STATE OF VERMONT
DEPARTMENT OF LABOR

Margaret Harmon	Opinion No. 01-17WC
v.	By: Phyllis Phillips, Esq. Administrative Law Judge
Central Vermont Council on Aging	For: Lindsay H. Kurrle Commissioner
	State File No. FF-55882

OPINION AND ORDER

Hearing held in Montpelier on July 11, 2016
Record closed on August 1, 2016

APPEARANCES:

Richard Rubin, Esq., for Claimant
Keith Kasper, Esq., for Defendant

ISSUES PRESENTED:

1. Did Claimant suffer a cognitive injury as a consequence of her compensable November 7, 2013 work-related hip injury?

2. If yes, to what permanent partial disability benefits, if any, is she entitled?

3. If yes, to what permanent total disability benefits, if any, is she entitled?

EXHIBITS:

Joint Exhibit I:	Medical records
Joint Exhibit II:	Stipulation
Claimantôs Exhibit 1:	Various medical records
Claimantôs Exhibit 2:	Letter from Monique Karthaus, PA-C, June 23, 2016
Claimantôs Exhibit 3:	*AMA Guides to the Evaluation of Permanent Impairment* (5th ed.), Table 13-5
Claimantôs Exhibit 4:	*AMA Guides to the Evaluation of Permanent Impairment* (5th ed.), Combined Values Chart
Claimantôs Exhibit 5:	*Curriculum vitae*, Tamara Fong, M.D., M.M.Sc., Ph.D.
Defendantôs Exhibit A:	*Curriculum vitae*, William Nash, Ph.D.

CLAIM:

Permanent partial disability benefits pursuant to 21 V.S.A. §648
Permanent total disability benefits pursuant to 21 V.S.A. §645
Medical benefits pursuant to 21 V.S.A. §640
Interest, costs and attorney fees pursuant to 21 V.S.A. §§664 and 678

FINDINGS OF FACT:

1. At all times relevant to these proceedings, Claimant was an employee and Defendant was her employer as those terms are defined in Vermontôs Workersô Compensation Act.

2. Judicial notice is taken of all relevant forms and correspondence contained in the Departmentôs file relating to this claim.

3. Claimant is a 78-year old woman who has worked in highly skilled professional administrative positions for much of her career. From 1997 to 2002 she was the co-director of admissions at Vermont College, and from 2002 to 2005 she was the Dean of Enrollment Management at Union Institute and University. Claimant holds a bachelorôs degree in liberal arts, a masterôs degree in sociology and a Ph.D. in interdisciplinary studies with a concentration in gerontology, which she earned in 2006, at age 67.

4. Claimantôs relevant prior medical history includes treatment for hypertension, coronary artery disease and depression. While in graduate school, she was diagnosed with Attention Deficit Hyperactivity Disorder (ADHD), which she managed successfully with mild dosages of stimulant medications. In 2009, she suffered a transient ischemic attack (TIA); this caused some temporarily slurred speech, but no lasting symptoms.

5. Claimant began working for Defendant as its development coordinator in 2006. In that role, she prepared budgets, wrote and submitted grant requests, evaluated case managersô performance, analyzed training needs, developed and organized educational materials and multimedia visual aids, and planned, developed and conducted training sessions. She also took on special projects, such as organizing and implementing an annual juried exhibit of senior citizensô artwork that garnered statewide attention. All of these tasks required her to work independently and organize, plan and coordinate on a very high level.

6. By all accounts, Claimant handled her job responsibilities quite successfully. Her December 2012 performance evaluation rated the quality and quantity of her work as ñoutstanding,ò and described her as ñcreative and independent,ò an ñexcellent writer and communicatorò with an ñexemplary work ethic,ò and a ñgreat role model for other elders in keeping actively employed and involved.ò

7. Claimant also enjoyed a robust social life and an active lifestyle. Patty Morgan, her close friend of 35 years, credibly described her ñhugeò social circle, with whom she would engage in such activities as cooking, gardening and playing mahjongg, bridge, poker and Scrabble. She was an ñincredibleò piano player, who could play with or without reading music. She told entertaining stories of her southern upbringing in amazing detail and with rich background. She was intellectually curious ï she liked to read, but much preferred research articles over fiction, and routinely read the New York Times and the New Yorker from cover to cover. She was proficient with technology, corresponded with her friends via email and used her computer and cell phone without difficulty. She did yoga and tai chi, and was physically fit.

8. Claimantôs daughter-in-law, Candice Belanoff, also credibly described her as a strong, independent and capable woman. Ms. Belanoff has known Claimant since she began dating her son, Jason, in 1997, and has enjoyed a very close relationship with her through the years. They frequently emailed, talked on the phone and communicated via Facebook. Every other month or so, either Claimant would drive by herself to Boston to visit, or they would come to Vermont to see her.

