

# Cognitive Behavioral Approach To Hallucinations

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Evidence Based

References of Recommendation

*Genkaku to Moso no Ninchirinsho Shinrigaku* (Cognitive  
Clinical Psychology: Hallucination and Delusion) Takuma  
Ishigaki, University of Tokyo Press

*Phantoms in the Brain* V.S. Ramachandran & Sandra  
Blakeslee, Kadokawa Shoten

*Fire in the Brain. Clinical Tales of Hallucination* Ronald K.  
Siegel, Seidosha

# Classification of Hallucinations from the Perspective of Sensory Modality

**Auditory hallucinations**

**Elemental auditory**

**hallucination (Unspoken sound, e.g. bells)**

**Complex auditory**

**hallucination (e.g. music)**

**Language hallucination**

**Non-verbal hallucinations**

**Verbal**

**hallucinations**

**Visual hallucinations**

**Olfactory hallucinations**

**Gustatory hallucinations**

**Cenesthopathy**

I hear someone commenting on everything I say.



## **Characteristics of schizophrenia**

- 1. Frequency of language-related auditory hallucinations**
- 2. Symptoms of verbal auditory hallucinations (talking, ordering and manipulating voices)**
- 3. Personally involved in auditory hallucinations**
- 4. Exhibit active side of auditory hallucinations**
- 6. Subvocal speech**
- 7. Disrupting auditory hallucinations by voice production**
  - > behavioral therapy for auditory hallucinations**



# Emotional Changes by Recognition (Birchwood, et al)

**A: Auditory  
Hallucinations**

**B: Cognition**

**C: Emotion**

**D: Behavior**

**negative**

**evil  
conscience**

**negative**

**resistance  
behavior**

heard a voice  
“Beat him”

God is trying  
to trap me

anxiety

Do not leave  
a room

**negative**

**good  
conscience**  
God is trying  
to challenge  
my faith

**positive**

**harmonious  
behavior**

heard a voice  
“Beat him”

joy

Pretend to  
listen

**positive**

**evil  
conscience**  
Devil is trying  
to trap me

**negative**

**resistance  
behavior**

heard a voice  
“Be careful”

fear

Do not enter  
a store

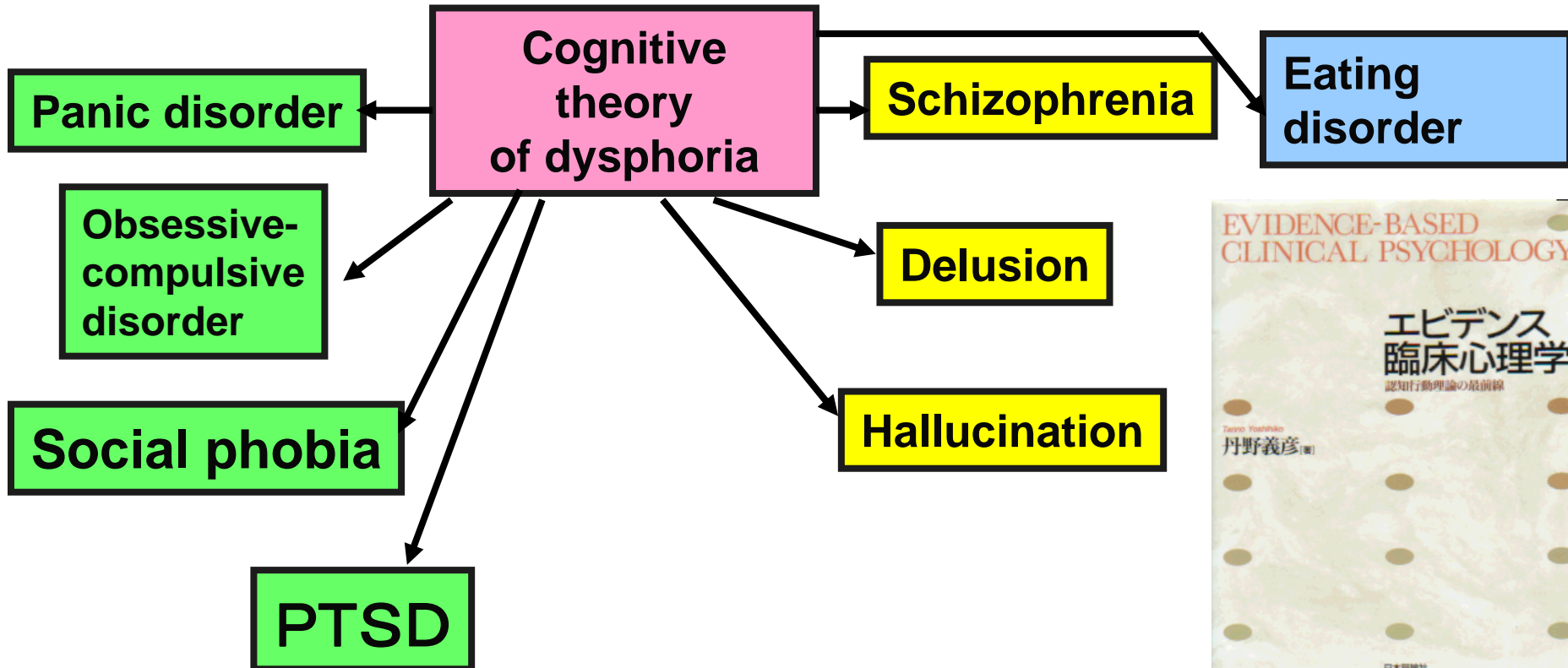
# Cognitive Behavioral Therapy as a Public Theory

