

# Default Mode Network Part 2



MIS56 I Data Visualization



## Criticism against System 1 & System 2 types of thinking

**Lack of Empirical Evidence:** Number of literature presented experimental results that seems to support the idea of System 1 and System 2. However, there are no clear evidence that bridges the recent findings from Neuroscience.

**Trends in 2022:** Number of papers are being published on reputable journals, such as “Nature” (One of the best in the world), compared to Dual Process Theory papers being published mainly on Psychology Journals.

In summary, Default Mode Network is beginning to be accepted as a standard theory as by presenting “robust” evidence that our brain functions in “auto-pilot” mode vs. manual driving mode.



## How does it apply to how we perceive and comprehend visual information?

**Comprehending the story:** Studies have shown that when people watch a movie, listen to a story, or read a story, their DMNs are highly correlated with each other (Hasson et al., 2008; Lerner et al., 2011; Erez et al., 2016; Regev et al., 2013)

**Reacting to the external stimuli:** The default mode network is deactivated during some external goal-oriented tasks such as visual attention or cognitive working memory tasks.



## When watching a movie or a show (or reading a book)

I personally tend to enjoy watching movies/shows/books that I can immerse myself into the story.

If there are elements that “interfere” with this process, I get super annoyed by it.

Examples include bad plots, terrible acting, poor mise en scene as a whole.

We define these elements to be a **clutter** that eats up your attention 😞



## In Summary, when choosing visualization, you would need to think about...

First, remove the clutter as MUCH as you can. This way, you are minimizing the chance that the audience is **paying particular attention to the external stimuli**.

Second, make sure that you highlight the “heart” of your visuals. Allow the Default Mode Network to kick in!

Here is the sample [link](#) (Answers a question: How Far Can You Get Driving in Rush Hour Traffic in India?)



## Knowing your audience is important

For those of you from major cities in India, you will be able to **Comprehend the story** and relate to it (or disagree with the visuals :D)

For those of you who do not know anything about this.. You will be paying particular attention to the visual element 😊 In other words, you are more likely to **paying particular attention to the external stimuli, rather than comprehending the story.**