

# Références bibliographiques



## VI. Bibliographie

---

### A

- Abend, W., Bizzi, E., & Morasso, P. (1982). Human arm trajectory formation. *Brain* **105**, 331-348.
- Aboaf, E. W. & Atkeson, C. G. (1989). Task-level robot learning: juggling a tennis ball more accurately. 1290-1295. Scottsdale, AZ, IEEE Int Conf Robotic and Automation.
- Adams, J. A. (1971). A close-loop theory of motor learning. *J Motor Behav* **3**, 111-150.
- al Falahe, N. A., Nagaoka, M., & Vallbo, A. B. (1990). Response profiles of human muscle afferents during active finger movements. *Brain* **113 ( Pt 2)**, 325-346.
- Albright, T. D. (1984). Direction and orientation selectivity of neurons in visual area MT of the macaque. *J Neurophysiol* **52**, 1106-1130.
- Alderson, G. J. K., Sully, D., & Sully, H. (1974). An operational analysis of a one-handed catching task using high speed photography. *J Motor Behav* **6**, 217-226.
- Allen, G. I. & Tsukahara, N. (1974). Cerebro-cerebellar communication systems. *Physiol Rev* **54**, 957-1006.
- Amblard, B., Assaiante, C., Fabre, J. C., Mouchnino, L., & Massion, J. (1997). Voluntary head stabilization in space during oscillatory trunk movements in the frontal plane performed in weightlessness. *Exp Brain Res* **114**, 214-225.
- Amorim, M. A. & Stucchi, N. (1997). Viewer- and object-centered mental explorations of an imagined environment are not equivalent. *Brain Res Cogn Brain Res* **5**, 229-239.
- Amorim, M. A., Glasauer, S., Corpinot, K., & Berthoz, A. (1997). Updating an object's orientation and location during nonvisual navigation: a comparison between two processing modes. *Percept.Psychophys.* **59**, 404-418.
- Andersson, R. L. (1987). *A robot ping-pong player: Experiment in real time control* MIT Press, Cambridge, MA.
- Andersson, R. L. (1989). Understanding and applying a robot ping-pong player's expert. 1284-1289. Scottsdale, AZ, IEEE Int Conf Robotics and Automation.
- Andre-Deshays, C., Berthoz, A., & Revel, M. (1988). Eye-head coupling in humans. I. Simultaneous recording of isolated motor units in dorsal neck muscles and horizontal eye movements. *Exp Brain Res* **69**, 399-406.
- Arbib, M. A. (1975). Artificial intelligence and brain theory: unities and diversities. *Ann Biomed Eng* **3**, 238-274.
- Arbib, M. A. (1981). Perceptual structures and distributed motor control. In *Handbook of Physiology - The nervous system*, ed. Brooks, V. B., pp. 1449-1480. American Physiological Society, Bethesda, MD.
- Asai, H., Fujiwara, K., & Tachino, K. (1994). Limiting factor for movable range of the centre of foot pressure in backward direction. In *Vestibular and Neural Front*, eds. Taguchi, K., Igarashi, M., & Mori, S., pp. 525-528. Elsevier, Tokyo.
- Asch, S. E. & Witkin, H. A. (1992). Studies in space orientation. II. Perception of the upright with displaced visual fields and with body tilted. *J.Exp.Psychol.Gen.* **121**, 407-418.
- Assaiante, C. & Amblard, B. (1993). Ontogenesis of head stabilization in space during locomotion in children: influence of visual cues. *Exp Brain Res* **93**, 499-515.
- Assaiante, C. (1998). Development of locomotor balance control in healthy children. *Neurosci Biobehav.Rev* **22**, 527-532.
- Atkeson, C. G. & Hollerbach, J. M. (1985). Kinematic features of unrestrained vertical arm movements. *J Neurosci* **5**, 2318-2330.

## B

- Babinski, J. (1899). De l'asynergie cérébelleuse. *Rev Neurol (Paris)* **7**, 806-816.
- Bahill, A. T. & McDonald, J. D. (1981). Adaptive control model for saccadic and smooth eye movement. In *Progress in Oculomotor Research*, eds. Fuchs, A. F. & Becker, W., pp. 551-558. Elsevier, North Holland.
- Banks, M. S. (1988). Visual recalibration and the development of contrast and optical flow perceptions. In *Perceptual development in infancy: The Minnesota Symposium on Child Psychology*, ed. Yonas, A., pp. 145-196. Erlbaum, Hillsdale, NJ.
- Bardy, B. G., Marin, L., Stoffregen, T. A., & Bootsma, R. J. (1999). Postural coordination modes considered as emergent phenomena. *J Exp Psychol Hum Percept Perform* **25**, 1284-1301.
- Barlow, E. G. (1953). Summation and inhibition in the frog's retina. *J Physiol* **119**, 69-88.
- Barnes, G. R. & Asselman, P. T. (1991). The mechanism of prediction in human smooth pursuit eye movements. *J Physiol* **439**, 439-461.
- Barnes, G. R. & Donelan, S. F. (1999). The remembered pursuit task: evidence for segregation of timing and velocity storage in predictive oculomotor control. *experimental brain research* **129**, 57-67.
- Barnes, G. R. (1993). Visual-vestibular interaction in the control of head and eye movement: The role of visual feedback and predictive mechanisms. *progress in neurobiology* **41**, 435-472.
- Barnes, G. R., Donnelly, S. F., & Eason, R. D. (1987). Predictive velocity estimation in the pursuit reflex response to pseudo-random and step displacement in man. *J Physiol (Lond)* **389**, 111-136.
- Barnes, G. R., Grealy, M., & Collins, S. (1997). Volitional control of anticipatory ocular smooth pursuit after viewing, but not pursuing, a moving target: evidence for a re-afferent velocity store. *experimental brain research* **116**, 445-455.
- Bazalgette, D., Zattara, M., Bathien, N., Bouisset, S., & Rondot, P. (1987). Postural adjustments associated with rapid voluntary arm movements in patients with Parkinson's disease. *Adv Neurol* **45**, 371-374.
- Belenky, V. E., Gurfinkel, V. S., & Paltsev, E. I. (1967). On elements of control of voluntary movements. *Biofizika* **12**, 135-141.
- Bennett, D. J., Gorassini, M., & Prochazka, A. (1994). Catching a ball: contributions of intrinsic muscle stiffness, reflexes, and higher order responses. *Can J Physiol Pharmacol* **72**, 525-534.
- Bennett, S. J., van der Kamp, J., Savelsbergh, G. J., & Davids, K. (1999). Timing a one-handed catch. I. Effects of telestereoscopic viewing. *Exp Brain Res* **129**, 362-368.
- Bennett, S. J., van der, K. J., Savelsbergh, G. J., & Davids, K. (2000). Discriminating the role of binocular information in the timing of a one-handed catch. The effects of telestereoscopic viewing and ball size. *Exp Brain Res* **135**, 341-347.
- Bennis, N., Roby-Brami, A., Dufossé, M., & Bussel, B. (1996). Anticipatory responses to a self-applied load in normal subjects and hemiparetic patients. *J Physiol Paris* **90**, 27-42.
- Benvenuti, F., Panzer, V., Thomas, S., & Hallett, M. (1990). Kinematics and EMG analysis of postural adjustments associated with fast elbow flexion movements. In *Disorders of Posture and Gait*, eds. Brandt, T., Paulus, W., Bles, W., Dietreirich, M., Krafczyk, S., & Straube, A., pp. 72-75. Georg Thieme, Stuttgart.
- Bernstein, N. A. (1967). *The co-ordination and regulation of movements* Pergamon Press, Oxford.
- Bernstein, N. A. (1999). From reflexes to the model of future. *Motor control* **3**, 228-236.
- Berthoz, A. (1978). Rôle de la proprioception dans le contrôle de la posture et du geste. Contribution dynamique de quelques récepteurs à la détection du mouvement. In *Du contrôle moteur à l'organisation du geste*, eds. Hécaen, H. & Jeannerod, M., pp. 187-224. Masson, Paris.
- Berthoz, A. (1991). Reference frame for the perception and control of movement. In *Brain and Space*, ed. Paillard, J., pp. 81-111. Oxford Science Publication, Oxford.
- Berthoz, A. (1997). *Le sens du mouvement* Odile Jacob, Paris.
- Berthoz, A., Israel, I., Georges-Francois, P., Grasso, R., & Tsuzuku, T. (1995). Spatial memory of body linear displacement: what is being stored? *Science* **269**, 95-98.
- Binder, M. D., Kroin, J. S., Moore, G. P., & Stuart, D. G. (1977). The response of Golgi tendon organs to single motor unit contractions. *J Physiol* **271**, 337-349.
- Bishop, P. O. (1989). Vertical disparity, egocentric distance and stereoscopic depth constancy: a new interpretation. *Proc R Soc Lond B Biol Sci* **237**, 445-469.

- Bizzi, E. (1981). Eye-head coordination. In *Handbook of Physiology. The nervous system II* pp. 1321-1336.
- Bizzi, E., Accornero, N., Chapple, W., & Hogan, N. (1984). Posture control and trajectory formation during arm movement. *J Neurosci* **4**, 2738-2744.
- Bizzi, E., Polit, A., & Morasso, P. (1976). Mechanisms underlying achievement of final head position. *J Neurophysiol* **39**, 435-444.
- Blair, H. T. & Sharp, P. E. (1995). Anticipatory head direction signals in anterior thalamus: evidence for a thalamocortical circuit that integrates angular head motion to compute head direction. *J Neurosci* **15**, 6260-6270.
- Blakemore, S. J., Frith, C. D., & Wolpert, D. M. (1999). Spatio-temporal prediction modulates the perception of self-produced stimuli. *J Cogn Neurosci* **11**, 551-559.
- Blakemore, S. J., Rees, G., & Frith, C. D. (1998). How do we predict the consequences of our actions? A functional imaging study. *Neuropsychologia* **36**, 521-529.
- Blouin, J., Bard, C., Teasdale, N., Paillard, J., Fleury, M., Forget, R., & Lamarre, Y. (1993). Reference systems for coding spatial information in normal subjects and a deafferented patient. *Exp Brain Res* **93**, 324-331.
- Boessenkool, J. J., Nijhof, E.-J., & Erkelens, C. J. (1998). A comparison of curvatures of left and right hand movements in a simple pointing task. *Exp Brain Res* **120**, 369-376.
- Bonnard, M. & Pailhous, J. (1993). Intentionality in human gait control: modifying the frequency/amplitude relationships. *J Exp Psychol Hum Percept Perform* **19**, 429-443.
- Bonnet, M., Decety, J., Jeannerod, M., & Requin, J. (1997). Mental simulation of an action modulates the excitability of spinal reflex pathways in man. *Brain Res Cogn Brain Res* **5**, 221-228.
- Bootsma, R. J. & Oudejans, R. R. (1993). Visual information about time-to-collision between two objects. *J Exp Psychol Hum Percept Perform* **19**, 1041-1052.
- Bootsma, R. J. & Peper, C. E. (1992). Predictive visual information sources for the regulation of action with special emphasis on catching and hitting. In *Vision and motor control*, eds. Proteau, L. & Elliott, D. B., pp. 285-314. North-Holland, Amsterdam.
- Bootsma, R. J. & van Wieringen, P. C. (1990). Timing an attacking forehand drive in table tennis. *J Exp Psychol Hum Percept Perform* **16**, 21-29.
- Bootsma, R. J. (1991). Predictive information and the control of action. *Int J Sport Psychol* **22**, 271-278.
- Bootsma, R. J., Fayt, V., Zaal, F. T., & Laurent, M. (1997). On the information-based regulation of movement: What Wann (1996) may want to consider. *J Exp Psychol Hum Percept Perform* **23**, 1282-1289.
- Bouisset, S. & Maton, B. (1995). *Muscles, posture et mouvement. Bases et applications de la méthode électromyographique.*, pp. 444-446. Hermann, Paris.
- Bouisset, S. & Zattara, M. (1981). A sequence of postural movements precedes voluntary movement. *Neurosci Lett* **22**, 263-270.
- Bouisset, S. & Zattara, M. (1987). Biomechanical study of the programming of anticipatory postural adjustments associated with voluntary movement. *J Biomech* **20**, 735-742.
- Bouisset, S. (1973). EMG and muscle force in normal motor activities. In *New development in EMG and clinical neurophysiology*, ed. Desmedt, J. E., pp. 547-583. Karger, Bâle.
- Bouisset, S. (1991). [Relationship between postural support and intentional movement: biomechanical approach]. *Arch Int Physiol Biochim Biophys* **99**, A77-92.
- Brandt, T., Dieterich, M., & Danek, A. (1994). Vestibular cortex lesions affect the perception of verticality. *Ann. Neurol* **35**, 403-412.
- Breniere, Y. & Bril, B. (1988a). [Why do children walk when falling down while adults fall down in walking?]. *C R Acad Sci III* **307**, 617-622.
- Breniere, Y. & Bril, B. (1998b). Development of postural control of gravity forces in children during the first 5 years of walking. *Exp Brain Res* **121**, 255-262.
- Breniere, Y. & Do, M. C. (1986). When and how does steady state gait movement induced from upright posture begin? *J Biomech* **19**, 1035-1040.
- Breniere, Y. & Do, M. C. (1987). Modifications posturales associées au lever du talon dans l'initiation du pas de la marche normale. *J Biophys Biomec* **11**, 161-167.
- Breniere, Y. (1999). How locomotor parameters adapt to gravity and body structure changes during gait development in children. *Motor control* **3**, 186-204.

