# Références bibliographiques

Abbott, R. D., White, L. R., Ross, G. W., Masaki, K. H., Curb, J. D., & Petrovitch, H. (2004). Walking and dementia in physically capable elderly men. *Jama*, *292*(12), 1447–1453.

Ahissar, M., & Hochstein, S. (2004). The reverse hierarchy theory of visual perceptual learning.

*Trends in Cognitive Sciences*, *8*(10), 457–464.

Aisen, P. S. (2008). Treatment for MCI: is the evidence sufficient? *Neurology*, *70*(22), 2020–2021. Akbaraly, T. N., Portet, F., Fustinoni, S., Dartigues, J.-F., Artero, S., Rouaud, O., … Berr, C. (2009).

Leisure activities and the risk of dementia in the elderly Results from the Three-City Study.

*Neurology*, *73*(11), 854–861.

Akhtar, S., Moulin, C. J. A., & Bowie, P. C. W. (2006). Are people with mild cognitive impairment aware of the benefits of errorless learning? *Neuropsychological Rehabilitation*, *16*(3), 329– 346.

Albert, M., Blacker, D., Moss, M. B., Tanzi, R., & McArdle, J. J. (2007). Longitudinal change in cognitive performance among individuals with mild cognitive impairment. *Neuropsychology*, *21*(2), 158–169.

Albert, M. S., Jones, K., Savage, C. R., Berkman, L., Seeman, T., Blazer, D., & Rowe, J. W. (1995). Predictors of cognitive change in older persons: MacArthur studies of successful aging. *Psychology and Aging*, *10*(4), 578.

Albinet, C. (2004). *Vieillissement, activité physique et apprentissage moteur : effets de la complexité*

*de la tâche* (Thèse de doctorat). Université Paul Sabatier - Toulouse III.

Albinet, C., Bernard, P. L., & Palut, Y. (2006). Contrôle attentionnel de la stabilité posturale chez la personne âgée institutionnalisée : effets d’un programme d’activité physique. *Annales de Réadaptation et de Médecine Physique*, *49*(9), 625–631.

Albinet, C. T., Boucard, G., Bouquet, C. A., & Audiffren, M. (2010). Increased heart rate variability and executive performance after aerobic training in the elderly. *European Journal of Applied Physiology*, *109*(4), 617–624.

Alexander, N. B., Ashton-Miller, J. A., Giordani, B., Guire, K., & Schultz, A. B. (2005). Age differences in timed accurate stepping with increasing cognitive and visual demand: a walking trail making test. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *60*(12), 1558–1562.

Allali, G. (2007). *Etude de la variabilité de la marche en condition de double tâche chez le sujet âgé avec dysfonctionnement frontal* (Thèse de doctorat). University of Geneva.

Allali, G., Kressig, R. W., Assal, F., Herrmann, F. R., Dubost, V., & Beauchet, O. (2007). Changes in gait while backward counting in demented older adults with frontal lobe dysfunction. *Gait & Posture*, *26*(4), 572–576.

Allali, G., Van Der Meulen, M., & Assal, F. (2010). Gait and cognition: the impact of executive function. *Schweizer Archiv Fur Neurologie Und Psychiatrie*, *161*(6), 195–199.

Allan, L. M., Ballard, C. G., Burn, D. J., & Kenny, R. A. (2005). Prevalence and severity of gait disorders in Alzheimer’s and non-Alzheimer’s dementias. *Journal of the American Geriatrics Society*, *53*(10), 1681–1687.

Al-Yahya, E., Dawes, H., Smith, L., Dennis, A., Howells, K., & Cockburn, J. (2011). Cognitive motor interference while walking: A systematic review and meta-analysis. *Neuroscience & Biobehavioral Reviews*, *35*(3), 715–728.

American College of Sports Medicine (2006). *ACSM’S Guidelines for exercise testing and*

*prescription* (7th ed.). Philadelphia: Lippincott Williams & Wilkins.

Amieva, H. (2004). Evidencing inhibitory deficits in Alzheimer's disease through interference effects and shifting disabilities in the Stroop test. *Archives of Clinical Neuropsychology*, *19*(6), 791– 803.

Anderson-Hanley, C., Nimon, J. P., & Westen, S. C. (2010). Cognitive health benefits of strengthening exercise for community-dwelling older adults. *Journal of Clinical and Experimental Neuropsychology*, *32*(9), 996–1001.

Angevaren, M., Aufdemkampe, G., Verhaar, H. J. J., Aleman, A., & Vanhees, L. (2008). Physical activity and enhanced fitness to improve cognitive function in older people without known cognitive impairment. *The Cochrane Database of Systematic Reviews*, (2), CD005381.

Anstey, K., & Christensen, H. (2000). Education, activity, health, blood pressure and apolipoprotein E as predictors of cognitive change in old age: a review. *Gerontology*, *46*(3), 163–177.

Apostolova, L. G., & Cummings, J. L. (2008). Neuropsychiatric manifestations in mild cognitive impairment: a systematic review of the literature. *Dementia and Geriatric Cognitive Disorders*, *25*(2), 115–126.

Arbuckle, T. Y., Maag, U., Pushkar, D., & Chaikelson, J. S. (1998). Individual differences in trajectory of intellectual development over 45 years of adulthood. *Psychology and Aging*, *13*(4), 663–675.

Army Individual Test Battery (1944). *Manual of directions and scoring*. Washington, DC : War Department, Adjutant General's Office.

Aubin, G., Coyette, F., Pradat-Diehl, P., & Vallat-Azouvi, C. (2007). *Neuropsychologie de la mémoire de travail*. Groupe de Boeck.

Audiffren, M., André, N., & Albinet, C. (2011). Effets positifs de l’exercice physique chronique sur les fonctions cognitives des seniors : bilan et perspectives. *Revue de Neuropsychologie*, (3), 207–225.

Baddeley, A. D. (1992). Working memory: the interface between memory and cognition. *Journal of Cognitive Neuroscience*, *4*(3), 281–288.

Baddeley, A. D. (1996). The fractionation of working memory. *Proceedings of the National Academy of Sciences of the United States of America*, *93*(24), 13468–13472.

Baddeley, A. D., Della Sala, S., Gray, C., Papagno, C., Spinnler, H. (1997). Testing the central executive functioning with a pencil-and-paper test. In Rabbit, P. (Ed.). *Methodology of Frontal and Executive Functions* (pp. 61-80). Psychology Press. Hove (UK)

Baddeley, A. D., & Hitch, G. J. (1974). Working Memory. In G. A. Bower (Ed.), *Recent advances in learning and motivation* (Vol. 8, pp. 47-90). New York: Academic Press.

Baker, L. D., Frank, L. L., Foster-Schubert, K., Green, P. S., Wilkinson, C. W., McTiernan, A., … Craft, S. (2010). Effects of aerobic exercise on Mild Cognitive Impairment: a controlled trial. *Archives of Neurology*, *67*(1), 71-79.

Ball, K., Berch, D. B., Helmers, K. F., Jobe, J. B., Leveck, M. D., Marsiske, M., … Advanced Cognitive Training for Independent and Vital Elderly Study Group. (2002). Effects of cognitive training interventions with older adults: a randomized controlled trial. *JAMA*, *288*(18), 2271–2281.

Baltes, M. M., Kühl, K. P., Gutzmann, H., & Sowarka, D. (1995). Potential of cognitive plasticity as a diagnostic instrument: a cross-validation and extension. *Psychology and Aging*, *10*(2), 167– 172.

Baltes, M. M., Kühl, K. P., & Sowarka, D. (1992). Testing for limits of cognitive reserve capacity: a promising strategy for early diagnosis of dementia? *Journal of Gerontology*, *47*(3), 165–167.

Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology*, *23*(5), 611–626.

Baltes, P. B., & Labouvie, G. V. (1973). Adult development of intellectual performance: Description, explanation, and modification. In C. Eisdorfer & M. P. Lawton (Eds.), *The psychology of adult development and aging* (pp. 157–219). Washington, DC, US: American Psychological Association.

Baltes, P. B., Lindenberger, U., & Staudinger, U. M. (2007). Life Span Theory in Developmental Psychology. In *Handbook of Child Psychology*. John Wiley & Sons, Inc.

Baltes, P. B., & Singer, T. (2001). Plasticity and the ageing mind: an exemplar of the bio-cultural orchestration of brain and behaviour. *European Review*, *9*(01), 59–76.

Bamidis, P. D., Vivas, A. B., Styliadis, C., Frantzidis, C., Klados, M., Schlee, W., … Papageorgiou, S.

G. (2014). A revi ew of physical and cognitive interventions in aging. *Neuroscience & Biobehavioral Reviews*, *44*, 206–220.

Bandura, A. (1989). Human agency in social cognitive theory. *The American Psychologist*, *44*(9), 1175–1184.

Barnes, D. E., Santos-Modesitt, W., Poelke, G., et al. (2013). The mental activity and exercise (max) trial: A randomized controlled trial to enhance cognitive function in older adults. *JAMA Internal Medicine*, *173*(9), 797–804.

Barnes, D. E., & Yaffe, K. (2011). The projected impact of risk factor reduction on Alzheimer’s disease prevalence. *Lancet Neurology*, *10*(9), 819–828.

Barnes, D. E., Yaffe, K., Belfor, N., Jagust, W. J., DeCarli, C., Reed, B. R., & Kramer, J. H. (2009). Computer-based cognitive training for Mild Cognitive Impairment: results from a pilot randomized controlled trial. *Alzheimer Disease & Associated Disorders*, *23*(3), 205–210.

Barnes, D. E., Yaffe, K., Satariano, W. A., & Tager, I. B. (2003). A longitudinal study of cardiorespiratory fitness and cognitive function in healthy older adults. *Journal of the American Geriatrics Society*, *51*(4), 459–465.

Basford, J. R., & Malec, J. F. (2015). A brief overview and assessment of the role and benefits of cognitive rehabilitation. *Archives of Physical Medicine and Rehabilitation*.

Bastin, C., Diana, R. A., Simon, J., Collette, F., Yonelinas, A. P., & Salmon, E. (2013). Associative memory in aging: the effect of unitization on source memory. *Psychology and Aging*, *28*(1), 275–283.

Beauchet, O., & Berrut, G. (2006). Gait and dual-task: definition, interest, and perspectives in the elderly. *Psychologie & Neuropsychiatrie Du Vieillissement*, *4*(3), 215–225.

Belleville, S. (2008). Cognitive training for persons with mild cognitive impairment. *International Psychogeriatrics*, *20*(1), 57–66.

Belleville, S., Bherer, L., Lepage, E., Chertkow, H., & Gauthier, S. (2008). Task switching capacities in persons with Alzheimer’s disease and mild cognitive impairment. *Neuropsychologia*, *46*(8), 2225–2233.

Belleville, S., Clement, F., Mellah, S., Gilbert, B., Fontaine, F., & Gauthier, S. (2011). Training- related brain plasticity in subjects at risk of developing Alzheimer’s disease. *Brain*, *134*(6), 1623–1634.

Belleville, S., Mellah, S., de Boysson, C., Demonet, J.-F., & Bier, B. (2014). The pattern and loci of training-induced brain changes in healthy older adults are predicted by the nature of the intervention. *PLoS ONE*, *9*(8), e102710.

Belleville, S., Rouleau, N., & Van der Linden, M. (2006). Use of the Hayling task to measure inhibition of prepotent responses in normal aging and Alzheimer’s disease. *Brain and Cognition*, *62*(2), 113–119.

Benedict, C., Brooks, S. J., Kullberg, J., Nordenskjöld, R., Burgos, J., Le Grevès, M., … Schiöth, H.

B. (2013). Association between physical activity and brain health in older adults.

*Neurobiology of Aging*, *34*(1), 83–90.

Bherer, L. (2012). Améliorer les performances cognitives des personnes âgées à risque de déficits cognitifs : les bienfaits de la stimulation cognitive et de l’activité physique. *Annals of Physical and Rehabilitation Medicine*, *55, Supplement 1*, e311.

Bherer, L. (2015). Cognitive plasticity in older adults: effects of cognitive training and physical exercise. *Annals of the New York Academy of Sciences*, *1337*(1), 1–6.

Bherer, L., Belleville, S., & Hudon, C. (2004). Le déclin des fonctions exécutives au cours du vieillissement normal, dans la maladie d’Alzheimer et dans la démence frontotemporale. *Psychologie & NeuroPsychiatrie Du Vieillissement*, *2*(3), 181–189.

Bherer, L., Erickson, K. I., & Liu-Ambrose, T. (2013). A review of the effects of physical activity and exercise on cognitive and brain functions in older adults. *Journal of Aging Research*, *2013*, 1– 8.

Bherer, L., Kramer, A. F., Peterson, M. S., Colcombe, S., Erickson, K., & Becic, E. (2005). Training effects on dual-task performance: are there age-related differences in plasticity of attentional control? *Psychology and Aging*, *20*(4), 695–709.

Bier, B., de Boysson, C., & Belleville, S. (2014). Identifying training modalities to improve multitasking in older adults. *Age*, *36*(4).

Bier, N., Grenier, S., Brodeur, C., Gauthier, S., Gilbert, B., Hudon, C., … Belleville, S. (2015). Measuring the impact of cognitive and psychosocial interventions in persons with mild cognitive impairment with a randomized single-blind controlled trial: rationale and design of the MEMO+ study. *International Psychogeriatrics*, *27*(3), 511–525.

Binder, E. F., Storandt, M., & Birge, S. J. (1999). The relation between psychometric test performance and physical performance in older adults. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *54*(8), 428–432.

Blumenthal, J. A., & Madden, D. J. (1988). Effects of aerobic exercise training, age, and physical fitness on memory-search performance. *Psychology and Aging*, *3*(3), 280–285.

Blumenthal, J. A., Williams, R. S., Needels, T. L., & Wallace, A. G. (1982). Psychological changes accompany aerobic exercise in healthy middle-aged adults. *Psychosomatic Medicine*, *44*(6), 529–536.

Bohnen, N., Jolles, J., & Twijnstra, A. (1992). Modification of the Stroop Color Word Test improves differentiation between patients with mild head injury and matched controls. The Clinical Neuropsychologist, 6, 178-184.

Bopp, K. L., & Verhaeghen, P. (2005). Aging and verbal memory span: a meta-analysis. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, *60*(5), 223–233.

Borella, E., Carretti, B., Riboldi, F., & De Beni, R. (2010). Working memory training in older adults: Evidence of transfer and maintenance effects. *Psychology and Aging*, *25*(4), 767–778.

Borel, L., & Alescio-Lautier, B. (2014). Posture and cognition in the elderly: interaction and contribution to the rehabilitation strategies. *Neurophysiologie Clinique/Clinical Neurophysiology*, *44*(1), 95–107.

Bos, I., De Boever, P., Emmerechts, J., Buekers, J., Vanoirbeek, J., Meeusen, R., … Panis, L. I. (2012). Changed gene expression in brains of mice exposed to traffic in a highway tunnel. *Inhalation Toxicology*, *24*(10), 676–686.