Anxiety disorder

Dysphoria

Schizophrenia

Others





# Symptomatic Approaches of Schizophrenia

symptoms

analogue research

positive symptoms	delusion	— — —	delusional idea
	hallucination	— — —	delusional experience
	ego disorder	— —	low self-esteem
negative symptoms	autosynnoia	— —	social withdrawal social anxiety
	emotional indifference	—	apathy
	loose associations		



# **Causal Mechanisms of Sense Deprivation- Hallucination**

## **1. Physiological level**

**restraint of movement, fatigue, sleep deprivation, starvation**

**⇒ lowered level of consciousness**

## **2. Intellectual level**

**self deprivation, sense deprivation**

**⇒ discharge of suppressed representation, intellectual complementation**

## **3. Psychological level**

**emotional shock, depression**

**⇒ express desire from regression of ego**

## **4. Social level**

**termination of daily life, social isolation**

**⇒ social complementation**



# Psychological effect of Sense Deprivation Experiment

1. Encouraged **non-suggestiveness**  
→ brainwashing technique
2. **Decreased unity of self-consciousness**  
decreased processing capacity of the external world  
enhanced memory/emblem of the internal world
3. **Spatial disorientation**  
wander around trying to look for a bathroom
4. **Hallucination**



# EB Discharging Suppressed Representation Triggers Hallucination

## metaphor of a window glass

During the day, inside the room is not seeable due to the daylight. At night it becomes seeable since the inside is brighter than the outside.