- Breniere, Y., Do, M. C., & Bouisset, S. (1987). Are dynamic phenomena prior to stepping essential to walking. *J Mot Behav* **19**, 62-76.
- Breniere, Y., Do, M. C., & Sanchez, J. (1981). A biomechanical study of the gait initiation process. *J Biophys Med Nucléaire* **5**, 197-205.
- Brenner, E., Smeets, J. B., & de Lussanet, M. H. (1998). Hitting moving targets. Continuous control of the acceleration of the hand on the basis of the target's velocity. *Exp Brain Res* **122**, 467-474.
- Bril, B. & Ledebt, A. (1998). Head coordination as a means to assist sensory integration in learning to walk. *Neurosci Biobehav.Rev* **22**, 555-563.
- Brouwer, A. M., Brenner, E., & Smeets, J. B. (2002). Perception of acceleration with short presentation times: can acceleration be used in interception? *Percept.Psychophys.* **64**, 1160-1168.
- Burke, D., Habgarth, K. E., Löfstedt, L., & Wallin, B. C. (1976). The response of human muscle spindle ending to vibration during isometric contraction. *J Physiol (Lond)* **261**, 695-711.

## C

- Calvin-Figuere, S., Romaguere, P., & Roll, J. P. (2000). Relations between the directions of vibration-induced kinesthetic illusions and the pattern of activation of antagonist muscles. *Brain Res* **881**, 128-138.
- Calvin-Figuere, S., Romaguere, P., Gilhodes, J. C., & Roll, J. P. (1999). Antagonist motor responses correlate with kinesthetic illusions induced by tendon vibration. *Exp Brain Res* **124**, 342-350.
- Capaday, C. & Cooke, J. D. (1981). The effects of muscle vibration on the attainment of intended final position during voluntary human arm movements. *Exp Brain Res* **42**, 228-230.
- Carlton, L. G. (1981). Processing visual feedback information for movement control. *J Exp Psychol Hum Percept Perform* **7**, 1019-1030.
- Cavagna, G. A. (1977). Storage and utilization of elastic energy in skeletal muscle. *Exerc Sport Sci Rev* **5**, 89-129.
- Chapman, S. (1968). Catching a baseball. *Am J Physics* **36**, 868-870.
- Clark, F. J., Burgess, R. C., & Chapin, J. W. (1986). Proprioception with the proximal interphalangeal joint of the index finger. Evidence for a movement sense without a static- position sense. *Brain* **109 ( Pt 6)**, 1195-1208.
- Clement, G., Gurfinkel, V. S., Lestienne, F., Lipshits, M. I., & Popov, K. E. (1983). [Postural adjustments associated with voluntary mobilization of the arm in microgravity conditions]. *C R Seances Acad Sci III* **296**, 789-792.
- Clement, G., Gurfinkel, V. S., Lestienne, F., Lipshits, M. I., & Popov, K. E. (1984). Adaptation of postural control to weightlessness. *Exp Brain Res* **57**, 61-72.
- Collins, D. F., Refshauge, K. M., & Gandevia, S. C. (2000). Sensory integration in the perception of movements at the human metacarpophalangeal joint. *J Physiol* **529 Pt 2**, 505-515.
- Conrad, B. & Brooks, V. B. (1974). Effects of dentale cooling on rapid alternating arm movements. *J Neurophysiol* **792-804**.
- Conrad, B. & Meyer-Lohmann, J. (1985). The long-loop transcortical load compensating reflex. In *The motor system in neurobiology*, eds. Evarts, E. V., Wise, S. P., & Bonsfield, D., pp. 208-214. Elsevier Biomedical Press.
- Cordo, P. J. & Nashner, L. M. (1982). Properties of postural adjustments associated with rapid arm movements. *J Neurophysiol* **47**, 287-302.
- Corlett, J. T. (1992). The role of vision in the planning and guidance of locomotion through the environment. In *Vision and motor control*, eds. Proteau, L. & Elliott, D., pp. 375-396. The Netherlands, Amsterdam.
- Corlett, J. T., Patla, A. E., & Williams, J. G. (1985). Locomotor estimation of distance after visual scanning by children and adults. *Perception* **14**, 257-263.
- Coull, J., Weir, P. L., Tremblay, L., Weeks, D. J., & Elliott, D. (2000). Monocular and binocular vision in the control of goal-directed movement. *J Mot.Behav.* **32**, 347-360.
- Crenna, P., Frigo, C., Massion, J., & Pedotti, A. (1987). Forward and backward axial synergies in man. *Exp Brain Res* **65**, 538-548.

## D

---

- Dale, H. C. A. (1973). Short-term memory for visual locomotion. *Br J Psychol* **64**, 1-8.
- Darwin, C. (1887). Origin of certain instincts. *Nature* **179**, 411-418.
- Davies, P. M. (1985). *Steps to follow: A guide to the treatment of adult hemiplegia* Springer, New York.
- de Brouwer, S., Missal, M., & Lefevre, P. (2001). Role of retinal slip in the prediction of target motion during smooth and saccadic pursuit. *J Neurophysiol* **86**, 550-558.
- de Brouwer, S., Missal, M., Barnes, G., & Lefevre, P. (2002). Quantitative analysis of catch-up saccades during sustained pursuit. *J Neurophysiol* **87**, 1772-1780.
- de Lussanet, M. H., Smeets, J. B., & Brenner, E. (2001). The effects of expectations on hitting moving targets: influence of the preceding target's speed. *Exp Brain Res* **137**, 246-248.
- Decety, J. (1996a). Do imagined and executed actions share the same neural substrate? *Brain Res Cogn Brain Res* **3**, 87-93.
- Decety, J. (1996b). The neurophysiological basis of motor imagery. *Behav Brain Res* **77**, 45-52.
- Decety, J., Jeannerod, M., & Prablanc, C. (1989). The timing of mentally represented actions. *Behav Brain Res* **34**, 35-42.
- Decety, J., Jeannerod, M., Germain, M., & Pastene, J. (1991). Vegetative response during imagined movement is proportional to mental effort. *Behav Brain Res* **42**, 1-5.
- DeLucia, P. R. & Liddell, G. W. (1998). Cognitive motion extrapolation and cognitive clocking in prediction motion tasks. *J Exp Psychol Hum Percept Perform* **24**, 901-914.
- Desmurget, M., Jordan, M., Prablanc, C., & Jeannerod, M. (1997). Constrained and unconstrained movement involve different control strategies. *J Neurophysiol* **77**, 1644-1650.
- Desmurget, M., Pelisson, D., Rossetti, Y., & Prablanc, C. (1998). From eye to hand: planning goal-directed movements. *Neurosci Biobehav. Rev* **22**, 761-788.
- Do, M. C., Bussel, B., & Breniere, Y. (1990). Influence of plantar cutaneous afferents on early compensatory reactions to forward fall. *Exp Brain Res* **79**, 319-324.
- Droulez, J. & Berthoz, A. (1986). Servo-controlled conservative versus topological (projective) mode of sensory motor control. In *Disorders of posture and gait*, eds. Bles, W. & Brandt, T., pp. 83-97. Elsevier, Amsterdam.
- Droulez, J. & Berthoz, A. (1990). The concept of dynamic memory in sensory-motor control. In *Motor Control: Concepts and issues*, eds. Humphrey, D. R. & Freund, H. J., pp. 137-161. Wiley & Sons, Chichester.
- Droulez, J. & Berthoz, A. (1991). A neural network model of sensoritopic maps with predictive short-term memory properties. *Proc Natl Acad Sci U S A* **88**, 9653-9657.
- Droulez, J., Berthoz, A., & Vidal, P. P. (1985). Use and limits of visual vestibular interaction in the control of posture. Are there two modes of sensorimotor control? *Karger., Basel.* **14-21**, -21.
- Dufossé, M., Hugon, M., & Massion, J. (1985). Postural forearm changes induced by predictable in time or voluntary triggered unloading in man. *Brain research* **60**, 330-334.
- Duhamel, J. R., Colby, C. L., & Goldberg, M. E. (1992). The updating of the representation of visual space in parietal cortex by intended eye movements. *Science* **255**, 90-92.

## E

---

- Edelman, J. A. & Goldberg, M. E. (2001). Dependence of saccade-related activity in the primate superior colliculus on visual target presence. *J Neurophysiol* **86**, 676-691.
- Evans, S. H. (1967). A brief statement of schema theory. *Psychonom Sci* **8**, 87-88.
- Evarts, E. V. & Tanji, J. (1974). Gating of motor cortex reflexes by prior instruction. *Brain Res* **71**, 479-494.
- Evarts, E. V. & Tanji, J. (1976). Reflex and intended responses in motor cortex pyramidal tract neurons of monkey. *J Neurophysiol* **39**, 1069-1080.
- Evarts, E. V. & Wise, S. P. (1984). Basal ganglia outputs and motor control. *Ciba Found Symp* **107**, 83-102.
- Evarts, E. V. (1968). Relation of pyramidal tract activity to force exerted during voluntary movement. *J Neurophysiol* **31**, 14-27.
- Evarts, E. V. (1969). Activity of pyramidal tract neurons during postural fixation. *J Neurophysiol* **32**, 375-385.

Evarts, E. V. (1973). Motor cortex reflexes associated with learned movement. *Science* **179**, 501-503.

## F

Fayt, V., Bootsma, R. J., Marteniuk, R. G., Mackenzie, C. L., & Laurent, M. (1997). The effects of task constraints on the organization of interception movements. *J Sports Sci* **15**, 581-586.

Feigenberg, I. M. & Meijer, O. G. (1999). The active search for information: From reflexes to the model of the futur (1966). *Motor control* **3**, 225-228.

Feldman, A. G. (1966). Functional tuning of the nervous system with control of movement or maintenance of the human forearm. *Biophysics* **11**, 565-775.

Ferrel, C., Bard, C., & Fleury, M. (2001). Coordination in childhood: modifications of visuomotor representations in 6- to 11-year old children. *Exp Brain Res* **138**, 313-321.

Ferrell, W. R. & Craske, B. (1992). Contribution of joint and muscle afferents to position sense at the human proximal interphalangeal joint. *Exp Physiol* **77**, 331-342.

Ferrell, W. R. & Smith, A. (1987). The effect of digital nerve block on position sense at the proximal interphalangeal joint of the human index finger. *Brain Res* **425**, 369-371.

Ferrell, W. R. & Smith, A. (1989). The effect of loading on position sense at the proximal interphalangeal joint of the human index finger. *J Physiol (Lond)* **418**, 145-161.

Ferrell, W. R., Baxendale, R. H., Carnachan, C., & Hart, I. K. (1985). The influence of joint afferent discharge on locomotion, proprioception and activity in conscious cats. *Brain Res* **347**, 41-48.

