. Michalak, J., Troje, N. F., Schulte, D., Heidenreich, T. (2008). Does mindfulness change the way people walk? Paper presented at the International Congress of Psychology, Berlin, Germany.
 137. Holland, G., Mody, S., Troje, N. F. (2008) Person identification across actions from biological motion. Poster presented at the Annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, London, Ontario.
 136. Saunders, D. R., Gurnsey, R., Troje, N. F. (2008) Azimuth discrimination thresholds for global and local biological motion. Poster presented at the Annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, London, Ontario.
 135. Chang, D.H.F., Troje, N. F. (2008) Acceleration underlies the local inversion effect in biological motion perception. Paper presented at the Annual meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, London, Ontario.
 134. Troje, N. F. (2008) Something in the way she moves: The perception of biological motion. Paper presented at the 5th Science Center World Congress, Toronto. **Invited talk!**

133. Holland, G., Mody, S., Troje, N. F. (2008) Person identification across actions from biological motion. Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 8(6), 912]
132. Chang, D. H. F., Troje, N. F. (2008) The local inversion effect in biological motion perception is acceleration-based. Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 8(6), 911]
131. Williamson, K. E., Jakobson, L. S., Troje, N. F. (2008) A right-facing bias in the processing of biological motion? Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 8(6), 913]
130. Gurnsey, R., Ouhana, M., Troje, N. F. (2008) Perception of Biological Motion Across the Visual Field. Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 8(6), 901]
129. Thurman, S., Pyles, J., Troje, N. F. (2008) Critical temporal windows for natural point-light gender discrimination. Poster presented at the Vision Science Society meeting, Naples, FL. [Abstract published in: *Journal of Vision*, 8(6), 907]
128. Kuhlmeier, V., Troje, N. F., Lee, V. (2008) Detection of motion direction in point light walkers by 6-month-olds. Poster presented at the International Conference for Infant Studies, Vancouver.
127. Troje, N. F. (2008) Lessons from the Development of Sensitivity to Biological Motion: A Discussion. Paper presented at the International Conference for Infant Studies, Vancouver.
126. Troje, N. F. (2007) Empirical investigations of people and pigeons. Paper presented at the CIAR NCAP Meeting, Vancouver.
125. Freitag, C., Konrad, C., Häberlen, M., v. Gontard, A., Reith, W., Troje, N. F., Krick, C. (2007) Sense for biological movement for autistic disorder – a fMRI study. Poster presented at the DGPPN Kongress, Berlin. [Abstract published in: *Nervenarzt* 78:S259]
124. Konrad, C., Häberlen, M., v. Gontard, A., Reith, W., Troje, N. F., Krick, C., Freitag, C. (2007) Anatomic correlate of the impaired sense of biological motions for autistic disorder – A voxel based morphometric study. Poster presented at the DGPPN Kongress, Berlin. [Abstract published in: *Nervenarzt* 78:S260]
123. König, A., Schölmerich, A. and Troje, N. F. (2007) Geschlechtsspezifische Entwicklung der Anatomie und Gangdynamik im Kindes- und Jugendalter. Poster presented at the 18. Fachtagung Entwicklungspsychologie, Heidelberg.
122. Hess, R. F., Thompson, B., Hansen, B., and Troje, N. F. (2007) Peripheral vision: Good for biological motion, bad for signal noise segregation. Paper presented at European Conference of Visual Perception (ECVP), Arezzo. [Abstract published in: *Perception* 36:S62]
121. Troje, N. F. and Ware, E. L. R. (2007) Contingency and contiguity in pigeon courtship

- behaviour. Paper presented at the International Ethological Conference, Halifax.
120. Saunders, D., Suchan, S. and Troje, N. F. (2007) Point-light walkers with and without local motion features for determining direction. Poster presented at the CVR Vision Conference, Toronto.
 119. Chang D. H. F. and Troje, N. F. (2007) Perception of animacy and direction from point-light displays. Poster presented at the CVR Vision Conference, Toronto.
 118. Ware, E. L. R. and Troje, N. F. (2007) Vision for interaction: Animals perceive interactive parameters of visual signal exchange. Poster presented at the CVR Vision Conference, Toronto.
 117. Halevina, A. and Troje, N. F. (2007) Sex classification of point-light walkers: Viewpoint, structure, kinematics. Poster presented at the CVR Vision Conference, Toronto.
