Deposing the Medical Expert in Probate
A KEY THRESHOLD CONSIDERATION
DO YOU CLIMB INSIDE THE GORILLA’S CAGE, OR STAY OUTSIDE AND POKE HIM WITH A STICK?
HOW TO AVOID GETTING EATEN ALIVE
THE NUMBER ONE RULE FOR DEPOSING ANY MEDICAL EXPERT IS:

Preparation, Preparation, and more Preparation!
Cognitive Psychology: Unlocking the Puzzle
TO GET INSIDE HIS BRAIN,

YOU NEED TO STUDY THE HUMAN BRAIN.
The knee bone’s connected to the thigh bone. . .

(Let’s talk a little medicine)
Different parts of the brain

1. Frontal lobe
2. Temporal lobe
3. Parietal lobe
4. Occipital lobe
5. Cerebellum
6. Brain stem
Frontal lobe
Executive functions, thinking, planning, organising and problem solving, emotions and behavioural control, personality

Motor cortex
Movement

Sensory cortex
Sensations

Parietal lobe
Perception, making sense of the world, arithmetic, spelling

Occipital lobe
Vision

Temporal lobe
Memory, understanding, language
DSM-5’s “Major Neurocognitive Disorders” (Dementia)
"Dementia" is not a disease, but a group of symptoms typically marked by a gradual loss of cognitive functioning, as well as losses of motor, behavioral, emotional, and social functioning as well. The common causes of Major NCDs/Dementia include:

- **MEDICAL CONDITIONS THAT PROGRESSIVELY ATTACK BRAIN CELLS AND CONNECTIONS**, most commonly seen in Alzheimer's disease, Frontotemporal Dementia, Lewy Body Dementia, Parkinson's disease, or Huntington's disease.

- **MEDICAL CONDITIONS SUCH AS STROKES OR TRANSIENT ISCHEMIC ATTACKS THAT DISRUPT OXYGEN FLOW AND ROB THE BRAIN OF VITAL NUTRIENTS**. Additional strokes may be prevented by reducing high blood pressure, treating heart disease, and quitting smoking.
Common Causes of Major NCD’s/Dementia (continued)

• **POOR NUTRITION, DEHYDRATION, AND CERTAIN SUBSTANCES, INCLUDING DRUGS AND ALCOHOL.** Treating conditions such as insulin resistance, metabolic disorders, and vitamin deficiencies may reduce or eliminate symptoms of dementia.

• **SINGLE TRAUMA OR REPEATED INJURIES TO THE BRAIN.** Depending on the location of the brain injury, cognitive skills and memory may be impaired.

• **INFECTION OR ILLNESS THAT AFFECTS THE CENTRAL NERVOUS SYSTEM,** including Creutzfeldt-Jakob disease and HIV. Some conditions are treatable, including liver or kidney disease, depression-induced pseudodementia, and operable brain tumors.
Disease Progression (Generally)

In Major NCD/dementia, forgetfulness gradually progresses to confusion and, ultimately, to disorientation. As it progresses, NCD/dementia also adversely effects problem solving, judgment, decision making, orienting to place and time, language use, and behavioral and personality changes, such as irritability, agitation, apathy, depression, manic episodes (euphoria), disinhibition, etc. which can severely affect functional ability.

