

## **First Link Connection Video Transcript - Part 1**

It may be helpful to imagine the brain of a person without dementia as a solid stable highway system just like the one illustrated here.

Travelling around this highway system are couriers that deliver and retrieve information to and from different areas of the brain

Think of the area responsible for thought as the control center. Couriers are dispatched from here to retrieve and deliver the information required.

One of the areas the couriers visit is the short term memory. The short term memory holds small amounts of information recently received. Imagine that the information is held in a small filing cabinet in the short term memory.

Next, let's consider long term memory. Long term memory is stored in a different location of the brain than short term memory. Think of long term memory as a large room with many big filing cabinets.

Let's assume these large filing cabinets store ten years of memories. The courier will go to the filing cabinet where the memory is stored to retrieve the information needed. For example, if we are asked "*Where did you go to high school and when?*", the courier will go to the filing cabinet that holds the memories for that period of time in our life.

Let's now consider how the brain handles reasoning.

Reasoning is the process we go through to answer questions or complete tasks. We all reason differently.

We're going to explore three types of reasoning questions or tasks.

Firstly, opinion questions. Opinion questions take more than just memory. They require

reasoning; the brain's ability to put multiple ideas together, weigh the consequences and make a decision. It can be as simple as being asked your opinion about how you feel about something. For example "how do you feel about online banking?" Whether you like online banking because you think it's convenient and saves time, or you don't like online banking because you think it's not secure or it's confusing, there is no right or wrong answer.

Next, let's consider processing questions and tasks such as activities of daily living. For example, "How do you make a pot of coffee?" Would you agree that the answer can be broken into maybe five steps? This type of question would result in more or less the same answer for most people.

However, higher level processing questions or tasks are more complex. They require more thought and reasoning than a simple processing question, and take more time to come to an answer. For example, "how would you downsize the contents of a house into a two bedroom condo?" This takes longer to figure out. It's likely that if we were all asked this question, our answers would be very different. Someone might say they would make a list first, someone else might say that they would pick a room and start sorting. Complex questions and tasks like these require much greater reasoning abilities.

We should also point out that, so far, we have only been discussing questions that require a verbal response so all these questions have gone to the communication area of the brain.

Because we have only asked verbal response questions the courier has travelled to communication where the answer is delivered. Instead of a verbal response question, if we asked someone to show us how they would scratch their back, they first have to use their reasoning abilities and then send messages to their arms so they can show they would lift one arm over their head, bend it at the elbow and place their hand on their back.

So that is how a brain without dementia works: couriers are dispatched from the thought center and drive back and forth along the highways delivering and retrieving information to and from different areas of the brain.