9. Ms. Belanoff recalled that Claimant always had an efficient way of doing things ï her house was impeccably clean and well-organized, her plants were watered, and dinner was always ready whenever they arrived for a weekend. She excelled at Scrabble, did Sudoku and read voraciously. She had an encyclopedic knowledge of Americana roots music, which she could play from memory. Her birthday cards were always mailed so as to arrive a day early. In 2012, she painted her own kitchen.

10. I find Ms. Morganôs and Ms. Belanoffôs testimony credible in all respects. Together, they painted a picture of a woman who was physically and mentally active, confident in her abilities and adept in her affairs.

Claimant's November 2013 Work Injury and Subsequent Medical Course

11. On November 7, 2013 Claimant was leaving a conference at Gifford Medical Center when she slipped and fell backwards down some stairs, breaking her left hip. Defendant accepted this injury as compensable and began paying workersô compensation medical and indemnity benefits accordingly. As to the latter, temporary total disability benefits were paid at an initial compensation rate of $499.57 per week.

12. Claimant underwent surgery to repair her hip fracture on the following day, November 8, 2013. According to the operative report, the fracture was more substantial than expected, but there were no surgical complications. Post-surgery, however, her hospitalization was complicated by anemia secondary to acute blood loss, which necessitated blood transfusions.

13. Almost immediately upon awakening from her surgery, Claimant exhibited signs of confusion and impaired cognitive function. Then, on November 16, 2013 she experienced an episode of delirium, during which she called 911 because she believed the patient in the next bed was being mistreated in some way. A nurse intervened, and Claimant admitted she felt confused and disoriented. The incident resolved without further agitation. However, both family members and the hospital treatment team remained concerned about her mental status, to the point that they agreed she should not be discharged home alone. Instead, she rehabilitated at a nursing home for the next month.

14. Claimantôs physical recovery over the ensuing months proceeded slowly. In February 2014 her orthopedist, Dr. Norman, reported that she was ñdoing wellò and released her to return to work with restrictions. Subsequent reports from other providers, including Monique Karthaus, PA-C, her primary care provider, documented ongoing limitations, however. Claimant walked with a slow, unsteady gait and used a cane for balance. Between 2014 and 2015 she suffered three minor falls as a result of her gait instability.

15. At Defendantôs request, in December 2014 Claimant underwent an independent medical examination with Dr. White, who determined that she had reached an end medical result for her hip injury with an eight percent whole person permanent impairment. With that opinion as support, effective March 13, 2015 Defendant discontinued her temporary total disability benefits and began paying permanency benefits. These continued for 32.4 weeks, until October 25, 2015.

Claimant's Ongoing Cognitive Deficits

16. As noted above, Finding of Fact No. 13 *supra*, in the immediate aftermath of her November 2013 surgery Claimant exhibited signs of confusion and impaired cognitive function. Since then, her friends and family have observed a steady decline in her cognitive abilities. Ms. Morgan and Ms. Belanoff both testified credibly regarding Claimantôs confusion around days, dates and time. She began leaving repetitive voicemail messages, because she could not remember from one hour to the next having just spoken to them. She forgot appointments and became unable to maintain a schedule of things she needed to do, such as taking her medications. She had difficulty operating her cell phone. Her household became uncharacteristically disorganized, with dirty dishes in the sink and stacks of papers on the table. She became increasingly unaware of her surroundings; Ms. Belanoff described that she would fail to realize the need to slow down when walking downhill, or she would gaze at a passing car and forget to return her attention to the sidewalk in front of her. On one occasion, her neighbor brought her to the emergency room after she became delirious from not drinking water. She had difficulty with word finding and spoke haltingly. She looked frail and fatigued and became increasingly inactive. She no longer played the piano and gave up poker, mahjongg and Scrabble as well.

17. Ms. Belanoff credibly testified that although Claimant has had occasional moments of clarity in the months and years since her surgery, these have never been sustained; instead, her cognitive function has continued to decline. Lately, she has evidenced an alarming confusion as to place; for example, failing to comprehend the distance between Vermont and Boston and as a consequence suggesting that her son and Ms. Belanoff ñstop byò for dinner. At hearing, Ms. Morgan played a voicemail message she had received two weeks earlier, in which Claimant struggled to recall what day of the week it was and what day came next. I find from this credible evidence that Claimantôs cognitive decline has been steady and consistent since her November 2013 injury.

18. Both Ms. Belanoff and Ms. Morgan credibly testified regarding their concern that it was no longer safe for Claimant to continue to live alone. In fact, Ms. Belanoff testified that her husbandôs plan was to move Claimant from her apartment immediately following the hearing, and bring her to live with them in Boston.