Rate of progression is highly variable among different individuals

Different forms of dementia present with subtle distinctive characteristics
<table>
<thead>
<tr>
<th>Type of Dementia</th>
<th>History</th>
<th>Signs and Symptoms</th>
<th>Pathology/Imaging</th>
</tr>
</thead>
</table>
| Alzheimer’s Disease (50–80% of all dementia cases) | Gradual, progressive onset | • Memory loss, especially for names and recent events  
  • Language deficits  
  • Rapid forgetting  
  • Impaired visuospatial skills  
  • Normal gait and neuro exam early  
  • Later affective disturbances; behavioral symptoms such as aggression | • Generalized atrophy (esp. medial temporal)  
  • Beta amyloid plaques  
  • Neurofibrillary tangles |
| Vascular (20–30%)                 | Abrupt or gradual onset       | • Focal neurological signs  
  • Signs of vascular disease                                    | • Strokes  
  • Lacunar infarcts  
  • White matter lesions  
  • Vulnerable to cerebrovascular events |
| Lewy Body (10–25%)                | Insidious onset, progressive with fluctuations | • Fluctuating cognition  
  • Visual hallucinations  
  • Neuroleptic sensitivity  
  • Shuffling gait  
  • Increased tone  
  • Tremors  
  • Falls                                | • Generalized atrophy  
  • Lewy bodies in cortex and midbrain |
| Frontotemporal (10–15%)           | Insidious onset, typically in 50s–60s; rapid progression | • Disinhibition  
  • Socially inappropriate behavior  
  • Poor judgment  
  • Apathy, decreased motivation  
  • Poor executive function | • Frontal and temporal atrophy  
  • Pick cells and pick bodies in cortex |
CAUSES OF DEMENTIA

- Alzheimer’s (47%)
- Vascular (19%)
- Lewy body (2%)
- Frontotemporal (3%)
- Dementia with Lewy bodies
- Parkinson’s dementia
- Frontotemporal dementia

Mixed: Other
The Neuropathologic Hallmarks of Alzheimer’s Disease

Amyloid Beta Protein “Plaques” & Tau Protein Neurofibrillary “Tangles”
Structural Changes of the Brain with Dementia

Severe Brain Atrophy in AD

Atrophy of Prefrontal Cortex

Healthy Brain  Severe AD

Normal  Frontotemporal dementia
Brain Atrophy in Advanced Alzheimer’s Disease

Normal

AD
“Dementia” (Greek for “without mind”) is not a disease. It is merely a description of any condition or illness which results in diffuse cognitive dysfunction.

There are currently estimated to be over 50 types of Dementia, each affecting different areas of the brain, with differing prognoses, and different treatment strategies.

Until recently, the specific form of dementia-causing illness could only be definitively diagnosed at autopsy.

That has now changed with advanced neuroimaging techniques.
Functional Neuroimaging Techniques for the Differential Diagnosis of Dementia

- Fluorodeoxyglucose Positron Emission Tomography (FDG-PET) ("Sugar Scanning")
- Beta Amyloid PET Scanning
- Tau PET Imaging of Neurofibrillary Tangles (NFT)
- Single Photon Emission Computerized Axial Tomography (SPECT) scan
- Functional Magnetic Resonance Imaging (FMRI)
NOTE NORMAL VERSUS ABNORMAL PERFUSION (BLOOD FLOW) ON SPECT SCAN
Exciting Advances in both Diagnosis and Treatment of Dementia
Vivien Williams
Reporting
The Race for a Cure: Antibody (Immunotherapy) and Anti-Enzyme Studies
Suspect Decision Making & Task Execution: The Role of Cognitive Functioning

- Requires an *Expert* Assessment of “Cognitive” Functioning (Brain Function)
- “Cognitive functions” are certain *mental abilities and processes* that help us gather, process, store, retrieve, and communicate information.
"My memory is so bad."

"How bad is it?"

"How bad is what...?"
ATTENTION
Distraction
PERCEPTION (vs. REALITY)
I know the voices aren’t real, but man, do they ever come up with some great ideas.
POOR JUDGMENT
(and DISINHIBITION)
MOTOR SKILLS
THE ABILITY TO THINK & REASON
25 Years Difference

40 Years Difference

PROCESSING SPEED
My decision-making skills closely resemble those of a squirrel when crossing a road.
IMPULSE CONTROL
PLANNING

Still a good thing to do first.
## Potentially Reversible Causes of Delirium (Severe, Fluctuating Mental Confusion)

