



# Understanding Cognition

*Cognition* refers to the mental processes or thinking skills that allow people to learn and function in daily life, including our ability to function:

- At home
- In the community
- At school/work
- In our relationships

These are the skills needed to process information, think, read, understand, and solve problems. Some of the main types of cognition include: attention, memory, processing information, solving problems, and planning/organizing. These cognitive skills overlap with each other and work together as bits of information enter the brain, are processed, and acted upon.

Daily tasks such as managing the home, negotiating transportation, shopping, taking care of finances, or maintaining one's health can become extremely difficult when some or all of one's cognitive skills are not functioning well.

It takes time to learn and apply the suggestions about how to handle problems with cognition. It also takes time to see the positive effects of your efforts.

It may be harder for a person with psychosis to tackle cognitive problems. Be patient and slowly try to use the strategies in this section. A reasonable goal is to try adding one new technique every month.





## Understanding

# Cognition and Psychosis

Most people with psychosis experience some degree of cognitive problems. For some, changes in cognitive functioning may be one of the earliest signs of the illness (occurring even before psychotic symptoms begin). Research has shown that the parts of the brain responsible for specific cognitive abilities often do not function the same way for people with psychosis.

Not everyone with psychosis is affected by cognitive difficulties in the same way. Some experience more problems with a certain aspect of cognition, such as attention or memory. Cognitive problems may come and go for some people. For example, cognitive problems may be most noticeable during episodes of illness. For others, the cognitive problems continue even when other symptoms go away.

Certain types of cognition are particularly likely to be affected in people with psychosis. These areas include:

1. Attention
2. Learning and memory
3. Critical-thinking skills (e.g., planning, organizing, problem solving, abstract thinking)
4. Social cognition

## *Number One: Attention*

*Attention* allows us to stay focused on a task for a certain period of time—even in the face of distractions.

### HOW CAN I TELL IF I HAVE ATTENTION PROBLEMS?

People with attention difficulties often have trouble concentrating on a task for a long period of time. They might also become distracted, especially when other things are happening around them. Finally, some people may find it hard to concentrate on several things at once, like when you need to *multitask*.

Some of the following could indicate problems with attention and concentration:

- Can't remember a phone number you just read for long enough to dial it correctly
- Can't repeat the last five digits of a number



## Understanding

- Can't repeat a four- or five-digit number backwards
- Loses track of time
- Can't concentrate enough to read
- Is easily distracted
- Feels bored
- Interrupts others during conversations
- Tries to do too many things at once
- Seems absent-minded
- Gives up easily
- Is easily confused
- Has trouble learning simple things

### WHAT CAN I DO?

Here are some strategies that might help with focusing your attention.

- **Don't put too much demand on your attention span:** Keep things simple, direct, and to the point. Limit the time spent on any given task. For example, you may only be able to spend ten minutes on a task at a time.
- **Focus on one thing at a time:** Don't try to divide your attention among different tasks. Focusing on more than one thing can become overwhelming.
- **Take breaks:** It is important to rest and take breaks to prevent yourself from becoming overwhelmed by challenging tasks.
- **Limit distractions:** Simplify the environment by removing distractors such as background noises, multiple speakers in a conversation, and/or disorganized surroundings. Having something to fiddle with, such as a squishy ball, can help keep restless hands busy while you focus on the task.
- **Use cues and reminders:** Cues such as self-talk, a touch or look from someone, or a visual reminder can help you focus and bring back your attention when it goes off-track.
- **Mix it up:** Vary the content or setting of the information or task. You might try alternating between different tasks to keep yourself interested and engaged.



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## Number Two: Learning and Memory

Learning and memory are closely connected. *Learning* is when you pick up new information or skills. *Memory* is the process of storing knowledge and skills and recalling them later.

### HOW DO I LEARN BEST?

Everyone has ways they prefer to learn new things. There are theories that each person has a preferred *learning style*. For example, some people may be “better with words” and learn best when *told* how to do something. Others may be “good with their hands” and learn best when physically guided through the steps of a new task. Although scientists don’t agree about the idea of learning styles, people still have ways they prefer to learn. For example, some really like to study early in the morning, some at night. If you know your preferences, you can use them to make learning easier for yourself.



Your Turn!