Medical Opinions as to Cause and Extent of Claimant's Cognitive Deficits

(a) Dr. Black

19. To determine the cause and extent of her cognitive deficits, in December 2013 Claimant underwent a brain MRI. This revealed moderate global atrophy consistent with her age and small vessel changes, but no evidence of stroke. Thereafter, in March 2014 she was referred to Dr. Black, a neurologist, for further evaluation. Dr. Black noted her history of ñabrupt cognitive declineò immediately following a surgery that necessitated prolonged anesthesia and resulted in some blood loss, and the week-to-week cognitive deterioration that her son and daughter-in-law described thereafter. I find this progression of Claimantôs symptoms as Dr. Black reported them credible in all respects.

(b) Dr. Roth

20. In July 2014 Claimant underwent neuropsychological testing with Dr. Roth. This testing documented findings consistent with mild cognitive impairment. Claimant evidenced a measurable decline from her previously high level of cognitive functioning in core verbal and perceptual abilities, and deficits as compared with her age-matched peers in language comprehension, verbal fluency, retrieval and recall.

21. As for causation, Dr. Roth suggested several potential factors, including Claimantôs 2009 TIA, *see* Finding of Fact No. 4 *supra*, her ñprobable head injuryò and her ADHD. There is no evidence whatsoever that Claimant suffered a head injury as a result of her November 2013 fall, however. Nor is there any evidence that either her ADHD or her TIA had significantly impaired her cognitive function, at work or socially, prior to her injury-related surgery. For that reason, while I accept Dr. Rothôs test findings and diagnosis as credible, I find his causation opinion suspect.

(c) Dr. Fong

22. In November 2014 Claimant underwent additional neurological evaluation with Dr. Fong, a board certified adult neurologist at Beth Israel Deaconess Medical Center in Boston, Massachusetts. Dr. Fong has an active clinical practice focusing on the care, diagnosis and treatment of cognitive disorders related to aging, including Alzheimerôs disease, mild cognitive impairment, dementia and delirium. She is also engaged in medical research, and of particular relevance to this case, has reported in peer-reviewed journals on her investigation of post-operative delirium, its interface with dementia and the long-term cognitive outcomes in affected patients.

23. Dr. Fong first evaluated Claimant in November 2014. She obtained a detailed neurologic history and conducted a clinical examination, including cognitive testing. The latter revealed deficits largely in attention and executive functioning, including deficits with short-term memory. Dr. Fong also noted balance issues, slurred speech and overall slowness of movement.

24. Dr. Fong hypothesized that even prior to her November 2013 fall, Claimant may have had ñincipientò cognitive impairment. Used in its medical context, the term ñincipientò refers to the possibility that Claimant may already have been predisposed to developing dementia, but was not yet exhibiting any symptoms. This is true of most people who develop the condition; pathologic changes in the brain can occur ten or even twenty years prior to any observable symptoms.

25. Dr. Fong further hypothesized that Claimantôs incipient dementia may have been unmasked by her November 2013 fall, hospitalization and subsequent episode of delirium. Delirium is an acute mental state in which a normally functioning patient becomes extremely confused and sometimes paranoid, all within a matter of hours. The condition is often precipitated by hospitalization, infection, surgery, anesthesia and/or pain medications. Elderly people are particularly vulnerable.

26. Some researchers have posited that delirium causes inflammation in the brain, but how and why this occurs is not yet clearly understood. In the past, delirium was thought to be a temporary condition. However, more recent research (some of which Dr. Fong herself has conducted) suggests that in certain patients it can cause rapid cognitive decline that is both persistent and progressive, and from which they do not recover.

27. Shortly after Dr. Fongôs evaluation, Claimant underwent an assessment to determine whether it was appropriate for her to resume driving. This consisted of a series of visual perceptual and cognitive tests, both clinical and on-road. The results corroborated many of Dr. Fongôs findings as to the nature and extent of Claimantôs impaired cognitive function. She exhibited poor sustained focus, difficulty retaining instructions, delayed reaction times, deficits in information processing speed and heightened distractibility. Whereas prior to her injury she had been by all accounts a safe and confident driver, now the evaluators determined that she was not able to safely operate a vehicle independently. Notably, because of the difficulty she exhibited with respect to new learning and memory, they further concluded that she would not benefit from additional training. Instead, they recommended that she cease driving and voluntarily surrender her license. This she did.

28. Dr. Fong next evaluated Claimant in February 2015. Repeat cognitive testing documented little change from her November 2014 evaluation. With that in mind, Dr. Fong concluded that Claimant now met the diagnostic criteria for mild cognitive impairment.