 116. Chang, D. H. F. and Troje, N. F. (2007) Animacy and direction from point-light displays: Is there a life detector? Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 7(9), 481]
 115. Troje, N. F. and Chang, D. H. F. (2007) Psychophysical dissociation between global and local mechanisms in biological motion perception. Paper presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 7(9), 552]
 114. Williamson, K., Jakobson, L. and Troje, N. F. (2007) Life detection in central and peripheral vision. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 7(9), 484]
 113. Thompson, B., Hansen, B. C., Hess, R. F., and Troje, N. F. (2007) Ambliopic perception of biological motion. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 7(9), 485]
 112. Pietrowski, A., Jakobson, L., and Troje, N. F. (2007) Biological motion perception in healthy elderly. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 7(9), 486]
 111. Halevina, A. and Troje, N. F. (2007) Sex-classification of point-light walkers: Viewpoint, structure, kinematics. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 7(9), 483]
 110. Saunders, D., Suchan, J. and Troje, N. F. (2007) Point-light walkers with and without local motion features for determining direction. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 7(9), 482]
 109. Ware E. and Troje, N. F. (2007) Pigeon courtship is sensitive to social contiguity but not social contingency. Paper presented at the International Conference on Comparative Cognition, Melbourne, Florida.
 108. Hohmann, T., Munzert, J., and Troje, N. F. (2007) Expert versus novice differences in the perception of basketball dribbles. Paper presented at the Annual Meeting of the

- Arbeitsgemeinschaft für Sportpsychologie, Munich, Germany. [Abstract published in: *Journal of Sport and Exercise Psychology* 29:S86]
107. Michalak, J., Troje, N.F, Schulte, D., Heidenreich, T. (2006) Mindful walking–associations between depression, mindfulness and gait patterns. Paper presented at the 36th Congress of the European Association for Cognitive and Behavioural Therapies (EABCT), Paris.
 106. Apfalter, W., Steurer, M. M., Troje, N. F., and Huber, L. (2006) Categorical versus dimensional perception of human faces by pigeons using a multiple-matching procedure. Poster presented at European Conference of Visual Perception (ECVP), St. Petersburg. [Abstract published in: *Perception* 35:S144]
 105. Troje, N. F. (2006) CONSPEC, CONLEARN, and the inversion effect in biological motion perception. Paper presented at International Symposium on Social Cognition as Higher Brain Function, Keio University, Tokyo.
 104. Puca, R. M., Rinkenauer, G., and Troje, N. F. (2006) Wish you were here: Peoples need for affiliation influences their perception of ambiguous point-light walkers. Poster presented at European Conference of Visual Perception (ECVP), St. Petersburg. [Abstract published in: *Perception* 35:S107]
 103. König, A., Schölmerich, A., and Troje, N. F. (2006) Visual Ratings of Point-Light-Walkers - A New Method to Detect Paedophilic Interests? Annual Meeting of the International Association for Treatment of Sex Offenders. Hamburg, Germany.
 102. Troje, N. F. (2006) Levels of biological motion. Paper presented at the VSS Workshop: Biological Motion - The State and Future of the Art. Sarasota, FL.
 101. Troje, N. F., and Szabo, S. (2006) Why is the average walker male? Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 6(6), 1034a, <http://journalofvision.org/6/6/1034>]
 100. Sadr, J., Troje, N. F., and Nakayama, K. (2006) A pedestrian courtship: attractiveness and symmetry of human walking. Paper presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 6(6), 797a, <http://journalofvision.org/6/6/797>]
 99. Bockemühl, T., Troje, N. F., and Dürr, V. (2006) Principal components as motor synergies of human catching movements. Paper presented at the Annual Meeting of the Society for Experimental Biology, Canterbury, UK. [Abstract published in: *Abstr. Ann. Main Meeting Soc. Exp. Biol.*, p. 110]
 98. Saunders, D., and Troje, N. F. (2006) Automated measurements of coordination in courting pigeons. Poster presented at the International Conference on Comparative Cognition, Melbourne, Florida.
 97. Troje, N. F. (2005) Orientation specificity in biological motion perception: Evidence for a general “life detector”? Paper presented at the CIAR NCAP Meeting, Vancouver.

96. Troje, N. F. (2005) Levels of biological motion perception. Paper presented at the 46th Annual Meeting of the Psychonomic Society, Toronto. [Abstract published in: Abstracts of the Psychonomic Society 10, p. 32]
95. Sadr, J., Troje, N. F., and Nakayama, K. (2005) Axes vs averages: High-level representations of dynamic point-light forms. Paper presented at OPAM (Object Perception, Attention, Memory), Toronto.