Bös, K. (2003). The 2-km walking test: Age and sex specific normative values. *Gesundheitssport und Sporttherapie*, 19, 201-207.

Brauer, S. G., Woollacott, M. H., Lamont, R., Clewett, S., O’Sullivan, J., Silburn, P., … Morris, M. E. (2011). Single and dual task gait training in people with Parkinson’s Disease: A protocol for a randomised controlled trial. *BMC Neurology*, *11*(1), 90.

Brisswalter, J., Collardeau, M., & René, A. (2012). Effects of Acute Physical Exercise Characteristics on Cognitive Performance. *Sports Medicine*, *32*(9), 555–566.

Brown, L. A., Sleik, R. J., Polych, M. A., & Gage, W. H. (2002). Is the prioritization of postural control altered in conditions of postural threat in younger and older adults? *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *57*(12), 785–792.

Bruce-Keller, A. J., Brouillette, R. M., Tudor-Locke, C., Foil, H. C., Gahan, W. P., Correa, J., … Keller, J. N. (2012). Assessment of cognition, physical performance, and gait in the context of mild cognitive impairment and dementia. *Journal of the American Geriatrics Society*, *60*(1), 176–177.

Buracchio, T., Dodge, H. H., Howieson, D., Wasserman, D., & Kaye, J. (2010). The trajectory of gait speed preceding mild cognitive impairment. *Archives of Neurology*, *67*(8), 980–986.

Burdea, G., & Coiffet, P. (2003). Virtual Reality Technology. *Presence: Teleoperators and Virtual Environments*, *12*(6), 663–664.

Buschkuehl, M., Jaeggi, S. M., Hutchison, S., Perrig-Chiello, P., Däpp, C., Müller, M., … Perrig, W.

J. (2008). Impact of working memory training on memory performance in old-old adults.

*Psychology and Aging*, *23*(4), 743–753.

Cai, L., Chan, J. S. Y., Yan, J. H., & Peng, K. (2014). Brain plasticity and motor practice in cognitive aging. *Frontiers in Aging Neuroscience*, *6*.

Caillaud, C., & Simar, D. (2004). Aptitude physique aérobie et âge. In C. Jeandel, P. L. Bernard, & O. Seynnes (Eds.), *Aptitude physique, Santé et Vieillissement* (pp. 57-63). Montpellier : Sauramps Médical.

Calero, M. (2004). Relationship between plasticity, mild cognitive impairment and cognitive decline.

*Archives of Clinical Neuropsychology*, *19*(5), 653–660.

Calero, M., & Navarro, E. (2007). Cognitive plasticity as a modulating variable on the effects of memory training in elderly persons. *Archives of Clinical Neuropsychology*, *22*(1), 63–72.

Carretti, B., Mammarella, I. C., & Borella, E. (2012). Age differences in proactive interference in verbal and visuospatial working memory. *Journal of Cognitive Psychology*, *24*(3), 243–255.

Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. *Public Health Reports (Washington, D.C.: 1974)*, *100*(2), 126–131.

Cassilhas, R. C., Viana, V., Grassmann, V., Santos, R. T., Santos, R. F., Tufik, S., & Mello, M. T. (2007). The impact of resistance exercise on the cognitive function of the elderly. *Medicine & Science in Sports & Exercise*, *39*(8), 1401–1407.

Cerella, J., Poon, L. W., & Williams, D. M. (1980). Age and the complexity hypothesis. In *Aging in the 1980s: Psychological issues* (pp. 332–340). Washington, DC, US: American Psychological Association.

Chatelois, J., Van Der Linden, M., Rouleau, N., De Courcy, R., Crépeau, F., & Malenfant, A. (1996).

Stroop Flexibilité-4 couleurs. Unpublished manuscript.

Cheng, Y., Wu, W., Feng, W., Wang, J., Chen, Y., Shen, Y., … Li, C. (2012). The effects of multi- domain versus single-domain cognitive training in non-demented older people: a randomized controlled trial. *BMC Medicine*, *10*(1), 30.

Chklovskii, D. B., Mel, B. W., & Svoboda, K. (2004). Cortical rewiring and information storage.

*Nature*, *431*(7010), 782–788.

Choi, J.-H., & Kim, N.-J. (2015). The effects of balance training and ankle training on the gait of elderly people who have fallen. *Journal of Physical Therapy Science*, *27*(1), 139–142.

Christensen, H., Henderson, A. S., Griffiths, K., & Levings, C. (1997). Does ageing inevitably lead to declines in cognitive performance? A longitudinal study of elite academics. *Personality and Individual Differences*, *23*(1), 67–78.

Christensen, H., Korten, A., Jorm, A. F., Henderson, A. S., Scott, R., & Mackinnon, A. J. (1996). Activity levels and cognitive functioning in an elderly community sample. *Age and Ageing*, *25*(1), 72–80.

Christensen, H., & Mackinnon, A. (1993). The association between mental, social and physical activity and cognitive performance in young and old subjects. *Age and Ageing*, *22*(3), 175– 182.

Churchill, J. D., Galvez, R., Colcombe, S., Swain, R. A., Kramer, A. F., & Greenough, W. T. (2002).

Exercise, experience and the aging brain. *Neurobiology of Aging*, *23*(5), 941–955.

Cipriani, G., Bianchetti, A., & Trabucchi, M. (2006). Outcomes of a computer-based cognitive rehabilitation program on Alzheimer’s disease patients compared with those on patients affected by mild cognitive impairment. *Archives of Gerontology and Geriatrics*, *43*(3), 327– 335.

Clare, L., Linden, D. E., Woods, R. T., Whitaker, R., Evans, S. J., Parkinson, C. H., … others. (2010). Goal-oriented cognitive rehabilitation for people with early-stage Alzheimer disease: a single-

blind randomized controlled trial of clinical efficacy. *The American Journal of Geriatric Psychiatry*, *18*(10), 928–939.

Clare, L., van Paasschen, J., Evans, S. J., Parkinson, C., Woods, R. T., & Linden, D. E. J. (2009). Goal-oriented cognitive rehabilitation for an individual with Mild Cognitive Impairment: Behavioural and neuroimaging outcomes. *Neurocase*, *15*(4), 318–331.

Clarkson-Smith, L., & Hartley, A. A. (1989). Relationships between physical exercise and cognitive abilities in older adults. *Psychology and Aging*, *4*(2), 183–189.

Coelho, F. G. de M., Andrade, L. P., Pedroso, R. V., Santos-Galduroz, R. F., Gobbi, S., Costa, J., & Gobbi, L. (2013). Multimodal exercise intervention improves frontal cognitive functions and gait in Alzheimer’s disease: A controlled trial. *Geriatrics & Gerontology International*, *13*(1), 198–203.

Cohen, J. (1988) *Statistical power analysis for the behavioral sciences* (rev. ed.). New York Colcombe, S. J., Kramer, A. F., Erickson, K. I., Scalf, P., McAuley, E., Cohen, N. J., … Elavsky, S.

(2004). Cardiovascular fitness, cortical plasticity, and aging. *Proceedings of the National Academy of Sciences of the United States of America*, *101*(9), 3316–3321.

Colcombe, S. J., Kramer, A. F., McAuley, E., Erickson, K. I., & Scalf, P. (2004). Neurocognitive aging and cardiovascular fitness. *Journal of Molecular Neuroscience*, *24*(1), 9–14.

Colcombe, S., & Kramer, A. F. (2003). Fitness effects on the cognitive function of older adults: a meta-analytic study. *Psychological Science*, *14*(2), 125–130.

Collette, F., Andrés, P., & Van der Linden, M. (1999). Lobes frontaux et mémoire de travail.

*Neuropsychologie des lobes frontaux*, 89-114.

Conrad, I., Uhle, C., Matschinger, H., Kilian, R., & Riedel-Heller, S. G. (2015). [Quality of life of individuals with mild cognitive impairment]. *Psychiatrische Praxis*, *42*(3), 152–157.

Corrigan, J. D., & Hinkeldey, N. S. (1987). Relationships between parts A and B of the Trail Making Test. *Journal of Clinical Psychology*, *43*(4), 402–409.

Cotman, C. W., & Berchtold, N. C. (2002). Exercise: a behavioral intervention to enhance brain health and plasticity. *Trends in Neurosciences*, *25*(6), 295–301.

Cunningham, D. A., Rechnitzer, P. A., & Donner, A. P. (1986). Exercise training and the speed of self-selected walking pace in men at retirement. *Canadian Journal on Aging/La Revue Canadienne Du Vieillissement*, *5*(01), 19–26.

Dahlin, E., Bäckman, L., Neely, A. S., & Nyberg, L. (2009). Training of the executive component of working memory: subcortical areas mediate transfer effects. *Restorative Neurology and Neuroscience*, *27*(5), 405–419.

Dahlin, E., Nyberg, L., Bäckman, L., & Neely, A. S. (2008). Plasticity of executive functioning in young and older adults: Immediate training gains, transfer, and long-term maintenance. *Psychology and Aging*, *23*(4), 720–730.

Davranche, K., Hall, B., & McMorris, T. (2009). Effect of acute exercise on cognitive control required during an Eriksen flanker task. *Journal of Sport & Exercise Psychology*, *31*(5), 628–639.

De Andrade, L. P., Gobbi, L. T. B., Coelho, F. G. M., Christofoletti, G., Riani Costa, J. L., & Stella, F. (2013). Benefits of multimodal exercise intervention for postural control and frontal cognitive functions in individuals with Alzheimer’s disease: a controlled trial. *Journal of the American Geriatrics Society*, *61*(11), 1919–1926.

De Bruin, E. D., van Het Reve, E., & Murer, K. (2013). A randomized controlled pilot study assessing the feasibility of combined motor-cognitive training and its effect on gait characteristics in the elderly. *Clinical Rehabilitation*, *27*(3), 215–225.

De Bruin, N., Doan, J. B., Turnbull, G., Suchowersky, O., Bonfield, S., Hu, B., & Brown, L. A. (2010). Walking with music is a safe and viable tool for gait training in Parkinson’s disease: the effect of a 13-week feasibility study on single and dual task walking. *Parkinson’s Disease*, *2010*, 1–9.

Defrancesco, M., Marksteiner, J., Deisenhammer, E. A., Hinterhuber, H., & Weiss, E. M. (2009). Association of mMild Cognitive Impairment (MCI) and depression. *Neuropsychiatrie: Klinik, Diagnostik, Therapie Und Rehabilitation: Organ Der Gesellschaft Österreichischer Nervenärzte Und Psychiater*, *23*(3), 144–150.

Delbaere, K., Kochan, N. A., Close, J. C. T., Menant, J. C., Sturnieks, D. L., Brodaty, H., … Lord, S.

R. (2012). Mild cognitive impairment as a predictor of falls in community-dwelling older people. *The American Journal of Geriatric Psychiatry: Official Journal of the American Association for Geriatric Psychiatry*, *20*(10), 845–853.

Denney, N. W. (1984). A model of cognitive development across the life span. *Developmental Review*, *4*(2), 171–191.

Desjardins-Crépeau, L., Berryman, N., Vu, T. T. M., Villalpando, J. M., Kergoat, M.-J., Li, K. Z., … Bherer, L. (2014). Physical functioning is associated with processing speed and executive functions in community-dwelling older adults. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, *69*(6), 837–844.

Deviterne, D., Gauchard, G. C., Jamet, M., Vançon, G., & Perrin, P. P. (2005). Added cognitive load through rotary auditory stimulation can improve the quality of postural control in the elderly. *Brain Research Bulletin*, *64*(6), 487–492.

Dishman, R. K., Motl, R. W., Saunders, R., Felton, G., Ward, D. S., Dowda, M., & Pate, R. R. (2005). Enjoyment mediates effects of a school-based physical-activity intervention. *Medicine and Science in Sports and Exercise*, *37*(3), 478–487.

Doi, T., Shimada, H., Makizako, H., Tsutsumimoto, K., Uemura, K., Anan, Y., & Suzuki, T. (2014). Cognitive function and gait speed under normal and dual-task walking among older adults with mild cognitive impairment. *BMC Neurology*, *14*(1), 67.

Dorbath, L., Hasselhorn, M., & Titz, C. (2011). Aging and Executive Functioning: A Training Study on Focus-Switching. *Frontiers in Psychology*, *2*.

Dorfman, M., Herman, T., Brozgol, M., Shema, S., Weiss, A., Hausdorff, J. M., & Mirelman, A. (2014). Dual-task training on a treadmill to improve gait and cognitive function in elderly idiopathic fallers. *Journal of Neurologic Physical Therapy: JNPT*, *38*(4), 246–253.

Dubois, B., Slachevsky, A., Litvan, I., & Pillon, B. (2000). The FAB: a Frontal Assessment Battery at bedside. *Neurology*, *55*(11), 1621–1626.

Dustman, R. E., Emmerson, R., & Shearer, D. (1994). Physical activity, age, and cognitive- neuropsychological function. *Journal of Aging and Physical Activity*, *2*(2), 143–181.

Dustman, R. E., Ruhling, R. O., Russell, E. M., Shearer, D. E., Bonekat, H. W., Shigeoka, J. W., … Bradford, D. C. (1984). Aerobic exercise training and improved neuropsychological function of older individuals. *Neurobiology of Aging*, *5*(1), 35–42.

Eckroth-Bucher, M., & Siberski, J. (2009). Preserving cognition through an integrated cognitive stimulation and training program. *American Journal of Alzheimer’s Disease and Other Dementias*, *24*(3), 234–245.

Edwards, J. D., Wadley, V. G., Myers, R. S., Roenker, D. L., Cissell, G. M., & Ball, K. K. (2002). Transfer of a speed of processing intervention to near and far cognitive functions. *Gerontology*, *48*(5), 329–340.

Edwards, J. D., Wadley, V. G., Vance, D. E., Wood, K., Roenker, D. L., & Ball, K. K. (2005). The impact of speed of processing training on cognitive and everyday performance. *Aging & Mental Health*, *9*(3), 262–271.

Eggermont, L. H., Gavett, B. E., Volkers, K. M., Blankevoort, C. G., Scherder, E. J., Jefferson, A. L.,

… Stern, R. A. (2010). Lower-extremity function in cognitively healthy aging, mild cognitive impairment, and Alzheimer’s disease. *Archives of Physical Medicine and Rehabilitation*, *91*(4), 584–588.

Eggermont, L. H., Milberg, W. P., Lipsitz, L. A., Scherder, E. J. A., & Leveille, S. G. (2009). Physical activity and executive function in aging: the MOBILIZE Boston study. *Journal of the American Geriatrics Society*, *57*(10), 1750–1756.

Ehsani, A. A., Ogawa, T., Miller, T. R., Spina, R. J., & Jilka, S. M. (1991). Exercise training improves left ventricular systolic function in older men. *Circulation*, *83*(1), 96–103.

Elkind, J. S., Rubin, E., Rosenthal, S., Skoff, B., & Prather, P. (2001). A simulated reality scenario compared with the computerized Wisconsin Card Sorting Test: an analysis of preliminary results. *CyberPsychology & Behavior*, *4*(4), 489–496.