29. In her April 25, 2015 report, Dr. Fong referenced the Clinical Dementia Rating (CDR) as the basis for her diagnosis. The CDR is a rating scale used to quantify the extent of a patientôs cognitive impairment across six categories ï memory, orientation, judgment and problem solving, community affairs, home and hobbies and personal care. Dr. Fong routinely uses the CDR in the context of her research, and has completed training and earned a certificate of competency in administering it. The *AMA Guides to the Evaluation of Permanent Impairment, 5th ed.* (the *"AMA Guides"*) also uses the CDR as the basis for rating impairment related to mental status.

30. Based on her clinical examinations, interviews with both Claimant and her son and review of pertinent medical records, as of her April 2015 report Dr. Fong determined that Claimant met the criteria for a CDR rating of 0.5. This rating is characterized by ñslight impairmentò across all categories except for personal care. I find this characterization well-supported by the evidence.

31. Dr. Fong also concluded that Claimantôs condition was expected to be permanent, would not significantly improve and likely would further progress over time. I consider this equivalent to a determination of end medical result, which I find credible.

32. With reference to the *AMA Guides*, Dr. Fong rated Claimant with a twelve percent whole person permanent impairment as a consequence of her deficits in cognitive functioning. I find this analysis credible.

33. Dr. Fongôs prediction that Claimantôs mental status would continue to worsen proved correct. Based primarily on Ms. Karthousôsubsequent report of Claimantôs increased difficulties across all categories of the CDR, at formal hearing Dr. Fong credibly testified that she now likely qualifies for a CDR rating of 1.0 and a diagnosis of early dementia. Such deterioration is not unexpected; fifty percent of patients with mild cognitive impairment progress to early dementia within one year. With reference to the *AMA Guides*, Dr. Fong now estimates Claimantôs whole person permanent impairment at 25 percent.

34. Citing from her own published research to the strong association between an episode of delirium and either new onset cognitive impairment or accelerated cognitive decline thereafter, Dr. Fong concluded in her April 2015 report that Claimantôs cognitive impairment was causally related to her November 2013 fall, surgery, hospitalization and episode of delirium.

35. In her formal hearing testimony, Dr. Fong expanded on the reasoning behind her causation opinion. She noted the importance of comparing Claimantôs current level of functioning to her pre-injury baseline. As discussed above, Finding of Fact Nos. 5-9 *supra*, prior to her injury Claimant was fully independent at home, working in a relatively complex job and generally functioning at the top end of her age level. Post-injury, the cognitive decline she has exhibited is greater than what would be expected based on advancing age alone. Nor is there any evidence of stroke or other trauma to account for the changes in her mental status. Considering these facts together, in Dr. Fongôs opinion Claimantôs November 2013 work injury and its sequelae stand as the most likely cause of her impaired cognitive functioning. I find this analysis credible.

36. As to work capacity, Dr. Fong concluded that Claimantôs cognitive impairments preclude her from engaging in any viable employment. I find this opinion credible.

(d) Dr. Miarmi

37. At Dr. Fongôs recommendation, in July 2015 Claimant underwent neurocognitive screening and evaluation with Dr. Miarmi, a neuropsychologist at the Brain Fit Club, a program operated by the Beth Israel Deaconess Medical Center neurology department. In addition to her clinical examination, which included a complete battery of formal neuropsychological tests, Dr. Miarmi interviewed Claimant and her son, and also reviewed the pertinent medical records.

38. Relative to Claimantôs premorbid intellectual capacity, which Dr. Miarmi estimated to be in the superior range, overall her test findings indicated a mild decline. More specifically, however, Claimant exhibited marked impairments in complex attention and executive functioning (working memory, attentional control and mental flexibility), as well as visual motor and cognitive processing speed. Importantly, these impairments undermined Claimantôs performance on tests of new learning and memory. Claimant also demonstrated difficulty with dual-tasking, for example, maintaining her standing balance while performing additional cognitive tasks.

39. Noting that Claimantôs daily functioning remained largely unaffected by her cognitive difficulties, Dr. Miarmi diagnosed her with mild cognitive impairment, as both Dr. Roth and Dr. Fong had done previously. At the same time, she expressed concern as to the likelihood of further decline. I find this analysis credible.

40. Dr. Miarmi made various recommendations geared at optimizing Claimantôs current level of cognitive functioning, including memory assistance strategies, regular physical exercise and engaging in socially stimulating activities. While these suggestions may prove helpful in terms of slowing decline, none of them are reasonably anticipated to result in further improvement. For that reason, I find that they do not negate Dr. Fongôs earlier end medical result determination.

(e) Dr. Nash

41. At Defendantôs request, in December 2015 Claimant underwent a psychological evaluation with Dr. Nash, a licensed psychologist-doctorate. The purpose of his evaluation was to determine whether and to what extent Claimant was suffering from dementia causally related to her November 2013 work injury and subsequent hospitalization. To answer these questions, he interviewed Claimant, administered various psychological tests and reviewed her pertinent medical records.