94. Westhoff, C., and Troje, N. F. (2005) Personenidentifikation anhand von biologischer Bewegung – strukturelle und kinematische Parameter. Forschungs-Symposium Sonification, Cologne, Germany.
93. Nathaniel, T., Güntürkün, O., Manns, M. and Troje, N. F. (2005) Head-bobbing in pigeons under stroboscopic illumination. Poster presented at the Canadian Society for Brain, Behaviour and Cognitive Science 15th Annual Meeting, Montreal.
92. Troje, N. F. (2005) Local and global information in biological motion. Paper presented at the CIAR workshop: Extracting Human Motion from Video, Toronto.
91. Loidolt, M., Troje, N. F. and Huber L. (2005) Discrimination of biological motion patterns by pigeons. Poster presented at the International Ethological Conference, Budapest, Hungary.
90. Provost, M., Troje, N. F. and Quinsey, V. (2005) Variations in gait across the menstrual cycle. Paper presented at the Conference of the Human Behavior and Evolution Society, Austin, Texas.
89. Gibson L. A., Sadr, J., Troje, N. F. and Nakayama, K. (2005) Perception of biological motion at varying eccentricity. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: Journal of Vision, 5(8), 16a, <http://journalofvision.org/5/8/16>]
88. Jokisch, D., Daum, I., Koch, B., Schwarz, M. and Troje, N. F. (2005) Biological motion versus coherent motion perception: The role of the cerebellum. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: Journal of Vision, 5(8), 934a, <http://journalofvision.org/5/8/934>]
87. Sadr, J., Troje, N. F. and Nakayama, K. (2005) Attractiveness, averageness, and sexual dimorphism in biological motion. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: Journal of Vision, 5(8), 943a, <http://journalofvision.org/5/8/943>]
86. Troje, N. F. and Westhoff, C. (2005) Detection of direction in scrambled motion: a simple “life detector”? Paper presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: Journal of Vision, 5(8), 1058a, <http://journalofvision.org/5/8/1058>]
85. Troje, N. F. (2005) Data driven information retrieval from human gait. Paper presented at the Annual Meeting of the Gait and Clinical Movement Analysis Society, Portland, USA.

84. Vocks, S., Legenbauer, T., Kiszkenow, S., Troje, N. F., Schulte, D. (2005) Körperbildtherapie bei Essstörungen: Beeinflussung der perzeptiven, kognitiven, affektiven und behavioralen Körperbildkomponente. Paper presented at the 10. Kongress der Deutschen Gesellschaft für Verhaltensmedizin und Verhaltensmodifikation (DGVM), München, Germany.
83. Jimenez Ortega, L., Güntürkün, O. and Troje, N. F. (2005) Interocular transfer in pigeons between the two yellow fields. Poster presented at the 30th Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Zimmermann, H. (eds.): Proceedings of the 30th Göttingen Neurobiology Conference and the 6th Meeting of the German Neuroscience Society 2005, p. 180A, Georg Thieme, Stuttgart]
82. Bockemühl, T., Dürr, V. and Troje, N. F. (2005) A small set of principal components can efficiently describe human arm movement. Poster presented at the 30th Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Zimmermann, H. (eds.): Proceedings of the 30th Göttingen Neurobiology Conference and the 6th Meeting of the German Neuroscience Society 2005, p. 85A, Georg Thieme, Stuttgart]
81. Jimenez Ortega, L. and Troje, N. F. (2004) Why do birds bob their heads? Poster presented at the Winter Meeting of the Association for the Study of Animal Behaviour: Phylogenies and Behaviour, London.
80. Troje, N. F. (2004) The correlative nature of biological motion patterns: data driven motion analysis. Paper presented at the 11th Altenberg Workshop in Theoretical Biology, Altenberg, Austria.
79. Troje, N. F. (2004) Perception of biological motion and the work of Etienne-Jules Maray. Paper presented at the 21ème congrès du Club Locomotion et Motricité Rythmique (keynote lecture). Beaune, France.
78. Vocks, S., Legenbauer, T., Troje, N.F., Hupe, C., Lumma, C., Stadtfeld-Oertel, P., Rudolph, M., Schulte, D. (2004) Statisches und dynamisches Körperbild Anorexia und Bulimia nervosa. Poster presented at the 22. Symposium Klinische Psychologie und Psychotherapie, Fachgruppe Klinische Psychologie und Psychotherapie der Deutschen Gesellschaft für Psychologie, Halle, Germany.