Emery, C. F., Huppert, F. A., & Schein, R. L. (1995). Relationships among age, exercise, health, and cognitive function in a British sample. *The Gerontologist*, *35*(3), 378–385.

Erickson, K. I., Colcombe, S. J., Wadhwa, R., Bherer, L., Peterson, M. S., Scalf, P. E., … Kramer, A.

F. (2007). Training-induced plasticity in older adults: Effects of training on hemispheric asymmetry. *Neurobiology of Aging*, *28*(2), 272–283.

Erickson, K. I., Leckie, R. L., & Weinstein, A. M. (2014). Physical activity, fitness, and gray matter volume. *Neurobiology of Aging*, *35*, 20–28.

Erickson, K. I., Voss, M. W., Prakash, R. S., Basak, C., Szabo, A., Chaddock, L., … Kramer, A. F. (2011). Exercise training increases size of hippocampus and improves memory. *Proceedings of the National Academy of Sciences*, *108*(7), 3017–3022.

Etnier, J. L., Nowell, P. M., Landers, D. M., & Sibley, B. A. (2006). A meta-regression to examine the relationship between aerobic fitness and cognitive performance. *Brain Research Reviews*, *52*(1), 119–130.

Etnier, J. L., Salazar, W., Landers, D. M., Petruzzello, S. J., Han, M., & Nowell, P. (1997). The influence of physical fitness and exercise uponcognitive functioning: a meta analysis*. Journal of Sport, & Exercise Psychology*, 19(3), 249-277.

Etnier, J. L., Romero, D. H., & Traustadottir, T. (2001). Acquisition and retention of motor skills as a function of age and aerobic fitness. Journal of Aging and Physical Activity, 9, 425-437

Evans, D. A., Beckett, L. A., Albert, M. S., Hebert, L. E., Scherr, P. A., Funkenstein, H. H., & Taylor,

J. O. (1993). Level of education and change in cognitive function in a community population of older persons. *Annals of Epidemiology*, *3*(1), 71–77.

Evans, J. J., Greenfield, E., Wilson, B. A., & Bateman, A. (2009). Walking and talking therapy: Improving cognitive–motor dual-tasking in neurological illness. *Journal of the International Neuropsychological Society*, *15*(01), 112.

Eysenck, M. W., & Keane, M. T. (2000). *Cognitive Psychology: A Student’s Handbook*. Taylor & Francis.

Fabre, C., Chamari, K., Mucci, P., Missé-Biron, J., & Préfaut, C. (2002). Improvement of cognitive function by mental and/or individualized aerobic training in healthy elderly subjects. *International Journal of Sports Medicine*, *23*(6), 415–21.

Fabre, C., Massé-Biron, J., Ahmaidi, S., Adam, B., & Préfaut, C. (1997). Effectiveness of individualized aerobic training at the ventilatory threshold in the elderly. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *52*(5), B260–B266.

Fabre, C., Massé-Biron, J., Chamari, K., Varray, A., Mucci, P., & Préfaut, C. (1999). Evaluation of quality of life in elderly healthy subjects after aerobic and/or mental training. *Archives of Gerontology and Geriatrics*, *28*(1), 9–22.

Fabrigoule, C., Letenneur, L., Dartigues, J. F., Zarrouk, M., Commenges, D., & Barberger-Gateau, P. (1995). Social and leisure activities and risk of dementia: a prospective longitudinal study. *Journal of the American Geriatrics Society*, *43*(5), 485–490.

Farmer, M. E., Kittner, S. J., Rae, D. S., Bartko, J. J., & Regier, D. A. (1995). Education and change in cognitive function: The Epidemiologic Catchment Area Study. *Annals of Epidemiology*, *5*(1), 1–7.

Faucounau, V., Wu, Y. H., Boulay, M., De Rotrou, J., & Rigaud, A. S. (2010). Cognitive intervention programmes on patients affected by Mild Cognitive Impairment: a promising intervention tool for MCI? *The Journal of Nutrition, Health & Aging*, *14*(1), 31–35.

Feldman, H., Scheltens, P., Scarpini, E., Hermann, N., Mesenbrink, P., Mancione, L., … Ferris, S. (2004). Behavioral symptoms in mild cognitive impairment. *Neurology*, *62*(7), 1199–1201.

Fernández-Ballesteros, R., Zamarrón, M. D., & Tàrraga, L. (2005). Learning potential: a new method for assessing cognitive impairment. *International Psychogeriatrics / IPA*, *17*(1), 119–128.

Fissler, P., Küster, O., Schlee, W., & Kolassa, I.-T. (2013). Novelty interventions to enhance broad cognitive abilities and prevent dementia: synergistic approaches for the facilitation of positive plastic change. *Progress in Brain Research*, *207*, 403–434.

Flak, M. M., Hernes, S. S., Skranes, J., & Løhaugen, G. C. (2014). The Memory Aid study: protocol for a randomized controlled clinical trial evaluating the effect of computer-based working memory training in elderly patients with mild cognitive impairment (MCI). *Trials*, *15*(1), 1–7.

Flicker, C., Ferris, S. H., & Reisberg, B. (1991). Mild cognitive impairment in the elderly Predictors of dementia. *Neurology*, *41*(7), 1006–1006.

Flynn, T. M., & Storandt, M. (1990). Supplemental group discussions in memory training for older adults. *Psychology and Aging*, *5*(2), 178–181.

Folstein, M. F., Robins, L. N., & Helzer, J. E. (1983). The Mini-Mental State Examination. *Archives of General Psychiatry*, *40*(7), 812.

Fontaine, R. (2007). *Psychologie du vieillissement*. Paris : Dunod.

Frantzidis, C. A., Ladas, A.-K. I., Vivas, A. B., Tsolaki, M., & Bamidis, P. D. (2014). Cognitive and physical training for the elderly: Evaluating outcome efficacy by means of neurophysiological synchronization. *International Journal of Psychophysiology*, *93*(1), 1–11.

Fried, L. P., Tangen, C. M., Walston, J., Newman, A. B., Hirsch, C., Gottdiener, J., … Cardiovascular Health Study Collaborative Research Group. (2001). Frailty in older adults: evidence for a phenotype. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, *56*(3), M146–156.

Gagnon, L. G., & Belleville, S. (2012). Training of attentional control in mild cognitive impairment with executive deficits: Results from a double-blind randomised controlled study. *Neuropsychological Rehabilitation*, *22*(6), 809–835.

Gates, N., Fiatarone Singh, M. A., Sachdev, P. S., & Valenzuela, M. (2013). The effect of exercise training on cognitive function in older adults with Mild Cognitive Impairment: a meta-analysis of randomized controlled trials. *The American Journal of Geriatric Psychiatry*, *21*(11), 1086– 1097.

Gates, N., Valenzuela, M., Sachdev, P., & Singh, F. (2014). Psychological well-being in individuals with mild cognitive impairment. *Clinical Interventions in Aging*, 779.

Gauthier, S., Reisberg, B., Zaudig, M., Petersen, R. C., Ritchie, K., Broich, K., … others. (2006). Mild cognitive impairment. *The Lancet*, *367*(9518), 1262–1270.

Geda, Y. E., Knopman, D. S., Mrazek, D. A., Jicha, G. A., Smith, G. E., Negash, S., ... & Rocca, W.

1. (2006). Depression, apolipoprotein e genotype, and the incidence of mild cognitive impairment: A prospective cohort study. *Archives of Neurology*, *63*(3), 435–440.

Geda, Y. E., Roberts, R. O., Knopman, D. S., Christianson, T. J., Pankratz, V. S., Ivnik, R. J., … Rocca, W. A. (2010). Physical exercise, aging, and mild cognitive impairment: a population- based study. *Archives of Neurology*, *67*(1), 80–86.

Geschke, K., Fellgiebel, A., Laux, N., Schermuly, I., & Scheurich, A. (2013). Quality of life in dementia: impact of cognition and insight on applicability of the SF-36. *The American Journal of Geriatric Psychiatry: Official Journal of the American Association for Geriatric Psychiatry*, *21*(7), 646–654.

Ghisletta, P., Bickel, J.-F., & Lövdén, M. (2006). Does activity engagement protect against cognitive decline in old age? Methodological and analytical considerations. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *61*(5), 253–261.

Gilbert, S. J., & Burgess, P. W. (2008). Executive function. *Current Biology*, *18*(3), 110–114.

Gillain, S., Warzee, E., Lekeu, F., Wojtasik, V., Maquet, D., Croisier, J.-L., … Petermans, J. (2009). The value of instrumental gait analysis in elderly healthy, MCI or Alzheimer’s disease subjects and a comparison with other clinical tests used in single and dual-task conditions. *Annals of Physical and Rehabilitation Medicine*, *52*(6), 453–474.

Gobbi, L. T. B., Teixeira-Arroyo, C., Lirani-Silva, E., Vitório, R., Barbieri, F. A., & Pereira, M. P. (2013). Effect of different exercise programs on the psychological and cognitive functions of people with Parkinson’s disease. *Motriz: Revista de Educação Física*, *19*(3), 597–604.

Godefroya, O., Jeannerodb, M., Allainc, P., & Le Gallc, D. (2008). Lobe frontal, fonctions exécutives et controle cognitif Frontal lobe, executive functions and cognitive control. *Revue Neurologique*, *164*, S119–S127.

Godefroy, O. (2008). *Fonctions exécutives et pathologies neurologiques et psychiatriques: Évaluation en pratique clinique*. Groupe de Boeck.

Gold, D. P., Andres, D., Etezadi, J., Arbuckle, T., Schwartzman, A., & Chaikelson, J. (1995). Structural equation model of intellectual change and continuity and predictors of intelligence in older men. *Psychology and Aging*, *10*(2), 294–303.

Gomar JJ, Bobes-Bascaran MT, Conejero-Goldberg C, Davies P, Goldberg TE, & Alzheimer’s Disease Neuroimaging Initiative f. (2011). Utility of combinations of biomarkers, cognitive markers, and risk factors to predict conversion from mild cognitive impairment to alzheimer

disease in patients in the alzheimer’s disease neuroimaging initiative. *Archives of General Psychiatry*, *68*(9), 961–969.

Gomes, G. de C., Teixeira-Salmela, L. F., Fonseca, B. E., Freitas, F. A. S. de, Fonseca, M. L. M., Pacheco, B. D., … Caramelli, P. (2015). Age and education influence the performance of elderly women on the dual-task Timed Up and Go test. *Arquivos De Neuro-Psiquiatria*, *73*(3), 187–193.

Gómez-Pinilla, F., Dao, L., & So, V. (1997). Physical exercise induces FGF-2 and its mRNA in the hippocampus. *Brain Research*, *764*(1-2), 1–8.

González-Palau, F., Franco, M., Bamidis, P., Losada, R., Parra, E., Papageorgiou, S. G., & Vivas, A.

1. (2014). The effects of a computer-based cognitive and physical training program in a healthy and mildly cognitive impaired aging sample. *Aging & Mental Health*, *18*(7), 838–846.

Grande, G., Vanacore, N., Maggiore, L., Cucumo, V., Ghiretti, R., Galimberti, D., … Clerici, F. (2014). Physical activity reduces the risk of dementia in mild cognitive impairment subjects: a cohort study. *Journal of Alzheimer’s Disease: JAD*, *39*(4), 833–839.

Greenaway, M. C., Hanna, S. M., Lepore, S. W., & Smith, G. E. (2008). A behavioral rehabilitation intervention for amnestic mild cognitive impairment. *American Journal of Alzheimer’s Disease and Other Dementias*, *23*(5), 451–461.

Greenwood, P. M., & Parasuraman, R. (2010). Neuronal and cognitive plasticity: a neurocognitive framework for ameliorating cognitive aging. *Frontiers in Aging Neuroscience*, *2*, 150.

Günther, V. K., Schäfer, P., Holzner, B. J., & Kemmler, G. W. (2003). Long-term improvements in cognitive performance through computer-assisted cognitive training: A pilot study in a residential home for older people. *Aging & Mental Health*, *7*(3), 200–206.

Guralnik, J. M., Ferrucci, L., Pieper, C. F., Leveille, S. G., Markides, K. S., Ostir, G. V., … Wallace,

R. B. (2000). Lower extremity function and subsequent disability: consistency across studies, predictive models, and value of gait speed alone compared with the short physical performance battery. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, *55*(4), 221–231.

Hall, C. D., Smith, A. L., & Keele, S. W. (2001). The impact of aerobic activity on cognitive function in older adults: A new synthesis based on the concept of executive control. *European Journal of Cognitive Psychology*, *13*(1-2), 279–300.

Hamer, M., & Chida, Y. (2009). Physical activity and risk of neurodegenerative disease: a systematic review of prospective evidence. *Psychological Medicine*, *39*(01), 3.

Hampstead, B. M., Sathian, K., Moore, A. B., Nalisnick, C., & Stringer, A. Y. (2008). Explicit memory training leads to improved memory for face–name pairs in patients with mild cognitive impairment: Results of a pilot investigation. *Journal of the International Neuropsychological Society*, *14*(05), 883–889.

Hartley, A. A., Kieley, J., & McKenzie, C. R. (1992). Allocation of visual attention in younger and older adults. *Perception & Psychophysics*, *52*(2), 175–185.

Hasher, L., & Zacks, R. T. (1988). Working memory, comprehension, and aging: a review and a new view. In G. H. Bower (Ed.), *Psychology of Learning and Motivation* (Vol. 22, pp. 193–225). Academic Press.

Hasher, L., Zacks, R. T., & May, C. P. (1999). Inhibitory control, circadian arousal, and age. In hibitory control, circadian arousal, D. Gopher, & A. Koriat (Eds.), *Attention and performance XVII: Cognitive regulation of performance: Interaction of theory and application* (pp. 653– 675). Cambridge, MA, US: The MIT Press.

Hastings, E. C., & West, R. L. (2009). The relative success of a self-help and a group-based memory training program for older adults. *Psychology and Aging*, *24*(3), 586–594.

Haute Autorité de Santé. (2009). *Maladie t maladies apparentées : prise en charge des troubles du comportement perturbateurs.*

Hauer, K. A., Kempen, G. I. J. M., Schwenk, M., Yardley, L., Beyer, N., Todd, C., … Zijlstra, G. A.

R. (2010). Validity and sensitivity to change of the falls efficacy scales international to assess fear of falling in older adults with and without cognitive impairment. *Gerontology*.

Hausdorff, J. M., & Buchman, A. S. (2013). What links gait speed and MCI with Dementia? a fresh look at the association between motor and cognitive function. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *68*(4), 409–411.

Hausdorff, J. M., Schweiger, A., Herman, T., Yogev-Seligmann, G., & Giladi, N. (2008). Dual-task decrements in gait: contributing factors among healthy older adults. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *63*(12), 1335–1343.