Ferrigno, G. & Pedotti, A. (1985). ELITE: a digital dedicated hardware system for movement analysis via real-time TV signal processing. *IEEE Trans Biomed Eng* **32**, 943-950.

Fitts, P. M. (1954). The information capacity of the human motor system in controlling the amplitude of movement. *J Exp Psychol* **47**, 381-391.

Flanagan, J. R. & Wing, A. M. (1993). Modulation of grip force with load force during point-to-point arm movements. *Exp Brain Res* **95**, 131-143.

Flanagan, J. R. & Wing, A. M. (1997a). Effects of surface texture and grip force on the discrimination of hand-held loads. *Percept Psychophys* **59**, 111-118.

Flanagan, J. R. & Wing, A. M. (1997b). The role of internal models in motion planning and control: evidence from grip force adjustments during movements of hand-held loads. *J Neurosci* **17**, 1519-1528.

Flanagan, J. R., King, S., Wolpert, D. M., & Johansson, R. S. (2001). Sensorimotor prediction and memory in object manipulation. *Can J Exp Psychol* **55**, 87-95.

Flanagan, J. R., Tresilian, J. R., & Wing, A. M. (1993). Coupling of grip force and load force during arm movements with grasped objects. *Neurosci Lett* **152**, 53-56.

Flanders, M., Daghestani, L., & Berthoz, A. (1999). Reaching beyond reach. *Exp Brain Res* **126**, 19-30.

Fleury, M., Macar, F., Bard, C., Teasdale, N., Paillard, J., Lamarre, Y., & Forget, R. (1994). Production of short timing responses: a comparative study with a deafferented patient. *Neuropsychol* **32**, 1435-1440.

Foley, J. M. & Held, R. (1972). Visually directed pointing as a function of target distance, direction and available cues. *Percept Psychophys* **12**, 263-268.

Forssberg, H. & Hirschfeld, H. (1994). Postural adjustments in sitting humans following external perturbations: muscle activity and kinematics. *Exp Brain Res* **97**, 515-527.

Forssberg, H., Eliasson, A. C., Kinoshita, H., Johansson, R. S., & Westling, G. (1991). Development of human precision grip. I: Basic coordination of force. *Exp Brain Res* **85**, 451-457.

Freedman, E. G. & Sparks, D. L. (1997). Eye-head coordination during head-unrestrained gaze shifts in rhesus monkeys. *J Neurophysiol* **77**, 2328-2348.

Freyd, J. J., Pantzer, T. M., & Cheng, J. L. (1988). Representing static as forces in equilibrium. *J Exp Psychol Gen* **117**, 395-407.

Friedli, W. G., Hallett, M., & Simon, S. R. (1984). Postural adjustments associated with rapid voluntary arm movements. I Electromyographic data. *J Neurol Neurosurg Psychiatry* **47**, 611-622.

Fukami, Y. & Wilkinson, R. S. (1977). Responses of isolated Golgi tendon organs of the cat. *J Physiol* **265**, 673-689.

Fukushima, S. S., Loomis, J. M., & Da Silva, J. A. (1997). Visual perception of egocentric distance as assessed by triangulation. *J Exp Psychol Hum Percept Perform* **23**, 86-100.



Fuller, J. H. (1992). Comparison of head movement strategies among mammals. In *The Head-Neck Sensory-Motor System*, eds. Berthoz, A., Graf, W. & Vidal, E., pp. 101-112. Oxford Univ. Press, New York.

## G

Gallese, V., Fadiga, L., Fogassi, L., & Rizzolatti, G. (1996). Action recognition in the premotor cortex. *Brain* **119** ( Pt 2), 593-609.

Gandevia, S. C. & Burke, D. (1992). Does the nervous system depend on kinesthetic information to control natural limb movements? *Behav. Brain Sci.* **15:614-632**, 614-632.

Gandevia, S. C., McCloskey, D. I., & Potter, E. K. (1980). Alterations in perceived heaviness during digital anaesthesia. *J Physiol (Lond)* **306**, 365-375.

Gellman, R. S. & Carl, J. R. (1991). Motion processing for saccadic eye movements in humans. *Exp Brain Res* **84**, 660-667.

Ghez, C., Gordon, J., Ghilardi, M. F., Christakos, C. N., & Cooper, S. E. (1990). Roles of proprioceptive input in the programming of arm trajectories. *Cold Spring Harb Symp Quant Biol* **55**, 837-847.

Gibson, J. J. (1951). *The perception of the visual world* Houghton Mifflin, Boston.

Gibson, J. J. (1958). Visually controlled locomotion and visual orientation in animals. *British J Psychol.* **49**, 182-194.

Gibson, J. J. (1966). *The sense considered as perceptual systems*. Houghton Mifflin, Boston.

Gibson, J. J. (1977). The theory of affordance. In *Perceiving, Acting and Knowing*, eds. Shaw, R. E. & Bransford, J., Lawrence Erlbaum Associates, Hillsdale, NJ.

Gibson, J. J. (1979). *The ecological approach to visual perception* Houghton-Wifflin, Boston.

Gilhodes, J. C., Roll, J. P., & Tardy-Gervet, M. F. (1986). Perceptual and motor effects of agonist-antagonist muscle vibration in man. *Exp Brain Res* **61**, 395-402.

Glasauer, S., Amorim, M. A., Bloomberg, J. J., Reschke, M. F., Peters, B. T., Smith, S. L., & Berthoz, A. (1995). Spatial orientation during locomotion [correction of locomotion] following space flight. *Acta Astronaut.* **36**, 423-431.

Glasauer, S., Amorim, M. A., Viaud-Delmon, I., & Berthoz, A. (2002). Differential effects of labyrinthine dysfunction on distance and direction during blindfolded walking of a triangle path. *Exp Brain Res* **145**, 489-497.

Glasauer, S., Amorim, M. A., Vitte, E., & Berthoz, A. (1994). Goal-directed linear locomotion in normal and labyrinthine-defective subjects. *Exp Brain Res* **98**, 323-335.

Goodale, M. A. & Milner, A. D. (1992). Separate visual pathways for perception and action. *Trends Neurosci* **15**, 20-25.

Goodale, M. A. (1996). Visuomotor modules in the vertebrate brain. *Can J Physiol Pharmacol* **74**, 390-400.

Gordon, A. M., Forssberg, H., Johansson, R. S., & Westling, G. (1991a). Integration of sensory information during the programming of precision grip: comments on the contributions of size cues. *Exp Brain Res* **85**, 226-229.

Gordon, A. M., Forssberg, H., Johansson, R. S., & Westling, G. (1991b). The integration of haptically acquired size information in the programming of precision grip. *Exp Brain Res* **83**, 483-488.

Gordon, A. M., Forssberg, H., Johansson, R. S., & Westling, G. (1991c). Visual size cues in the programming of manipulative forces during precision grip. *Exp Brain Res* **83**, 477-482.

Gordon, A. M., Forssberg, H., Johansson, R. S., Eliasson, A. C., & Westling, G. (1992). Development of human precision grip. III. Integration of visual size cues during the programming of isometric forces. *Exp Brain Res* **90**, 399-403.

Gordon, A. M., Westling, G., Cole, K. J., & Johansson, R. S. (1993). Memory representations underlying motor commands used during manipulation of common and novel objects. *J Neurophysiol* **69**, 1789-1796.

Gordon, J., Ghilardi, M. F., & Ghez, C. (1994). Accuracy of planar reaching movements. I. Independence of direction and extent variability. *Exp Brain Res* **99**, 97-111.

Gordon, J., Ghilardi, M. F., & Ghez, C. (1995). Impairments of reaching movements in patients without proprioception. I. Spatial errors. *J Neurophysiol* **73**, 347-360.

Gordon, J., Ghilardi, M. F., & Ghez, C. (1990). Deafferented subjects fail to compensate for workspace anisotropies in 2-dimensional arm movements. *Soc Neurosci Abstr* **16**, 445.

- Gottsdanker, R. M., Fricks, J., & Lockard, R. B. (1961). Identifying the acceleration of visual target. *British J Psychol* **52**, 155-160.
- Grafton, S. T., Arbib, M. A., Fadiga, L., & Rizzolatti, G. (1996a). Localization of grasp representations in humans by positron emission tomography. 2. Observation compared with imagination. *Exp Brain Res* **112**, 103-111.
- Grafton, S. T., Fagg, A. H., Woods, R. P., & Arbib, M. A. (1996b). Functional anatomy of pointing and grasping in humans. *Cereb Cortex* **6**, 226-237.
- Grasso, R., Glasauer, S., Takei, Y., & Berthoz, A. (1996). The predictive brain: anticipatory control of head direction for the steering of locomotion. *Neuroreport* **7**, 1170-1174.
- Grasso, R., Ivanenko, Y. P., McIntyre, J., Viaud-Delmon, I., & Berthoz, A. (2000). Spatial, not temporal cues drive predictive orienting movements during navigation: a virtual reality study. *Neuroreport* **11**, 775-778.
- Gray, R. & Regan, D. (1997). Vernier step acuity and bisection acuity for texture-defined form. *Vision Res* **37**, 1717-1723.
- Grillner, S. (1981). Control of locomotion in bipeds, tetrapods and fish. In *Handbook of physiology*, eds. Brookhart, J. M. & Mountcastle, V. B., pp. 1179-1236. American Physiological Society, Bethesda.
- Grouios, G. (1996). Phantom limb perceptuomotor 'memories' in a congenital limb child. *Med Sci Res* **24**, 503-504.
- Guitton, D. (1992). Control of eye-head coordination during orienting gaze shifts. *Trends Neurosci* **15**, 174-179.
- Guitton, D., Douglas, R. M., & Volle, M. (1984). Eye-head coordination in cats. *J Neurophysiol* **52**, 1030-1050.
- Gurfinkel, V. S. & Levick, Y. S. (1979). Sensory complexes and sensorimotor integration. *Hum Physiol* **5**, 269-281.
- Gurfinkel, V. S. (1994). The mechanisms of postural regulation in man. In *Physiology and General Biology Reviews*, ed. Turpaev, T., Harwood Academic Publishers, Switzerland.
- Gurfinkel, V. S., Ivanenko, Y. P., & Levik, Y. (1994). The contribution of foot deformation to the changes of muscular length and angle in the ankle joint during standing in man. *Physiol Res* **43**, 371-377.
- Gurfinkel, V. S., Ivanenko, Y. P., Levik, Y. S., Kazennikov, O. V., & Selionov, V. A. (1999). The neural control of posture and locomotion: a lock with two keys. In *Motor control, Today and Tomorrow*, eds. Gantchev, G. N., Mori, S., & Massion, J., pp. 113-121. Academic Publishing House, Sofia.
- Gurfinkel, V. S., Lestienne, F., Levik, Y., & Popov, K. E. (1993). Egocentric references and human spatial orientation in microgravity. I. Perception of complex tactile stimuli. *Exp Brain Res* **95**, 339-342.

## H

- Hadders-Algra, M., Brogren, E., & Forssberg, H. (1996a). Ontogeny of postural adjustments during sitting in infancy: variation, selection and modulation. *J Physiol* **493 ( Pt 1)**, 273-288.
- Hadders-Algra, M., Brogren, E., & Forssberg, H. (1996b). Training affects the development of postural adjustments in sitting infants. *J Physiol* **493 ( Pt 1)**, 289-298.
- Hamalainen, N., Kekoni, J., Rautio, J., Matikainen, E., & Juntunen, J. (1992). Effect of unilateral sensory impairment of the sole of the foot on postural control in man: implications for the role of mechanoreceptors in postural control. *Hum Movement Sci* **11**, 549-561.
- Hammond, P. H. (1956). The influence of the prior instruction to the subject on an apparently involuntary neuromuscular response. *J Physiol* **132**, 17-18.
- Hanneton, S., Berthoz, A., Droulez, J., & Slotine, J. J. (1997). Does the brain use sliding variables for the control of movements? *Biol Cybern* **77**, 381-393.
- Hay, L. & Redon, C. (1999). Feedforward versus feedback control in children and adults subjected to a postural disturbance. *Exp Brain Res* **125**, 153-162.
- Head, H. & Holmes, G. (1912). Sensory disturbances from cerebral lesions. *Brain* **34**, 102-254.
- Heuer, H. (1993). Estimates of time to contact based on changing size and changing target vergence. *Perception* **22**, 549-563.
- Hick, W. E. (1952). On the rate of gain of information. *Q J Exp Psychol* **4**, 11-26.
- Hollands, M. A., Sorensen, K. L., & Patla, A. E. (2001). Effects of head immobilization on the coordination and control of head and body reorientation and translation during steering. *Exp Brain Res* **140**, 223-233.

