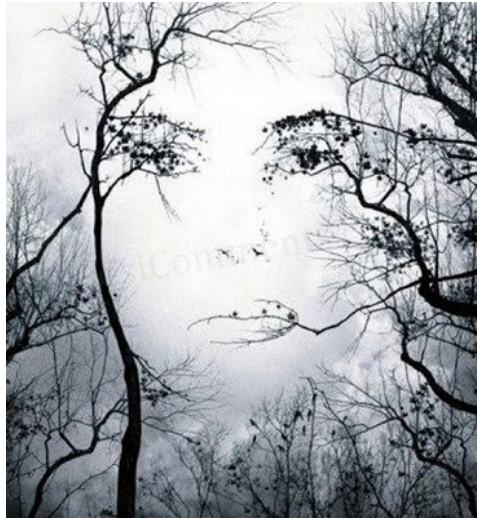


# Not All Is As It Seems

## *Hallucinations and Delusions in Parkinson's Disease*



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# What will we learn today?

- Psychosis is common in Parkinson's disease
- The severity of symptoms can vary widely
- It is important to share these experiences with your loved ones and doctors
  - Improve treatment and clinical care
  - Decrease stigma



## The terrorist inside my husband's brain



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I am writing to share a story with you, specifically for you. My hope is that it will help you understand your patients along with their spouses and caregivers a little more. And as for the research you do, perhaps this will add a few more faces behind the why you do what you do. I am sure there are already so many.

This is a personal story, sadly tragic and heartbreaking, but by sharing this information with you I know that you can help make a difference in the lives of others.

As you may know, my husband Robin Williams had the little-known but deadly Lewy body disease (LBD). He died from suicide in 2014 at the end of an intense, confusing, and relatively swift persecution at the hand of this disease's symptoms and pathology. He was not alone in his traumatic experience with this neurologic disease. As you may know, almost 1.5 million nationwide are suffering similarly right now.

together, or if he was our joys and triumphs or concerns. Any ob- ally or as a couple because we had each

When LBD be- gins our way, this fo- was our armor.

The colors were c- was already late Octo- ber anniversary. Rol- care. He had been seemed unrelated: c- heartburn, sleepless- sense of smell—and l- tremor in his left han- the time being, that w- der injury.

“I experienced my brilliant husband being lucid with clear reasoning 1 minute and then, 5 minutes later, blank, lost in confusion,” she wrote.

She added: “I was powerless in helping him see his own brilliance.”

## Robin Williams' widow: 'It was not depression' that killed him

**Susan Williams gives first interview since her husband's death last year and reveals the actor had a debilitating brain disease called Lewy body dementia**



▲ Robin Williams in 2007. The beloved actor was aware he was losing his mind and although he was keeping it together 'in the last month he could not'. Photograph: Reed Saxon/AP

When comedian Robin Williams hanged himself in his California home in August 2014, the news of his death was met with incomprehension around the world.

“He kept saying, ‘I just want to reboot my brain,’” his widow recounted.