Hawkins, H. L., Kramer, A. F., & Capaldi, D. (1992). Aging, exercise, and attention. *Psychology and Aging*, *7*(4), 643.

Hawkins, S., & Wiswell, R. (2003). Rate and mechanism of maximal oxygen consumption decline with aging: implications for exercise training. *Sports Medicine (Auckland, N.Z.)*, *33*(12), 877– 888.

Hazif-Thomas, C., Reber, G., Bonvalot, T., & Thomas, P. (2005). Syndrome dysexécutif et dépression tardive. *Annales Médico-psychologiques, revue psychiatrique*, *163*(7), 569–576.

Heath, G. W., Hagberg, J. M., Ehsani, A. A., & Holloszy, J. O. (1981). A physiological comparison of young and older endurance athletes. *Journal of Applied Physiology: Respiratory, Environmental and Exercise Physiology*, *51*(3), 634–640.

Herman, T., Mirelman, A., Giladi, N., Schweiger, A., & Hausdorff, J. M. (2010). Executive control deficits as a prodrome to falls in healthy older adults: a prospective study linking thinking, walking, and falling. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *65A*(10), 1086–1092.

Herrera, C., Chambon, C., Michel, B. F., Paban, V., & Alescio-Lautier, B. (2012). Positive effects of computer-based cognitive training in adults with mild cognitive impairment. *Neuropsychologia*, *50*(8), 1871–1881.

Hertzog, C., Kramer, A. F., Wilson, R. S., & Lindenberger, U. (2008). Enrichment effects on adult cognitive development can the functional capacity of older adults be preserved and enhanced? *Psychological Science in the Public Interest*, *9*(1), 1–65.

Herzog, M. H., & Fahle, M. (1997). The role of feedback in learning a vernier discrimination task.

*Vision Research*, *37*(15), 2133–2141.

Heyn, P., Abreu, B. C., & Ottenbacher, K. J. (2004). The effects of exercise training on elderly persons with cognitive impairment and dementia: A meta-analysis. *Archives of Physical Medicine and Rehabilitation*, *85*(10), 1694–1704.

Hillman, C. H., Snook, E. M., & Jerome, G. J. (2003). Acute cardiovascular exercise and executive control function. *International Journal of Psychophysiology*, *48*(3), 307–314.

Hillman, C. H., Weiss, E. P., Hagberg, J. M., & Hatfield, B. D. (2002). The relationship of age and cardiovascular fitness to cognitive and motor processes. *Psychophysiology*, *39*(3), 303–312.

Hillman, C., Kramer, A., Belopolsky, A., & Smith, D. (2006). A cross-sectional examination of age and physical activity on performance and event-related brain potentials in a task switching paradigm. *International Journal of Psychophysiology*, *59*(1), 30–39.

Hill, R. D., Storandt, M., & Malley, M. (1993). The impact of long-term exercise training on psychological function in older adults. *Journal of Gerontology*, *48*(1), 12–17.

Holtzer, R., Friedman, R., Lipton, R. B., Katz, M., Xue, X., & Verghese, J. (2007). The relationship between specific cognitive functions and falls in aging. *Neuropsychology*, *21*(5), 540–548.

Horr, T., Messinger-Rapport, B., & Pillai, J. A. (2015). Systematic review of strengths and limitations of randomized controlled trials for non-pharmacological interventions in mild cognitive impairment: focus on Alzheimer’s disease. *The Journal of Nutrition, Health & Aging*, *19*(2), 141–153.

Hötting, K., & Röder, B. (2013). Beneficial effects of physical exercise on neuroplasticity and cognition. *Neuroscience & Biobehavioral Reviews*, *37*(9), 2243–2257.

Howley, E. T. (2001). Type of activity: resistance, aerobic and leisure versus occupational physical activity. *Medicine and Science in Sports and Exercise*, *33*(6), 364–369.

Huckans, M., Hutson, L., Twamley, E., Jak, A., Kaye, J., & Storzbach, D. (2013). Efficacy of cognitive rehabilitation therapies for Mild Cognitive Impairment (MCI) in older adults: working toward a theoretical model and evidence-based interventions. *Neuropsychology Review*, *23*(1), 63–80.

Hughes, S. L., Seymour, R. B., Campbell, R. T., Whitelaw, N., & Bazzarre, T. (2009). Best-practice physical activity programs for older adults: findings from the national impact study. *American Journal of Public Health*, *99*(2), 362–368.

Hultsch, D. F., Hertzog, C., Small, B. J., & Dixon, R. A. (1999). Use it or lose it: engaged lifestyle as a buffer of cognitive decline in aging? *Psychology and Aging*, *14*(2), 245.

Hupet, M., & Van der Linden, M. (1994). L'étude du vieillissement cognitif : Aspects théoriques et méthodologiques. In M. Van der Linden & M. Hupet (Eds.), *Le vieillissement cognitif* (pp. 9- 35). Paris : Presses Universitaires de France.

Huxhold, O., Li, S.-C., Schmiedek, F., & Lindenberger, U. (2006). Dual-tasking postural control: Aging and the effects of cognitive demand in conjunction with focus of attention. *Brain Research Bulletin*, *69*(3), 294–305.

Isingrini, M., & Kaplan, E. (2004). Fonctions exécutives, mémoire et métamémoire dans le vieillissement normal. In T. Meulemans, F. Collette, & M. Van der Linden (Eds.), *Neuropsychologie des fonctions exécutives* (pp. 79-108). Marseille : Solal.

Jean, L., Simard, M., Wiederkehr, S., Bergeron, M.-È., Turgeon, Y., Hudon, C., … van Reekum, R. (2010). Efficacy of a cognitive training programme for mild cognitive impairment: Results of a randomised controlled study. *Neuropsychological Rehabilitation*, *20*(3), 377–405.

Jones, C., & Hammig, B. (2009). Case report: injuries associated with interactive game consoles: preliminary data. *The Physician and Sportsmedicine*, *37*(1), 138–140.

Jones, S., Nyberg, L., Sandblom, J., Stigsdotter Neely, A., Ingvar, M., Magnus Petersson, K., & Bäckman, L. (2006). Cognitive and neural plasticity in aging: General and task-specific limitations. *Neuroscience & Biobehavioral Reviews*, *30*(6), 864–871.

Jopp, D., & Hertzog, C. (2007). Activities, self-referent memory beliefs, and cognitive performance: Evidence for direct and mediated relations. *Psychology and Aging*, *22*(4), 811–825.

Kalpouzos, G., Eustache, F., & Desgranges, B. (2008). Cognitive reserve and neural networks in normal aging and Alzheimer’s disease. *Psychologie & Neuropsychiatrie Du Vieillissement*, *6*(2), 97–105.

Karp, A., Paillard-Borg, S., Wang, H.-X., Silverstein, M., Winblad, B., & Fratiglioni, L. (2006). Mental, physical and social components in leisure activities equally contribute to decrease dementia risk. *Dementia and Geriatric Cognitive Disorders*, *21*(2), 65–73.

Katzman, R., Aronson, M., Fuld, P., Kawas, C., Brown, T., Morgenstern, H., ... & Ooi, W. L. (1989). Development of dementing illnesses in an 80‐year‐old volunteer cohort. *Annals of neurology*, *25*(4), 317-324.

Kelly, M. E., Loughrey, D., Lawlor, B. A., Robertson, I. H., Walsh, C., & Brennan, S. (2014). The impact of cognitive training and mental stimulation on cognitive and everyday functioning of healthy older adults: A systematic review and meta-analysis. *Ageing Research Reviews*, *15*, 28–43.

Kempermann, G., Fabel, K., Ehninger, D., Babu, H., Leal-Galicia, P., Garthe, A., & Wolf, S. A. (2010). Why and how physical activity promotes experience-induced brain plasticity. *Frontiers in Neuroscience*, *4*.

Kempermann, G., Gast, D., & Gage, F. H. (2002). Neuroplasticity in old age: Sustained fivefold induction of hippocampal neurogenesis by long-term environmental enrichment. *Annals of Neurology*, *52*(2), 135–143.

Kemper, S., Herman, R. E., & Lian, C. H. T. (2003). The costs of doing two things at once for young and older adults: Talking while walking, finger tapping, and ignoring speech of noise. *Psychology and Aging*, *18*(2), 181–192.

King, A. C., Pruitt, L. A., Philipps, W., Ora, R., Rodenburg, A., & Haskell, W. L. (2000). Comparative effects of two physical activity programs on measured andperceived physical functioning and other health-related quality of lifeoutcomes in older adults. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *55*(2), 74–83.

Kinsella, G. J., Mullaly, E., Rand, E., Ong, B., Burton, C., Price, S., … Storey, E. (2009). Early intervention for mild cognitive impairment: a randomised controlled trial. *Journal of Neurology, Neurosurgery & Psychiatry*, *80*(7), 730–736.

Kirchhoff, B. A., Anderson, B. A., Smith, S. E., Barch, D. M., & Jacoby, L. L. (2012). Cognitive training-related changes in hippocampal activity associated with recollection in older adults. *NeuroImage*, *62*(3), 1956–1964.

Kriska, A. M. (1997). Modifiable Activity Questionnaire. *Medicine and Science in Sports and Exercise, 29*, 73-78

Kliegel, M., Zimprich, D., & Rott, C. (2004). Life-long intellectual activities mediate the predictive effect of early education on cognitive impairment in centenarians: a retrospective study. *Aging & Mental Health*, *8*(5), 430–437.

Kline, G. M., Porcari, J. P., Hintermeister, R., Freedson, P. S., Ward, A., McCarron, R. F., … Rippe, J.

M. (1987). Estimation of VO2max from a one-mile track walk, gender, age, and body weight.

*Medicine and Science in Sports and Exercise*, *19*(3), 253–259.

Knowles, A.-M., Herbert, P., Easton, C., Sculthorpe, N., & Grace, F. M. (2015). Impact of low- volume, high-intensity interval training on maximal aerobic capacity, health-related quality of life and motivation to exercise in ageing men. *Age*, *37*(2), 25.

Kolt, G. S., Driver, R. P., & Giles, L. C. (2004). Why older australians participate in exercise and sport. *Journal of Aging and Physical Activity*, *12*(2), 185–198.

Kraft, E. (2012). Cognitive function, physical activity, and aging: possible biological links and implications for multimodal interventions. *Aging, Neuropsychology, and Cognition*, *19*(1-2), 248–263.

Kramer, A. F. (2006). Exercise, cognition, and the aging brain. *Journal of Applied Physiology*, *101*(4), 1237–1242.

Kramer, A. F., Bherer, L., Colcombe, S. J., Dong, W., & Greenough, W. T. (2004). Environmental influences on cognitive and brain plasticity during aging. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, *59*(9), 940–957.

Kramer, A. F., Colcombe, S., Erickson, K., Belopolsky, A., McAuley, E., Cohen, N. J., … Wszalek, T.

M. (2002). Effects of aerobic fitness training on human cortical function. *Journal of Molecular Neuroscience*, *19*(1-2), 227–231.

Kramer, A. F., Colcombe, S. J., McAuley, E., Scalf, P. E., & Erickson, K. I. (2005). Fitness, aging and neurocognitive function. *Neurobiology of Aging*, *26*(1), 124–127.

Kramer, A. F., & Erickson, K. I. (2007). Effects of physical activity on cognition, well-being, and brain: Human interventions. *Alzheimer’s & Dementia*, *3*(2), 45–51.

Kramer, A. F., Hahn, S., Cohen, N. J., Banich, M. T., McAuley, E., Harrison, C. R., … Colcombe, A. (1999). Ageing, fitness and neurocognitive function. *Nature*, *400*(6743), 418–419.

Kramer, A. F., Hahn, S., & McAuley, E. (2000). Influence of aerobic fitness on the neurocognitive function of older adults. *Journal of Aging and Physical Activity, 8*, 379-385.

Kramer, A. F., Hahn, S., & Gopher, D. (1999). Task coordination and aging: Explorations of executive control processes in the task switching paradigm. *Acta Psychologica*, *101*(2), 339–378.

Kramer, A. F., Hahn, S., McAuley, E., Cohen, N. J., Banich, M. T., Harrison, C., … others. (2001). Exercise, aging and cognition: healthy body, healthy mind. *Human Factors Interventions for the Health Care of Older Adults*, 91–120.

Kramer, A. F., Larish, J. F., & Strayer, D. L. (1995). Training for attentional control in dual task settings: a comparison of young and old adults. *Journal of Experimental Psychology: Applied*, *1*(1), 50–76.

Kramer, A. F., & Willis, S. L. (2003). *Cognitive Plasticity and Aging. In B.-P. of L. and Motivation*

(Ed.), (Vol. 43, pp. 267–302). Academic Press.

Kressig, R. W., Allali, G., & Beauchet, O. (2005). Long-term practice of Jaques-Dalcroze eurhythmics prevents age-related increase of gait variability under a dual task. *Journal of the American Geriatrics Society*, *53*(4), 728–729.

Kriska, A. M., Knowler, W. C., LaPorte, R. E., Drash, A. L., Wing, R. R., Blair, S. N., … Kuller, L.

H. (1990). Development of questionnaire to examine relationship of physical activity and diabetes in Pima Indians. *Diabetes Care*, *13*(4), 401–411.

Kristensen, M. T., Foss, N. B., & Kehlet, H. (2009). Factors with independent influence on the “timed up and go” test in patients with hip fracture. *Physiotherapy Research International: The Journal for Researchers and Clinicians in Physical Therapy*, *14*(1), 30–41.

Kubicki, A. (2014). Functional assessment in older adults: Should we use timed up and go or gait speed test? *Neuroscience Letters*, *577*, 89–94.

Kueider, A. M., Parisi, J. M., Gross, A. L., & Rebok, G. W. (2012). Computerized cognitive training with older adults: A systematic review. *PLoS ONE*, *7*(7), e40588.

Kurz, A., Pohl, C., Ramsenthaler, M., & Sorg, C. (2009). Cognitive rehabilitation in patients with mild cognitive impairment. *International Journal of Geriatric Psychiatry*, *24*(2), 163–168.

Lacour, M., Bernard-Demanze, L., & Dumitrescu, M. (2008). Posture control, aging, and attention resources: Models and posture-analysis methods. *Neurophysiologie Clinique/Clinical Neurophysiology*, *38*(6), 411–421.

Lajoie, Y., Teasdale, N., Bard, C., & Fleury, M. (1993). Attentional demands for static and dynamic equilibrium. *Experimental Brain Research*, *97*(1), 139–144.

Lamar, M., Swenson, R., Kaplan, E., & Libon, D. J. (2004). Characterizing alterations in executive functioning across distinct subtypes of cortical and subcortical dementia. *The Clinical Neuropsychologist*, *18*(1), 22–31.

Langa, K. M., & Levine, D. A. (2014). The diagnosis and management of mild cognitive impairment: a clinical review. *JAMA*, *312*(23), 2551–2561.

Lapre, E. (2010). *Maladie d’Alzheimer et thérapies non médicamenteuses: évaluation de la stimulation cognitive et de l’activité physique sur le fonctionnement exécutif* (Thèse de doctorat). Université Bordeaux 2.

