

Eye-tracking during reading

What can we learn from the measures?

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Wrote 6 references to './references/references.json'

1 Eye-tracking

- in (psycho)linguistics
 - during reading
 - visual world paradigm
- in psychology
 - pupillometry
 - visual search
- but also
 - market research
 - diagnostic tool

1.1 Eye movements¹

- **saccades:** eye *movements* (e.g., from one word to another)
 - average saccade length: 7-9 letters (in alphabetic writing systems)
- **fixations:** 'looking at' something, e.g., a word (little movement)

¹Rayner (2009)

- when information is taken in
- average duration: 225-250ms (ranging 50-600ms)
- **regressions:** saccades to earlier text
 - occurrence: 10-15% of saccades in skilled readers

1.2 The eye-tracker

- eye-tracker
 - camera + infrared illuminator
- screen
- chin/head rest
- in our lab: desk-mounted

```
knitr::include_graphics(here::here("mats/day1/3-et_reading/images/SR_Research.png"))
```

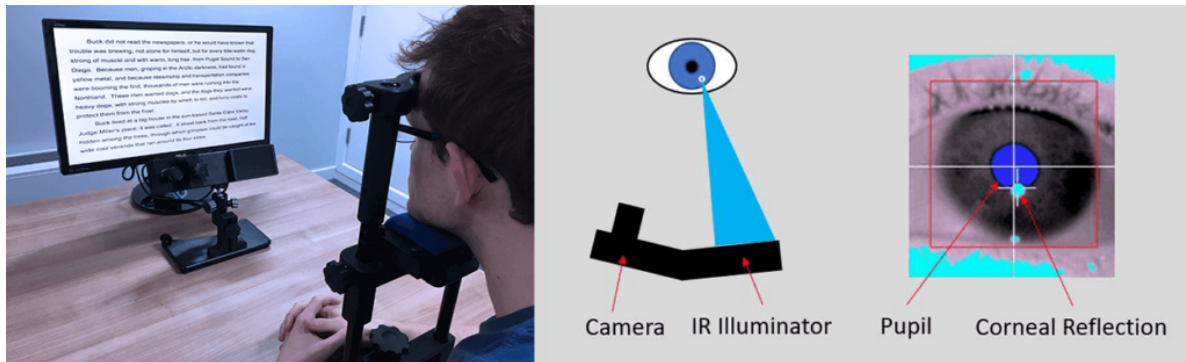


Figure 1: Image source: [SR Research](#) (all rights reserved)

2 Eye-tracking during reading

2.1 Eye-tracking reading measures

- inform theories of language processing via linking hypotheses
 - linking visual attention to processing
- typically, we compare reading times as a function of some manipulation

e.g., The They key on the cabinets is on the table.

- longer reading times