42. Dr. Nashôs testing focused primarily on Claimantôs memory and verbal reasoning skills. He also administered a test to determine whether she was malingering. Her scores on that test were below the threshold for valid results. Dr. Nash concluded that this was not because she intended of her own volition to score poorly, however. Instead, he attributed her poor performance in part to her preexisting ADHD and in part to what he described as ñlearned behaviorò derived from being told repeatedly that she suffers from mild cognitive impairment. The former he believed made it difficult for her to focus and remain on task. The latter, he asserted, caused her to expect failure, such that she gave up easily and without applying full effort.

43. Claimantôs scores on the other tests Dr. Nash administered were in the normal range. In his opinion, notwithstanding that she may previously have been functioning at a much higher cognitive level, absent evidence of below-normal memory impairment these results precluded a diagnosis of dementia. When asked about this aspect of Dr. Nashôs analysis at formal hearing, Dr. Fong testified that because Claimantôs baseline intellectual functioning was likely in the superior range, for her to perform at the normal level would represent a measurable decline. I agree, and thus find Dr. Nashôs analysis unpersuasive.

44. Dr. Nash acknowledged that he did not review any medical records to determine the extent of Claimantôs preexisting ADHD, and did not specifically test for that condition during his evaluation. Because he did not do a full neuropsychological evaluation, he also did not test for deficits in other cognitive domains besides memory and verbal reasoning. He did not interview anyone other than Claimant regarding her pre-injury social and intellectual activities. He had only a general idea of her work responsibilities and had not read her 2012 job performance evaluation, which gave no indication whatsoever of any memory, focus, attention or verbal reasoning deficits. I find from these omissions that Dr. Nash did not have a sufficient basis for determining whether Claimantôs poor performance was due to preexisting ADHD-related attention difficulties, as he surmised, or to other cognitive impairments possibly related to her November 2013 work injury. For that reason, I find his analysis completely unpersuasive.

45. At least as of his December 2015 evaluation, Dr. Nash concluded that Claimant had not exhibited any impairment in memory or verbal reasoning sufficient to preclude her ability to work. He acknowledged that other deficits in executive function, such as the ability to plan and organize effectively, could conceivably impact her employability. Dr. Nash did not conduct a full neuropsychological testing battery, and therefore had no opinion as to whether in fact measurable deficits in these areas have negatively affected Claimantôs vocational rehabilitation prospects.

Claimant's Work Capacity and Vocational Rehabilitation Efforts

46. In September 2014 Claimant sought and received a release from Dr. Coffey, her treating neurologist, to do volunteer work. Dr. Coffey agreed that it was reasonable for her to ñgive it a try.ò Thereafter, she volunteered for two hours weekly at her local senior center until the end of 2015, when her position was discontinued. The record does not indicate what tasks Claimant took on in this role, nor to what extent she was able to successfully manage them.

47. At her attorneyôs referral, in October 2015 Claimant underwent a functional capacity evaluation with Louise Lynch, a registered physical therapist and certified work capacity evaluator. Among her pertinent findings:

- Claimantôs physical movement patterns were extremely slow, and she exhibited limitations in balance, particularly when engaged in tasks that required her to concentrate. In addition, her postural habits increased her risk of falling backwards.

- Claimantôs cognitive pace was extremely slow as well. She had difficulty changing tasks and understanding both written and verbal communications. For example, she required three and a half hours to complete the interview and paperwork portion of the evaluation, a task that normally takes about an hour.

- Claimant had difficulty using either a computer keyboard or a mouse, and needed cues and assistance on all aspects of computer use. She would not ask for help as she struggled and when questioned did not realize why the task was not working.

- Claimantôs vocational strengths were her motivation to return to work, her ability to sit and look down, reach, handle and finger. Her upper and lower body strength was also good as compared to her age peers.

- Claimant exhibited more mental fatigue than physical fatigue as the day progressed.

48. Based primarily on Claimantôs ability to lift, carry, push and pull with at least ten pounds of force and to sit for most of a workday, Ms. Lynch determined that she had demonstrated a safe, full time sedentary work capacity with some abilities at the light level. However, she qualified her findings as follows:

> [Claimant] would need supervision and strategies to help her comprehend her job tasks and the tasks would need to be simple and clear. She is not suited for work that involves driving, planning, traversing unstable ground, working when it is dark or activities that require unstable positions . . . Her cognitive limitations and the need to focus without distraction on a task increases her mental fatigue and would have a greater limitation on her ability to work continuously in a sedentary work setting. In addition, her productivity would be slow and not even close to industry standards, making employment difficult to find.