daytime

night

window glass

outside

outside

eye

eye

inside

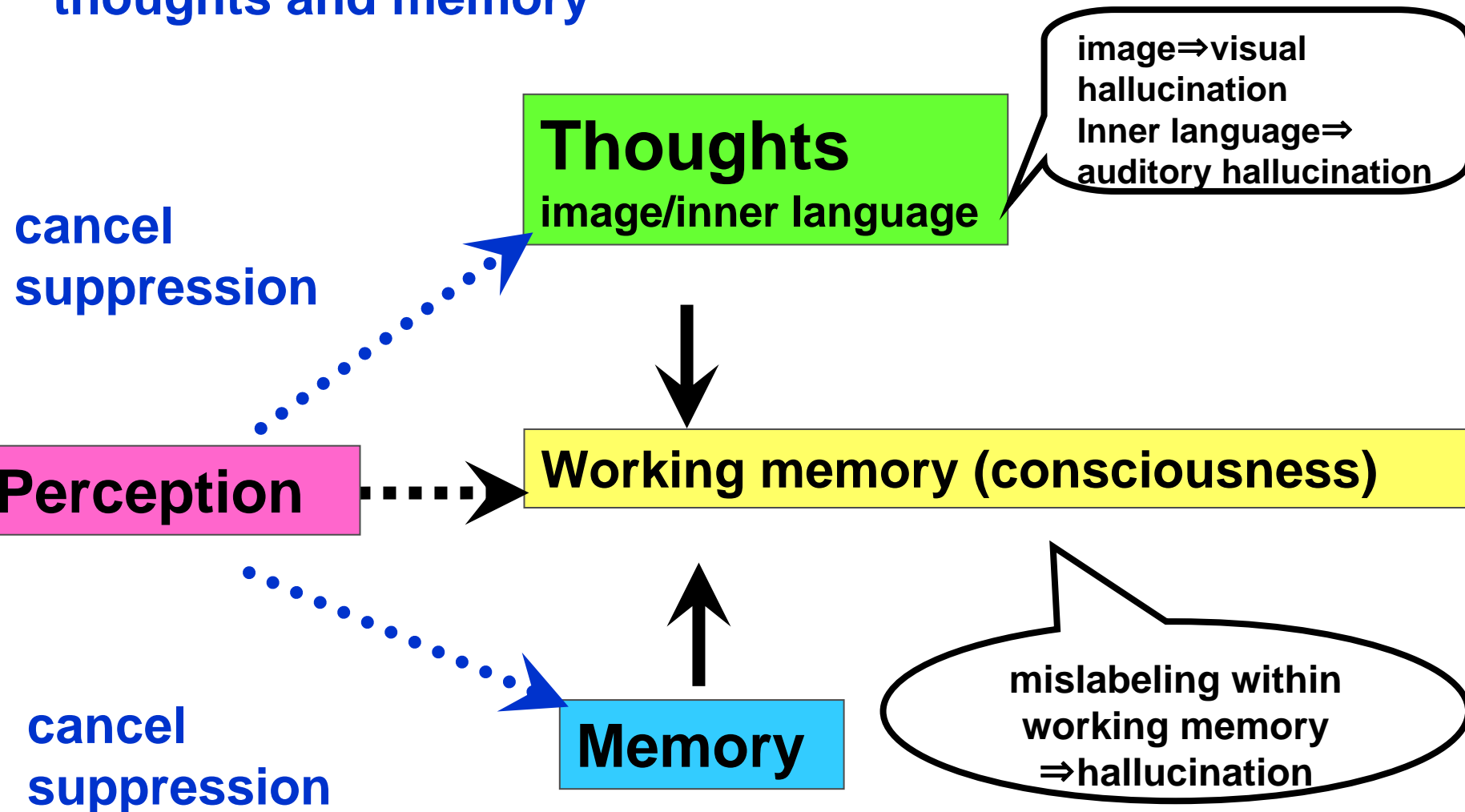
inside

Vision inside the room is limited

Visual limitation inside  
the room is removed

# Discharging Suppressed Representation Triggers Hallucination

Suppression is cancelled during **sense deprivation**  
⇒ working memory (consciousness) is interfered by thoughts and memory





## Percentage of Healthy People Who Experienced Hallucinations

**Sidgewick(1894) Interviewed 17000 people**

**hallucination 13% hearing voice 4%**

**Tien(1991) Diagnostically interviewed 15000 people**

**hallucination 13%**

**3% of them reported the voices were detrimental to their o**

**Stevenson(1983)' s comprehensive theory**

**hallucination 10-27%**

**Watanabe/Oguri(1994) 535 university students**

**sleep paralysis 36.7%**

**hypnagogic hallucination 37.1%**

## Interpreting delusion/hallucination

Adoptable in certain situations  
This mechanism of adoptability  
gets out of control when it fails.

=> psychopathology

## Suggestion to treating delusion/hallucination

1. Develop ability to control  
cognition of  
delusion/hallucination  
⇒ cognitive behavioral therapy
2. Preventing  
delusion/hallucination  
⇒ preventive education

## ● A Brochure to Prevent Mental Illness

1. What is mental illness – outline of  
schizophrenia
2. About “**hearing things**” seen in  
schizophrenia
3. About “**guessing**” apparent in  
schizophrenia
4. Potential causes of schizophrenia  
in living environment

**anxiety/isolation/overwork/insomnia**  
----situation to trigger  
hallucination

5. How to tackle the crunch situation
6. **Available social resource**  
psychiatrist/counseling