- Hong, W. (1995). Robotic Catching and Manipulation Using Active Vision. Department of Mechanical Engineering, MIT, Dissertation.
- Horak, F. B., Esselman, P., Anderson, M. E., & Lynch, M. K. (1984). The effects of movement velocity, mass displaced, and task certainty on associated postural adjustments made by normal and hemiplegic individuals. *J Neurol Neurosurg Psychiatry* **47**, 1020-1028.
- Horak, F. B., Nashner, L. M., & Diener, H. C. (1990). Postural strategies associated with somatosensory and vestibular loss. *Exp Brain Res* **1**, 167-177.
- Horak, F. B., Shupert, C. L., & Mirka, A. (1989). Components of postural dyscontrol in the elderly: a review. *Neurobiol Aging* **10**, 727-738.
- Horcholle-Bossavit, G., Jami, L., Petit, J., Vejsada, R., & Zytynicki, D. (1989). Activation of Golgi tendon organs by asynchronous contractions of motor units in cat leg muscles. *Neurosci Lett* **103**, 44-49.
- Houk, J. C. (1978). Participation of reflex mechanisms and reaction time processes in the compensatory adjustments to mechanical disturbances. In *Cerebral motor control in man: long loop mechanisms*, ed. Desmedt, J. E., pp. 193-215. Karger, Basel.
- Houk, J. C., Crago, P. E., & Rymer, W. Z. (1980). Functional properties of the Golgi tendon organs. In *Progress in Clinical Neurophysiology*, ed. Desmedt, J. E., pp. 33-43. Karger, Basel.
- Hove, B. M. & Slotine, J. J. (1991). Experiments in robotic catching. 1, 380-385. Boston, MA, American Control Conf.
- Hubbard, T. L. (1990). Cognitive representation of linear motion: possible direction and gravity effects in judge displacement. *Memory & Cognition* **18**, 299-309.
- Hubbard, T. L. (1995). Environmental invariants in the representation of motion: Implied dynamics and representational momentum, gravity, friction, and centripetal force. *Psychon Bull Rev* **2**, 322-338.
- Hugon, M., Massion, J., & Wiesendanger, M. (1982). Anticipatory postural changes induced by active unloading and comparison with passive unloading in man. *Pflugers Arch* **393**, 292-296.

## I

- 
- Iles, J. F., Stokes, M., & Young, A. (1990). Reflex actions of knee joint afferents during contraction of the human quadriceps. *Clin Physiol* **10**, 489-500.
- Imai, T., Moore, S. T., Raphan, T., & Cohen, B. (2001). Interaction of the body, head, and eyes during walking and turning. *Exp Brain Res* **136**, 1-18.
- Israel, I. & Berthoz, A. (1989). Contribution of the otoliths to the calculation of linear displacement. *J Neurophysiol* **62**, 247-263.
- Israel, I., Chapis, N., Glasauer, S., Charade, O., & Berthoz, A. (1993). Estimation of passive horizontal linear whole-body displacement in humans. *J Neurophysiol* **70**, 1270-1273.
- Israel, I., Grasso, R., Georges-Francois, P., Tsuzuku, T., & Berthoz, A. (1997). Spatial memory and path integration studied by self-driven passive linear displacement. I. Basic properties. *J Neurophysiol* **77**, 3180-3192.
- Ittelson, W. H. (1960). *Visual space perception* Springer, New York.
- Ivanenko, Y. P., Grasso, R., & Lacquaniti, F. (1999). Effect of gaze on postural responses to neck proprioceptive and vestibular stimulation in humans. *J Physiol* **519 Pt 1**, 301-314.
- Ivanenko, Y. P., Grasso, R., & Lacquaniti, F. (2000a). Neck muscle vibration makes walking humans accelerate in the direction of gaze. *J Physiol* **525 Pt 3**, 803-814.
- Ivanenko, Y. P., Grasso, R., Israel, I., & Berthoz, A. (1997a). The contribution of otoliths and semicircular canals to the perception of two-dimensional passive whole-body motion in humans. *J Physiol (Lond)* **502 (Pt 1)**, 223-233.
- Ivanenko, Y. P., Levik, Y. S., Talis, V. L., & Gurfinkel, V. S. (1997b). Human equilibrium on unstable support: the importance of feet-support interaction. *Neurosci Lett* **235**, 109-112.
- Ivanenko, Y. P., Viaud-Delmon, I., Mayer, E., Valenza, N., Annoni, J. M., Rohr, A., Guyot, J. P., Berthoz, A., & Landis, T. (2000b). Lack of anticipatory gaze-orienting responses in patients with right brain damage. *Neurology* **54**, 1656-1661.

## J

- Jagacinski, R. J., Johnson, W. W., & Miller, R. A. (1983). Quantifying the cognitive trajectories of extrapolated movements. *J Exp Psychol Hum Percept Perform* **9**, 43-57.
- Jami, L. (1992). Golgi tendon organs in mammalian skeletal muscle: functional properties and central actions. *Physiol Rev* **72**, 623-666.
- Jeannerod, M. (1974). Les deux mécanismes de la vision. *La Recherche*.
- Jeannerod, M. (1995). Mental imagery in the motor context. *Neuropsychologia* **33**, 1419-1432.
- Jenmalm, P. & Johansson, R. S. (1997). Visual and somatosensory information about object shape control manipulative fingertip forces. *J Neurosci*. **17**, 4486-4499.
- Johansson, R. S. & Westling, G. (1984). Roles of glabrous skin receptors and sensorimotor memory in automatic control of precision grip when lifting rougher or more slippery objects. *Exp Brain Res* **56**, 550-564.
- Johansson, R. S. & Westling, G. (1987a). Signals in tactile afferents from the fingers eliciting adaptive motor responses during precision grip. *Exp Brain Res* **66**, 141-154.
- Johansson, R. S. & Westling, G. (1987b). Significance of cutaneous input for precise hand movements. *Electroencephalogr Clin Neurophysiol Suppl* **39**, 53-57.
- Johansson, R. S. & Westling, G. (1988). Programmed and triggered actions to rapid load changes during precision grip. *Exp Brain Res* **71**, 72-86.
- Johansson, R. S. (1998). Sensory input and control of grip. *Novartis Found Symp* **218**, 45-63.
- Judge, S. J. & Bradford, C. M. (1988). Adaptation to telestereoscopic viewing measured by one-handed ball-catching performance. *Perception* **17**, 783-802.
- Jung, R. (1973). Visual perception and neurophysiology. In *Central processing of visual information. A: integration functions and comparative data*, ed. Jung, R., pp. 1-152. Springer-Verlag, Berlin.

## K

- Kaiser, M. K. & Mowafy, L. (1993). Optical specification of time-to-passage: observers' sensitivity to global tau. *J Exp Psychol Hum Percept Perform* **19**, 1028-1040.
- Kalman, R. E. (1960). A new approach to linear filtering and prediction problems. *Trans ASME - J Basic Eng* 35-45.
- Karnath, H. O., Ferber, S., & Dichgans, J. (2000). The neural representation of postural control in humans. *Proc Natl Acad Sci U S A* **97**, 13931-13936.
- Kavounoudias, A., Gilhodes, J. C., Roll, R., & Roll, J. P. (1999a). From balance regulation to body orientation: two goals for muscle proprioceptive information processing? *Exp Brain Res* **124**, 80-88.
- Kavounoudias, A., Roll, R., & Roll, J. P. (1998). The plantar sole is a 'dynamometric map' for human balance control. *Neuroreport* **9**, 3247-3252.
- Kavounoudias, A., Roll, R., & Roll, J. P. (1999b). Specific whole-body shifts induced by frequency-modulated vibrations of human plantar soles. *Neurosci Lett* **266**, 181-184.
- Kavounoudias, A., Roll, R., & Roll, J. P. (2001). Foot sole and ankle muscle inputs contribute jointly to human erect posture regulation. *J Physiol* **532**, 869-878.
- Keller, E. L. & Johnsen, S. D. (1990). Velocity prediction in corrective saccades during smooth-pursuit eye movement in monkey. *Exp Brain Res* **80**, 525-531.
- Keshner, E. A., Cromwell, R. L., & Peterson, B. W. (1995). Mechanisms controlling human head stabilization. II. Head-neck characteristics during random rotations in the vertical plane. *J Neurophysiol* **73**, 2302-2312.
- Keshner, F. A. & Peterson, B. W. (1995). Mechanisms controlling human head stabilization. I. Head-neck dynamics during random rotations in the horizontal plane. *J Neurophysiol* **73**, 2293-2301.
- Klam, F., Petit, J., Grantyn, A., & Berthoz, A. (2001). Predictive elements in ocular interception and tracking of a moving target by untrained cats. *Exp Brain Res* **139**, 233-247.
- Koenderink, J. J. (1986). Optic flow. *Vision Res* **26**, 161-179.
- Koenderink, J. J. (1990). The brain a geometry engine. *Psychol. Res.* **52**, 122-127.
- Koenderink, J. J., van Doorn, A. J., & van de Grind, W. A. (1985). Spatial and temporal parameters of motion detection in the peripheral visual field. *J Opt Soc Am A* **2**, 252-259.

- Kosslyn, S. M. (1991). A cognitive neuroscience of visual cognition: Further developments. In *Mental images in human cognition*, eds. Logie, R. H. & Denis, M., pp. 351-381. Elsevier.
- Krauzlis, R. J. & Adler, S. A. (2001). Effects of directional expectations on motion perception and pursuit eye movement. *Vis Neurosci* **18**, 365-376.
- Krauzlis, R. J. & Lisberger, S. G. (1989). A control systems model of smooth pursuit eye movement with realistic emergent properties. *Neural Comput* **1**, 116-122.
- Krauzlis, R. J. & Miles, F. A. (1996). Release of fixation for pursuit and saccades in human: Evidence for shared inputs acting on different neural substrates. *J Neurophysiol* **76**, 2822-2833.
- Kveraga, K., Fendrich, R., & Hughes, H. C. (2001). Ocular pursuit of predicted motion trajectories. *Exp Brain Res* **138**, 393-397.