Larson, E. B., Wang, L., Bowen, J. D., McCormick, W. C., Teri, L., Crane, P., & Kukull, W. (2006). Exercise Is Associated with Reduced Risk for Incident Dementia among Persons 65 Years of Age and Older. *Annals of Internal Medicine*, *144*(2), 73–81.

La Rue, A. (2010). Healthy brain aging: role of cognitive reserve, cognitive stimulation, and cognitive exercises. *Clinics in Geriatric Medicine*, *26*(1), 99–111.

Laurin D, Verreault R, Lindsay J, MacPherson K, & Rockwood K. (2001). PHysical activity and risk of cognitive impairment and dementia in elderly persons. *Archives of Neurology*, *58*(3), 498– 504.

Law, L. L. F., Barnett, F., Yau, M. K., & Gray, M. A. (2014a). Effects of combined cognitive and exercise interventions on cognition in older adults with and without cognitive impairment: A systematic review. *Ageing Research Reviews*, *15*, 61–75.

Law, L. L. F., Barnett, F., Yau, M. K., & Gray, M. A. (2014b). Effects of functional tasks exercise on older adults with cognitive impairment at risk of Alzheimer’s disease: a randomised controlled trial. *Age and Ageing*, *43*(6), 813–820.

Lee, H., Boot, W. R., Basak, C., Voss, M. W., Prakash, R. S., Neider, M., … Kramer, A. F. (2012). Performance gains from directed training do not transfer to untrained tasks. *Acta Psychologica*, *139*(1), 146–158.

Legault, C., Jennings, J. M., Katula, J. A., Dagenbach, D., Gaussoin, S. A., Sink, K. M., … others. (2011). Designing clinical trials for assessing the effects of cognitive training and physical activity interventions on cognitive outcomes: The Seniors Health and Activity Research Program Pilot (SHARP-P) Study, a randomized controlled trial. *BMC Geriatrics*, *11*(1), 27.

Lemaire, P., & Bherer, L. (2005). *Psychologie du vieillissement: une perspective cognitive*. De Boeck Supérieur.

Lévy, R. (2006). Cortex préfrontal et fonctions exécutives : Organisation anatomo-fonctionnelle chez le sujet sain et réorganisation chez le patient cérébrolésé. In Pradat-Diehl, P., Azouvi, P., Brun,

V. (Eds.). *Fonctions Exécutives et Rééducation*, (pp. 21-34). Masson. Paris.

Li, H., Li, J., Li, N., Li, B., Wang, P., & Zhou, T. (2011). Cognitive intervention for persons with mild cognitive impairment: A meta-analysis. *Ageing Research Reviews*, *10*(2), 285–296.

Li, K. Z. H., & Lindenberger, U. (2002). Relations between aging sensory/sensorimotor and cognitive functions. *Neuroscience and Biobehavioral Reviews*, *26*(7), 777–783.

Li, K. Z., Lindenberger, U., Freund, A. M., & Baltes, P. B. (2001). Walking while memorizing: age- related differences in compensatory behavior. *Psychological Science*, *12*(3), 230–237.

Li, K. Z., Roudaia, E., Lussier, M., Bherer, L., Leroux, A., & McKinley, P. A. (2010). Benefits of cognitive dual-task training on balance performance in healthy older adults. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *65*(12), 1344–1352.

Linde, K., & Alfermann, D. (2013). Single Versus Combined Cognitive and Physical Activity Effects on Fluid. *Journal of Aging and Physical Activity Acceptance Date: June 10, 2013 2013 Human Kinetics, Inc*, 3.

Lin, M.-R., Hwang, H.-F., Hu, M.-H., Wu, H.-D. I., Wang, Y.-W., & Huang, F.-C. (2004).

Psychometric comparisons of the timed up and go, one-leg stand, functional reach, and Tinetti balance measures in community-dwelling older people. *Journal of the American Geriatrics Society*, *52*(8), 1343–1348.

Li, S.-C., Schmiedek, F., Huxhold, O., Röcke, C., Smith, J., & Lindenberger, U. (2008). Working memory plasticity in old age: Practice gain, transfer, and maintenance. *Psychology and Aging*, *23*(4), 731–742.

Liu-Ambrose, T. (2010). Resistance Training and Executive Functions: A 12-Month Randomized Controlled Trial. *Archives of Internal Medicine*, *170*(2), 170.

Logan, J. M., Sanders, A. L., Snyder, A. Z., Morris, J. C., & Buckner, R. L. (2002). Under-recruitment and nonselective recruitment: dissociable neural mechanisms associated with aging. *Neuron*, *33*(5), 827–840.

Londos, E., Boschian, K., Linden, A., Persson, C., Minthon, L., & Lexell, J. (2008). Effects of a goal- oriented rehabilitation program in mild cognitive impairment: A Pilot Study. *American Journal of Alzheimer’s Disease and Other Dementias*, *23*(2), 177–183.

Lövdén, M., Bäckman, L., Lindenberger, U., Schaefer, S., & Schmiedek, F. (2010). A theoretical framework for the study of adult cognitive plasticity. *Psychological Bulletin*, *136*(4), 659–676.

Lundin-Olsson, L., Nyberg, L., & Gustafson, Y. (1997). “Stops walking when talking” as a predictor of falls in elderly people. *The Lancet*, *349*(9052), 617.

Lussier, M., Gagnon, C., & Bherer, L. (2012). An investigation of response and stimulus modality transfer effects after dual-task training in younger and older. *Frontiers in Human Neuroscience*, *6*.

Lustig, C., Shah, P., Seidler, R., & Reuter-Lorenz, P. A. (2009). Aging, training, and the brain: A review and future directions. *Neuropsychology Review*, *19*(4), 504–522.

Lyketsos, C. G., Chen, L. S., & Anthony, J. C. (1999). Cognitive decline in adulthood: an 11.5-year follow-up of the Baltimore Epidemiologic Catchment Area study. *The American Journal of Psychiatry*, *156*(1), 58–65.

Lyketsos CG, Lopez O, Jones B, Fitzpatrick AL, Breitner J, & DeKosky S. (2002). Prevalence of neuropsychiatric symptoms in dementia and mild cognitive impairment: Results from the cardiovascular health study. *JAMA*, *288*(12), 1475–1483.

Mackinnon, A., Christensen, H., Hofer, S. M., Korten, A. E., & Jorm, A. F. (2003). Use it and still lose it? The association between activity and cognitive performance established using latent growth techniques in a community sample. *Aging, Neuropsychology, and Cognition*, *10*(3), 215–229.

Mahncke, H. W., Connor, B. B., Appelman, J., Ahsanuddin, O. N., Hardy, J. L., Wood, R. A., … Merzenich, M. M. (2006). Memory enhancement in healthy older adults using a brain plasticity-based training program: a randomized, controlled study. *Proceedings of the National Academy of Sciences*, *103*(33), 12523–12528.

Maki, B. E. (1997). Gait changes in older adults: predictors of falls or indicators of fear. *Journal of the American Geriatrics Society*, *45*(3), 313–320.

Makizako, H., Doi, T., Shimada, H., Yoshida, D., Takayama, Y., & Suzuki, T. (2013). Relationship between dual-task performance and neurocognitive measures in older adults with mild cognitive impairment: Dual-task and neurocognitive measures. *Geriatrics & Gerontology International*, *13*(2), 314–321.

Makizako, H., Doi, T., Shimada, H., Yoshida, D., Tsutsumimoto, K., Uemura, K., & Suzuki, T. (2012). Does a multicomponent exercise program improve dual-task performance in amnestic mild cognitive impairment? A randomized controlled trial. *Aging Clinical and Experimental Research*, *24*(6), 640–646.

Maquestiaux, F., Laguë-Beauvais, M., Ruthruff, E., Hartley, A., & Bherer, L. (2010). Learning to bypass the central bottleneck: Declining automaticity with advancing age. *Psychology and Aging*, *25*(1), 177–192.

Marioni, R. E., Chatfield, M., Brayne, C., Matthews, F. E., & Medical Research Council Cognitive Function and Ageing Study Group. (2011). The reliability of assigning individuals to cognitive states using the Mini Mental-State Examination: a population-based prospective cohort study. *BMC Medical Research Methodology*, *11*, 127.

Marmeleira, J. F., Godinho, M. B., & Fernandes, O. M. (2009). The effects of an exercise program on several abilities associated with driving performance in older adults. *Accident Analysis & Prevention*, *41*(1), 90–97.

Martin, M., Clare, L., Altgassen, A. M., Cameron, M. H., & Zehnder, F. (2011). Cognition-based interventions for healthy older people and people with mild cognitive impairment. In The Cochrane Collaboration (Ed.), *Cochrane Database of Systematic Reviews*. Chichester, UK: John Wiley & Sons, Ltd.

Maylor, E. A., & Wing, A. M. (1996). Age differences in postural stability are increased by additional cognitive demands. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *51*(3), 143–154.

Mazaheri, M., Roerdink, M., Bood, R. J., Duysens, J., Beek, P. J., & Peper, C. (Lieke) E. (2014). Attentional costs of visually guided walking: Effects of age, executive function and stepping- task demands. *Gait & Posture*, *40*(1), 182–186.

McAuley, E., Kramer, A. F., & Colcombe, S. J. (2004). Cardiovascular fitness and neurocognitive function in older Adults: a brief review. *Brain, Behavior, and Immunity*, *18*(3), 214–220.

McDougall, G. J., Becker, H., Pituch, K., Acee, T. W., Vaughan, P. W., & Delville, C. L. (2010). The seniorWISE study: improving everyday memory in older adults. *Archives of Psychiatric Nursing*, *24*(5), 291–306.

McDowd, J. M., & Shaw, R. J. (2000). Attention and aging: A functional perspective. In F. I. M. Craik & T. A. Salthouse (Eds.), *The handbook of aging and cognition (2nd ed.)* (pp. 221–292). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

McGough, E. L., Kelly, V. E., Logsdon, R. G., McCurry, S. M., Cochrane, B. B., Engel, J. M., & Teri,

L. (2011). Associations between physical performance and executive function in older adults with mild cognitive impairment: gait speed and the Timed “Up & Go” test. *Physical Therapy*, *91*(8), 1198–1207.

McKhann, G.M. (2002). Neurology: Then, now, and in the future. *Archives of Neurology*, *59*(9), 1369–1373.

Mehrabian, S., Extra, J., Pino, M., Traykov, L., Rigaud, A.-S., & Wu, Y.-H. (2014). The perceptions of cognitively impaired patients and their caregivers of a home telecare system. *Medical Devices: Evidence and Research*, 21.

Menant, J. C., Schoene, D., Sarofim, M., & Lord, S. R. (2014). Single and dual task tests of gait speed are equivalent in the prediction of falls in older people: A systematic review and meta- analysis. *Ageing Research Reviews*, *16*, 83–104.

Mercado, E. (2008). Neural and cognitive plasticity: from maps to minds. *Psychological Bulletin*, *134*(1), 109–137.

Meulemans, T., Collette, F., & Van der Linden, M. (2004). *Neuropsychologie des fonctions exécutives*. Solal.

Mian, O. S., Baltzopoulos, V., Minetti, A. E., & Narici, M. V. (2007). The impact of physical training on locomotor function in older people. *Sports Medicine (Auckland, N.Z.)*, *37*(8), 683–701.

Miller, K. J., Dye, R. V., Kim, J., Jennings, J. L., O’Toole, E., Wong, J., & Siddarth, P. (2013). Effect of a computerized brain exercise program on cognitive performance in older adults. *The American Journal of Geriatric Psychiatry*, *21*(7), 655–663.

Miller, K. J., Siddarth, P., Gaines, J. M., Parrish, J. M., Ercoli, L. M., Marx, K., … Small, G. W. (2012). The memory fitness program: cognitive effects of a healthy aging intervention. *The American Journal of Geriatric Psychiatry*, *20*(6), 514–523.

Mirelman, A., Herman, T., Brozgol, M., Dorfman, M., Sprecher, E., Schweiger, A., … Hausdorff, J.

M. (2012). Executive function and falls in older adults: new findings from a five-year prospective study link fall risk to cognition. *PLoS ONE*, *7*(6), e40297.

Miyake, A., Friedman, N. P., Emerson, M. J., Witzki, A. H., Howerter, A., & Wager, T. D. (2000). The unity and diversity of executive functions and their contributions to complex “Frontal Lobe” tasks: a latent variable analysis. *Cognitive Psychology*, *41*(1), 49–100.

Modrego, P. J., & Ferrández J. (2004). Depression in patients with mild cognitive impairment increases the risk of developing dementia of alzheimer type: A prospective cohort study. *Archives of Neurology*, *61*(8), 1290–1293.

Montero-Odasso, M., Casas, A., Hansen, K. T., Bilski, P., Gutmanis, I., Wells, J. L., & Borrie, M. J. (2009). Quantitative gait analysis under dual-task in older people with mild cognitive impairment: a reliability study. *Journal of NeuroEngineering and Rehabilitation*, *6*(1), 35.

Montero-Odasso, M., Muir, S. W., Hall, M., Doherty, T. J., Kloseck, M., Beauchet, O., & Speechley,

M. (2011). Gait variability is ssociated with frailty in community-dwelling older adults. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *66A*(5), 568– 576.

Montero-Odasso, M., Schapira, M., Soriano, E. R., Varela, M., Kaplan, R., Camera, L. A., & Mayorga, L. M. (2005). Gait velocity as a single predictor of adverse events in healthy seniors aged 75 years and older. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, *60*(10), 1304–1309.

Montero-Odasso, M., Verghese, J., Beauchet, O., & Hausdorff, J. M. (2012). Gait and Cognition: A Complementary Approach to understanding brain function and the risk of falling. *Journal of the American Geriatrics Society, 60(11),* 2127-2136*.*

Montero-Odasso, M., Wells, J. L., Borrie, M. J., & Speechley, M. (2009). Can cognitive enhancers reduce the risk of falls in older people with Mild Cognitive Impairment? A protocol for a randomised controlled double blind trial. *BMC Neurology*, *9*(1), 42.

Moreau, D., & Conway, A. R. A. (2014). The case for an ecological approach to cognitive training.

*Trends in Cognitive Sciences*, *18*(7), 334–336.

Moreau, D., Morrison, A. B., & Conway, A. R. A. (2015). An ecological approach to cognitive enhancement: Complex motor training. *Acta Psychologica*, *157*, 44–55.

Moro, V., Condoleo, M. T., Valbusa, V., Broggio, E., Moretto, G., & Gambina, G. (2015). Cognitive stimulation of executive functions in mild cognitive impairment: specific efficacy and impact in memory. *American Journal of Alzheimer’s Disease and Other Dementias*, *30*(2), 153–164.

Mourey, F., & Manckoundia, P. (2009). Les démences: quels troubles de la marche? Quelles perspectives en rééducation? *Kinésithérapie, La Revue*, *9*(85), 80.