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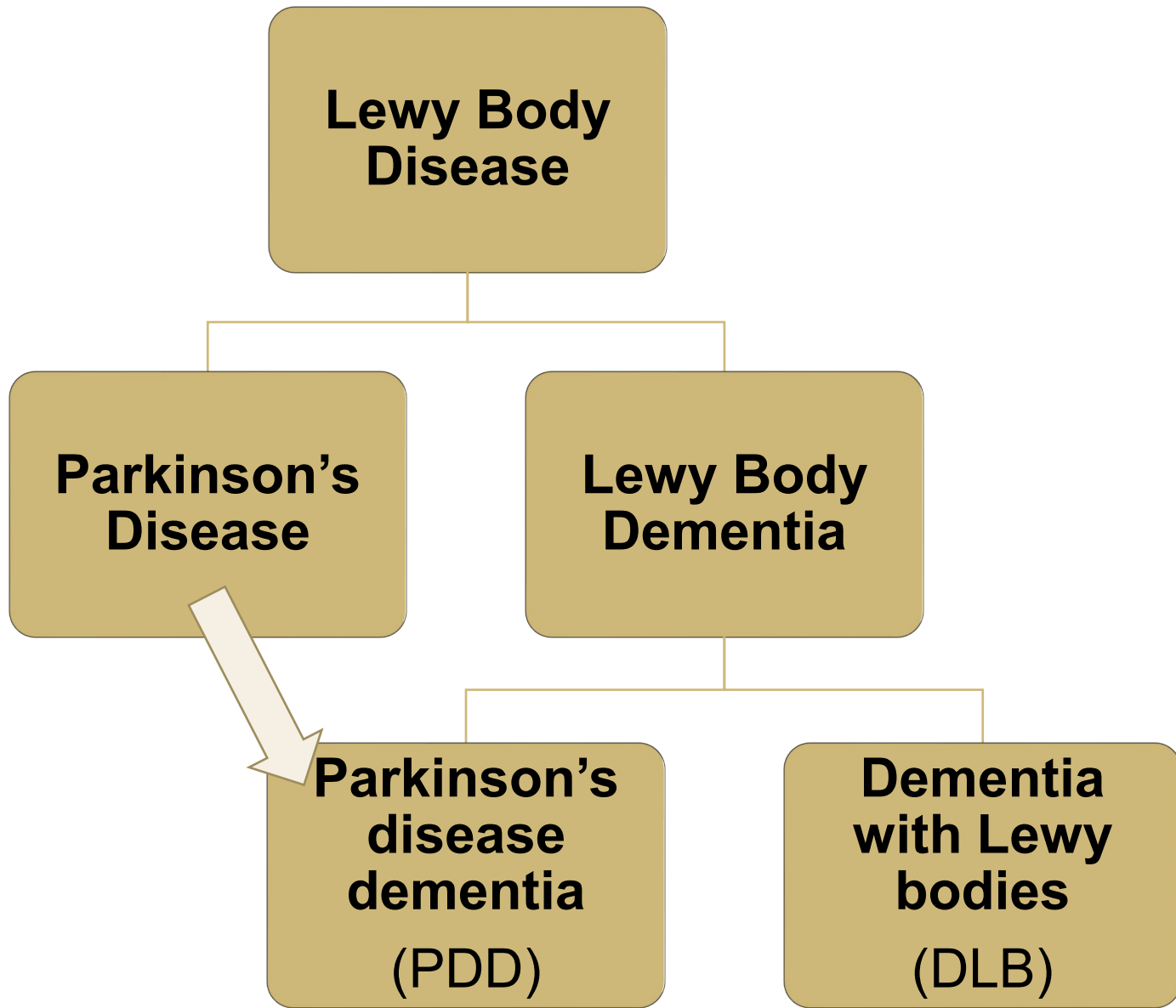
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# Psychosis

- Change in how the brain is processing information
- Alteration in the perception of one's reality
- Recurrent experience of hallucinations, illusions, and/or delusions
- Cause can be psychiatric, neurologic, or medical
  - It's a symptom of something else, not a disease itself





# Parkinson's Disease Psychosis

- Can occur in up to 60% of people with PD
- Range of severity of symptoms
- More common if cognitive impairment also present
- Can be caused or worsened by medications
  - *But can be due to Parkinson's disease changes in the brain on their own*



# Dementia with Lewy Bodies

- Psychosis symptoms are also very common in DLB
- Presence does not help separate these diagnoses
  - *Main difference between PD and DLB is what symptoms came first: movement or memory?*



# Dementia with Lewy Bodies

- Cognitive impairment plus 1-2 of the following:
  - Parkinsonism: slowness, stiffness, shakiness (60-85%)
  - Visual hallucinations (54-70%)
  - REM behavior disorder (up to 76%)
  - Fluctuations in level of alertness or arousal (15-80%)





# Hallucinations

- Seeing, hearing, feeling, and/or smelling things that aren't really there
- Presence or passage hallucinations are common and mild
  - Feeling someone standing behind you
  - Catching movement in the corner of your eye (frequently)
- Usually well-formed, visual hallucinations
  - People, children, animals