## L

- Lackner, J. R. & Dizio, P. (1993). Multisensory, cognitive, and motor influences on human spatial orientation in weightlessness. *J Vestib Res* **3**, 361-372.
- Lacquaniti, F. & Maioli, C. (1989a). Adaptation to suppression of visual information during catching. *J Neurosci* **9**, 149-159.
- Lacquaniti, F. & Maioli, C. (1989b). The role of preparation in tuning anticipatory and reflex responses during catching. *J Neurosci* **9**, 134-148.
- Lacquaniti, F., Borghese, N. A., & Carrozzo, M. (1992). Internal models of limb geometry in the control of hand compliance. *J Neurosci* **12**, 1750-1762.
- Lacquaniti, F., Carrozzo, M., & Borghese, N. A. (1993). The role of vision in tuning anticipatory motor responses of the limbs. In *Multisensory control of movement*, ed. Berthoz, A., pp. 381-393. Oxford University Press, Oxford.
- Lacquaniti, F., Maioli, C., Borghese, N. A., & Bianchi, L. (1997). Posture and movement: coordination and control. *Arch Ital Biol* **135**, 353-367.
- Land, M. F. & Lee, D. N. (1994). Where we look when we steer. *Nature* **369**, 742-744.
- Land, M. F. & Tatler, B. W. (2001). Steering with the head. The visual strategy of a racing driver. *Curr.Biol.* **11**, 1215-1220.
- Land, M. F. (1992). Predictable eye-head coordination during driving. *Nature* **359**, 318-320.
- LaRue, J., Bard, C., Fleury, M., Teasdale, N., Paillard, J., Forget, R., & Lamarre, Y. (1995). Is proprioception important for the timing of motor activities? *Can J Physiol Pharmacol* **73**, 255-261.
- Laszlo, J. I. & Bairstow, P. J. (1971). Accuracy of movements, peripheral feedback and efference copy. *J Mot Behav* **3**, 241-252.
- Laurent, M. & Thomson, J. A. (1988). The role of visual information in control of a constrained locomotor task. *J Mot Behav* **20**, 17-37.
- Laurent, M., Montagne, G., & Durey, A. (1996). Binocular invariants in interceptive tasks. *Perception* **25**, 1437-1450.
- Laurent, M., Montagne, G., & Savelsbergh, G. J. (1994). The control and coordination of one-handed catching: the effect of temporal constraints. *Exp Brain Res* **101**, 314-322.
- Ledebt, A., Bril, B., & Breniere, Y. (1998). The build-up of anticipatory behaviour. An analysis of the development of gait initiation in children. *Exp Brain Res* **120**, 9-17.
- Ledebt, A., Bril, B., & Wiener-Vacher, S. (1995). Trunk and head stabilization during the first months of independent walking. *Neuroreport* **6**, 1737-1740.
- Lee, D. N. & Reddish, P. E. (1981). Plummeting gannets: a paradigm of ecological optics. *Nature* **293**, 293-294.
- Lee, D. N. & Young, D. S. (1985). Visual timing of interceptive action. In *Brain Mechanisms and Spatial Vision*, eds. Ingle, D., Jeannerod, M., & Lee, D. N., pp. 1-30. Martinus Nijhoff, Dordrecht, Netherlands.
- Lee, D. N. (1974). Visual information during locomotion. In *Perception: Essays in Honour of J.J. Gibson*, eds. MacLeod, R. B. & Pick, H. L., pp. 250-267. Cornell University Press, Ithaca, NY.
- Lee, D. N. (1976). A theory of visual control of braking based on information about time-to-collision. *Perception* **5**, 437-459.
- Lee, D. N. (1980). Visuo-motor coordination in space-time. In *Tutorials in Motor Behaviour*, eds. Stelmach, G. E. & Requin, J., pp. 281-295. North Holland, Amsterdam.

- Lee, D. N., Georgopoulos, A. P., Clark, M. J., Craig, C. M., & Port, N. L. (2001). Guiding contact by coupling the taus of gaps. *Exp Brain Res* **139**, 151-159.
- Lee, D. N., Lishman, J. R., & Thomson, J. A. (1982). Regulation of gait in long jumping. *J Exp Psychol Hum.Percept.Perform.* **8**, 448-459.
- Lee, D. N., Reddish, P. E., & Rand, D. (1991). Aerial docking by hummingbirds. *Naturwissenschaften* **78**, 526-527.
- Lee, D. N., Young, D. S., Reddish, P. E., Lough, S., & Clayton, T. M. (1983). Visual timing in hitting an accelerating ball. *Q J Exp Psychol [A]* **35 Pt 2**, 333-346.
- Lee, W. A., Buchanan, T. S., & Rogers, M. W. (1987). Effects of arm acceleration and behavioral conditions on the organization of postural adjustments during arm flexion. *Exp Brain Res* **66**, 257-270.
- Lenoir, M., Musch, E., & La Grange, N. (1999). Ecological relevance of stereopsis in one-handed ball-catching. *Percept.Mot.Skills* **89**, 495-508.
- Lenoir, M., Savelsbergh, G. J., Musch, E., Thiery, E., Uyttenhove, J., & Janssens, M. (1999). Intercepting moving objects during self-motion: effects of environmental changes. *Res Q.Exerc Sport* **70**, 349-360.
- Lepers, R. & Breniere, Y. (1995). The role of anticipatory postural adjustments and gravity in gait initiation. *Exp Brain Res* **107**, 118-124.
- Lestienne, F. G. & Gurfinkel, V. S. (1988). Postural control in weightlessness: a dual process underlying adaptation to an unusual environment. *Trends Neurosci* **11**, 359-363.
- Lipshits, M. & McIntyre, J. (1999). Gravity affects the preferred vertical and horizontal in visual perception or orientation. *Neuroreport* **10**, 1085-1089.
- Lisberger, S. G. & Movshon, J. A. (1999). Visual motion analysis for pursuit eye movement in area MT of macaque monkeys. *J Neurosci* **19**, 2224-2246.
- Lisberger, S. G., Evinger, C., Johanson, G. W., & Fuchs, A. F. (1981). Relationship between eye acceleration and retinal image velocity during foveal smooth pursuit in man and monkey. *J Neurophysiol* **46**, 229-249.
- Loomis, J. M., Da Silva, J. A., Fujita, N., & Fukusima, S. S. (1992). Visual space perception and visually directed action. *J Exp Psychol Hum Percept Perform* **18**, 906-921.

## M

- Mach, E. (1959). The analysis of sensations and the relation of the physical to the psychical (1e éd. allemande 1886). Dover, New York.
- Magnusson, M., Enbom, H., Johansson, R., & Wiklund, J. (1990). Significance of pressor input from the human feet in lateral postural control. *Acta Otolaryngol (Stockh)* **110**, 321-327.
- Maki, B. E., Perry, S. D., Norrie, R. G., & McIlroy, W. E. (1999). Effect of facilitation of sensation from plantar foot-surface boundaries on postural stabilization in young and older adults. *J Gerontol* **54A**, M281-M287.
- Marendaz, C., Stivalet, P., Barraclough, L., & Walkowiak, P. (1993). Effect of gravitational cues on visual search for orientation. *J Exp Psychol Hum Percept Perform* **19**, 1266-1277.
- Marotta, J. J., Behrmann, M., & Goodale, M. A. (1997). The removal of binocular cues disrupts the calibration of grasping in patients with visual form agnosia. *Exp Brain Res* **116**, 113-121.
- Marsden, C. D., Merton, P. A., & Morton, H. B. (1972). Servo action in human voluntary movement. *Nature* **238**, 140-143.
- Martin, J. P. (1967). *The basal ganglia and posture* Pitman, London.
- Martin, J. P. (1977). A short essay on posture and movement. *J Neurol Neurosurg Psychiatry* **40**, 25-29.
- Massion, J. (1992). Movement, posture and equilibrium : interaction and coordination. *Prog Neurobiol* **38**, 35-56.
- Massion, J. (1994). Postural control system. *Curr Opin Neurobiol* **4**, 877-887.
- Massion, J. (1997). *Cerveau et motricité*. PUF, Paris.
- Massion, J., Fabre, J. C., Mouchnino, L., & Obadia, A. (1995). Body orientation and regulation of the center of gravity during movement under water. *J Vestib Res* **5**, 211-221.
- Massion, J., Gurfinkel, V., Lipshits, M., Obadia, A., & Popov, K. (1992). [Strategy and synergy: two levels of equilibrium control during movement. Effects of the microgravity]. *C R Acad Sci III* **314**, 87-92.

- Massion, J., Gurfinkel, V., Lipshits, M., Obadia, A., & Popov, K. (1993). Axial synergies under microgravity conditions. *J Vestib.Res* **3**, 275-287.
- Massion, J., Popov, K., Fabre, J. C., Rage, P., & Gurfinkel, V. (1997). Is the erect posture in microgravity based on the control of trunk orientation or center of mass position? *Exp Brain Res* **114**, 384-389.
- Matthews, P. B. & Simmonds, A. (1974). Sensations of finger movement elicited by pulling upon flexor tendons in man. *J Physiol (Lond)* **239**, 27P-28P.
- Matthews, P. B. (1969). A possible function for the secondary ending of the muscle spindle. *J Physiol (Lond)* **201**, 102P-103P.
- Matthews, P. B. (1972). *Mammalian muscle receptors and their central action*. Arnold, London.
- Mays, L. E. & Sparks, D. L. (1980). Saccades are spatially, not retinocentrically, coded. *Science* **208**, 1163-1165.
- McArdle, W.D. (1967). Telemetered cardiac response to selected running events. *J Appl Physiol* **23**, 566-574.
- McBeath, M. K., Schaffer, D. M., & Kaiser, M. K. (1996). On catching fly balls. *Science* **273**, 258-260.
- McBeath, M. K., Shaffer, D. M., & Kaiser, M. K. (1995). How baseball outfielders determine where to run to catch fly balls. *Science* **569**.
- McCloskey, D. I., Cross, M. J., Honner, R., & Potter, E. K. (1983). Sensory effects of pulling or vibrating exposed tendons in man. *Brain* **106:21-37**, 21-37.
- McCollum, G., Holroyd, C., & Castelfranco, A. M. (1995). Forms of early walking. *J Theor Biol* **176**, 373-390.
- McIntyre, J., Lipshits, M. I., Zaoui, M., Berthoz, A., & Gurfinkel, V. S. (2001). Internal reference frames for representation and storage of visual information: the role of gravity. *Acta Astronaut.* **49**, 111-121.
- McIntyre, J., Zago, M., Berthoz, A., & Lacquaniti, F. (2001). Does the brain model Newton's law ? *Nat Neurosci* **4**, 693-694.
- McLeod, P. & Dienes, Z. (1996). Do fielders know where to go to catch the ball or only how to get there ? *J Exp Psychol [Hum Percept Perform]* **22**, 531-543.
- McLeod, P. & Dienes, Z. (1993). Running to catch the ball. *Nature* **362**, 23.
- McLeod, P. (1987). Visual reaction time and high-speed ball games. *Perception* **16**, 49-59.
- McLeod, P., McLaughlin, C., & Nimmo-Smith, I. (1985). Information encapsulation and automaticity: Evidence from the visual control of finely timed actions. In *Attention and performance XI*, eds. Posner, M. I. & Marin, O., pp. 391-406. Erlbaum, Hillsdale, NJ.
- McNaughton, B. L., Barnes, C. A., & O'Keefe, J. (1983). The contributions of position, direction, and velocity to single unit activity in the hippocampus of freely-moving rats. *Exp Brain Res* **52**, 41-49.
- Meltzoff, A. N. (1990). Towards a developmental cognitive science. The implications of cross-modal matching and imitation for the development of representation and memory in infancy. *Ann N Y Acad Sci* **608**, 1-31.
- Melville Jones, G. & Milsum, J. H. (1971). Frequency-response analysis of central vestibular unit activity resulting from rotational stimulation of the semi-circular canals. *J Physiol (Lond)* **219**, 191-215.
- Merfeld, D. M., Young, L. R., Oman, C. M., & Shelhamer, M. (1993). A multimodal model of the effect of gravity on the spatial orientation of the monkey. *J Vestib Res* **3**, 141-161.
- Merfeld, D. M., Zupan, L. H., & Gifford, C. A. (2001). Neural processing of gravito-inertial cues in humans. II. Influence of the semicircular canals during eccentric rotation. *J Neurophysiol* **85**, 1648-1660.
- Merfeld, D. M., Zupan, L., & Peterka, R. J. (1999). Humans use internal models to estimate gravity and linear acceleration. *Nature* **398**, 615-618.
- Merton, P. A. (1953). Speculations on the servo-control of movement. In *The spinal cord*, ed. Wolstenholme, G. E. W., pp. 247-260. Churchill, London.
- Miall, R. C. & Wolpert, D. M. (1993). Is the cerebellum a Smith Predictor ? *J Mot Behav* **25**, 203-216.
- Miall, R. C. (1998). The cerebellum, predictive control and motor coordination. Novartis Found Symp. 218, 272-290. Chichester, Wiley. Sensory guidance of movement.
- Miall, R. C., Reckess, G. Z., & Imamizu, H. (2001). The cerebellum coordinates eye and hand tracking movements. *Nat Neurosci* **4**, 638-644.
- Miall, R. C., Weir, D. J., & Stein, J. F. (1993). Intermittency in human manual tracking tasks. *J Mot Behav* **25**, 53-63.
- Michaels, C. F. & Oudejans, R. R. (1992). The optics and actions of catching fly balls: zeroing out optical acceleration. *Ecological Psychol* **4**, 199-222.