77. Vocks, S., Legenbauer, T., Troje, N.F., Hupe, C., Rüdell, H., Stadtfeld-Oertel, P., Rudolph, M., Schulte, D. (2004) Static and dynamic body image in anorexia and bulimia nervosa. Poster presented at the European Congress of Behaviour and Cognitive Therapies of the European Association of Cognitive and Behavioural Therapies, Manchester, UK.
76. Legenbauer, T., Vocks, S., Troje, N.F., Betz, S., Rudolph, Rüdell, H., M., Schulte, D. and Hiller, W. (2004) To what extent do obese binge eaters show body image distortions? Poster presented at the European Congress of Behaviour and Cognitive Therapies of the European Association of Cognitive and Behavioural Therapies, Manchester, UK.
75. Nathaniel, I.T. , Güntürkün, O., Manns M. and Troje, N. F. (2004) Nucleus triangularis: anatomical evidence of efference copy for head-bobbing in pigeons. Poster presented at the 7th International Congress for Neuroethology, Nyborg, Denmark.

74. Jiménez Ortega, L., Troje, N.F. and Güntürkün, O. (2004) Limits of intraocular transfer in pigeons. Poster presented at the 7th International Congress for Neuroethology, Nyborg, Denmark.
73. Troje, N.F. (2004) Retrieving information from biological motion. Paper presented at the Canadian Society for Brain, Behaviour and Cognitive Science 14th Annual Meeting, St. John's, NF.
72. Vocks, S., Legenbauer, T., Troje, N.F., Zumfelde, M., and Hildenbrand, S. (2004) Static and dynamic body image and eating disorders among non-professional ballet dancers. Poster presented at the Eighth International Congress of Behavioral Medicine, Mainz, Germany.
71. Nathaniel I.T., Troje N.F., Güntürkün O. and Manns M. (2004) Efference copy: The motoric command for head-bobbing in pigeons. Poster presented at the ECNP Workshop on Neuropsychopharmacology. [Abstract published in: *European Neuropsychopharmacology*, vol. 14. suppl.1; 34-35]
70. Westhoff, C. and Troje, N.F. (2004) Person identification from biological motion: information content of discrete Fourier components. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 4(8), 217a, <http://journalofvision.org/4/8/217>]
69. Troje, N.F. (2004) Inverted gravity, not inverted shape impairs biological motion perception. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 4(8), 227a, <http://journalofvision.org/4/8/227>]
68. Jokisch, D., Daum, I., and Troje, N.F. (2004) Self recognition versus recognition of others by biological motion: Viewpoint-dependent effects. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 4(8), 237a, <http://journalofvision.org/4/8/237>]
67. Westhoff, C. and Troje, N.F. (2004) Identification of point light walkers from varying viewpoints. Poster presented at the Tagung experimentell arbeitender Psychologen (TEAP).
66. Westhoff, C. and Troje, N.F. (2004) Person identification from biological motion: viewpoint dependencies. Poster presented at the 7th Tübinger Wahrnehmungskonferenz. [Abstract published in: Bühlhoff, H.H., Mallot, H.A., Ulrich, R.D., Wichmann, F. A. (eds.): 7th Tübingen Perception Conference Proceedings, p.179, Knirsch Verlag, Kirchentellinsfurt]
65. Jokisch, D., Daum, I., Troje, N. F. (2004) Recognizing friends from different viewpoints: biological motion as cue for identity. Poster presented at the 7th Tübinger Wahrnehmungskonferenz. [Abstract published in: Bühlhoff, H.H., Mallot, H.A., Ulrich, R.D., Wichmann, F. A. (eds.): 7th Tübingen Perception Conference Proceedings, p.186, Knirsch Verlag, Kirchentellinsfurt]
64. Jokisch, D., Kress, T., Daum, I., and Troje, N. F. (2003) Encoding and recognition of biological motion: An event related potential study. Poster presented at Neuro-Visionen: Hirnforschung im 21. Jahrhundert, Düsseldorf.

63. Jimenez-Ortega, L., and Troje, N.F. (2003) Differential motion parallax as a monocular depth cue? Poster presented at Neuro-Visionen: Hirnforschung im 21. Jahrhundert, Düsseldorf.