49. Ms. Lynch acknowledged that many of the limitations Claimant exhibited were common among people over 70, though the decline in cognitive function, balance, strength and reaction varies from person to person. Noting that prior to her injury Claimant had been functioning at least at a light level and performing tasks that required thought, planning and a productive work pace, Ms. Lynch concluded that in her case age was likely not the primary reason for her limited work capacity. I find this analysis credible.

50. Ms. Lynchôs observations were consistent with those reported in Claimantôs November 2014 driving assessment, and provided functional corroboration for Drs. Roth, Fong and Miarmiôs neuropsychological test results. I find her analysis credible in all respects.

51. At her attorneyôs request, in April 2016 Claimant underwent a vocational rehabilitation evaluation with William Burke, Ph.D., a certified rehabilitation counselor, case manager and consultant. The purpose of the evaluation was to assess the extent of Claimantôs disability and its impact on employability.

52. Based on his evaluation, which included a review of pertinent medical records, Mr. Burke concluded that Claimant ñcan be considered to have lost all future access to the competitive labor market.ò In support of this opinion, he noted the following:

- Claimant has been diagnosed with a mild neurocognitive disorder, and her primary care provider (physicianôs assistant Karthous) and treating neurologist (Dr. Fong) both have determined that her cognitive deficits preclude her from returning to work;

- Claimantôs functional capacity evaluation established that she is physically capable of working in sedentary occupations, but also showed that her cognitive limitations would result in poor work productivity; and

- Claimantôs ability to walk is impaired, and she is no longer capable of driving safely.

53. I find Mr. Burkeôs opinion credible in all respects.

CONCLUSIONS OF LAW:

1. In workersô compensation cases, the claimant has the burden of establishing all facts essential to the rights asserted. *King v. Snide*, 144 Vt. 395, 399 (1984). He or she must establish by sufficient credible evidence the character and extent of the injury as well as the causal connection between the injury and the employment. *Egbert v. The Book Press,* 144 Vt. 367 (1984). There must be created in the mind of the trier of fact something more than a possibility, suspicion or surmise that the incidents complained of were the cause of the injury and the resulting disability, and the inference from the facts proved must be the more probable hypothesis. *Burton v. Holden Lumber Co.*, 112 Vt. 17 (1941); *Morse v. John E. Russell Corp.*, Opinion No. 40-92WC (May 7, 1993).

Compensability of Claimant's Alleged Cognitive Injury

2. The primary disputed issue in this case is whether Claimant suffered a cognitive injury as a natural consequence of her November 2013 work-related accident. The parties presented conflicting medical opinions on this issue. Dr. Fong initially diagnosed Claimant with mild cognitive impairment, which later progressed to early dementia, all in her opinion causally related to the surgery, hospitalization and episode of delirium that followed her compensable hip injury. Dr. Nash concluded otherwise. In his opinion, Claimant did not meet the criteria for a diagnosis of dementia, and any memory, attention or verbal reasoning deficits she exhibited were more likely due either to her preexisting ADHD or to other ñlearned behaviors.ò

3. Where expert medical opinions are conflicting, the Commissioner traditionally uses a five-part test to determine which expertôs opinion is the most persuasive: (1) the nature of treatment and the length of time there has been a patient-provider relationship; (2) whether the expert examined all pertinent records; (3) the clarity, thoroughness and objective support underlying the opinion; (4) the comprehensiveness of the evaluation; and (5) the qualifications of the experts, including training and experience. *Geiger v. Hawk Mountain Inn*, Opinion No. 37-03WC (September 17, 2003).

4. To an overwhelming extent, I conclude here that Dr. Fongôs opinion as to both diagnosis and causation is the most persuasive. Her opinions were clear and thorough. Her diagnosis was based on comprehensive neuropsychological evaluation and testing, the results of which were corroborated by Claimantôs family and friends, Dr. Rothôs and Dr. Miarmiôs neuropsychological testing, Ms. Lynchôs functional capacity evaluation and the November 2014 driving assessment. Her causation opinion was objectively supported and grounded in her own peer-reviewed research on the interplay between post-operative delirium and dementia. Indeed, it is unusual to hear testimony from an expert who is as uniquely qualified in the particular subject matter at issue as Dr. Fong was.

5. In contrast, Dr. Nashôs evaluation was, by any measure, significantly less comprehensive. He did not conduct a full battery of neuropsychological tests and did not investigate Claimantôs pre-injury level of cognitive functioning, either at work or socially. He attributed Claimantôs memory deficits to her preexisting ADHD, but failed to test specifically for that condition and was unaware of the extent, if any, to which it had impeded her cognitive function in the past. His opinion lacked objective support and as a result was completely unpersuasive.

