Growth curve analysis of eye data using (B)LMMs

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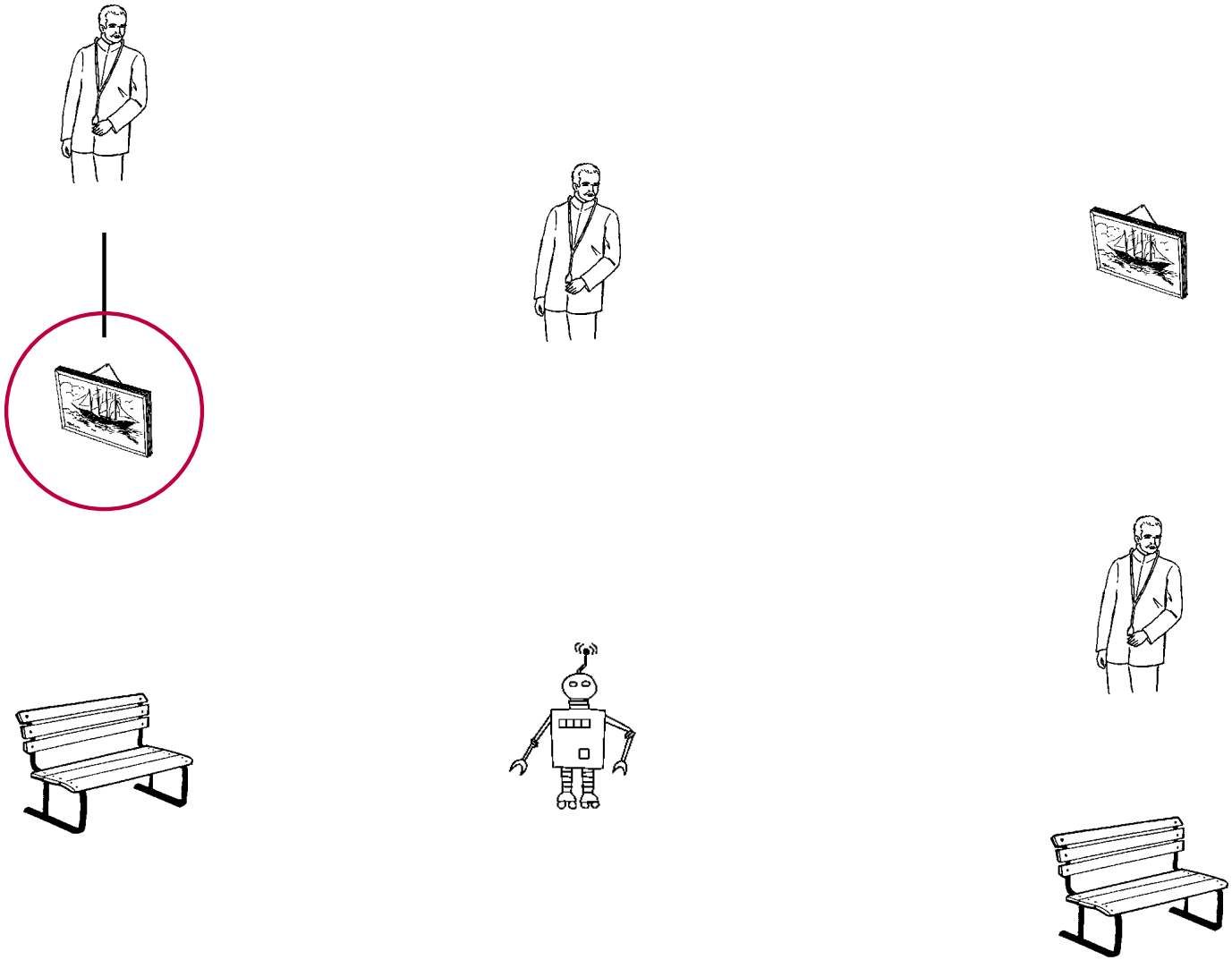
Sources

- Walk-through guide by Barr (2008):

