The Spotlight Metaphor

Attention is like a spotlight:
A small area is illuminated, and everything else is not. This “spotlight” can be moved round the visual field. This works in conjunction with Posner’s theory of covert attention and attentional spotlight.

Eriksen and St. James (1986) talked of the zoom-lens theory. This stated that the spotlight is expandable at will.

Evidence:
- Castiello & Umilta (1990)
  - Targets are detected faster for small attended areas and slower for larger attended areas.

Object Based Selection

This image can be seen either as a woman or a set of mountains. This is because we can focus on either.

Location and Object Based Selection

Examples of the displays used by Egly et al. (1994). The heavy black lines in the panels of the second column represent the cue. The filled squares in the panels of the fourth and fifth columns represent the target stimulus. In the fifth column, the top row shows a within-object invalid trial, whereas the bottom row shows a between-object invalid trial. From Umilta (2001).

<table>
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<tr>
<th>Fixation</th>
<th>Cue</th>
<th>Target (valid)</th>
<th>or</th>
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Object vs. Location

- There is clear evidence for spatial attention: i.e., a particular position in space is attended
- There is also clear indication that sometimes attention is allocated to an object
- It is also sometimes the case that when the object is selected the space it occupies is being attended