<table>
<thead>
<tr>
<th>Metabolic disorders</th>
<th>Acute myocardial infarction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrolyte abnormalities</td>
<td>Congestive heart failure</td>
</tr>
<tr>
<td>Acid-base disturbances</td>
<td>Stroke (small cortical)</td>
</tr>
<tr>
<td>Hypoxia</td>
<td>Medications</td>
</tr>
<tr>
<td>Hypercarbia</td>
<td>Intoxication (alcohol and/or other substances)</td>
</tr>
<tr>
<td>Hypoglycemia or hyperglycemia</td>
<td>Hypothermia or hyperthermia</td>
</tr>
<tr>
<td>Azotemia</td>
<td>Acute psychoses</td>
</tr>
<tr>
<td>Infections</td>
<td>Transfer to unfamiliar surroundings</td>
</tr>
<tr>
<td>Decreased cardiac output</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Dehydration</td>
<td>Fecal impaction</td>
</tr>
<tr>
<td>Acute blood loss</td>
<td>Urinary retention</td>
</tr>
</tbody>
</table>
Transient and/or Potentially Reversible Causes of Non-Dementia Related Cognitive Dysfunction

1. Schizophrenia
2. Mood Disorders
3. Obsessive-Compulsive Disorder (OCD)
4. Somatoform Disorders
5. Borderline Personality Disorder
6. Attention Deficit/Hyperactivity Disorder (ADHD)
7. Alcohol abuse
8. Substance Abuse
The “Computer Model” of Cognitive Psychology
The “Computer Model” of Cognitive Psychology

Intel 8088 Processor (1978), 128 MB RAM, 512 MB HDD, Two (!) 5.25” Floppy Drives, Cost $2,000.00

24 core Intel Dual Xeon E5-2687 (2016) 5.4GHz Processors, 768 GB of ECC DDR3 RAM, (2) SATA 3 GB HDD’s and (6) SATA 2 GB HDD’s, Cost $50,000.00
The “Computer Model” of Cognitive Psychology

• Consider the Intel 8088 Processor
• Fine for simple emailing (56k Dial-up Modem is a bit slow)
• Fine for simple Word Processing (though MS Word 1997 takes 15 minutes to load)
• Minimal to non-existent Multi-tasking ability
• Frequent B.S.O.D. (Blue Screen of Death)
The “Computer Model” of Cognitive Psychology

• “The Beast” can run the *Space Shuttle*, the *International Space Station*, and the *NORAD Missile Defense System simultaneously*.
• Has enough working memory to perform simultaneous CAD design, Computer Animation, and Video Processing without any processing delays.
• Can stores the entire Library of Congress and the entire Code of Federal Regulations (with 300 GB of storage to spare!)
“Cognitive” Processing in the Healthy v. Cognitively Impaired Brain

Healthy Brain (Dual Xeon E5-2687 CPU Based PC with TONS of Fast Memory)

- Plenty of working memory
- Rapid storage & retrieval of data
- Rapid data processing
- Ability to execute multiple complex tasks simultaneously (multi-task)
- Rapid display (communication) of proper results

Cognitively Impaired Brain (8088 CPU with SLOW, Failing Memory)

- May be OK for simple tasks
- Struggles with complex processing demands
- Lacks sufficient working memory - Memory modules are faulty
- Lacks the processing resources to multi-task
- Easily overwhelmed (BSOD)
What’s the Chief Difference?

Intel 8088 (1978)

Intel Dual Xeon E5-2687 (2016)

Different Central Processing Units (“Brains”)
THE CONCEPT OF “EXECUTIVE FUNCTIONS”
The “Executive Functions” of a Functioning Executive?

Leo McGarry, Former White House Chief of Staff (John Spencer)

President Josiah (“Jed”) Bartlet, who suffers from Multiple Sclerosis (MS) (Martin Sheen)

Current White House Chief of Staff and former Press Secretary, C.J. Cregg (Allison Janney)
Executive Functions of the Brain: A set of enhanced cognitive processes that enable goal-oriented behavior. These skills are largely controlled by an area of the brain called the Prefrontal cortex. Two broad categories of Executive Function are Organizational and Regulatory.