- Milner, A. D. & Goodale, M. A. (1993). Visual pathways to perception and action. *Prog Brain Res* **95**, 317-337.
- Milner, A. D. & Goodale, M. A. (1995). *The visual brain in action* Oxford Univ. Press, New York.
- Mittelstaedt, H. & Glasauer, S. (1993a). Crucial effects of weightlessness on human orientation. *J Vestib.Res* **3**, 307-314.
- Mittelstaedt, H. & Glasauer, S. (1993b). Illusions of verticality in weightlessness. *Clin Investig.* **71**, 732-739.
- Mittelstaedt, H. (1983). A new solution to the problem of the subjective vertical. *Naturwissenschaften* **70**, 272-281.
- Mittelstaedt, H. (1991). The role of otoliths in the perception of the orientation of self and world to the vertical. *Zoologische Jahrbücher der Physiologie* **95**, 419-425.
- Mittelstaedt, H. (1992). Somatic versus vestibular gravity reception in man. *Ann.N.Y.Acad Sci* **656**, 124-139.
- Mittelstaedt, H. (1995). Evidence of somatic graviception from new and classical investigations. *Acta Otolaryngol Suppl* **520 Pt 1**, 186-187.
- Mittelstaedt, H. (1998). Origin and processing of postural information. *Neurosci Biobehav Rev* **22**, 473-478.
- Moberg, E. (1983). The role of cutaneous afferents in position sense, kinaesthesia, and motor function of the hand. *Brain* **106 (Pt 1)**, 1-19.
- Mohler, C. W. & Wurtz, R. H. (1976). Organization of monkey superior colliculus: intermediate layer cells discharging before eye movements. *J Neurophysiol* **39**, 722-744.
- Montagne, G., Laurent, M., Durey, A., & Bootsma, R. J. (1999). Movement reversals in ball catching. *Exp Brain Res* **129**, 87-92.
- Morrison, J. D. & Whiteside, T. C. (1984). Binocular cues in the perception of distance of a point source of light. *Perception* **13**, 555-566.
- Mouchnino, L., Aurenty, R., Massion, J., & Pedotti, A. (1992). Coordination between equilibrium and head-trunk orientation during leg movement: a new strategy build up by training. *J Neurophysiol* **67**, 1587-1598.
- Mouchnino, L., Aurenty, R., Massion, J., & Pedotti, A. (1993). Is the trunk a reference frame for calculating leg position? *Neuroreport* **4**, 125-127.
- Mouchnino, L., Cincera, M., Fabre, J. C., Assaiante, C., Amblard, B., Pedotti, A., & Massion, J. (1996). Is the regulation of the center of mass maintained during leg movement under microgravity conditions? *J Neurophysiol* **76**, 1212-1223.
- Mourey, F. & Pozzo, T. (1996). [Effects of aging on standing up and sitting down. Kinematic analysis]. *C.R.Seances Soc.Biol.Fil.* **190**, 603-611.
- Mourey, F., Grishin, A., d'Athis, P., Pozzo, T., & Stapley, P. (2000). Standing up from a chair as a dynamic equilibrium task: a comparison between young and elderly subjects. *J Gerontol.A Biol.Sci.Med.Sci.* **55**, B425-B431.
- Muellbacher, W., Ziemann, U., Boroojerdi, B., Cohen, L., & Hallett, M. (2001). Role of the human motor cortex in rapid motor learning. *Exp Brain Res* **136**, 431-438.

## N

- 
- Nakayama, K. (1985). Biological image motion processing: A review. *Vision Res* **25**, 625-660.
- Nudo, R. J., Jenkins, W. M., Merzenich, M. M., Prejean, T., & Grenda, R. (1992). Neurophysiological correlates of hand preference in primary motor cortex of adult squirrel monkeys. *J Neurosci* **12**, 2918-2947.

## O

- 
- Oddsson, L. I. (1990). Control of voluntary trunk movements in man. Mechanisms for postural equilibrium during standing. *Acta Physiol Scand Suppl* **595**, 1-60.
- Okubo, J., Watanabe, I., & Baron, J. B. (1980). Study on influences of the plantar mechanoreceptor on body sways. *Agressologie* **21**, 61-69.
- Oudejans, R. R., Michaels, C. F., & Bakker, F. C. (1997). The effects of baseball experience on movement initiation in catching fly balls. *J Sports Sci* **15**, 587-595.
- Oudejans, R. R., Michaels, C. F., Bakker, F. C., & Davids, K. (1999). Shedding some light on catching in the dark: perceptual mechanisms for catching fly balls. *J Exp Psychol Hum Percept Perform* **25**, 531-542.



- Oudejans, R. R., Michaels, C. F., Bakker, F. C., & Dolné, M. A. (1996). The relevance of action in perceiving affordances: Perception of catchableness of fly balls. *J Exp Psychol Hum Percept Perform* **22**, 879-891.
- Ozel, S., LaRue, J., & Molinaro, C. (2002). Relation between sport activity and mental rotation: comparison of three groups of subjects. *Percept Mot Skills* **95**, 1141-1154.

## P

- Paillard, J. (1971). Les déterminants moteurs de l'organisation spatiale. *Cahiers de Psychologie* **14**, 261-316.
- Paillard, J. (1983). The functional labeling of neural codes. In *Neural coding of motor performance*, eds. Massion, J., Paillard, J., Schultz, W. & Wiesendanger, M., *Exp Brain Res*, suppl. 7, pp. 1-19. Springer Verlag, Berlin.
- Paillard, J. (1990). Réactif et prédictif : deux modes de gestion de la motricité. In *Pratiques sportives et modélisation du geste*, eds. Nougier, V. & Bianchi, J. P., pp. 13-56.
- Paillard, J. (1991). Motor and representational framing of space. In *Brain and Space*, ed. Paillard, J., pp. 163-182. Oxford University Press, Oxford.
- Papaxanthis, C. & Pozzo, T. (1996). Prise en compte de la force de gravité dans la planification des mouvements de pointage du bras. *Comptes rendus de la Société de Biologie*, **190**, 613-619.
- Papaxanthis, C., Pozzo, T., & Stapley, P. (1998a). Effects of movement direction upon kinematic characteristics of vertical arm pointing movements in man. *Neurosci Lett* **253**, 103-106.
- Papaxanthis, C., Pozzo, T., Popov, K. E., & McIntyre, J. (1998b). Hand trajectory of vertical arm movements in one-G and zero-G environments. Evidence for a central representation of gravitational force. *Exp Brain Res* **120**, 496-502.
- Papaxanthis, C., Pozzo, T., Van Hoecke, J., Vinter, A., & Skoura, X. (1998c). [Drawing movements and gravitational force: central or peripheral regulation?]. *C R Seances Soc Biol Fil* **192**, 187-193.
- Papaxanthis, C., Pozzo, T., Vinter, A., & Grishin, A. (1998d). The representation of gravitational force during drawing movements of the arm. *Exp Brain Res* **120**, 233-242.
- Patla, A. E., Adkin, A., & Ballard, T. (1999). Online steering: coordination and control of body center of mass, head and body reorientation. *Exp Brain Res* **129**, 629-634.
- Patla, A. E., Prentice, S. D., Rietdyk, S., Allard, F., & Martin, C. (1999). What guides the selection of alternate foot placement during locomotion in humans. *Exp Brain Res* **128**, 441-450.
- Patla, A. E., Prentice, S. D., Robinson, C., & Neufeld, J. (1991). Visual control of locomotion: strategies for changing direction and for going over obstacles. *J Exp Psychol Hum Percept Perform* **17**, 603-634.
- Paulignan, Y., Dufossé, M., Hugon, M., & Massion, J. (1989). Acquisition of co-ordination between posture and movement in a bimanual task. *Exp Brain Res* **77**, 337-348.
- Peck, C. K., Schlag-Rey, M., & Schlag, J. (1980). Visuo-oculomotor properties of cells in the superior colliculus of the alert cat. *J Comp Neurol* **194**, 97-116.
- Pelz, J., Hayhoe, M. M., & Loeber, R. (2001). The coordination of eye, head, and hand movement in a natural task. *Exp Brain Res* **139**, 266-277.
- Peper, L., Bootsma, R. J., Mestre, D. R., & Bakker, F. C. (1994). Catching balls: how to get the hand to the right place at the right time. *J Exp Psychol Hum Percept Perform* **20**, 591-612.
- Perry, S. D., McIlroy, W. E., & Maki, B. E. (2000). The role of plantar cutaneous mechanoreceptors in the control of compensatory stepping reactions evoked by unpredictable, multi-directional perturbation. *Brain Res* **877**, 401-406.
- Philbeck, J. W. & Loomis, J. M. (1997). Comparison of two indicators of perceived egocentric distance under full-cue and reduced-cue conditions. *J Exp Psychol Hum Percept Perform* **23**, 72-85.
- Philbeck, J. W., Loomis, J. M., & Beall, A. C. (1997). Visually perceived location is an invariant in the control of action. *Percept Psychophys*. **59**, 601-612.
- Phillips, C. G. (1969). Motor apparatus of the baboon's hand. 173, 141-174. Proceedings of the Royal Society of London. Series B.
- Piaget, J. (1969). *Psychologie et pédagogie* Denoël/Gonthier, Paris.
- Piaget, J. (1971). *La psychologie de l'enfant*, 4e éd. P.U.F., Paris.
- Posner, M. I. (1978). *Chronometry exploration of mind*. Lawrence Erlbaum, Hillsdale, NJ.

- Posner, M. I., Nissen, M. J., & Ogden, W. C. (1978). Attended and unattended processing modes: The role of set for spatial location. In *Modes of perceiving and processing information*, eds. Pick, H. I. & Saltzman, I. J., pp. 137-157. Lawrence Erlbaum, Hillsdale, NJ.
- Posner, M. I., Snyder, C. R. R., & Davidson, B. J. (1980). Attention and the detection of signals. *J Exp Psychol* **109**, 160-174.
- Pozzo, T., Berthoz, A., & Lefort, L. (1990). Head stabilization during various locomotor tasks in humans. I. Normal subjects. *Exp Brain Res* **82**, 97-106.
- Pozzo, T., Berthoz, A., Vitte, E., & Lefort, L. (1991). Head stabilization during locomotion. Perturbations induced by vestibular disorders. *Acta Otolaryngol Suppl* **481**, 322-327.
- Pozzo, T., Levik, Y., & Berthoz, A. (1995). Head and trunk movements in the frontal plane during complex dynamic equilibrium tasks in humans. *Exp Brain Res* **106**, 327-338.
- Pozzo, T., Papaxanthis, C., Stapley, P., & Berthoz, A. (1998). The sensorimotor and cognitive integration of gravity. *Brain Res. Brain Res. Rev.* **28**, 92-101.
- Prablanc, C. & Jeannerod, M. (1975). Corrective saccades: dependence on retinal reafferent signals. *Vision Res* **15**, 465-469.
- Prablanc, C., Echallier, J. F., Komilis, E., & Jeannerod, M. (1979). Optimal response of eye and hand motor systems in pointing at a visual target. I. Spatio-temporal characteristics of eye and hand movements and their relationships when varying the amount of visual information. *Biol Cybern* **35**, 113-124.
- Prigogine, I. & Stengers, I. (1979). *La nouvelle alliance*. Gallimard, Paris.
- Prigogine, I. (1982). *Physique, temps et devenir*. Masson, Paris.
- Prochazka, A. & Trend, P. S. (1988). Instability in human forearm movements studied with feed-back-controlled muscle vibration. *J Physiol (Lond)* **402**, 421-442.
- Prochazka, A. (1989). Sensorimotor gain control: a basic strategy of motor systems? *Prog Neurobiol* **33**, 281-307.
- Purdy, W. C. The hypothesis of psychophysical correspondance in space perception. 1958. Cornell University, Ithaca, NY. Dissertation