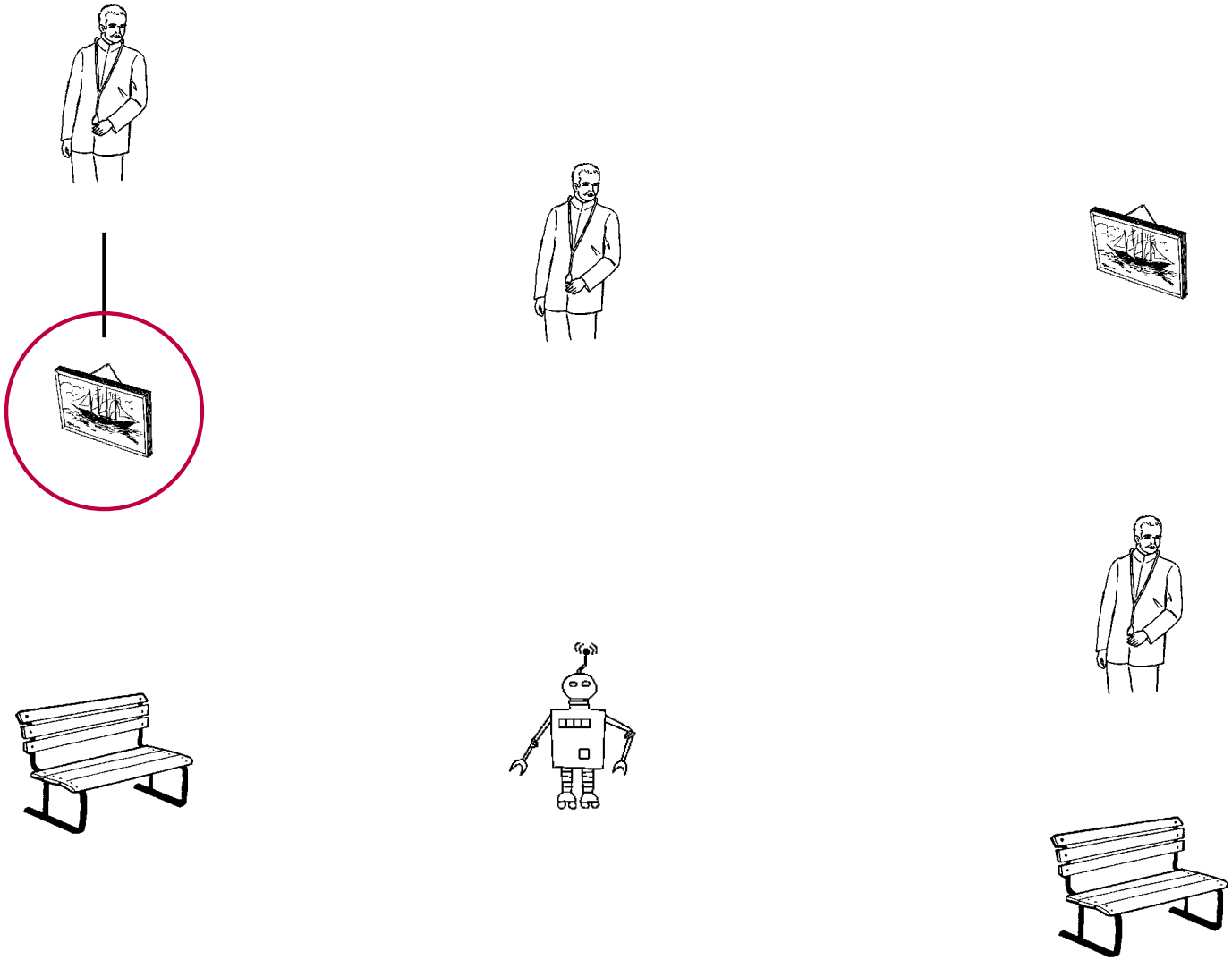
  `http://talklab.psy.gla.ac.uk/tvw/elogit-wt.html`
- Growth curve modelling and preprocessing of eye data (Dink and Ferguson, 2015):

  `http://www.eyetracking-r.com/vignettes/growth_curve_analysis`
- See further Mirman et al. (2008)
- For LMM in R see *lme4* (Bates et al., 2015)
- For Bayesian LMM in R see *rstanarm* (Gabry and Goodrich, 2016)