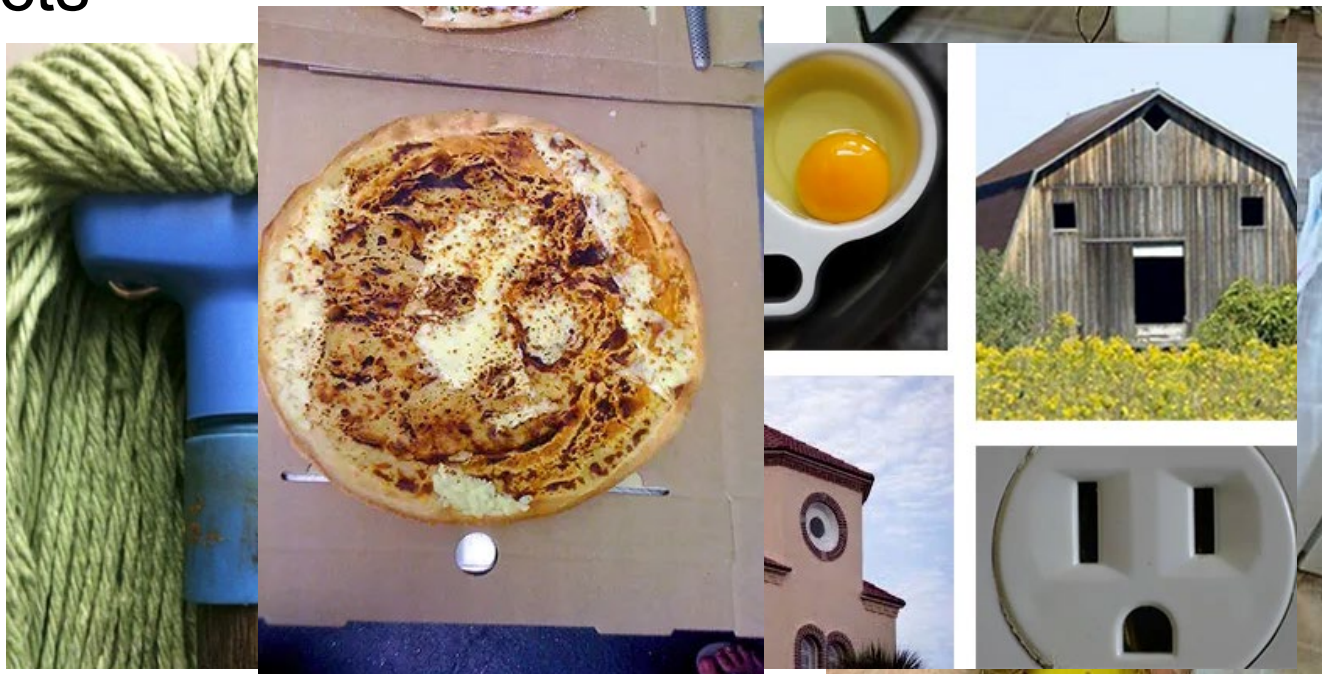
# Illusions

- Misinterpretation of a sensory stimulus, usually visual
  - Mistaking a lamp for a person
  - Seeing faces in patterns in the rug, or in the leaves on a tree



# Pareidolia

- Seeing patterns in randomness
- Human tendency to see faces in inanimate objects