## Your Turn!

Here is a checklist that can help you get to know your individual learning preferences. Check which statements best apply to you. I learn best:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> In the morning   | <input type="checkbox"/> By doing                         | <input type="checkbox"/> By doing it alone        |
| <input type="checkbox"/> In the evening   | <input type="checkbox"/> By reading                       | <input type="checkbox"/> With other people around |
| <input type="checkbox"/> In the afternoon | <input type="checkbox"/> By mimicking                     | <input type="checkbox"/> With routines            |
| <input type="checkbox"/> By listening     | <input type="checkbox"/> By trial and error               | <input type="checkbox"/> With music/TV on         |
| <input type="checkbox"/> By seeing        | <input type="checkbox"/> By learning small bits at a time | <input type="checkbox"/> In a quiet environment   |

Please check the following statements that match your learning style. I:

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Like to work with my hands | <input type="checkbox"/> Tend to think first in terms of the big picture | <input type="checkbox"/> Like to stay really focused on one thing at a time |
| <input type="checkbox"/> Tend to be detail oriented | <input type="checkbox"/> Like a lot of freedom to explore an idea        |   |



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Use your responses to guide how you attempt to learn something new. For example, if you prefer to learn by hearing rather than reading, try to find and use books on tape or instructional DVDs. If you learn best in the afternoon, wait until the afternoon before you try to learn something new. Try comparing how well you learn when you try to use your preferred approaches and how well you learn when you do not use your preferred approaches.

### HOW CAN I TELL IF I HAVE MEMORY PROBLEMS?

People with psychosis may have memory problems. Memory difficulties can occur for both verbal and visual information. When verbal memory is affected you may have more difficulty remembering instructions that have been explained to you, such as directions, or remembering information you have read. When visual memory is a problem, you might notice that you have trouble remembering things you have seen.



### Your Turn!

## Your Turn!

Some of the following could indicate problems with memory. Please check the ones that apply to you. I:

- Forget to take medications at prescribed times
- Have trouble keeping scheduled appointments
- Don't follow through with plans or activities
- Have trouble remembering strategies that would help with remembering (e.g., forgetting to set the alarm, bring a watch, or carry a bus schedule)
- Misplace things
- Lose track of money
- Forget important dates (e.g., birthdays)
- Ask people to repeat things frequently
- Ask the same question again and again
- Get lost while travelling (e.g., forgetting directions)
- Have trouble remembering what I have read
- Forget names
- Take longer to learn things than before
- Can't recall what happened at meetings with other people
- Can't recall what was discussed at a meeting
- Don't remember the characters in a show





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### WHAT CAN I DO?

Here are some strategies that often help decrease problems with memory.

- **Avoid distractions:** When trying to remember something, it is important that you pay attention to the source of the information. Strategies such as making sure you are in a quiet environment, focusing on one thing at a time, and minimizing the number of people in a conversation can help.
- **Make use of repetition:** It can help to have important information or instructions repeated. For example, during conversations you may ask people to repeat themselves or you could try saying what you heard out loud using your own words to make sure you understood it. When reading, you may need to re-read important parts several times. Developing habits/routines can also help you remember. For example, keeping your keys in the same location at home lessens the chances of misplacing them.
- **Use memory aids:** It can be helpful to have a way of recording important information so you can refer back to it. This will help you if you forget it. When possible, write down important information. For example, keeping a diary of important ideas, a day planner for appointments/contact information, or lists of things to do or buy are common memory aids used by many people.

**Electronic devices (e.g., cell phones) are great memory aids since they have calendars, take voice memos, and can even remind you about events.**

- **Cue your memory:** There are a number of ways you can cue your memory to help you remember something.
  - *Mnemonics* are groups of words or letters that help you remember more detailed information. For example, students use the first letters of the mnemonic “*Never Eat Shredded Wheat*” to remember the order of directions on a compass: North, East, West, and South.
  - Alarms can also be helpful in cueing one’s memory, for example, to take medication at a certain time.
  - Strategically placed sticky notes with reminders (“turn off the stove”) can also be helpful.



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- **Try multiple ways of remembering:** For some people, simply listening to information isn't enough to learn something new. Instead, it may be easier if important information is also presented visually. Similarly, when trying to remember something visual (e.g., where you parked the car), it may help to make an effort to think about the location using words as well: "The car is parked on the 3<sup>rd</sup> floor to the right of the mall entrance."

### Number Three: Critical-thinking Skills

Critical-thinking skills include a range of cognitive processes and abilities such as reasoning, problem solving, planning/organizing, and self-monitoring.

#### HOW CAN I TELL IF I HAVE PROBLEMS WITH CRITICAL THINKING SKILLS?

People who have trouble with critical-thinking skills often have trouble with goal-directed behaviour. For instance, they have trouble "getting themselves going" to begin tasks, coming up with plans, or dealing with problems that arise.

### Your Turn!

Some of the following could indicate problems with critical thinking. Please check the ones that apply to you. I:

- |  |  |
|--|--|
| <input type="checkbox"/> Respond impulsively   | <input type="checkbox"/> Have trouble making decisions (even simple ones)          |
| <input type="checkbox"/> Have trouble understanding the consequences of actions      | <input type="checkbox"/> Don't plan ahead  |
| <input type="checkbox"/> Repeat the same mistakes over and over                      | <input type="checkbox"/> Am disorganized   |
| <input type="checkbox"/> Have trouble getting things started                         | <input type="checkbox"/> Have trouble finishing things that have been started      |
| <input type="checkbox"/> Have trouble with changes in routine                        | <input type="checkbox"/> Have trouble recognizing when my actions may be dangerous |
| <input type="checkbox"/> Have difficulty dealing with surprises or unexpected events | <input type="checkbox"/> Have trouble recognizing mistakes                         |

#### WHAT CAN I DO?

Here are some strategies that often help with critical-thinking skills.