62. Troje, N. F. and Bach, M. (2003) Adaptation: The psychophysicist's microelectrode. Symposium at the 29th Göttingen Neurobiology Conference 2003. [Abstract published in: Elsner, N. and Zimmermann, H. (eds.): Proceedings of the 29th Göttingen Neurobiology Conference and the 5th Meeting of the German Neuroscience Society 2003, p. 121, Georg Thieme, Stuttgart]
61. Troje, N. F. and Geyer, H. (2003) High level after-effects in biological motion perception. Paper presented at the 29th Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Zimmermann, H. (eds.): Proceedings of the 29th Göttingen Neurobiology Conference and the 5th Meeting of the German Neuroscience Society 2003, p. 125, Georg Thieme, Stuttgart]
60. Huber, L., Loidolt, L. and Troje, N. F. (2003) Viewpoint-dependent recognition of depth-rotated objects by pigeons. Paper presented at the International Ethology Conference, Brazil.
59. Troje, N. F. (2003) Gender and attractiveness from biological motion. Paper presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: Journal of Vision, 3(9), 86a, <http://journalofvision.org/3/9/86>]
58. Jimenez-Ortega, L. and Troje, N. F. (2003) Differential motion parallax as a monocular depth cue? Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: Journal of Vision, 3(9), 855a, <http://journalofvision.org/3/9/855>]
57. Jokisch, D., Troje, N. F., Kress T. and Daum, I. (2003) Inversion effects on the structural encoding and recognition of biological motion. Paper presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: Journal of Vision, 3(9), 87a, <http://journalofvision.org/3/9/87>]
56. Johnston, A., Watson, T. L., Hill, H.C.H., Troje, N. F. (2003) Viewpoint invariance of facial movement. Paper presented at the 13th conference of the European Society for Cognitive Psychology, Sept. 17 - 20, 2003, Granada, Spain.
55. Troje, N. F. (2003) Motion Mining: Retrieving information from human walking patterns. Invited talk presented at the EURESCO Conference on Three Dimensional Sensory and Motor Space, Acquafredda di Maratea, Italy.
54. Jokisch, D., Troje, N. F., Kress T. and Daum, I. (2003) Event-related brain potentials distinguish processing stages involved in the perception of biological motion. Poster presented at the EURESCO Conference on Three Dimensional Sensory and Motor Space, Acquafredda di Maratea, Italy.
53. Patton, T., Yelda, S., Buschmann, J.-U., Troje, N. F. and Shimizu, T. (2003) Courtship displays of male pigeons can be triggered by video-taped and computer animated pigeons. Paper presented at the International Conference on Comparative Cognition, Melbourne, FL.

52. Troje, N. F. (2002) Decomposing biological motion: Analysis and Synthesis. Paper presented at ESRC Workshop on Exaggeration and Visual Categorisation, Glasgow.
51. Troje, N. F. and Geyer, H. (2002) High level after-effects in biological motion perception. Paper presented at European Conference of Visual Perception (ECVP) 2002, Glasgow. [Abstract published in *Perception* 31:S152]
50. Cunningham, D. W., Thornton, I. M., Troje, N. F., and Bühlhoff H. H. (2002) Searching for gender-from-motion. Poster presented at European Conference of Visual Perception (ECVP) 2002, Glasgow. [Abstract published in *Perception* 31:S120]
49. Hill, H., Pollick, F. E., Kamachi, M., Troje, N. F., Watson, T., and Johnston, A. (2002) Using the principals of facial caricature to exaggerating human motion. Paper presented at European Conference of Visual Perception (ECVP) 2002, Glasgow. [Abstract published in *Perception* 31:S60]
48. Pinnow, M., Engelke, D., Troje, N. F. and Schölmerich, A. (2002) Recognition of rotated faces by three and six month old infants. Poster presented at Euresco Conference "Brain Development and Cognition in Human Infants" Aquafredda Di Maratea, Italy.