Mozolic, J. L., Long, A. B., Morgan, A. R., Rawley-Payne, M., & Laurienti, P. J. (2011). A cognitive training intervention improves modality-specific attention in a randomized controlled trial of healthy older adults. *Neurobiology of Aging*, *32*(4), 655–668.

Muir, S. W., Speechley, M., Wells, J., Borrie, M., Gopaul, K., & Montero-Odasso, M. (2012). Gait assessment in mild cognitive impairment and Alzheimer’s disease: The effect of dual-task challenges across the cognitive spectrum. *Gait & Posture*, *35*(1), 96–100.

Nagamatsu, L. S., Handy, T. C., Hsu, C. L., Voss, M., & Liu-Ambrose, T. (2012). Resistance training promotes cognitive and functional brain plasticity in seniors with probable mild cognitive impairment. *Archives of Internal Medicine*, *172*(8), 666–668.

Nasreddine, Z. S., Phillips, N. A., Bédirian, V., Charbonneau, S., Whitehead, V., Collin, I., … Chertkow, H. (2005). The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment. *Journal of the American Geriatrics Society*, *53*(4), 695–699.

Newson, R. S., & Kemps, E. B. (2005). General lifestyle activities as a predictor of current cognition and cognitive change in older adults: a cross-sectional and longitudinal examination. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, *60*(3), 113– 120.

Noack, H., Lövdén, M., Schmiedek, F., & Lindenberger, U. (2009). Cognitive plasticity in adulthood and old age: gauging the generality of cognitive intervention effects. *Restorative Neurology and Neuroscience*, *27*(5), 435–453.

Novella, J.-L., Dhaussy, G., Wolak, A., Morrone, I., Drame, M., Blanchard, F., & Jolly, D. (2012). Quality of life in dementia: state of the knowledge. *Gériatrie Et Psychologie Neuropsychiatrie Du Vieillissement*, *10*(4), 365–372.

Nyberg, L., Sandblom, J., Jones, S., Neely, A. S., Petersson, K. M., Ingvar, M., & Bäckman, L. (2003). Neural correlates of training-related memory improvement in adulthood and aging. *Proceedings of the National Academy of Sciences*, *100*(23), 13728–13733.

Öhman, H., Savikko, N., Strandberg, T. E., & Pitkälä, K. H. (2014). Effect of physical exercise on cognitive performance in older adults with mild cognitive impairment or dementia: a systematic review. *Dementia and Geriatric Cognitive Disorders*, *38*(5-6), 347–365.

Okumiya, K., Matsubayashi, K., Nakamura, T., Fujisawa, M., Osaki, Y., Doi, Y., & Ozawa, T. (1998). The timed “up & go” test is a useful predictor of falls in community-dwelling older people. *Journal of the American Geriatrics Society*, *46*(7), 928–930.

Olazarán, J., Muñiz, R., Reisberg, B., Peña-Casanova, J., del Ser, T., Cruz-Jentoft, A. J., … Sevilla, C. (2004). Benefits of cognitive-motor intervention in MCI and mild to moderate Alzheimer disease. *Neurology*, *63*(12), 2348–2353.

Oswald, W. D. (1998). *The SimA Project: Memory Training. A Program for Senior Groups* (2nd Ed.).

Hogrefe, Göttingen.

Oswald, W. D., Gunzelmann, T., Rupprecht, R., & Hagen, B. (2006). Differential effects of single versus combined cognitive and physical training with older adults: the SimA study in a 5-year perspective. *European Journal of Ageing*, *3*(4), 179–192.

Paillard-Borg, S., Fratiglioni, L., Winblad, B., & Wang, H.-X. (2009). Leisure activities in late Life in relation to dementia risk: principal component analysis. *Dementia and Geriatric Cognitive Disorders*, *28*(2), 136–144.

Palmer, K., Berger, A. K., Monastero, R., Winblad, B., Bäckman, L., & Fratiglioni, L. (2007). Predictors of progression from mild cognitive impairment to Alzheimer disease. *Neurology*, *68*(19), 1596–1602.

Panza, F., D’Introno, A., Colacicco, A. M., Capurso, C., Del Parigi, A., Caselli, R. J., … Solfrizzi, V. (2005). Current epidemiology of mild cognitive impairment and other predementia syndromes. *The American Journal of Geriatric Psychiatry*, *13*(8), 633–644.

Papp, K. V., Walsh, S. J., & Snyder, P. J. (2009). Immediate and delayed effects of cognitive interventions in healthy elderly: a review of current literature and future directions. *Alzheimer’s & Dementia*, *5*(1), 50–60.

Park, D. C., & Gutchess, A. H. (2002). Aging, cognition, and culture: a neuroscientific perspective.

*Neuroscience and Biobehavioral Reviews*, *26*(7), 859–867.

Pascual-Leone, A., Amedi, A., Fregni, F., & Merabet, L. B. (2005). The plastic human brain cortex.

*Annu. Rev. Neurosci.*, *28*, 377–401.

Paterson, D. H., Jones, G. R., & Rice, C. L. (2007). Ageing and physical activity: evidence to develop exercise recommendations for older adults. *Canadian Journal of Public Health = Revue Canadienne De Santé Publique*, *98 Suppl 2*, 69–108.

Pedroso, R. V., Coelho, F. G. de M., Santos-Galduróz, R. F., Costa, J. L. R., Gobbi, S., & Stella, F. (2012). Balance, executive functions and falls in elderly with Alzheimer’s disease (AD): A longitudinal study. *Archives of Gerontology and Geriatrics*, *54*(2), 348–351.

Perrochon, A., & Kemoun, G. (2014). The Walking Trail-Making Test is an early detection tool for mild cognitive impairment. *Clinical Interventions in Aging*, *9*, 111–119.

Perrochon, A., Kemoun, G., & Dugué, B. (2014). Should the concept of MCI be revised in order to improve detection of dementia? *Neurophysiologie Clinique = Clinical Neurophysiology*, *44*(2), 235–237.

Perrochon, A., Kemoun, G., Watelain, E., & Berthoz, A. (2013). Walking Stroop carpet: an innovative dual-task concept for detecting cognitive impairment. *Clinical Interventions in Aging*, *8*, 317.

Perrot, A., Gagnon, C., & Bertsch, J. (2009). Physical activity as a moderator of the relationship between aging and inductive reasoning. *Research Quarterly for Exercise and Sport*, *80*(2), 393–397.

Persad, C. C., Jones, J. L., Ashton-Miller, J. A., Alexander, N. B., & Giordani, B. (2008). Executive function and gait in older adults with cognitive impairment. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *63*(12), 1350–1355.

Petersen, R. C. (2004). Mild cognitive impairment as a diagnostic entity. *Journal of Internal Medicine*, *256*(3), 183–194.

Petersen, R. C., Doody, R., Kurz, A., Mohs, R. C., Morris, J. C., Rabins, P. V., ... & Winblad, B. (2001). Current concepts in mild cognitive impairment. *Archives of Neurology*, *58*(12), 1985– 1992.

Petersen, R. C., Smith, G.E., Waring, S. C., Ivnik, R.J., Tangalos, E. G., & Kokmen, E. (1999). Mild cognitive impairment: Clinical characterization and outcome. *Archives of Neurology*, *56*(3), 303–308.

Peters, F., Villeneuve, S., & Belleville, S. (2014). Predicting progression to dementia in elderly subjects with mild cognitive impairment using both cognitive and neuroimaging predictors. *Journal of Alzheimer’s Disease*, *38*(2), 307–318.

Pettersson, A. F., Olsson, E., & Wahlund, L.-O. (2005). Motor function in subjects with mild cognitive impairment and early Alzheimer’s disease. *Dementia and Geriatric Cognitive Disorders*, *19*(5-6), 299–304.

Pichierri, G., Murer, K., & de Bruin, E. D. (2012). A cognitive-motor intervention using a dance video game to enhance foot placement accuracy and gait under dual task conditions in older adults: a randomized controlled trial. *BMC Geriatrics*, *12*(1), 74.

Pichierri, G., Wolf, P., Murer, K., & de Bruin, E. D. (2011). Cognitive and cognitive-motor interventions affecting physical functioning: a systematic review. *BMC Geriatrics*, *11*(1), 29.

Pieramico, V., Esposito, R., Cesinaro, S., Frazzini, V., & Sensi, S. L. (2014). Effects of non- pharmacological or pharmacological interventions on cognition and brain plasticity of aging individuals. *Frontiers in Systems Neuroscience*, *8*.

Plassman, B. L., Williams, J. W., Burke, J. R., Holsinger, T., & Benjamin, S. (2010). Systematic review: factors associated with risk for and possible prevention of cognitive decline in later life. *Annals of Internal Medicine*, *153*(3), 182–193.

Pober, D. M., Freedson, P. S., Kline, G. M., McInnis, K. J., & Rippe, J. M. (2002). Development and validation of a one-mile treadmill walk test to predict peak oxygen uptake in healthy adults ages 40 to 79 years. *Canadian Journal of Applied Physiology*, *27*(6), 575–588.

Podewils, L. J. (2005). Physical activity, APOE genotype, and dementia risk: findings from the cardiovascular health cognition study. *American Journal of Epidemiology*, *161*(7), 639–651.

Podsiadlo, D., & Richardson, S. (1991). The timed “Up & Go”: a test of basic functional mobility for frail elderly persons. *Journal of the American Geriatrics Society*, *39*(2), 142–148.

Pontifex, M. B., Hillman, C. H., Fernhall, B., Thompson, K. M., & Valentini, T. A. (2009). The effect of acute aerobic and resistance exercise on working memory. *Medicine and Science in Sports and Exercise*, *41*(4), 927–934.

Ram, N., Rabbitt, P., Stollery, B., & Nesselroade, J. R. (2005). Cognitive performance inconsistency: Intraindividual change and variability. *Psychology and Aging*, *20*(4), 623–633.

Rampazo-Lacativa, M. K., & D’Elboux, M. J. (2015). Effect of cycle ergometer and conventional exercises on rehabilitation of older patients with total hip arthroplasty: study protocol for randomized controlled trial. *Trials*, *16*(1), 139.

Rapp, S., Brenes, G., & Marsh, A. P. (2002). Memory enhancement training for older adults with mild cognitive impairment: a preliminary study. *Aging & Mental Health*, *6*(1), 5-11.

Raz, N. (2000). Aging of the brain and its impact on cognitive performance: Integration of structural and functional findings. In F. I. M. Craik & T. A. Salthouse (Eds.), *The handbook of aging and cognition (2nd ed.)* (pp. 1–90). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Raz, N., Lindenberger, U., Rodrigue, K. M., Kennedy, K. M., Head, D., Williamson, A., … Acker, J.

D. (2005). Regional brain changes in aging healthy adults: general trends, individual differences and modifiers. *Cerebral Cortex*, *15*(11), 1676–1689.

Reid, K. J., Baron, K. G., Lu, B., Naylor, E., Wolfe, L., & Zee, P. C. (2010). Aerobic exercise improves self-reported sleep and quality of life in older adults with insomnia. *Sleep Medicine*, *11*(9), 934–940.

Reijnders, J., van Heugten, C., & van Boxtel, M. (2013). Cognitive interventions in healthy older adults and people with mild cognitive impairment: A systematic review. *Ageing Research Reviews*, *12*(1), 263–275.

Reinvang, I., Grambaite, R., & Espeseth, T. (2012). Executive dysfunction in MCI: subtype or early symptom. *International Journal of Alzheimer’s Disease*, *2012*, 1–8.

Rejeski, W. J., & Mihalko, S. L. (2001). Physical activity and quality of life in older adults. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, *56*(2), 23–35.

Renaud, M., & Bherer, L. (2005). Impact on physical fitness on cognitive aging. *Psychologie & Neuropsychiatrie Du Vieillissement*, *3*(3), 199–206.

Renaud, M., Maquestiaux, F., Joncas, S., Kergoat, M.-J., & Bherer, L. (2010). The effect of three months of aerobic training on response preparation in older adults. *Frontiers in Aging Neuroscience*, *2*.

Repovs, G., & Baddeley, A. (2006). The multi-component model of working memory: explorations in experimental cognitive psychology. *Neuroscience*, *139*(1), 5–21.

Resnick, S. M., Pham, D. L., Kraut, M. A., Zonderman, A. B., & Davatzikos, C. (2003). Longitudinal magnetic resonance imaging studies of older adults: a shrinking brain. *The Journal of Neuroscience*, *23*(8), 3295–3301.

Richmond, L. L., Morrison, A. B., Chein, J. M., & Olson, I. R. (2011). Working memory training and transfer in older adults. *Psychology and Aging*, *26*(4), 813–822. h

Rikli, R. E., & Edwards, D. J. (1991). Effects of a three-year exercise program on motor function and cognitive processing speed in older women. *Research Quarterly for Exercise and Sport*, *62*(1), 61–67.

Riley, M. A., Baker, A. A., & Schmit, J. M. (2003). Inverse relation between postural variability and difficulty of a concurrent short-term memory task. *Brain Research Bulletin*, *62*(3), 191–195.

Rojas, G. J., Villar, V., Iturry, M., Harris, P., Serrano, C. M., Herrera, J. A., & Allegri, R. F. (2013). Efficacy of a cognitive intervention program in patients with mild cognitive impairment. *International Psychogeriatrics*, *25*(05), 825–831.

Rooks, D. S., Kiel, D. P., Parsons, C., & Hayes, W. C. (1997). Self-paced resistance training and walking exercise in community-dwelling older adults: effects on neuromotor performance. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *52A*(3), 161–168.

Rosso, A. L., Studenski, S. A., Chen, W. G., Aizenstein, H. J., Alexander, N. B., Bennett, D. A., … Rosano, C. (2013). Aging, the central nervous system, and mobility. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *68*(11), 1379–1386.

Rowe, J. W., & Kahn, R. L. (1998). *Successful aging.* New York: Pantheon Books.

Royall, D. R., Lauterbach, E. C., Kaufer, D., Malloy, P., Coburn, K. L., Black, K. J., & Committee on Research of the American Neuropsychiatric Association. (2007). The cognitive correlates of functional status: a review from the committee on research of the American Neuropsychiatric Association. *The Journal of Neuropsychiatry and Clinical Neurosciences*, *19*(3), 249–265.

Rozencwajg, P. (2006). Quelques réflexions sur l’évaluation de l’intelligence générale : un retour à Binet ? *Pratiques Psychologiques*, *12*(3), 395–410

Rozzini, L., Costardi, D., Chilovi, B. V., Franzoni, S., Trabucchi, M., & Padovani, A. (2007). Efficacy of cognitive rehabilitation in patients with mild cognitive impairment treated with cholinesterase inhibitors. *International Journal of Geriatric Psychiatry*, *22*(4), 356–360.

Ruscheweyh, R., Deppe, M., Lohmann, H., Wersching, H., Korsukewitz, C., Duning, T., … Knecht, S. (2013). Executive performance is related to regional gray matter volume in healthy older individuals. *Human Brain Mapping*, *34*(12), 3333–3346.