<table>
<thead>
<tr>
<th>Organizational</th>
<th>Regulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipation</td>
<td>Task Initiation</td>
</tr>
<tr>
<td>Planning</td>
<td>Impulse Control</td>
</tr>
<tr>
<td>Sequencing</td>
<td>Emotional Control</td>
</tr>
<tr>
<td>Problem solving</td>
<td>Self-Monitoring</td>
</tr>
<tr>
<td>Working Memory</td>
<td>Moral Reasoning</td>
</tr>
<tr>
<td>Cognitive Flexibility</td>
<td>Decision-making</td>
</tr>
<tr>
<td>Abstract Thinking</td>
<td></td>
</tr>
<tr>
<td>Rule Acquisition</td>
<td></td>
</tr>
<tr>
<td>BASIC ADL’S</td>
<td>INSTRUMENTED (COMPLEX) ADL’S</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>EATING</td>
<td>MANAGE FINANCES</td>
</tr>
<tr>
<td>DRINKING</td>
<td>SAFELY USE HOME APPLIANCES</td>
</tr>
<tr>
<td>WALKING</td>
<td>SAFELY OPERATE A MOTOR VEHICLE</td>
</tr>
<tr>
<td>PERSONAL HYGIENE</td>
<td>SAFELY SELF-ADMINISTER MEDICATION</td>
</tr>
<tr>
<td>DRESSING</td>
<td><strong>Require Higher-Order Cognitive Skills</strong></td>
</tr>
<tr>
<td>CONTINENCE</td>
<td></td>
</tr>
<tr>
<td>Require <em>Basic</em> Cognitive Skills</td>
<td></td>
</tr>
</tbody>
</table>

IADL capacity is usually impaired *EARLY* in the disease process, secondary to EXECUTIVE DYSFUNCTION-and may not be readily noticeable by family members or caregivers.
Disturbances of *executive functions* are among the most common aspects of cognitive impairment (McDonald, et al 2002) and **involve capacity to:**

- Concentrate
- Communicate/use language
- Think in the Abstract (“outside the box”)
- Calculate
- Reason
- Remember & Focus attention
- Plan and/or direct activity
- Process information
- Set goals
- Assess strengths and weaknesses
- Initiate and/or inhibit behavior
- Monitor current activity
- Evaluate results
Executive Functions

Frontal lobe: Executive functions, thinking, planning, organising and problem solving, emotions and behavioural control, personality

Motor cortex: Movement

Sensory cortex: Sensations

Parietal lobe: Perception, making sense of the world, arithmetic, spelling

Occipital lobe: Vision

Temporal lobe: Memory, understanding, language
DEMENTIA & EXECUTIVE FUNCTION

Impaired *Executive Function* in Dementia can affect:

- Insight
- Planning
- Perception
- Judgment
- Memory
- Impulse Control
- Decision-making
- Problem solving
HOW DO THESE COGNITIVE IMPAIRMENTS MANIFEST THEMSELVES IN THE BEHAVIOR OF PATIENTS WITH DEMENTIA?
Common Symptoms in NCD’s / Dementia

1. Memory loss
2. Difficulty with familiar tasks
3. Problems with language
4. Disorientation to place or time
5. Poor or decreased judgment
6. Problems with abstract thinking
7. Misplacing things
8. Changes in mood or behavior
9. Changes in Personality
10. Loss of Initiative

DEMENTIA AFFECTS MUCH MORE THAN JUST BRAIN FUNCTION
Common Behavioral & Psychologic Symptoms of NCD’s / Dementia (BPSD)

Dementia can have profound effects on behavior and mood, which adversely affect functional capacity. Common examples include:

- Irritability
- Anxiety
- Depression
- Apathy
- Agitation (with verbal or physical outbursts)
- General emotional distress
- Restlessness
- Aberrant motor behavior
- Appetite changes
- Repetitive statements or questions
- Sleep disturbances (insomnia or hypersomnia)
- Sleep-wake cycle reversal
- Pacing or wandering (often, “nocturnal ambulation”)
- Sudden, dramatic mood swings (affective lability)
- Perseveration
- Disinhibition
- Delusions
- Hallucinations
The Legal Landscape: Where the Battle Lines are Commonly Drawn.
Common Capacity Determinations