47. Troje, N. F. (2002) Gender and personality in human gait. Paper presented at the TEAP (Tagung experimentell arbeitender Psychologen), Chemnitz, Germany. [Abstract published in: Baumann, M., Keinath A., Krems J. F. (eds.): *Experimentelle Psychologie*, p.25, Roderer Verlag, Regensburg]
46. Troje, N. F. and Förster, A. (2002) What means "upside down"? Reference frames for the inversion effects in face recognition and biological motion detection. Poster presented at the 5. Tübinger Wahrnehmungskongferenz. [Abstract published in: Bühlhoff, H.H., Mallot, H.A., Ulrich, R.D., Wichmann, F. A. (eds.): *5th Tübingen Perception Conference Proceedings*, p.125, Knirsch Verlag, Kirchentellinsfurt]
45. Lavrov, M. and Troje, N. F. (2002) Individual recognition from biological motion: Structural versus dynamic information. Poster presented at the 5. Tübinger Wahrnehmungskongferenz. [Abstract published in: Bühlhoff, H.H., Mallot, H.A., Ulrich, R.D., Wichmann, F. A. (eds.): *5th Tübingen Perception Conference Proceedings*, p.115, Knirsch Verlag, Kirchentellinsfurt]
44. Richwien, S. and Troje, N. F. (2002) Gender discrimination from biological motion: What kind of information is used? Poster presented at the 5. Tübinger Wahrnehmungskongferenz. [Abstract published in: Bühlhoff, H.H., Mallot, H.A., Ulrich, R.D., Wichmann, F. A. (eds.): *5th Tübingen Perception Conference Proceedings*, p.114, Knirsch Verlag, Kirchentellinsfurt]
43. Troje, N. F. (2001) Head-bobbing in pigeons: Evidence for differential motion parallax computation during landing flight. Poster presented at the International Congress of Neuroethology, Bonn, Germany.
42. Troje, N. F. (2001) A linearized representation for the analysis and synthesis of animate motion. Paper presented at the 28th Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Kreuzberg, G. W. (eds.): *Proceedings of the 28th Göttingen Neurobiology Conference Vol. I*, p. 275, Georg Thieme, Stuttgart]

41. Thornton, I.M., Cunningham, D.W., Troje, N.F., & Bühlhoff, H.H. (2001). "You can tell by the way I use my walk...": New studies of gender and gait. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 1(3), 354a, <http://journalofvision.org/1/3/354>]
40. Troje, N.F. (2001). Decomposing biological motion: A linear model for analysis and synthesis of human gait patterns. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 1(3), 355a, <http://journalofvision.org/1/3/355>]
39. Jokisch, D., Midford, P.E., & Troje, N.F. (2001) Biological motion as a cue for the perception of absolute size. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 1(3), 357a, <http://journalofvision.org/1/3/357>]
38. Buschmann, J-U. F. & Troje, N.F. (2001). An illumination induced visual illusion that affects the perceived width of a human head. Poster presented at the Vision Science Society meeting, Sarasota, FL. [Abstract published in: *Journal of Vision*, 1(3), 290a, <http://journalofvision.org/1/3/290>]
37. Loidolt, M., Huber L. and Troje, N. F. (2001) Does motion facilitate shape perception in pigeons? Paper presented at the XXVII International Ethological Conference, Tübingen, Germany.
36. Bergert, S., Hausmann, M., Troje, N. F. and Güntürkün, O. (2001) Der Einfluss von Stimulusmerkmalen auf die Lateralisierung der Gesichterwahrnehmung. Paper presented at the TEAP (Tagung experimentell arbeitender Psychologen), Regensburg, Germany.
35. Troje, N. F. and Jokisch, D. (2001) Biologische Bewegung enthält Größeninformation: Können wir die lesen? Poster presented at the TEAP (Tagung experimentell arbeitender Psychologen), Regensburg, Germany.
34. Jokisch, D. and Troje, N. F. (2001) Die Wahrnehmung absoluter Größe in biologischer Bewegung. Poster presented at the 4. Tübinger Wahrnehmungskonferenz. [Abstract published in: Bühlhoff, H. H., K. R. Gegenfurtner, H. A. Mallot and Ulrich R. (eds.), *Beiträge zur 4. Tübinger Wahrnehmungskonferenz*, p. 127. Kirchentellinsfurt: Knirsch Verlag.] **Awarded with the Best Student Poster Award!**
33. Troje, N. F. (2001) Recognizing periodic actions: invariants for visual discrimination between human gait patterns. Poster presented at the 4. Tübinger Wahrnehmungskonferenz. [Abstract published in: Bühlhoff, H. H., K. R. Gegenfurtner, H. A. Mallot and Ulrich R. (eds.), *Beiträge zur 4. Tübinger Wahrnehmungskonferenz*, p. 128. Kirchentellinsfurt: Knirsch Verlag.]
32. Troje, N. F. and Hausmann, M. (2000) Hemispheric dissociation of shape and texture processing during encoding and recognition of human faces. Poster presented at OPAM (Object Perception, Attention, Memory), New Orleans.