Saczynski, J. S., Rosen, A. B., McCammon, R. J., Zivin, K., Andrade, S. E., Langa, K. M., … Briesacher, B. A. (2015). Antidepressant use and cognitive decline: the health and retirement study. *The American Journal of Medicine*.

Salthouse, T. A. (1982). Duration estimates of two information processing components. *Acta Psychologica*, *52*(3), 213–226.

Salthouse, T. A. (2004). Localizing age-related individual differences in a hierarchical structure.

*Intelligence*, *32*(6).

Salthouse, T. A. (2006). Mental exercise and mental aging evaluating the validity of the “use it or lose it” hypothesis. *Perspectives on Psychological Science*, *1*(1), 68–87.

Salthouse, T. A., Berish, D. E., & Miles, J. D. (2002). The role of cognitive stimulation on the relations between age and cognitive functioning. *Psychology and Aging*, *17*(4), 548–557.

Scarmeas, N., Levy, G., Tang, M.-X., Manly, J., & Stern, Y. (2001). Influence of leisure activity on the incidence of Alzheimer’s disease. *Neurology*, *57*(12), 2236–2242.

Schaefer, S., & Schumacher, V. (2011). The interplay between cognitive and motor functioning in healthy older adults: findings from dual-task studies and suggestions for intervention. *Gerontology*, *57*(3), 239–246.

Scherder, E. J. A., Van Paasschen, J., Deijen, J.-B., Van Der Knokke, S., Orlebeke, J. F. K., Burgers, I., … Sergeant, J. A. (2005). Physical activity and executive functions in the elderly with mild cognitive impairment. *Aging & Mental Health*, *9*(3), 272–280.

Schlosser Covell, G. E., Hoffman-Snyder, C. R., Wellik, K. E., Woodruff, B. K., Geda, Y. E., Caselli,

R. J., … Wingerchuk, D. M. (2015). Physical activity level and future risk of mild cognitive impairment or dementia: a critically appraised topic. *The Neurologist*, *19*(3), 89–91.

Schmidt, R. A., & Bjork, R. A. (1992). New conceptualizations of practice: common principles in three paradigms suggest new concepts for training. *Psychological Science*, *3*(4), 207–217.

Schmiedek, F., Lövdén, M., & Lindenberger, U. (2010). Hundred days of cognitive training enhance broad cognitive abilities in adulthood: findings from the COGITO study. *Frontiers in aging neuroscience*, *2*.

Schneider, N., & Yvon, C. (2013). A review of multidomain interventions to support healthy cognitive ageing. *The Journal of Nutrition, Health & Aging*, *17*(3), 252–257.

Schneider, W., Eschman, A., & Zuccolotto, A. (2002). *E-Prime: User's guide*. Psychology Software Incorporated.

Schooler, C., & Mulatu, M. S. (2001). The reciprocal effects of leisure time activities and intellectual functioning in older people: a longitudinal analysis. *Psychology and Aging*, *16*(3), 466–482.

Schooler, C., Mulatu, M. S., & Oates, G. (1999). The continuing effects of substantively complex work on the intellectual functioning of older workers. *Psychology and Aging*, *14*(3), 483–506.

Schwenk, M., Zieschang, T., Englert, S., Grewal, G., Najafi, B., & Hauer, K. (2014). Improvements in gait characteristics after intensive resistance and functional training in people with dementia: a randomised controlled trial. *BMC Geriatrics*, *14*(1), 73.

Schwenk, M., Zieschang, T., Oster, P., & Hauer, K. (2010). Dual-task performances can be improved in patients with dementia A randomized controlled trial. *Neurology*, *74*(24), 1961–1968.

Seematter-Bagnoud, L. (2004). Les sujets actifs restent plus longtemps autonomes. *Gériatrie Pratique*, *3*, 2–6.

Segev-Jacubovski, O., Herman, T., Yogev-Seligmann, G., Mirelman, A., Giladi, N., & Hausdorff, J.

M. (2011). The interplay between gait, falls and cognition: can cognitive therapy reduce fall risk? *Expert Review of Neurotherapeutics*, *11*(7), 1057–1075.

Shallice, T. (1982). Specific impairments of planning. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences*, *298*(1089), 199–209.

Shatil, E. (2013). Does combined cognitive training and physical activity training enhance cognitive abilities more than either alone? A four-condition randomized controlled trial among healthy older adults. *Frontiers in Aging Neuroscience*, *5*.

Shay, K. A., & Roth, D. L. (1992). Association between aerobic fitness and visuospatial performance in healthy older adults. *Psychology and Aging*, *7*(1), 15–24.

Shephard, R. J. (2009). Maximal oxygen intake and independence in old age. *British Journal of Sports Medicine*, *43*(5), 342–346.

Sheridan, P. L., & Hausdorff, J. M. (2007). The role of higher-level cognitive function in gait: executive dysfunction contributes to fall risk in Alzheimer's disease. *Dementia and Geriatric Cognitive Disorders*, *24*(2), 125–137.

Sheridan, P. L., Solomont, J., Kowall, N., & Hausdorff, J. M. (2003). Influence of executive function on locomotor function: divided attention increases gait variability in Alzheimer’s disease. *Journal of the American Geriatrics Society*, *51*(11), 1633–1637.

Shimamura, A. P., Berry, J. M., Mangels, J. A., Rusting, C. L., & Jurica, P. J. (1995). Memory and Cognitive Abilities in University Professors: Evidence for Successful Aging. *Psychological Science*, *6*(5), 271–277.

Shumway-Cook, A., Brauer, S., & Woollacott, M. (2000). Predicting the probability for falls in community-dwelling older adults using the Timed Up & Go Test. *Physical Therapy*, *80*(9), 896–903.

Sidney, K. H., & Shephard, R. J. (1976). Attitudes towards health and physical activity in the elderly.

Effects of a physical training program. *Medicine and Science in Sports*, *8*(4), 253–257.

Silsupadol, P., Shumway-Cook, A., Lugade, V., van Donkelaar, P., Chou, L.-S., Mayr, U., & Woollacott, M. H. (2009). Effects of single-task versus dual-task training on balance performance in older adults: a double-blind, randomized Controlled Trial. *Archives of Physical Medicine and Rehabilitation*, *90*(3), 381–387.

Simar, D., & Malatesta, D. (2004). Mesure de l’aptitude physique aérobie chez les sujets âgés. In C. Jeandel, P.L. Bernard, & O. Seynnes (Eds.), Aptitude physique, Santé et Vieillissement (pp. 65-71). Montpellier : Sauramps Médical.

Singer, T., Lindenberger, U., & Baltes, P. B. (2003). Plasticity of memory for new learning in very old age: A story of major loss? *Psychology and Aging*, *18*(2), 306–317.

Sipilä, S., Multanen, J., Kallinen, M., Era, P., & Suominen, H. (1996). Effects of strength and endurance training on isometric muscle strength and walking speed in elderly women. *Acta Physiologica Scandinavica*, *156*(4), 457–464.

Small, G. W., Silverman, D. H. S., Siddarth, P., Ercoli, L. M., Miller, K. J., Lavretsky, H., … Phelps,

M. E. (2006). Effects of a 14-day healthy longevity lifestyle program on cognition and brain function. *The American Journal of Geriatric Psychiatry: Official Journal of the American Association for Geriatric Psychiatry*, *14*(6), 538–545.

Smiley-Oyen, A. L., Lowry, K. A., Francois, S. J., Kohut, M. L., & Ekkekakis, P. (2008). Exercise, fitness, and neurocognitive function in older adults: The “selective improvement” and “cardiovascular fitness” hypotheses. *Annals of Behavioral Medicine*, *36*(3), 280–291.

Smith, G. E., Housen, P., Yaffe, K., Ruff, R., Kennison, R. F., Mahncke, H. W., & Zelinski, E. M. (2009). A cognitive training program based on principles of brain plasticity: results from the Improvement in Memory with Plasticity-based Adaptive Cognitive Training (IMPACT). *Journal of the American Geriatrics Society*, *57*(4), 594–603.

Smith, P. J., Blumenthal, J. A., Hoffman, B. M., Cooper, H., Strauman, T. A., Welsh-Bohmer, K., … Sherwood, A. (2010). Aerobic exercise and neurocognitive performance: a meta-analytic review of randomized controlled trials: *Psychosomatic Medicine*, *72*(3), 239–252.

Smith-Ray, R. L., Hughes, S. L., Prohaska, T. R., Little, D. M., Jurivich, D. A., & Hedeker, D. (2013). Impact of cognitive training on balance and gait in older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences,* gbt097.

Sofi, F., Valecchi, D., Bacci, D., Abbate, R., Gensini, G. F., Casini, A., & Macchi, C. (2011). Physical activity and risk of cognitive decline: a meta-analysis of prospective studies. *Journal of Internal Medicine*, *269*(1), 107–117.

Sorenson, H. (1933). Mental ability over a wide range of adult ages. *Journal of Applied Psychology*, *17*(6), 729–741.

Soubelet, A. (2009). Le vieillissement cognitif et l’hypothèse de l’exercice mental révisée.

*Psychologie Française*, *54*(4), 363–378.

Spirduso, W. W. (1975). Reaction and movement time as a function of age and physical activity level.

*Journal of Gerontology*, *30*(4), 435–440.

Spirduso, W. W., & Clifford, P. (1978). Replication of age and physical activity effects on reaction and movement time. *Journal of Gerontology*, *33*(1), 26–30.

Spirduso, W. W., Francis, K. L., & MacRae, P. G. (2005). Health, exercise and cognitive function.

*Physical dimensions of aging. 2nd ed. Champaign, IL: Human Kinetics*, 211-232.

Springer, S., Giladi, N., Peretz, C., Yogev, G., Simon, E. S., & Hausdorff, J. M. (2006). Dual-tasking effects on gait variability: The role of aging, falls, and executive function. *Movement Disorders*, *21*(7), 950–957.

Steinmetz, J.-P., & Federspiel, C. (2014). The effects of cognitive training on gait speed and stride variability in old adults: findings from a pilot study. *Aging Clinical and Experimental Research*, *26*(6), 635–643.

Stern, Y. (2002). What is cognitive reserve? Theory and research application of the reserve concept.

*Journal of the International Neuropsychological Society: JINS*, *8*(3), 448–460.

Stern, Y. (2006). Cognitive reserve and Alzheimer disease. *Alzheimer Disease & Associated Disorders*, *20*(2), 112–117.

Studenski, S., Perera, S., Patel, K., Rosano, C., Faulkner, K., Inzitari, M., … others. (2011). Gait speed and survival in older adults. *Jama*, *305*(1), 50–58.

Studenski, S., Perera, S., Wallace, D., Chandler, J. M., Duncan, P. W., Rooney, E., … Guralnik, J. M. (2003). Physical performance measures in the clinical setting. *Journal of the American Geriatrics Society*, *51*(3), 314–322.

Sugano, K., Yokogawa, M., Yuki, S., Dohmoto, C., Yoshita, M., Hamaguchi, T., … Yamada, M. (2012). Effect of cognitive and aerobic training intervention on older adults with mild or no cognitive impairment: a derivative study of the nakajima project. *Dementia and Geriatric Cognitive Disorders Extra*, *2*(1), 69–80.

Suzuki, T., Shimada, H., Makizako, H., Doi, T., Yoshida, D., Tsutsumimoto, K., … Park, H. (2012). Effects of multicomponent exercise on cognitive function in older adults with amnestic mild cognitive impairment: a randomized controlled trial. *BMC Neurology*, *12*(1), 128.

Tabbarah, M., Crimmins, E. M., & Seeman, T. E. (2002). The relationship between cognitive and physical performance: MacArthur studies of successful Aging. *The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences*, *57*(4), 228–235.

Tabert, M. H., Manly, J. J., Liu, X., Pelton, G. H., Rosenblum, S., Jacobs, M., ... & Devanand, D. P. (2006). Neuropsychological prediction of conversion to Alzheimer disease in patients with mild cognitive impairment. *Archives of General Psychiatry*, *63*(8), 916–924.

Taconnat, L., & Lemaire, P. (2014). Fonctions exécutives, vieillissement cognitif et variations stratégiques. *Psychologie Française*, *59*(1), 89–100.

Talassi, E., Guerreschi, M., Feriani, M., Fedi, V., Bianchetti, A., & Trabucchi, M. (2007). Effectiveness of a cognitive rehabilitation program in mild dementia (MD) and mild cognitive impairment (MCI): a case control study. *Archives of Gerontology and Geriatrics*, *44 Suppl 1*, 391–399.

Tappen, R. M., Roach, K. E., Applegate, E. B., & Stowell, P. (2000). Effect of a combined walking and conversation intervention on functional mobility of nursing home residents with Alzheimer disease. *Alzheimer Disease and Associated Disorders*, *14*(4), 196.

Tardif, S., & Simard, M. (2011). Cognitive stimulation programs in healthy elderly: a review.

*International Journal of Alzheimer’s Disease*, *2011*, 1–13.

Tarpin-Bernard, F., Croisile, B., Bélier, S., Allain, G., & Noir, M. (2007). Amelioration des performances cognitives chez 85 abonnes assidus d'un site Internet d'entraînement cognitif. *Revue neurologique*, *163*(11, 2), 4S131.

Taylor, M. E., Delbaere, K., Mikolaizak, A. S., Lord, S. R., & Close, J. C. T. (2013). Gait parameter risk factors for falls under simple and dual task conditions in cognitively impaired older people. *Gait & Posture*, *37*(1), 126–130.

Teixeira, C. V. L., Gobbi, L. T. B., Corazza, D. I., Stella, F., Costa, J. L. R., & Gobbi, S. (2012). Non- pharmacological interventions on cognitive functions in older people with mild cognitive impairment (MCI). *Archives of Gerontology and Geriatrics*, *54*(1), 175–180.

Teng, E., Tassniyom, K., & Lu, P. H. (2012). Reduced quality-of-life ratings in mild cognitive impairment: analyses of subject and informant responses. *The American Journal of Geriatric Psychiatry*, *20*(12), 1016–1025.

Theill, N., Martin, M., Schumacher, V., Bridenbaugh, S. A., & Kressig, R. W. (2011). Simultaneously measuring gait and cognitive performance in cognitively healthy and cognitively impaired older adults: the basel motor-ognition dual-task paradigm. *Journal of the American Geriatrics Society*, *59*(6), 1012–1018.

Theill, N., Schumacher, V., Adelsberger, R., Martin, M., & Jäncke, L. (2013). Effects of simultaneously performed cognitive and physical training in older adults. *BMC Neuroscience*, *14*(1), 103.

Thoma, P., Zalewski, I., von Reventlow, H. G., Norra, C., Juckel, G., & Daum, I. (2011). Cognitive and affective empathy in depression linked to executive control. *Psychiatry Research*, *189*(3), 373–378.

Tombaugh, T. (2004). Trail Making Test A and B: Normative data stratified by age and education.

*Archives of Clinical Neuropsychology*, *19*(2), 203–214.