## R

- 
- Recanzone, G. H., Merzenich, M. M., Jenkins, W. M., Grajski, K. A., & Dinse, H. R. (1992). Topographic reorganization of the hand representation in cortical area 3b owl monkeys trained in a frequency-discrimination task. *J Neurophysiol* **67**, 1031-1056.
- Regan, D. & Beverley, K. I. (1973). Disparity detectors in human depth perception: evidence for directional selectivity. *Science* **181**, 877-879.
- Regan, D. & Beverley, K. I. (1978). Looming detectors in the human visual pathway. *Vision Res* **18**, 415-421.
- Regan, D. & Beverley, K. I. (1979). Binocular and monocular stimuli for motion in depth: changing-disparity and changing-size feed the same motion-in-depth stage. *Vision Res* **19**, 1331-1342.
- Regan, D. & Gray, R. (2000). Visually guided collision avoidance and collision achievement. *Trends Cogn Sci* **4**, 99-107.
- Regan, D. & Hamstra, S. J. (1993). Dissociation of discrimination thresholds for time to contact and for rate of angular expansion. *Vision Res* **33**, 447-462.
- Regan, D. (1989). Orientation discrimination for objects defined by relative motion and objects defined by luminance contrast. *Vision Res* **29**, 1389-1400.
- Regan, D. (1997). Visual factors in hitting and catching. *J Sports Sci* **15**, 533-558.
- Regan, D. M., Kaufman, L., & Lincoln, J. (1986a). Motion in depth and visual acceleration. In *Handbook of perception and human performance: Vol 1: Sensory processes and perception*, eds. Boff, K. R., Kaufman, L., & Thomas, J. P., pp. 1-46. Wiley, New York.
- Regan, D., Erkelens, C. J., & Collewijn, H. (1986b). Necessary conditions for the perception of motion in depth. *Invest Ophthalmol. Vis. Sci* **27**, 584-597.
- Ribot-Ciscar, E., Roll, J. P., & Gilhodes, J. C. (1996). Human motor unit activity during post-vibratory and imitative voluntary muscle contractions. *Brain Res* **716**, 84-90.
- Ribot-Ciscar, E., Rossi-Durand, C., & Roll, J. P. (1998). Muscle spindle activity following muscle tendon vibration in man. *Neurosci Lett* **258**, 147-150.

- Richelle, M. (1994). *Traité de psychologie expérimentale*. PUF, Paris.
- Rider, E. A. & Rieser, J. J. (1988). Pointing at objects in other rooms: young children's sensitivity to perspective after walking with and without vision. *Child Dev* **59**, 480-494.
- Rieser, J. J. & Rider, E. A. (1991). Young children's spatial orientation with respect to multiple targets when walking without vision. *Dev Psychol* **27**, 97-107.
- Rieser, J. J., Ashmead, D. H., Talor, C. R., & Youngquist, G. A. (1990). Visual perception and the guidance of locomotion without vision to previously seen targets. *Perception* **19**, 675-689.
- Rigal, R. (1985). *Motricité Humaine*. Paris, Vigot.
- Riley, M., Ude, A., & Atkeson, C. G. (2000). Methods for motion generation and interaction with a humanoid robot: Case studies of dancing and catching Pittsburgh, PN, AAAI and CMU Workshop on Interactive Robotics and Entertainment.
- Rind, F. C. & Simmons, P. J. (1997). Signaling of object approach by the DCMD neuron of the locust. *J Neurophysiol* **77**, 1029-1033.
- Rind, F. C. & Simmons, P. J. (1999). Seeing what is coming: building collision-sensitive neurons. *Trends Neurosci.* **22**, 215-220.
- Rizzi, A. A. & Koditschek, D. E. (1992). Progress in spatial robot juggling. 775-780. Scootsdale, AZ, IEEE Int Conf Robotics and Automation.
- Roberts, T. D. M. (1973). Reflex balance. *Nature* **244**, 156-163.
- Robertson, E. M. & Miall, R. C. (1997). Neurons in the lateral cerebellum coding for a particular visuo-motor task, but not the motor commands. *J Physiol (Lond)* **510**, P38-39.
- Robertson, R. G., Rolls, E. T., Georges-Francois, P., & Panzeri, S. (1999). Head direction cells in the primate pre-subiculum. *Hippocampus* **9**, 206-219.
- Robinson, D. L. & Wurtz, R. H. (1976). Use of an extraretinal signal by monkey superior colliculus neurons to distinguish real from self-induced stimulus movement. *J Neurophysiol* **39**, 852-870.
- Rodman, H. R. & Albright, T. D. (1989). Single-unit analysis of pattern-motion selective properties in the middle temporal visual area (MT). *Exp Brain Res* **75**, 53-64.
- Roll, J. P., Vedel, J. P., & Ribot, E. (1989a). Alteration of proprioceptive messages induced by tendon vibration in man: a microneurographic study. *Exp Brain Res* **76**, 213-222.
- Roll, J. P., Vedel, J. P., & Roll, R. (1989b). Eye, head and skeletal muscle spindle feedback in the elaboration of body references. *Prog Brain Res* **80**, 113-123.
- Roll, R., Gilhodes, J. C., Roll, J. P., Popov, K., Charade, O., & Gurfinkel, V. (1998). Proprioceptive information processing in weightlessness. *Exp Brain Res* **122**, 393-402.
- Roll, R., Velay, J. L., & Roll, J. P. (1991). Eye and neck proprioceptive messages contribute to the spatial coding of retinal input in visually oriented activities. *Exp Brain Res* **85**, 423-431.
- Rolls, E. T. (1990). Theoretical and neurophysiological analysis of the functions of the primate hippocampus in memory. *Symposia on Quantitative Biology* **55**, 995-1006. Cold Spring Harbor Laboratory Press.
- Ron, S., Vieville, T., & Droulez, J. (1989). Use of target velocity in saccadic programming. *Brain Behav Evol* **33**, 85-89.
- Runeson, S. (1974). Constant velocity--not perceived as such. *Psychol Res* **37**, 3-23.
- Runeson, S. (1975). Visual prediction of collision with natural and non-natural motion functions. *Percept Psychophys* **18**, 261-266.
- Rushton, S. K. & Wann, J. P. (1999). Weighted combination of size and disparity: a computational model for timing a ball catch. *Nat. Neurosci.* **2**, 186-190.
- Rushton, S. K., Harris, J. M., Lloyd, M. R., & Wann, J. P. (1998). Guidance of locomotion on foot uses perceived target location rather than optic flow. *Curr. Biol.* **8**, 1191-1194.

## S

- Saadah, E. S. & Melzack, R. (1994). Phantom limb experiences in congenital limb-deficient adults. *Cortex* **30**, 479-485.
- Sakaguchi, T., Masutani, Y., & Miyazaki, F. (1991). A study on juggling task. 1418-1423. Osaka, IEEE/RSJ Int Workshop on Intelligent Robots and Systems.
- Saltzman, E. & Kelso, J. A. (1987). Skilled actions: a task-dynamic approach. *Psychol Rev* **94**, 84-106.

- Savelsbergh, G. J. & van der Kamp, J. (1994). The effect of body orientation to gravity on early infant reaching. *J Exp Child Psychol* **58**, 510-528.
- Savelsbergh, G. J., Whiting, H. T., Burden, A. M., & Bartlett, R. M. (1992). The role of predictive visual temporal information in the coordination of muscle activity in catching. *Exp Brain Res* **89**, 223-228.
- Savelsbergh, G. J., Whiting, H. T., Pijpers, J. R., & van Santvoord, A. A. (1993). The visual guidance of catching. *Exp Brain Res* **93**, 148-156.
- Saxberg, B. V. (1987a). Projected free fall trajectories. I. Theory and simulation. *Biol Cybern* **56**, 159-175.
- Saxberg, B. V. (1987b). Projected free fall trajectories. II. Human experiments. *Biol Cybern* **56**, 177-184.
- Schiff, W. & Detwiler, M. L. (1979). Information used in judging impending collision. *Perception* **8**, 647-658.
- Schiff, W. & Oldak, R. (1990). Accuracy of judging time to arrival: Effects of modality, trajectory, and gender. *J Exp Psychol Hum Percept Perform* **16**, 303-316.
- Schiff, W. (1965). Perception of impending collision: a study of visually directed avoidant behavior. *Psychological Monographs: General and Applied*, 79, 604.
- Schmidt, R. A. (1975). A schema theory of discrete motor skill learning. *Psychol Rev* **82**, 225-260.
- Schmidt, R. A. (1993). *Apprentissage moteur et performance*. Vigot, Paris.
- Schmidt, R. A., Sherwood, D. E., & Walter, C. B. (1988). Rapid movements with reversals in direction. I. The control of movement time. *Exp Brain Res* **69**, 344-354.
- Schmitz, C., Martin, N., & Assaiante, C. (1999). Development of anticipatory postural adjustments in a bimanual load-lifting task in children. *Exp Brain Res* **126**, 200-204.
- Schweighofer, N., Arbib, M. A., & Kawato, M. (1998). Role of the cerebellum in reaching movements in humans. I. Distributed inverse dynamics control. *Eur J Neurosci* **10**, 86-94.
- Schweighofer, N., Spoolstra, J., Arbib, M. A., & Kawato, M. (1998). Role of the cerebellum in reaching movements in humans. II. A neural model of the intermediate cerebellum. *Eur J Neurosci* **10**, 95-105.
- Servos, P. (2000). Distance estimation in the visual and visuomotor systems. *Exp Brain Res* **130**, 35-47.
- Seyfarth, A., Friedrichs, A., Wank, V., & Blickman, R. (1999). Dynamics of the long jump. *J Biomech* **32**, 1259-1267.
- Shakespeare, D. T., Stokes, M., Sherman, K. P., & Young, A. (1985). Reflex inhibition of the quadriceps after meniscectomy: lack of association with pain. *Clin Physiol* **5**, 137-144.
- Shannon, C. E. & Weaver, W. (1975). *Théorie mathématique de la communication*. Retz, Paris.
- Sharp, R. & Whiting, H. T. (1975). Information processing and eye-movement behaviour in a ball-catching skill. *J Hum Mov Stu* **1**, 124-131.
- Shaw, B. K., McGowan, R., & Turvey, M. T. (1991). An acoustic variable specifying time-to-contact. *Ecological Psychol* **3**, 253-261.
- Sherrington, C. S. (1906). *The integrative action of the nervous system*. Yale University Press, New Haven (Conn.).
- Shiffrar, M. & Shepard, R. N. (1991). Comparison of sub-rotations around axes inclined relative to the environment or to the cube. *J Exp Psychol Hum Percept Perform* **17**, 44-54.
- Skavenski, A. A. & Steinman, R. M. (1970). Control of eye position in the dark. *Vision Research* **10**:193-203, 193-203.
- Smeets, J. B. & Brenner, E. (1995). Prediction of a moving target's position in fast goal-directed action. *Biol Cybern* **73**, 519-528.
- Smeets, M. A. & Kosslyn, S. M. (2001). Hemispheric differences in body image in anorexia nervosa. *Int J Eat Disord* **29**, 409-416.
- Smith, M. R. H., Flach, J. M., Dittman, S. M., & Stanard, T. (2001). Monocular optical constraints on collision control. *J Exp Psychol Hum Percept Perform* **27**, 395-410.
- Sparks, D. L. & Mays, L. E. (1983). Spatial localization of saccade targets. I. Compensation for stimulation-induced perturbations in eye position. *J Neurophysiol* **49**, 45-63.
- Sparks, D. L. & Porter, J. D. (1983). Spatial localization of saccade targets. II. Activity of superior colliculus neurons preceding compensatory saccades. *J Neurophysiol* **49**, 64-74.
- Stapley, P. & Pozzo, T. (1998). Does the centre of mass remain stable during complex human postural equilibrium tasks in weightlessness? *Acta Astronaut.* **43**, 163-179.