31. Troje, N. F. and Frost, B. J. (1999) Evidence for active vision during the thrust-phase of the

- pigeon's head-bobbing. Paper presented at the Ninth Annual Meeting of the Canadian Society for Brain, Behaviour and Cognitive Science, Edmonton, Alberta.
30. Frost, B. J. and Troje, N. F. (1999) Gesture interfaces and naturalistic virtual animals. Paper presented at the IRIS Conference "From Virtual to Reality", Toronto.
 29. Huber, L., Troje, N. F., Loidolt, M. and Aust, U. (1999) Pigeons classify human faces by attending to their surface properties. Paper presented at the European Conference for Visual Perception. [Abstract published in Perception 28 ECVP Abstract Supplement]
 28. Collin, C., Liu, C. H., Troje, N. F. and Chaudhuri, A. (1999) An asymmetrical link between names and faces in the 3/4 view. Poster presented at the Annual Meeting of The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. [Abstract published in Investigative Ophthalmology and Visual Science, 30 (4), S348]
 27. Troje, N. F. and Frost, B. J. (1999) Analysis of biological motion in the pigeon's courtship display. Paper presented at the International Conference on Comparative Cognition, Melbourne, FL.
 26. Troje, N. F. and Frost, B. J. (1998) The physiological fine structure of motion sensitive neurons in the pigeon's tectum opticum. Poster presented at Neuroscience 98, Los Angeles, CA.
 25. Huber, L., Troje, N. F., Loidolt, M. and Aust U. (1998) The pigeon paradigm: complex categorisation with simple perceptual tools. Poster presented at the European Conference for Visual Perception, Oxford.
 24. Frost, B. J., Troje, N. F. and David S. (1998) Pigeon courship behaviour in response to live birds and video presentations. Poster presented at The Fifth International Congress of Neuroethology, San Diego, CA.
 23. Troje, N. F., Frost, B. J. and David, S. (1998) An ethogram of the pigeon's bowing display. Poster presented at The Fifth International Congress of Neuroethology, San Diego, CA.
 22. Troje, N. F., Huber, L., Loidolt, U. and Fieder, M. (1998) Correspondence-based representations of complex object classes: The role of visual texture and shape in classification experiments with pigeons. Paper presented at the 91. Jahresversammlung der Deutschen Zoologischen Gesellschaft, Leipzig.
 21. Troje, N. F. and Symons, L. A. (1998) Search asymmetries for shaded disks are not present for shaded faces. Poster presented at the Annual Meeting of The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. [Abstract published in Investigative Ophthalmology and Visual Science, 39 (4), S166]
 20. Loidolt, M., Aust, U., Huber, L., Troje, N. F. and Fieder, M. (1998) Die Bedeutung von Textur und Form in einer komplexen Kategorisierungsaufgabe bei Tauben. Poster presented at the 1. Tübinger Wahrnehmungskonferenz. [Abstract published in: Bülhoff, H. H., Fahle, M., K. R. Gegenfurtner and H. A. Mallot (eds.), Visuelle Wahrnehmung: Beiträge zur 1. Tübinger Wahrnehmungskonferenz, p. 110. Kirchentellinsfurt: Knirsch Verlag.]