6. It is axiomatic that once an injury is shown to have arisen out of and in the course of employment, every natural consequence that flows from it likewise is deemed to have arisen out of the employment. 1 Lex K. Larson, *Larson's Workers' Compensation* §10 (Matthew Bender, Rev. Ed.) at p. 10-1. This rule applies not only to complications involving the initial injury itself, *id.* at §10.02, but also to new injuries that arise as a consequence of treatment necessitated by the initial injury, *id.* at §10.09[1]; *see, e.g., Sweetser v. Vermont Country Camper*, Opinion No. 36-09WC (September 24, 2009) (hernia suffered while participating in physical rehabilitation program necessitated by work-related low back injury deemed compensable). That rule applies here. The credible evidence establishes that Claimantôs cognitive functioning became impaired as a direct and natural consequence of her November 2013 work-related fall and subsequent hospitalization, surgery and episode of delirium. It thus qualifies as a compensable, work-related injury.

Permanent Total Disability

7. Having accepted the compensability of Claimantôs impaired cognitive function, it remains to determine to what workersô compensation benefits she is entitled. With support from Dr. Fong, Ms. Lynch and Mr. Burke, Claimant asserts that she is now permanently and totally disabled. Defendant relies primarily on Dr. Nashôs opinion in opposition.

8. Under Vermontôs workersô compensation statute, a claimant is entitled to permanent total disability benefits if he or she suffers one of the injuries enumerated in 21 V.S.A. §644(a), such as total blindness or quadriplegia. In addition, §644(b) provides:

> The enumeration in subsection (a) of this section is not exclusive, and, in order to determine disability under this section, the commissioner shall consider other specific characteristics of the claimant, including the claimantôs age, experience, training, education and mental capacity.

9. The workersô compensation rules provide further guidance. Rule 11.3100[1] states:

> Permanent Total Disability ï Odd Lot Doctrine
>
> A claimant shall be permanently and totally disabled if their work injury causes a physical or mental impairment, or both, the result of which renders them unable to perform regular, gainful work. In evaluating whether or not a claimant is permanently and totally disabled, the claimantôs age, experience, training, education, occupation and mental capacity shall be considered in addition to his or her physical or mental limitations and/or pain. In all claims for permanent total disability under the Odd Lot Doctrine, a Functional Capacity Evaluation (FCE) should be performed to evaluate the claimantôs physical capabilities and a vocational assessment should be conducted and should conclude that the claimant is not reasonably expected to be able to return to regular, gainful employment.
>
> A claimant shall not be permanently totally disabled if he or she is able to successfully perform regular, gainful work. Regular, gainful work shall refer to regular employment in any well-known branch of the labor market. Regular, gainful work shall not apply to work that is so limited in quality, dependability or quantity that a reasonably stable market for such work does not exist.

10. Dr. Fong credibly testified in this case that Claimantôs cognitive impairments preclude her from engaging in any viable employment. Ms. Lynchôs functional capacity evaluation provided objective support for this opinion, noting the significant deficits Claimant exhibited with regard to cognitive pace, distractibility and mental fatigue. I consider Claimantôs impaired performance on tests of new learning and memory, as both Dr. Miarmi and the driving assessment evaluators reported, as additional corroboration. Given her physical and cognitive limitations, Mr. Burke credibly concluded that Claimant was no longer likely to engage successfully in a competitive labor market.

11. Aside from Dr. Nash, Defendant presented no evidence to the contrary. Dr. Nash acknowledged in his formal hearing testimony that he was not qualified as an expert in vocational rehabilitation. Because he did not test for impaired functioning in other cognitive domains besides just memory and verbal reasoning, he stopped short of either discrediting or endorsing Mr. Burkeôs conclusions as to Claimantôs employability, furthermore. For these reasons, I conclude that his analysis was incomplete and unpersuasive.

[1] Effective August 1, 2015 Rule 11.3100 has been re-codified as Rule 10.1700. As both Claimantôs injury and her asserted permanent total disability determination occurred before that date, I have considered her claim for benefits under the prior rule, not the current one.

12. I conclude that Claimant has sustained her burden of proving that as a consequence of her compensable injuries, both physical and cognitive, she is now permanently and totally disabled. In accordance with 21 V.S.A. §645(b), permanent total disability benefits are therefore payable retroactive to March 13, 2015, the date when temporary disability benefits were discontinued.

Permanent Partial Impairment

13. In addition to claiming entitlement to permanent total disability benefits, Claimant also seeks a concurrent award of 125.5 weeks of permanent partial disability benefits. Of this number, 32.4 weeks already have been paid, in accordance with Dr. Whiteôs eight percent impairment rating referable to her hip injury, Finding of Fact No. 15 *supra*. The remaining 93.1 weeks are in accordance with Dr. Fongôs formal hearing testimony, during which she revised her prior diagnosis of mild cognitive impairment to early dementia, and increased her impairment rating from twelve to 25 percent, Finding of Fact Nos. 32-33 *supra*. Rather than accepting credit against her permanent total disability award for the permanent partial disability benefits she already has received, as Defendant asserts she should, Claimant claims entitlement to both benefits simultaneously.