- Testamentary Capacity
- Grantor Capacity-SDPOA
- Grantor Capacity-MPOA
- Capacity to Designate Guardian in Advance of Need
- Capacity to execute a DNR Order
- Capacity to Contract
- Capacity to make Gifts (Donor Capacity)
- Trustor Capacity-Capacity to make or revoke a trust
- Capacity to Care for one’s self
- Capacity to Manage one’s property
- Capacity to give Informed Consent to Medical Treatment
- Capacity to refuse Medical Treatment
- Capacity to Convey Real or Personal Property
- Task-specific Capacities (e.g., to drive, to vote, to own a firearm)
- Capacity to execute a Living Will
Competence v. Capacity

“Competence” is a **Legal** Concept:

- It refers to *a property or characteristic* a person possesses
- We refer to individuals as “*being* competent”
- Competence (relative to a particular decision) is *all or nothing*. Competence is a *Binary State*.

“Capacity” is a **Medical** Concept:

- Capacity refers to *an ability*
- We refer to individuals as “*having* capacity”
- Capacity *comes (and goes) in degrees*
Capacity is *specific* to a particular decision or task:

- A person may have the capacity to make some decisions or execute some tasks, but not others. For example, a person may have the capacity to dress himself, but lack the capacity to operate a motor vehicle or manage his finances.

Capacity *can change* over time:

- e.g., delirium, drugs, disease progression, etc.

Patients with *Partial Incapacity* *May or May Not be Incompetent*—it depends on the *specific task or activity*!
The Four (4) Key Abilities ("Capacities") of Competent Individuals

1. The Ability to Understand Information Given to Them About a Particular Decision;

2. The Ability to Retain that Information Long Enough to Make the Decision;

3. The Ability to Weigh & Evaluate the Information Available With Respect to the Decision; and,

4. The Ability to Communicate the Decision.
When an individual is alleged to demonstrate suspect decision-making, what should the Medical Expert look for and consider (in addition to the MMSE!) ???

“Red Flag” Warning Signs of Suspect Decision-Making (Fertile Grounds for Cross-examination!)
Common “Red Flags” of Suspect Decision-Making

A Radical change(s) from consistently expressed previous wishes.

Evidence of a concurrent mental or neurologic disorder that may affect cognition, judgment, impulsivity or reality testing (e.g., dementia, alcoholism, mood disorders, etc.).

The existence of a dependent relationship whereby the elder/disabled is particularly vulnerable to undue influence.

Multiple changes in the Will by the Testator as a means of controlling individuals who are perceived as essential to the Testator’s independence, support or well-being.
Common “Red Flags” of Suspect Decision-Making

- Testator has no biological children and/or few living relatives.
- Will executed < a year prior to death (“Deathbed Wills”).
- Social or environmental risk factors (e.g., dependency, isolation, family conflict, recent bereavement, etc.).
- Instigation or procurement of a Will (or SDPOA, Change of Beneficiary Designation, etc.) by a Beneficiary.
As Cognitive Deficits *Increase*, Vulnerability to Undue Influence *Increases*

- The Victim of Undue Influence suffers from *Diminished* Capacity
- Whether due to advanced age, mental or physical infirmity, psychological dependence, or neurocognitive disorder, the victim lacks the mental capacity to resist the perpetrator.

“Red Flag” Warning Signs of Vulnerability to Undue Influence
Diminished Mental Capacity and the “IDEAL” protocol for undue influence

Isolation of the Victim

Dependence upon the Perpetrator

Emotional manipulation and/or Exploitation of a weakness

Acquiescence

Loss

Psychological & Social Factors Which Commonly Co-Exist In Undue Influence.-Bennett Blum, M.D., Forensic & Geriatric Psychiatry Consultant
CLASSIC EXAMPLES OF ISOLATION

- **PERPETRATOR INTERFERENCE**: Blocking telephone calls, intercepting mail, blocking visitors, "chaperoning."

- **MEDICAL DISORDERS**: deafness, blindness, dementia, depression, other psychiatric illness, etc.

- **NATURALLY OCCURRING OR PRE-EXISTING ISOLATION**: e.g., due to poor or non-existent relationships, lack of living relatives, few or no friendships, increasing social isolation due to difficulty interacting with others.

