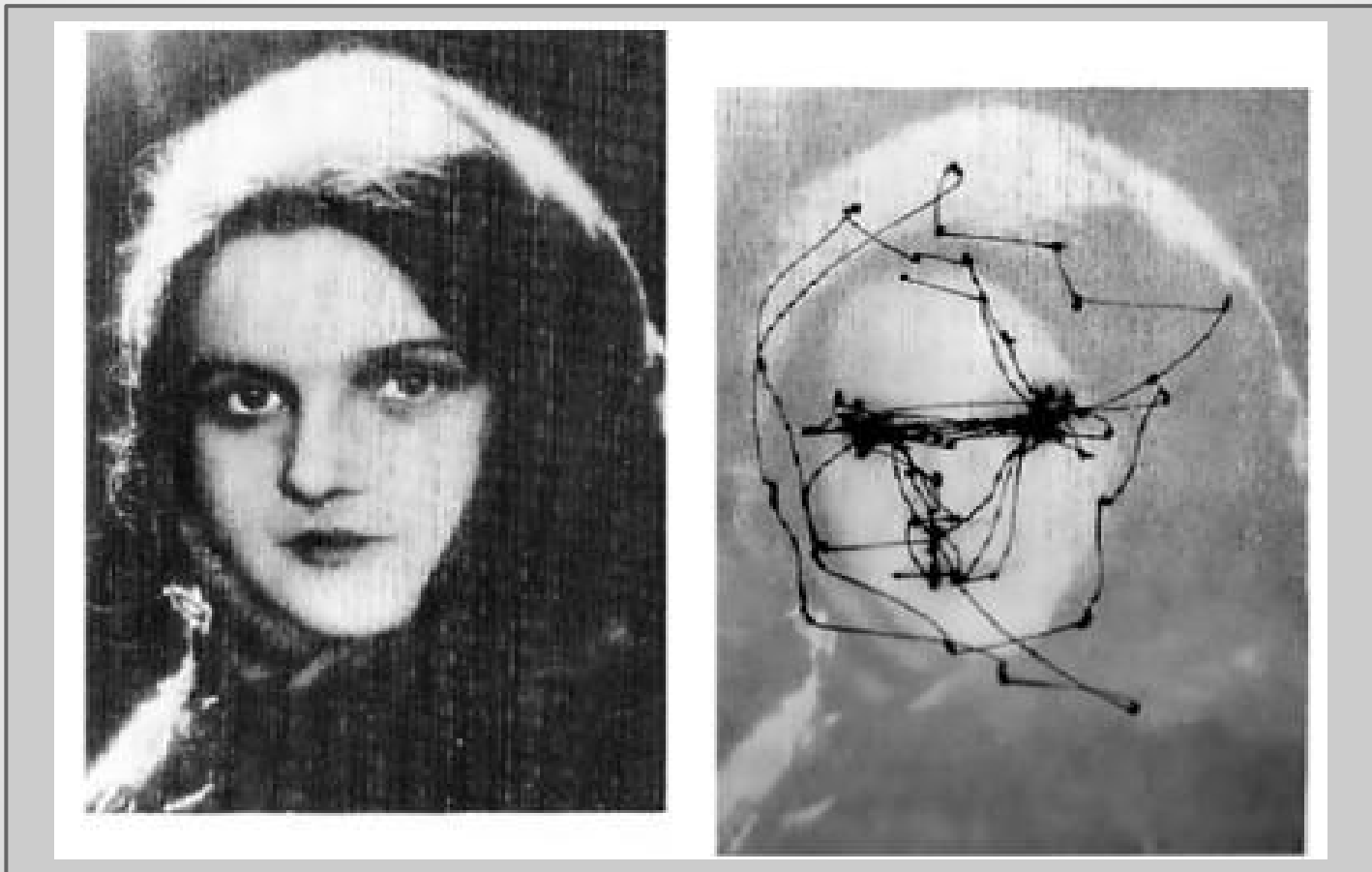


**Infrequent words are
more difficult to
comprehend.**

Shashank Sonkar
Computer Sc. & Engineering,
Senior Undergraduate,
IIT Kanpur.