14. Vermontôs workersô compensation statute provides that an injured worker who is determined to be permanently and totally disabled is entitled to weekly benefits for a minimum of 330 weeks, and beyond that for so long as the injured worker continues to have ñno reasonable prospect of finding regular employment.ò 21 V.S.A. §645(a). As to the timing of permanent total disability benefits, §645(b) states as follows:

> The amount of compensation payable under this section shall not include the payment of compensation under sections 640 [medical benefits], 642 [temporary total disability benefits] and 646 [temporary partial disability benefits]. However, the payment of compensation under this section shall not occur until after the termination of compensation under sections 642 or 646 or both.

15. Claimant correctly notes that §645(b) does not allow for a reduction in the amount of permanent total disability benefits an employer owes by the amount of temporary disability benefits it already has paid. This is in keeping with the general statutory framework, which differentiates between temporary disability and permanent disability awards in terms of the purpose for which each was intended. Temporary disability awards are meant to compensate the injured worker ñfor the immediate or present loss of wagesò during his or her recovery period. *Fleury v. Kessel/Duff Construction Co.*, 148 Vt. 415, 420 (1987), citing *Orvis v. Hutchins*, 123 Vt. 18, 22 (1962) (internal citations omitted). In contrast, an award for permanent disability ñlooks to the future to compensate for the probable reduction in earning power that will attend the employee for the remainder of his working life.ò *Id.*

16. Claimant incorrectly infers that because §645(b) does not specifically prohibit concurrent payment of both permanent partial and permanent total disability benefits arising from the same compensable injury, it must therefore be read to permit it. In support of her argument, she cites to case law from other jurisdictions in which such awards were approved. *See, e.g., State v. Consolidated Coal Co. v. Industrial Commission,* 404 N.E.2d 141 (Ohio 1980); *Cuarisma v. Urban Painters, Ltd.*, 583 P.2d 321 (Haw. 1978); *Buechler v. North Dakota Workers' Compensation Bureau*, 222 N.W.2d 858 (N.D. 1974).

17. Regardless of how other states interpret their laws, Vermontôs workersô compensation statute provides clear direction on this issue. Under §648(a), permanent partial disability benefits are payable only when ñthe injury results in a partial impairment which is permanent *and which does not result in permanent total disability . . .* (emphasis supplied).ò

18. The statute thus specifically excludes the exact remedy Claimant here seeks ï an award of both permanent partial and permanent total disability benefits arising from the same injury. The language is clear and thus not subject to interpretation, *Morin v. Essex Optical*, 2005 VT 15, ¶7. The two benefits are mutually exclusive.

19. Having determined that Claimant is permanently and totally disabled under §645, I conclude that she is disqualified from receiving permanent partial disability benefits under §648.[2] As Defendant already has paid 32.4 weeks of the latter, it is entitled to credit against the minimum 330 weeks it now owes on account of the former.

20. As Claimant has prevailed on her claim for benefits, she is entitled to an award of costs and attorney fees. In accordance with 21 V.S.A. §678(e), Claimant shall have 30 days from the date of this opinion within which to submit her itemized claim. Defendant shall have 30 days thereafter within which to file any objections.

[2] Because I have concluded that Claimant is not entitled to permanent partial disability benefits, it is not necessary to decide which of Dr. Fongôs two permanency ratings is appropriate. I note only that to the extent her 25 percent rating was based on further worsening of Claimantôs condition without evidence of additional curative treatment, it contradicts prior precedent. *See, e.g., Heller v. Bast & Rood Architects, Inc.*, Opinion No. 14-13WC (May 9, 2013).

ORDER:

Based on the foregoing findings of fact and conclusions of law, Defendant is hereby **ORDERED** to pay:

1. Medical benefits covering all reasonable medical treatment necessitated by Claimantôs compensable cognitive injury, in accordance with 21 V.S.A. §640;

2. Permanent total disability benefits retroactive to March 13, 2015 and ongoing in accordance with 21 V.S.A. §645(a), less credit for any permanent partial disability benefits paid to date; and

3. Costs and attorney fees in amounts to be determined, in accordance with 21 V.S.A. §678.

DATED at Montpelier, Vermont this 1st day of February 2017.

_____
Lindsay H. Kurrle
Commissioner

Appeal:

Within 30 days after copies of this opinion have been mailed, either party may appeal questions of fact or mixed questions of law and fact to a superior court or questions of law to the Vermont Supreme Court. 21 V.S.A. §§670, 672.