Toulotte, C., Thevenon, A., Watelain, E., & Fabre, C. (2006). Identification of healthy elderly fallers and non-fallers by gait analysis under dual-task conditions. *Clinical Rehabilitation*, *20*(3), 269–276.

Trombetti, A., Hars, M., Herrmann, F. R., Kressig, R. W., Ferrari, S., & Rizzoli, R. (2011). Effect of music-based multitask training on gait, balance, and fall risk in elderly people: a randomized controlled trial. *Archives of Internal Medicine*, *171*(6).

Troyer, A. K., Murphy, K. J., Anderson, N. D., Moscovitch, M., & Craik, F. I. M. (2008). Changing everyday memory behaviour in amnestic mild cognitive impairment: A randomised controlled trial. *Neuropsychological Rehabilitation*, *18*(1), 65–88.

Tsai, J. C., Chan, P., Wang, C. H., Jeng, C., Hsieh, M. H., Kao, P. F., … Liu, J. C. (2002). The effects of exercise training on walking function and perception of health status in elderly patients with peripheral arterial occlusive disease. *Journal of Internal Medicine*, *252*(5), 448–455.

Tseng, B. Y., Cullum, C. M., & Zhang, R. (2014). Older adults with amnestic mild cognitive impairment exhibit exacerbated gait slowing under dual-task challenges. *Current Alzheimer Research*, *11*(5), 494.

Tsourlou, T., Benik, A., Dipla, K., Zafeiridis, A., & Kellis, S. (2006). The effects of a twenty-four- week aquatic training program on muscular strength performance in healthy elderly women. *Journal of Strength and Conditioning Research / National Strength & Conditioning Association*, *20*(4), 811–818.

Unverzagt, F. W., Kasten, L., Johnson, K. E., Rebok, G. W., Marsiske, M., Koepke, K. M., … Tennstedt, S. L. (2007). Effect of memory impairment on training outcomes in ACTIVE. *Journal of the International Neuropsychological Society*, *13*(06).

Vaillant, J., Vuillerme, N., Martigné, P., Caillat-Miousse, J.-L., Parisot, J., Nougier, V., & Juvin, R. (2006). Balance, aging, and osteoporosis: effects of cognitive exercises combined with physiotherapy. *Joint Bone Spine*, *73*(4), 414–418.

Valentijn, S. A. M., van Hooren, S. A. H., Bosma, H., Touw, D. M., Jolles, J., van Boxtel, M., & Ponds, R. (2005). The effect of two types of memory training on subjective and objective memory performance in healthy individuals aged 55 years and older: a randomized controlled trial. *Patient Education and Counseling*, *57*(1), 106–114.

Van der Linden, M. (1997). Revue critique de l'ouvrage de D.H. Kausler (1994), Learning and memory in normal aging, Academic Press. L'Année Psychologique, 97, 365-366.

Van der Mussele, S., Bekelaar, K., Le Bastard, N., Vermeiren, Y., Saerens, J., Somers, N., … Engelborghs, S. (2013). Prevalence and associated behavioral symptoms of depression in mild cognitive impairment and dementia due to Alzheimer’s disease. *International Journal of Geriatric Psychiatry*, *28*(9), 947–958.

Van Iersel, M. B., Kessels, R. P., Bloem, B. R., Verbeek, A. L., & Rikkert, M. G. O. (2008). Executive functions are associated with gait and balance in community-living elderly people. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *63*(12), 1344– 1349.

Van Praag, H., Christie, B. R., Sejnowski, T. J., & Gage, F. H. (1999). Running enhances neurogenesis, learning, and long-term potentiation in mice. *Proceedings of the National Academy of Sciences of the United States of America*, *96*(23), 13427–13431.

Vaynman, S., & Gomez-Pinilla, F. (2005). License to run: exercise impacts functional plasticity in the intact and injured central nervous system by using neurotrophins. *Neurorehabilitation and Neural Repair*, *19*(4), 283–295.

Verghese, J., Annweiler, C., Ayers, E., Barzilai, N., Beauchet, O., Bennett, D. A., … Wang, C. (2014).

Motoric cognitive risk syndrome. *Neurology*, *83*(8), 718–726.

Verghese, J., Lipton, R. B., Katz, M. J., Hall, C. B., Derby, C. A., Kuslansky, G., … Buschke, H. (2003). Leisure activities and the risk of dementia in the elderly. *New England Journal of Medicine*, *348*(25), 2508–2516.

Verghese, J., Mahoney, J., Ambrose, A. F., Wang, C., & Holtzer, R. (2010). Effect of cognitive remediation on gait in sedentary seniors. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *65A*(12), 1338–1343.

Verghese, J., Robbins, M., Holtzer, R., Zimmerman, M., Wang, C., Xue, X., & Lipton, R. B. (2008). Gait dysfunction in mild cognitive impairment syndromes. *Journal of the American Geriatrics Society*, *56*(7), 1244–1251.

Verghese, J., Wang, C., & Holtzer, R. (2011). Relationship of clinic-based gait speed measurement to limitations in community-based activities in older adults. *Archives of Physical Medicine and Rehabilitation*, *92*(5), 844–846.

Verghese, J., Wang, C., Lipton, R. B., & Holtzer, R. (2013). Motoric Cognitive Risk syndrome and the risk of dementia. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *68*(4), 412–418.

Verghese, J., Wang, C., Lipton, R. B., Holtzer, R., & Xue, X. (2007). Quantitative gait dysfunction and risk of cognitive decline and dementia. *Journal of Neurology, Neurosurgery, and Psychiatry*, *78*(9), 929–935.

Verhaeghen, P., & Cerella, J. (2002). Aging, executive control, and attention: a review of meta- analyses. *Neuroscience and Biobehavioral Reviews*, *26*(7), 849–857.

Verhaeghen, P., Marcoen, A., & Goossens, L. (1992). Improving memory performance in the aged through mnemonic training: a meta-analytic study. *Psychology and Aging*, *7*(2), 242.

Verhaeghen, P., Steitz, D. W., Sliwinski, M. J., & Cerella, J. (2003). Aging and dual-task performance: A meta-analysis. *Psychology and Aging*, *18*(3), 443–460.

Viccaro, L. J., Perera, S., & Studenski, S. A. (2011). Is Timed Up and Go better than gait speed in predicting health, function, and falls in older adults? *Journal of the American Geriatrics Society*, *59*(5), 887–892.

Von Bastian, C. C., & Oberauer, K. (2014). Effects and mechanisms of working memory training: a review. *Psychological Research*, *78*(6), 803–820.

Voss. (2010). Plasticity of brain networks in a randomized intervention trial of exercise training in older adults. *Frontiers in Aging Neuroscience, 2*.

Voss, M. W., Prakash, R. S., Erickson, K. I., Boot, W. R., Basak, C., Neider, M. B., … Kramer, A. F. (2012). Effects of training strategies implemented in a complex videogame on functional connectivity of attentional networks. *NeuroImage*, *59*(1), 138–148.

Vuillerme, N., & Nougier, V. (2004). Attentional demand for regulating postural sway: the effect of expertise in gymnastics. *Brain Research Bulletin*, *63*(2), 161–165.

Wadley, V. G., Okonkwo, O., Crowe, M., & Ross-Meadows, L. A. (2008). Mild Cognitive Impairment and everyday function: evidence of reduced speed in performing Instrumental Activities of Daily Living. *The American Journal of Geriatric Psychiatry*, *16*(5), 416–424.

Waite, L. M., Grayson, D. A., Piguet, O., Creasey, H., Bennett, H. P., & Broe, G. A. (2005). Gait slowing as a predictor of incident dementia: 6-year longitudinal data from the Sydney Older Persons Study. *Journal of the Neurological Sciences*, *229-230*, 89–93.

Wang, C., Yu, J.-T., Wang, H.-F., Tan, C.-C., Meng, X.-F., & Tan, L. (2014). Non-pharmacological interventions for patients with mild cognitive impairment: a meta-analysis of randomized controlled trials of cognition-based and exercise interventions. *Journal of Alzheimer’s Disease: JAD*, *42*(2), 663–678.

Wang, H.-X., Jin, Y., Hendrie, H. C., Liang, C., Yang, L., Cheng, Y., … Gao, S. (2013). Late life leisure activities and risk of cognitive decline. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*, *68*(2), 205–213.

Wang, H.-X., Xu, W., & Pei, J.-J. (2012). Leisure activities, cognition and dementia. *Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease*, *1822*(3), 482–491.

Wechsler, D. (1997b). *Wechsler Memory Scale – 3rd Edition (WMS-III)*. San Antonio, TX: Psychological Corporation.

Wechsler, D. (1999). *Wechsler Abbreviated Scale of Intelligence (WASI)*. San Antonio, TX: Harcourt Assessment.

Wenisch, E., Cantegreil-Kallen, I., De Rotrou, J., Garrigue, P., Moulin, F., Batouche, F., … Rigaud,

A. S. (2007). Cognitive stimulation intervention for elders with mild cognitive impairment compared with normal aged subjects: preliminary results. *Aging Clinical and Experimental Research*, *19*(4), 316–322.

West, R. L. (1996). An application of prefrontal cortex function theory to cognitive aging.

*Psychological Bulletin*, *120*(2), 272–292.

Weuve, J., Kang, J. H., Manson, J. E., Breteler, M. M., Ware, J. H., & Grodstein, F. (2004). Physical activity, including walking, and cognitive function in older women. *Jama*, *292*(12), 1454– 1461.

Willis, S. L., & Schaie, K. W. (2009). Cognitive training and plasticity: theoretical perspective and methodological consequences. *Restorative Neurology and Neuroscience*, *27*(5), 375–389.

Willis, S. L., Tennstedt, S. L., Marsiske, M., Ball, K., Elias, J., Koepke, K. M., … ACTIVE Study Group, for the. (2006). Long-term effects of cognitive training on everyday functional outcomes in older adults. *JAMA*, *296*(23), 2805.

Wilmore, J. H., & Costill, D. L. (2002). *Physiologie du sport et de l’exercice : adaptations physiologiques à l’exercice physique*. De Boeck Supérieur.

Wilson, R. S., Barnes, L., & Bennett, D. A. (2003). Assessment of lifetime participation in cognitively stimulating activities. *Journal of Clinical and Experimental Neuropsychology*, *25*(5), 634– 642.

Wilson, R. S., Bennett, D. A., Bienias, J. L., Aggarwal, N. T., De Leon, C. M., Morris, M. C., … Evans, D. A. (2002). Cognitive activity and incident AD in a population-based sample of older persons. *Neurology*, *59*(12), 1910–1914.

Wilson, R. S., De Leon, C. M., Bennett, D. A., Bienias, J. L., & Evans, D. A. (2004). Depressive symptoms and cognitive decline in a community population of older persons. *Journal of Neurology, Neurosurgery & Psychiatry*, *75*(1), 126–129.

Winblad, B., Gauthier, S., Scinto, L., Feldman, H., Wilcock, G. K., Truyen, L., … GAL-INT-11/18 Study Group. (2008). Safety and efficacy of galantamine in subjects with mild cognitive impairment. *Neurology*, *70*(22), 2024–2035.

Winblad, B., Palmer, K., Kivipelto, M., Jelic, V., Fratiglioni, L., Wahlund, L.-O., … others. (2004). Mild cognitive impairment–beyond controversies, towards a consensus: report of the International Working Group on Mild Cognitive Impairment. *Journal of Internal Medicine*, *256*(3), 240–246.

Wollesen, B., & Voelcker-Rehage, C. (2014). Training effects on motor–cognitive dual-task performance in older adults: A systematic review. *European Review of Aging and Physical Activity*, *11*(1), 5–24.

Woods, B., Aguirre, E., Spector, A. E., & Orrell, M. (2012). Cognitive stimulation to improve cognitive functioning in people with dementia. *The Cochrane Database of Systematic Reviews*, *2*, CD005562.

Woollacott, M., & Shumway-Cook, A. (2002). Attention and the control of posture and gait: a review of an emerging area of research. *Gait & Posture*, *16*(1), 1–14.

Wu, Y.-H., Cristancho-Lacroix, V., Fassert, C., Faucounau, V., de Rotrou, J., & Rigaud, A.-S. (2014). The attitudes and perceptions of older adults with Mild Cognitive Impairment toward an assistive robot. *Journal of Applied Gerontology: The Official Journal of the Southern Gerontological Society 20*(10), 1–15

Wu, Y.-H., Wrobel, J., Cornuet, M., Kerhervé, H., Damnée, S., & Rigaud, A.-S. (2014). Acceptance of an assistive robot in older adults: a mixed-method study of human&amp;ndash;robot interaction over a 1-month period in the Living Lab setting. *Clinical Interventions in Aging*, 801.

Yaffe, K., Barnes, D., Nevitt, M., Lui, L. Y., & Covinsky, K. (2001). A prospective study of physical activity and cognitive decline in elderly women: women who walk. *Archives of Internal Medicine*, *161*(14), 1703–1708.

Yardley, L. (2005). Development and initial validation of the falls efficacy scale-international (FES-I).

*Age and Ageing*, *34*(6), 614–619.

Yesavage, J. A., Brink, T. L., Rose, T. L., Lum, O., Huang, V., Adey, M., & Leirer, V. O. (1982). Development and validation of a geriatric depression screening scale: a preliminary report. *Journal of Psychiatric Research*, *17*(1), 37–49.

Yogev-Seligmann, G., Giladi, N., Brozgol, M., & Hausdorff, J. M. (2012). A training program to improve gait while dual tasking in patients with parkinson’s disease: A Pilot Study. *Archives of Physical Medicine and Rehabilitation*, *93*(1), 176–181.

Yogev-Seligmann, G., Hausdorff, J. M., & Giladi, N. (2008). The role of executive function and attention in gait. *Movement Disorders*, *23*(3), 329–342.

Yoon, J., Lee, S., Lim, H., Kim, T., Jeon, J., & Mun, M. (2013). The effects of cognitive activity combined with active extremity exercise on balance, walking activity, memory level and quality of life of an older adult sample with dementia. *Journal of Physical Therapy Science*, *25*(12), 1601–1604.

You, J. H., Shetty, A., Jones, T., Shields, K., Belay, Y., & Brown, D. (2009). Effects of dual-task cognitive-gait intervention on memory and gait dynamics in older adults with a history of falls: a preliminary investigation. *NeuroRehabilitation*, *24*(2), 193–198.

Zehnder, F., Martin, M., Altgassen, M., & Clare, L. (2009). Memory training effects in old age as markers of plasticity: a meta-analysis. *Restorative Neurology and Neuroscience*, *27*(5), 507– 520.

Zhou, S., Fan, J., Lee, T. M. C., Wang, C., & Wang, K. (2011). Age-related differences in attentional networks of alerting and executive control in young, middle-aged, and older Chinese adults. *Brain and Cognition*, *75*(2), 205–210.

Zöllig, J., & Eschen, A. (2009). Measuring compensation and its plasticity across the lifespan.

*Restorative Neurology and Neuroscience*, *27*(5), 421–433.