Saccade

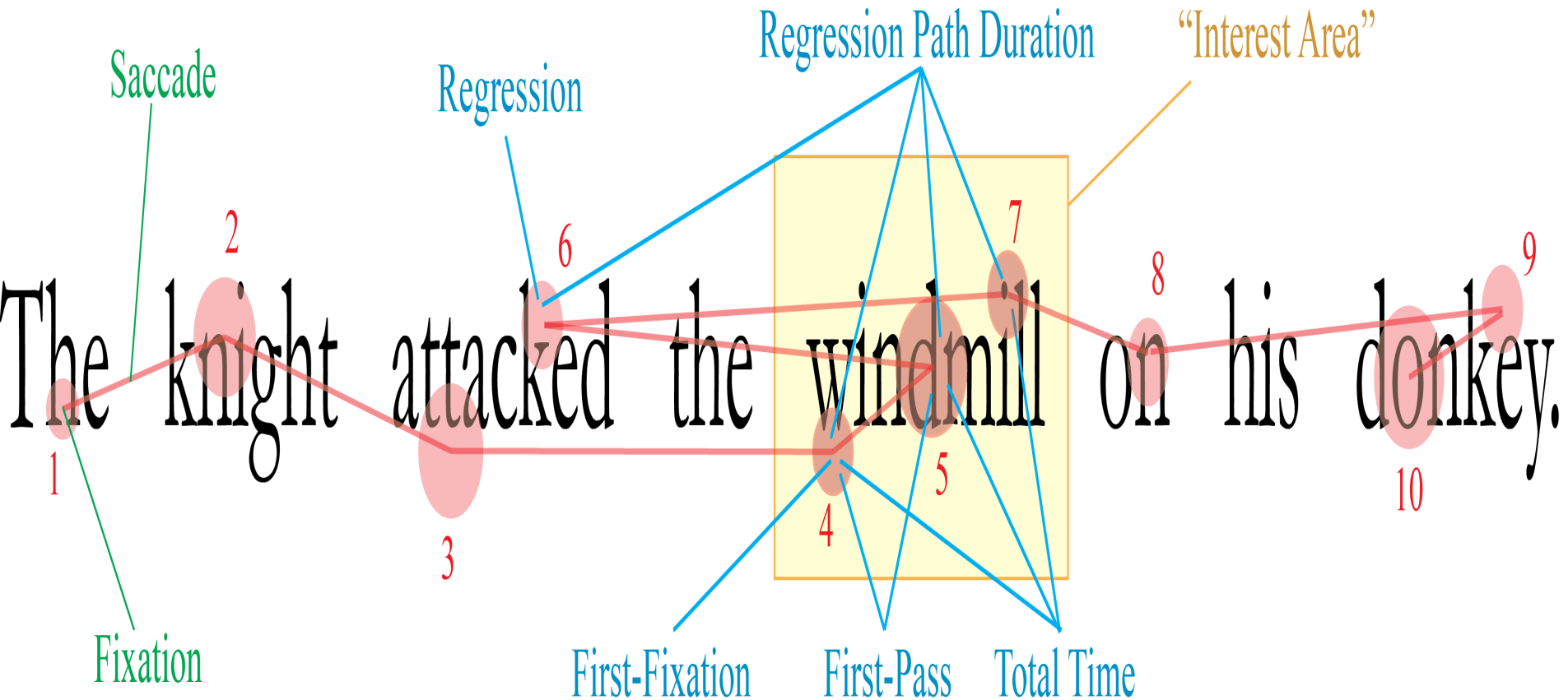
- Rapid, jerky movement of the eyes



Silent Reading

When a person is reading a sentence silently, the eye movements show that not every word is fixated. Every once in a while a regression (an eye movement that goes back in the text) is made to re-examine a word that may have not been fully understood the first time. This only happens with about 10% of the fixations, depending on how difficult the text is. The more difficult the higher the likelihood that regressions are made.

Terminology



Eye movements & Visual Cognition

- Processing vs Oculomotor model
- Eye & mind tightly linked
- Information processing in parallel with saccade programming
[Becker & Jurgens, 1979]
- No serial processing, cognition simultaneous with fixation.

Linguistic factors influencing fixation

1. Word frequency
2. Number of meanings
 - a. He went to the bank
 - b. Subordinate bias effect
 - No disambiguating info. precedes ambiguous word
 - Disappears in "duck". Why?
3. Predictability
4. Familiarity
5. Difficulty in sentence comprehension
 - Regression

Frequency : Word recognition

- More fixation
- Effect of length
 - His painful fracture caused him trouble.
 - His painful accident caused him trouble.
- With 3-4 occurrences, fixation decreases
- Higher frequency parafoveal word affects first fixation duration
- Short within-word regression
- Experiment using Hindi Language

References

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Thank you !