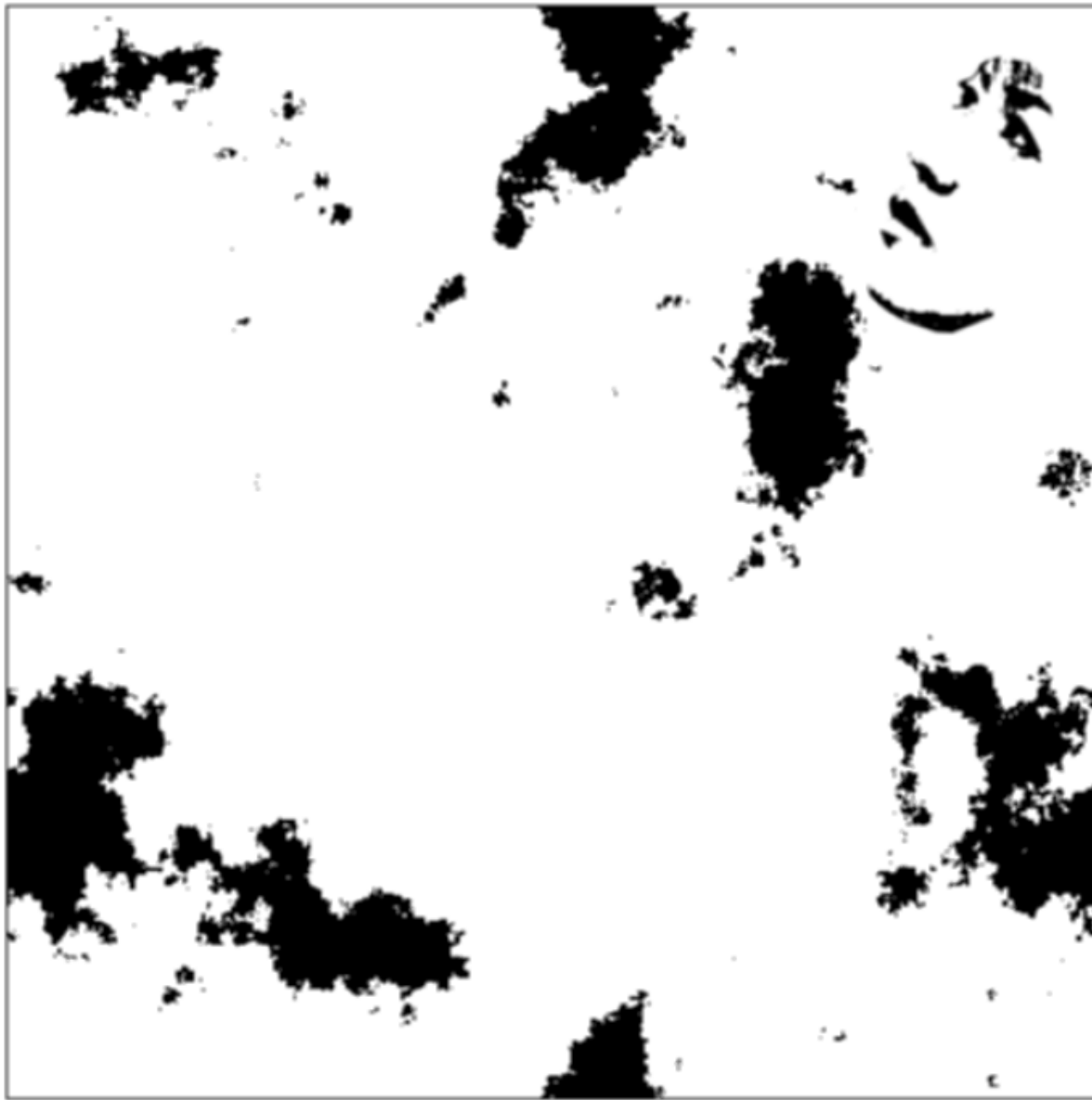


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# Delusions

- Falsely held, fixed belief
- Cannot be persuaded to the contrary, despite ample evidence
- Paranoid, persecutory
  - Partner is cheating on them
  - Someone is stealing from them
  - Neighbors are plotting against them



# Delusional Misidentification

- Theme of doubles
- A familiar person is replaced with an identical imposter (*Capgras syndrome*)
- Different people are all the same person who is changing disguises (*Fregoli syndrome*)
- A familiar person, place, or object has been duplicated (*reduplicative paramnesia*)
  - “This is not our real house, we need to go to the other house”



# Causes of Psychosis

- Can be due to the brain changes of Parkinson's disease itself
- Can also be due to medication side effects
  - Parkinson's medications: amantadine, trihexyphenidyl (Artane), dopamine agonists
  - Other medications
    - Sleeping medications
    - Antibiotics
    - Pain medications
    - Some anti-depressants (tricyclics)
    - Benzodiazepines (alprazolam, midazolam, lorazepam)





# Treatment Options

- Only needs to be treated if it is bothersome or distressing
  - Hallucinations are often non-threatening and insight is retained
- Keep rooms well-lit while awake, avoid clutter in rooms
- Focusing on or interacting with hallucinations can make them go away
  - Shine a flash light on them
  - Visual hallucinations of people generally do not speak
- Reduce or remove potential causative medications



# Treatment Options

- If the person experiencing the hallucination has lost insight, a loved one could:
  - Respond in a calm, supportive manner – “I’m here, I’ll protect you, we’re safe”
  - Gentle redirection and distraction – “Can you help me with this?”
  - Acknowledge their feelings, don’t contradict or try to convince them “it’s not real”
    - “I know you see something, but I don’t see it”
    - “I know this must be frightening”
    - “You seem worried”



# Treatment Options

- Vast majority of anti-psychotic medications will make motor symptoms of PD worse by blocking dopamine
- People with PD should **NOT** receive the following medications:
  - Haloperidol (*Haldol*)
  - Risperidone (*Risperdal*)
  - Olanzapine (*Zyprexa*)
  - Ziprasidone (*Geodon*)
  - Aripiprazole (*Latuda*)



# Treatment Options

- If symptoms are bothersome, can treat with a few *safer* antipsychotic medications
  - Quetiapine, or Seroquel
  - Clozapine, or Clozaril
  - Pimavanserin, or Nuplazid – *new as of April 2016*
    - *The only FDA-approved medication for PD psychosis*
- Thinking and memory medications can also help
  - Donepezil, or Aricept
  - Rivastigmine, or Exelon



# Delirium

- Acute confusional state
- Temporary symptoms of cognitive impairment and psychosis, with waxing and waning course
- Often occurs during hospitalization
  - New medications
  - Unfamiliar environment
  - Altered sleep/wake cycle
  - **Infections**



# Delirium

- Temporary state, but if it occurs, there is an increased risk of dementia in the future
- **Aware in Care** kit from National Parkinson Foundation
  - 1-800-4PD-INFO (473-4636)
  - <http://www.awareincare.org>
  - Order it for free!



# Summary

- Hallucinations and delusions are very common in Parkinson's disease
  - However, they are often mild and non-distressing
- Treatment with medication should only occur if symptoms are serious, distressing, and/or unsafe
  - Need to be careful about medication choice
- Hallucinations and delusions can also indicate a **delirium**
  - May be caused by infection, constipation, dehydration, medication side effect, etc.