- **GEOGRAPHIC OR TECHNOLOGICAL ISOLATION**: Inability to contact friends, relatives or trusted professionals due to remote location, lack of a telephone or lack of transportation.
CLASSIC EXAMPLES OF DEPENDENCE UPON THE PERPETRATOR

• PHYSICAL DEPENDENCE: Food preparation, ADL's, transportation to doctor's visits, etc.

• EMOTIONAL DEPENDENCE: Unemployed child moves back in with widowed mother, new boyfriend/girlfriend, estranged child suddenly becomes a "devoted" caregiver

• INFORMATION DEPENDENCE: Professionals/Advisors who misuse positions of trust to manipulate their victims.
EMOTIONAL MANIPULATION OR EXPLOITATION OF A WEAKNESS

• This often manifests as a combination of promises and threats regarding either issues of safety and security, or companionship and friendship. (Promises of safety, security, companionship and friendship if the victim complies and threats of their withdrawal if the victim refuses to comply).

• Perpetrators sometimes make use of victim weakness or vulnerabilities. It is not unusual to encounter cases in which, for example, a perpetrator provides alcohol to an alcoholic, or has him execute documents despite knowing that the victim is mentally impaired due to acute or long-term effects of alcohol; having a vision-impaired person sign a legal document; or misrepresenting documents and their consequences to the cognitively impaired.
"ACQUIESCENCE" refers to the victim's apparent consent or submission. The act is *not truly voluntary*, but is instead *the product of inaccurate, misleading or deceptive information* that is believed due to the victim's impairments and/or relationship with the perpetrator.
"Loss" refers to financial loss suffered by the Victim and caused by the Perpetrator, such as inter vivos financial loss (usually favoring the perpetrator)
CLASSIC EXAMPLES OF LOSS

- Taking, misusing, or using without knowledge or permission money or property;
- Forging or forcing an elder person's signature;
- Abusing joint signature authority on a bank account;
- Misusing ATMs or credit cards;
- Cashing an elder person's checks without permission or authorization;
- Misappropriating funds from a pension;
- Getting an elder person to sign a deed, will, contract, or power of attorney through deception, coercion, or undue influence;
- Providing true but misleading information that influences the elder person's use or assignment of assets;
- Persuading an impaired elder person to change a will or insurance policy to alter who benefits from the will or policy;
- Using a power of attorney, including a durable power of attorney, for purposes beyond those for which it was originally executed;
- Improperly using the authority provided by a guardianship, conservatorship, trust, etc.;
- Negligently mishandling assets, including misuse by a fiduciary or caregiver;
- Promising long-term or lifelong care in exchange for money or property and not following through on the promise;
- Overcharging for or not delivering caregiving services; and,
- Denying elder persons access to their money or preventing them from controlling their assets.
THE HARD CASES ARE THE WALKIE-TALKIES
Misappreciation of the Deficits of the “Walkie-Talkie”

- Changes are often so gradual as to be insidious
- Family members may be in denial
- Family members may fear a genetic pre-disposition to dementia, further resulting in denial
- Perpetrators often know, and therefore “target” the elder
- Family members may have ulterior motives for ignoring signs & symptoms of dementia
- Patient often lacks insight
### ADDITIONAL TOPICS & RESOURCES

- Rebuttable Presumption of competence
- Conduct suggesting incapacity
- DSM-V’s preference for standardized neurocognitive testing
- Common Multi-Domain Tests
- Domain-specific (targeted) Tests
- Behavioral & Psychologic Symptom (BPSD) Tests
- Diagnostic v. Screening Tests
- Strengths & weaknesses of Neurocognitive Tests
- Strategic considerations re: deposing the Medical Expert
- Attacking validity & reliability of neurocognitive tests
- Information required for deposition
- Daubert / Robinson challenges
- Ruling out other causes of NCD’s
- Daubert cases on Forensic Psychology
- Specific Topics for Cross-examination
- Bias, prejudice, testimonial and pecuniary interest
- Education, licensure, experience, board certification & privileges
- Ethical Principles of Autonomy, Beneficence & Nonmaleficence