- Stapley, P. J., Pozzo, T., Cheron, G., & Grishin, A. (1999). Does the coordination between posture and movement during human whole-body reaching ensure center of mass stabilization? *Exp Brain Res* **129**, 134-146.
- Stapley, P., Pozzo, T., & Grishin, A. (1998). The role of anticipatory postural adjustments during whole body forward reaching movements. *Neuroreport* **9**, 395-401.
- Stapley, P., Pozzo, T., Grishin, A., & Papaxanthis, C. (2000). Investigating centre of mass stabilisation as the goal of posture and movement coordination during human whole body reaching. *Biological Cybernetics* **82**, 161-172.
- Steenhuis, R. E. & Goodale, M. A. (1986). Short-term memory for spatial location: A target-directed locomotion task for normal subjects. *Soc Neurosci Abstr* **12**, 1447.
- Steenhuis, R. E. & Goodale, M. A. (1988). The effect of time and distance on accuracy of target-directed locomotion: does an accurate short-term memory for spatial location exist? *J Mot Behav* **20**, 399-415.
- Steinman, R. M., Kowler, E., & Collewijn, H. (1990). New directions for oculomotor research. *Vision Res* **30**, 1845-1864.
- Stoffregen, T. A., Schmuckler, M. A., & Gibson, E. J. (1987). Use of central and peripheral optical flow in stance and locomotion in young walkers. *Perception* **16**, 113-119.
- Sun, H. & Frost, B. J. (1998). Computation of different optical variables of looming objects in pigeon nucleus rotundus neurons. *Nat Neurosci* **1**, 296-303.

## T

- Tanji, J. & Evarts, E. V. (1976). Anticipatory activity of motor cortex neurons in relation to direction of an intended movement. *J Neurophysiol* **39**, 1062-1068.
- Taub, E., Perrella, P. N., Miller, E. A., & Barro, G. (1975). Diminution of early environmental control through perinatal and prenatal somatosensory deafferentation. *Biol Psychiatry* **10**, 609-626.
- Taube, J. S. & Burton, H. L. (1995). Head direction cell activity monitored in a novel environment and during a cue conflict situation. *J Neurophysiol* **74**, 1953-1971.
- Taube, J. S. (1995). Head direction cells recorded in the anterior thalamic nuclei of freely moving rats. *J Neurosci* **15**, 70-86.
- Taube, J. S., Muller, R. U., & Ranck, J. B., Jr. (1990). Head-direction cells recorded from the postsubiculum in freely moving rats. II. Effects of environmental manipulations. *J Neurosci* **10**, 436-447.
- Taube, J. S., Muller, R. U., & Ranck, J. B., Jr. (1990). Head-direction cells recorded from the postsubiculum in freely moving rats. I. Description and quantitative analysis. *J Neurosci* **10**, 420-435.
- Terzuolo, C. A. & Poppele, R. E. (1968). Myotatic reflex: Its input-output relation. *Science* **159**, 743-745.
- Thelen, E. & Cooke, D. W. (1987). Relationship between newborn stepping and later walking: a new interpretation. *Dev Med Child Neurol* **29**, 380-393.
- Thomson, J. A. (1980). How do we use visual information to control locomotion? *Trends Neurosci* **247-250**.
- Thomson, J. A. (1983). Is continuous visual monitoring necessary in visually guided locomotion? *J Exp Psychol Hum Percept Perform* **9**, 427-443.
- Todd, J. T. (1981). Visual information about moving objects. *J Exp Psychol Hum Percept Perform* **7**, 975-810.
- Toni, I., Gentilucci, M., Jeannerod, M., & Decety, J. (1996). Differential influence of the visual framework on end point accuracy and trajectory specification of arm movements. *Exp Brain Res* **111**, 447-454.
- Tonnelat, J. (1978). *Thermodynamique et biologie*. Maloine-Doin, Paris.
- Tresilian, J. R. (1990). Perceptual information for the timing of interceptive action. *Perception* **19**, 223-239.
- Tresilian, J. R. (1991). Empirical and theoretical issues in the perception of time to contact. *J Exp Psychol Hum Percept Perform* **17**, 865-876.
- Tresilian, J. R. (1993). Four questions of time to contact: a critical examination of research on interceptive timing. *Perception* **22**, 653-680.
- Tresilian, J. R. (1994). Approximate information sources and perceptual variables in interceptive timing. *J Exp Psychol Hum Percept Perform* **20**, 154-173.
- Tresilian, J. R. (1995). Perceptual and cognitive processes in time-to-contact estimation: analysis of prediction-motion and relative judgment tasks. *Percept Psychophys* **57**, 231-245.
- Tresilian, J. R. (1999). Visually timed action: time-out for 'tau'? *Trends Cogn Sci* **3**, 301-310.

Trevarthen, C. B. (1968). Two mechanisms of vision in primates. *Psychol Forsch* **31**, 299-337.

## U

---

Ungerleider, L. G. & Mishkin, M. (1982). Two cortical visual systems. In *Analysis of visual behavior*, eds. Ingle, D. J., Goodale, M. A., & Mansfield, R. J. W., pp. 549-580. MIT Press, Cambridge, MA.

## V

---

Vallbo, A. B. (1970). Discharge patterns in human muscle spindles afferents during isometric voluntary contractions. *Acta Physiol Scand* **80**, 552-566.

Vallis, L. A., Patla, A. E., & Adkin, A. L. (2001). Control of steering in the presence of unexpected head yaw movements. Influence on sequencing of subtasks. *Exp Brain Res* **138**, 128-134.

van der Kamp, J., Bennett, S. J., Savelsbergh, G. J., & Davids, K. (1999). Timing a one-handed catch. II. Adaptation to telestereoscopic viewing. *Exp Brain Res* **129**, 369-377.

van der Steen, J. (1992). Timing of coordinated head and eye movements during changes in the direction of gaze. In *The Head-Neck Sensory-Motor System*. eds. Berthoz, A., Graf, W., & Vidal, P. P., pp. 445-460. Oxford Univ. Press, New York.

Viallet, F., Massion, J., Massarino, R., & Khalil, R. (1987). Performance of a bimanual load-lifting task by parkinsonian patients. *J Neurol Neurosurg. Psychiatry* **50**, 1274-1283.

Vidal, P. P., Corvisier, J., & Berthoz, A. (1983). Eye and neck motor signals in periauducens reticular neurons of the alert cat. *Exp Brain Res* **53**, 16-28.

Vidal, P. P., Roucoux, A., & Berthoz, A. (1982). Horizontal eye position-related activity in neck muscles of the alert cat. *Exp Brain Res* **46**, 448-453.

Virji-Babul, N., Cooke, J. D., & Brown, S. H. (1994). Effects of gravitational forces on single joint arm movements in humans. *Exp Brain Res* **99**, 338-346.

Viviani, P. & Terzuolo, C. (1980). Space-time invariance in learned motor skills. In *Tutorials in motor behavior*, eds. Stelmach, G. E. & Requin, J., pp. 525-533. Elsevier, North Holland.

Viviani, P. (1981). Les lois d'organisation motrice de l'écriture. *Courrier du CNRS* **39**, 33-39.

von Baumgarten, R. J. (1987). General remarks on the role of the vestibular system in weightlessness. *Arch Otorhinolaryngol* **244**, 135-142.

von Holst, E. & Mittelstaedt, H. (1950). Das Reafferenzprinzip. *Naturwiss* **37**, 464-476.

## W

---

Waitzman, D., Optican, L. M., & Wurtz, R. E. (1988). Superior colliculus neurons provide the saccadic motor error signal. *Exp Brain Res* **112**, 1-4.

Wallon, H. (1941). *Evolution psychologique de l'enfant*, (éd. 1968) ed. Armand Collin, Paris.

Wallon, H. (1959). Importance du mouvement dans le développement. *Enfance* **1973**, 5e éd., N° spécial, 235-239.

Wang, Y. & Frost, B. J. (1992). Time to collision is signalled by neurons in the nucleus rotundus of pigeons. *Nature* **356**, 236-238.

Wann, J. P. (1996). Anticipating arrival: is the tau margin a specious theory? *J Exp Psychol Hum Percept Perform* **22**, 1031-1048.

Warren, W. H., Jr., Kay, B. A., Zosh, W. D., Duchon, A. P., & Sahuc, S. (2001). Optic flow is used to control human walking. *Nat Neurosci* **4**, 213-216.

Watanabe, I. & Okubo, J. (1981). The role of the plantar mechanoreceptor in equilibrium control. *Ann. NY Acad. Sci.* **374:855-864**, 855-864.

Werkhoven, P. & Koenderink, J. J. (1990). Extraction of motion parallax structure in the visual system. II. *Biological Cybernetics* **63**, 193-199.

Werkhoven, P. & Koenderink, J. J. (1990). Extraction of motion parallax structure in the visual system. I. *Biological Cybernetics* **63**, 185-191.

Werkhoven, P., Snippe, H. P., & Toet, A. (1992). Visual processing of optic acceleration. *Vision Res* **32**, 2313-2329.

- Werner, S., Arvidsson, H., Arvidsson, I., & Eriksson, E. (1993). Electrical stimulation of vastus medialis and stretching of lateral thigh muscles in patients with patello-femoral symptoms. *Knee.Surg.Sports Traumatol.Arthrosc.* **1**, 85-92.
- Westling, G. & Johansson, R. S. (1984). Factors influencing the force control during precision grip. *Exp Brain Res* **53**, 277-284.
- Westling, G. & Johansson, R. S. (1987). Responses in glabrous skin mechanoreceptors during precision grip in humans. *Exp Brain Res* **66**, 128-140.
- Whiting, H. T. (1984). *Human motor actions: Bernstein reassessed*. Amsterdam, North Holland.
- Wierzbicka, M. M., Gilhodes, J. C., & Roll, J. P. (1998). Vibration-induced postural posteffects. *J Neurophysiol* **79**, 143-150.
- Wiesendanger, M. (1978). Programmation centrale et contrôle réflexe des mouvements. In *Du contrôle moteur à l'organisation du geste*, eds. Hécaen, H. & Jeannerod, M., pp. 73-83. Masson, Paris.
- Wiesendanger, M., Ruegg, D. G., & Lucier, G. E. (1975). Why transcortical reflexes? *Can.J.Neurol.Sci.* **2**, 295-301.
- Windhorst, U., Rissing, R., Meyer-Lohmann, J., Laouris, Y., & Kuipers, U. (1988). Facilitation and depression in the responses of spinal Renshaw cells to random stimulation of motor axons. *J Neurophysiol* **60**, 1638-1652.
- Winter, D. A. (1990). *Biomechanics and motor control of human movement* John Wiley, New York.
- Witney, A. G., Vetter, P., & Wolpert, D. M. (2001). The influence of previous experience on predictive motor control. *Neuroreport* **12**, 649-653.
- Wood, G. A. (1982). Data smoothing and differentiation procedures in biomechanics. *Exerc Sport Sci Rev* **10**, 308-362.
- Wu, G. & Chiang, J. H. (1997). The significance of somatosensory stimulations to the human foot in the control of postural reflexes. *Exp Brain Res* **114:163-169**, 163-169.

## Y

- 
- Young, A., Stokes, M., & Iles, J. F. (1987). Effects of joint pathology on muscle. *Clin Orthop.* 21-27.
- Young, A., Stokes, M., Round, J. M., & Edwards, R. H. (1983). The effect of high-resistance training on the strength and cross-sectional area of the human quadriceps. *Eur J Clin Invest* **13**, 411-417.
- Young, L. R., Oman, C. M., Merfeld, D. M., Watt, D., Roy, S., DeLuca, C., Balkwill, D., Christie, J., Groleau, N., Jackson, D. K., & . (1993). Spatial orientation and posture during and following weightlessness: human experiments on Spacelab Life Sciences 1. *J Vestib.Res* **3**, 231-239.

## Z

- 
- Zattara, M. & Bouisset, S. (1988). Posturo-kinetic organisation during the early phase of voluntary upper limb movement. 1. Normal subjects. *J Neurol Neurosurg Psychiatry* **51**, 956-965.
- Zeki, S. (1976). The functional organization of projections from striate to prestriate visual cortex in the rhesus monkey. *Symposia on Quantitative Biology* **40**, 591-600.
- Zugaro, M. B., Tabuchi, E., & Wiener, S. I. (2000). Influence of conflicting visual, inertial and substratal cues on head direction cell activity. *Exp Brain Res* **133**, 198-208.





# Publications