- **Come up with routines:** Having routines (e.g., schedules, doing things the same way over and over) can help with organization and planning. For example, certain tasks such as doing the laundry could be scheduled for the same day and time each week.



Your Turn!





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- **Plan your day:** Use a planning tool such as a day planner to help you organize your time. (Your mobile phone probably has a great calendar built into it.) Because it can be hard to remember to use a planner in the first place, you may want to come up with a daily routine (e.g., use the day planner every morning with your first coffee of the day) or use a memory cue (e.g., an alarm) to remind you.
- **Break down tasks:** Complex tasks with many steps can be overwhelming for people who struggle with critical-thinking skills. It can help to talk to a family member, friend, or health professional about ways to break down a large task into smaller components that are easier to tackle.
- **Make lists:** Try keeping ongoing lists (e.g., of supplies such as groceries) and bringing these lists along whenever you go shopping or do other errands.
- **Set priorities:** One way to set priorities is to re-write lists with the most important items at the top, or to group items in some way. For example, you might group all errands that need to be done on the same day, or group those that are in the same geographical area.
- **Try playing games:** Engaging your mind in solving puzzles or playing games can help to train your critical-thinking skills. There are many popular games that encourage players to plan ahead, develop strategies, and adapt to changing circumstances (e.g., chess, Sudoku puzzles, and card games such as Solitaire).

## Number Four: Social Cognition

*Social cognition* refers to the thinking skills and processes involved when we interact with other people. For example, some of the main social-thinking skills include:

- Being able to read social cues such as facial expressions or tone of voice
- Interpreting other people's behaviours
- Developing ideas about what other people might be thinking

### HOW CAN I TELL IF I HAVE PROBLEMS WITH SOCIAL COGNITION?

People who have trouble with social cognition often end up feeling confused in social situations. Unfortunately, when someone has trouble “reading” other people, that person may also end up feeling rejected or angry. This can lead to withdrawal and hostility toward others.







*Your Turn!*

## Your Turn!

Some of the following could indicate problems with social cognition.

Please check any that apply. I:

- Have trouble reading social cues (e.g., facial expressions, gestures, tone of voice)
- Misinterpret what people say
- Am easily manipulated by others
- Have difficulty telling the difference between playful and mean-spirited teasing
- Have difficulty guessing what other people may be thinking
- Have trouble figuring out jokes, or when people are joking
- Jump to conclusions about a social interaction
- Have difficulty figuring out what other people will do or how they might react
- Have trouble explaining things in a way that other people can understand

### WHAT CAN I DO?

Here are some strategies that often help with social-cognition skills.

- **Get clarification in the moment:** Ask the person you are speaking with what he/she meant (“What do you mean by that?”). Or use your own words to restate what you believe the other person has said so that he/she can correct you if needed (“So what you are saying is ...”).
- **Ask others for their opinions:** Ask a friend or someone you trust to give you a second opinion about a confusing situation. People you trust might also be helpful in suggesting ways to deal with situations in which a misunderstanding has occurred.
- **Keep track of problem situations:** Keep track of the kinds of social situations in which you experience problems or misunderstandings. You may be able to find out if you are consistently misinterpreting certain types of situations or behaviours. Again, others may be able to help you plan ways to deal with these types of situations before they occur again.



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- **Give the other person the benefit of the doubt:** Most people are not intentionally mean, even if they do end up hurting our feelings from time to time. Try not to overreact to situations that you experience for the first time. If a social problem occurs over and over, then you can try some of the problem-solving techniques to see what is contributing to the problem and come up with ways to handle it in an open and respectful manner.

## General Tips

Several of the strategies discussed in this section are ones that are used by many people—not only people with psychosis. You may even find that you are already using some of these strategies but have not realized how important they are for you. You will probably find that the more you practice these strategies, the easier and more helpful they will become.

Here are some general tips for making use of cognitive strategies.

- Take time to think about and identify your problem areas.
- Try to make use of your areas of strength. Many of the checklists in this section can also point out things that are easier for you. Try to build on these strengths when you come up with plans to tackle problem areas.
- Don't try to work on too many cognitive problems at one time. Start by focusing on one or two areas that cause the most difficulty in your day-to-day life.
- Don't be afraid to tell others about the cognitive difficulties that you are struggling with. Unfortunately, individuals with cognitive problems can be mistakenly judged as being “lazy” or “unmotivated” when, in fact, it is their cognitive weaknesses that make it difficult for them to perform tasks effectively. Other people are more likely to try to help if they understand what is going on.
- Remember that your general health and emotional well-being can also impact your cognitive abilities. Most people think best (e.g., pay attention, remember things better) when they are rested and not emotionally stressed.

