Model sensitivity analysis [benchmark data]

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## Baseline fixation durations for all studies [FFD]

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| --- | --- | --- | --- |
| Prior on | Prior on | Posterior (SD) [95% CrI] | Posterior (SD) [95% CrI] |
| **Uniform(-200, 200)** | **Uniform(0, 200)** | 247.23 (2.38) [242.54, 251.9] | 21.54 (1.81) [18.28, 25.42] |
| Normal(0, ) | Uniform(0, 200) | 247.1 (2.37) [242.43, 251.77] | 21.53 (1.8) [18.3, 25.33] |
| Uniform(-200, 200) | Gamma(0.001, 0.001) | 247.23 (2.37) [242.6, 251.88] | 21.39 (1.77) [18.21, 25.16] |
| Normal(0, ) | Gamma(0.001, 0.001) | 247.07 (3.07) [242.49, 251.73] | 21.39 (1.78) [18.23, 25.14] |
| Uniform(-200, 200) | Normal(0, ) I(0,) | 247.23 (2.38) [242.57, 251.91] | 21.53 (1.8) [18.3, 25.37] |
| Normal(0, ) | Normal(0, ) I(0,) | 247.1 (2.37) [242.4, 251.72] | 21.53 (1.8) [18.3, 25.38] |

*Note*: For Gamma distributions, the prior is on the precision (i.e. ). The priors in bold are the ones on which the results in the paper are based.

## Baseline fixation durations for all studies [SFD]

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| --- | --- | --- | --- |
| Prior on | Prior on | Posterior (SD) [95% CrI] | Posterior (SD) [95% CrI] |
| **Uniform(-200, 200)** | **Uniform(0, 200)** | 250.45 (3.82) [242.96, 257.93] | 23.89 (2.94) [18.89, 30.38] |
| Normal(0, ) | Uniform(0, 200) | 250.05 (3.8) [242.51, 257.45] | 23.87 (2.92) [18.85, 30.31] |
| Uniform(-200, 200) | Gamma(0.001, 0.001) | 250.44 (3.74) [243.03, 257.82] | 23.52 (2.84) [18.69, 29.79] |
| Normal(0, ) | Gamma(0.001, 0.001) | 250.05 (4.25) [242.68, 257.42] | 23.55 (2.86) [18.69, 29.81] |
| Uniform(-200, 200) | Normal(0, ) I(0,) | 250.4 (3.83) [242.83, 257.99] | 23.86 (2.91) [18.89, 30.32] |
| Normal(0, ) | Normal(0, ) I(0,) | 250.07 (3.82) [242.51, 257.59] | 23.86 (2.93) [18.86, 30.42] |

*Note*: For Gamma distributions, the prior is on the precision (i.e. ). The priors in bold are the ones on which the results in the paper are based.

## Baseline fixation durations for all studies [GD]

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| --- | --- | --- | --- |
| Prior on | Prior on | Posterior (SD) [95% CrI] | Posterior (SD) [95% CrI] |
| **Uniform(-200, 200)** | **Uniform(0, 200)** | 284.22 (3.77) [276.81, 291.71] | 35.89 (2.83) [30.76, 41.93] |
| Normal(0, ) | Uniform(0, 200) | 283.82 (3.76) [276.49, 291.24] | 35.91 (2.83) [30.84, 41.97] |
| Uniform(-200, 200) | Gamma(0.001, 0.001) | 284.2 (3.77) [276.81, 291.62] | 35.69 (2.8) [30.66, 41.66] |
| Normal(0, ) | Gamma(0.001, 0.001) | 283.8 (4.4) [276.37, 291.23] | 35.7 (2.82) [30.69, 41.66] |
| Uniform(-200, 200) | Normal(0, ) I(0,) | 284.18 (3.78) [276.75, 291.59] | 35.89 (2.81) [30.84, 41.8] |
| Normal(0, ) | Normal(0, ) I(0,) | 283.8 (3.74) [276.53, 291.12] | 35.88 (2.83) [30.84, 41.88] |

*Note*: For Gamma distributions, the prior is on the precision (i.e. ). The priors in bold are the ones on which the results in the paper are based.

## Baseline fixation durations for all studies [TVT]

|  |  |  |  |
| --- | --- | --- | --- |
| Prior on | Prior on | Posterior (SD) [95% CrI] | Posterior (SD) [95% CrI] |
| **Uniform(-200, 200)** | **Uniform(0, 200)** | 333.99 (9.99) [314.23, 353.7] | 51.48 (7.69) [38.88, 69] |
| Normal(0, ) | Uniform(0, 200) | 330.72 (10.03) [310.46, 350.15] | 51.5 (7.78) [38.88, 69.24] |
| Uniform(-200, 200) | Gamma(0.001, 0.001) | 334.06 (9.79) [314.76, 353.44] | 50.34 (7.39) [38.3, 67.04] |
| Normal(0, ) | Gamma(0.001, 0.001) | 330.8 (10.09) [311.32, 349.72] | 50.33 (7.41) [38.16, 67.02] |
| Uniform(-200, 200) | Normal(0, ) I(0,) | 333.92 (9.99) [314.24, 353.86] | 51.12 (7.58) [38.74, 68.15] |
| Normal(0, ) | Normal(0, ) I(0,) | 330.61 (9.92) [310.44, 349.82] | 51.23 (7.59) [38.85, 68.55] |

*Note*: For Gamma distributions, the prior is on the precision (i.e. ). The priors in bold are the ones on which the results in the paper are based.