19. Schwarzer, G. and Troje, N. F. (1997) Verarbeitung schematisch gezeichneter und natürlicher Gesichter bei Kindern und Erwachsenen. Paper presented at the Tagung experimentel arbeitender Psychologen, Berlin. [Abstract published in: van der Meer et al. (eds.): Experimentelle Psychologie, pp. 208]
18. Troje, N. F. and Siebeck U. (1997) Apparent orientation shift of human faces induced by changing the illuminant's position. Poster presented at the Annual Meeting of The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. [Abstract published in Investigative Ophthalmology and Visual Science, 38 (4), S1002]
17. Troje, N. F. and Siebeck U. (1997) Apparent illumination induced orientation shift of human faces depends on the absolute orientation of the face. Poster presented at the 25th Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Wässle, H. (eds.): Proceedings of the 25th Göttingen Neurobiology Conference Vol. II, pp. 1003, Georg Thieme, Stuttgart]
16. Siebeck, U. and Troje, N. F. (1997) Judging the Orientation of Human Faces: Effects induced by varying the illumination. Poster presented at the European Conference for Visual Perception, Helsinki. [Abstract published in Perception 26:55]
15. Loidolt, M., Troje, N. F., Huber, L., Augst, U. and Fieder, M. (1997) The role of texture and shape in complex visual perception in pigeons. Talk presented at the 25th International Ethological Conference, Vienna. [Abstract published in Ethology suppl. 32:93]
14. Troje, N. F. and Vetter, T. (1996) Pixel-based versus correspondence-based representations of human faces: Implications for sex discrimination. Paper presented at the European Conference for Visual Perception, Strasbourg. [Abstract published in Perception 25:52]
13. Troje, N. F. and Bühlhoff H. H. (1996) Bilateral symmetry of human faces helps to generalize to novel views. Poster presented at the 24th Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Schnitzler, H.-U.(eds.): Proceedings of the 24th Göttingen Neurobiology Conference Vol. II, pp. 775, Georg Thieme, Stuttgart]
12. Troje, N. F. and Bühlhoff H. H. (1996) What is the basis for good performance to symmetric views of faces? Paper presented at the Annual Meeting of The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. [Abstract published in Investigative Ophthalmology and Visual Science, 37 (3), S194]
11. Schwenzer K., Hoffmann J., Troje N. F., Cornelius C.P., Willer J., Schwenzer N. (1996) Moderne Aspekte in der Gesichtsprofilanalyse. 46. Poster presented at the Kongress der Deutschen Gesellschaft fuer Mund-, Kiefer- und Gesichtschirurgie, 28.5.-1.6.1996, Regensburg.
10. O'Toole, A., Vetter, T., Troje, N. F. , and Bühlhoff, H. H. (1996) Classifying faces by sex is more accurate with 3D shape information than with texture. Poster presented at the Annual Meeting of The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. [Abstract published in Investigative Ophthalmology and Visual Science, 37 (3), S176]
9. Braje, W. F., Kersten, D., Tarr, M. and Troje N. F. (1996) Illumination and shadows

- influence face recognition. Poster presented at the Annual Meeting of The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. [Abstract published in *Investigative Ophthalmology and Visual Science*, 37 (3), S176]
8. Troje, N. F. and Bühlhoff, H. (1995) Viewpoint invariance in face recognition: a closer look. Paper presented at the European Conference for Visual Perception, Tübingen. [Abstract published in *Perception* 24:13]
 7. Bricolo, E., Mendola, J. D., Cole, A. J., Cosgrove, G. R., Corkin, S., Troje, N. F. and Bühlhoff, H. H. (1995) Impairment of immediate visual recognition after unilateral temporal lobectomy. Paper presented at the European Conference for Visual Perception, Tübingen. [Abstract published in *Perception* 24:113]
 6. Troje, N. F. and Bühlhoff, H. (1995) Generalization to novel viewpoints of facial surfaces. Poster presented at the 23rd Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Menzel, R. (eds.): *Proceedings of the 23rd Göttingen Neurobiology Conference Vol.1*, pp. 49, Georg Thieme, Stuttgart]
 5. Troje, N. F. and Bühlhoff, H. (1995) Generalization to novel views of faces: shaded surface models vs. fully textured models. Paper presented at the Annual Meeting of The Association for Research in Vision and Ophthalmology, Fort Lauderdale, FL. [Abstract published in *Investigative Ophthalmology and Visual Science*, 36 (4), S15]
 4. Troje, N. (1994) Von Fliegen und Menschen: Helligkeitsinformation in der Wellenlängenunterscheidungsfunktion. Paper presented at the Tagung experimentell arbeitender Psychologen, München.
 3. Troje, N. and Dürbeck, T. (1994) Is the blowfly receptor class R1-6 involved in colour vision? Poster presented at the 22nd Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Breer, H. (eds.): *Proceedings of the 22nd Göttingen Neurobiology Conference Vol.1*, pp. 28, Georg Thieme, Stuttgart]
 2. Troje, N. and Vogt, K. (1994) From chromophors to chromatics: wavelength discrimination in *Lucilia spec.* Paper presented at the 22nd Göttingen Neurobiology Conference. [Abstract published in: Elsner, N. and Breer, H. (eds.): *Proceedings of the 22nd Göttingen Neurobiology Conference Vol.1*, pp. 5, Georg Thieme, Stuttgart]
 1. Troje, N. and Vogt, K. (1993) Photopigments and color vision in the blowfly. Paper presented at the Fifth Congress of the European Society for Photobiology, September 19-26 1993, Marburg, Germany.