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# SELECTIVE ATTENTION


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- Selective attention is the process of focusing on a particular object in the environment for a certain period of time. Attention is a limited resource, so selective attention allows us to tune out unimportant details and focus on what matters. This differs from inattention blindness, which is when you focus hard on one thing and fail to notice unexpected things entering your visual field.
  - At any given moment, we are subjected to a constant barrage of sensory information. The blare of a car horn from the street outside, the chatter of your friends, the click of the keys as you type a paper for school, the hum of the heater as it keeps your room warm on a brisk autumn day. But in most cases, we don't pay attention to each and every one of the sensory experiences, we center our attention on certain important elements of our environment while other things blend into the background or pass us by completely unnoticed.

- There are two major models describing how visual attention works.
- The "spotlight" model works much like it sounds—it proposes that visual attention works similar to that of a spotlight. Psychologist **William James** suggested that this spotlight includes a focal point in which things are viewed clearly. The area surrounding this focal point, known as the fringe, is still visible, but not clearly seen. Finally, the area outside of the fringe area of the spotlight is known as the margin.<sup>2</sup>
- The second approach is known as the "zoom-lens" model. While it contains all the same elements of the spotlight model, it also suggests that we are able to increase or decrease the size of our focus much like the zoom lens of a camera. However, a larger focus area also results in slower-processing since it includes more information so the limited attentional resources must be distributed over a larger area.

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- Some of the best-known experiments on auditory attention are those performed by psychologist Colin Cherry. Cherry investigated how people are able to track certain conversations while tuning others out, a phenomenon he referred to as the "cocktail party" effect.
  - In these experiments, two auditory messages were presented simultaneously with one presented to each ear. Cherry then asked participants to pay attention to a particular message, and then repeat back what they had heard. He discovered that the participants were able to easily pay attention to one message and repeat it, but when they were asked about the contents of the other message, they were unable to say anything about it. Cherry found that when contents of the unattended message were suddenly switched (such as changing from English to German mid-message or suddenly playing backward) very few of the participants even noticed.

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- if the speaker of the unattended message switched from male to female (or vice versa) or if the message was swapped with a 400-Hz tone, the participants always noticed the change.
  - Cherry's findings have been demonstrated in additional experiments. Other researchers have obtained similar results with messages including lists of words and musical melodies.



Thank you