Stimulus array



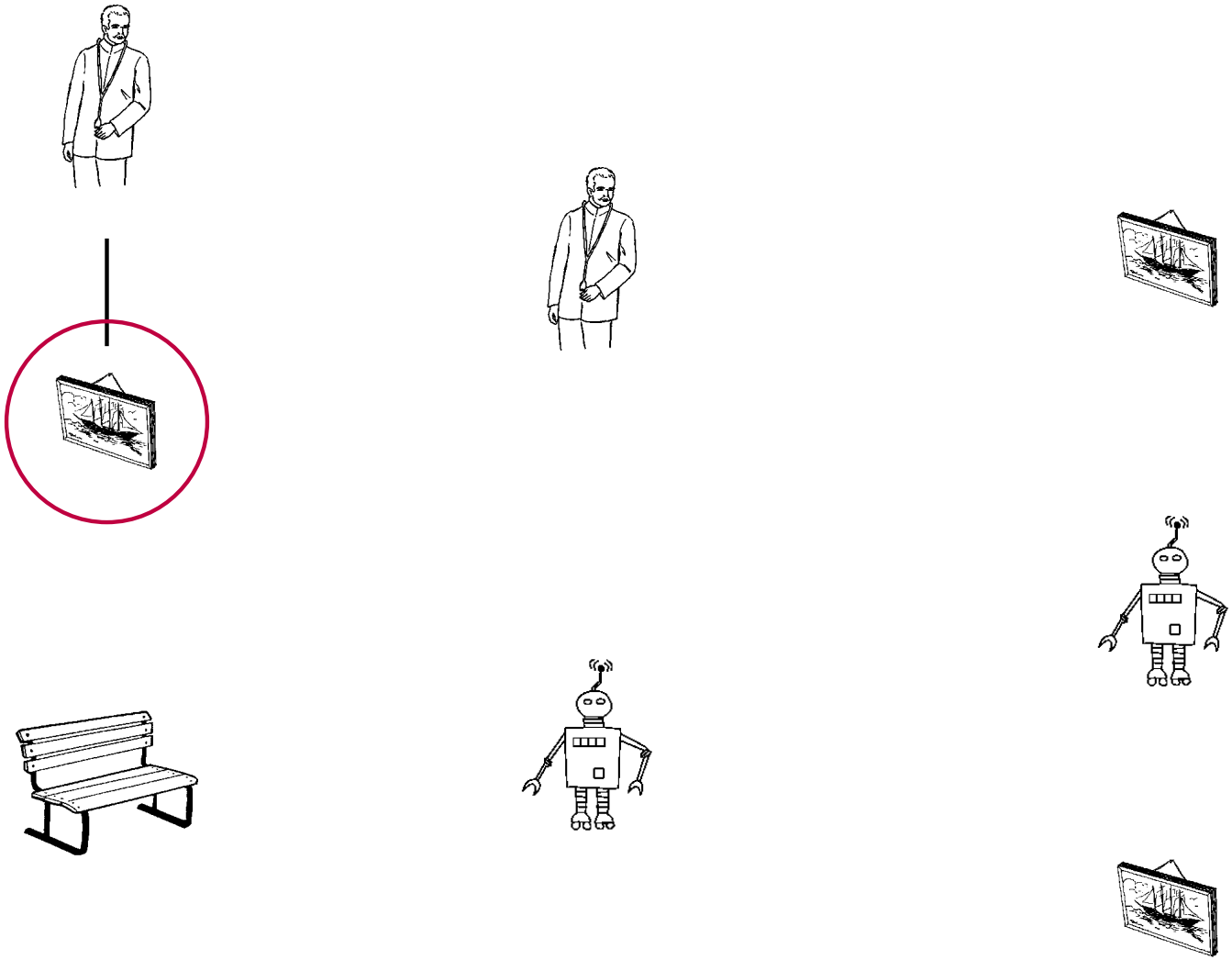
Stimulus array



[The *painting*] with the *man*

+CONTRAST

Stimulus array



[The *painting* with the **man**]

+CONTRAST

References

Barr, D. J. (2008). Analyzing 'visual world' eyetracking data using multilevel logistic regression. *Journal of Memory and Language*, 59(4):457–474.

Bates, D., Mächler, M., Bolker, B., and Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1):1–48.

Dink, J. and Ferguson, B. (2015). eyetrackingR. `http://www.eyetracking-R.com`. R package version 0.1.1.

Gabry, J. and Goodrich, B. (2016). *rstanarm: Bayesian Applied Regression Modeling via Stan*. R package version 2.13.1.

Mirman, D., Dixon, J. A., and Magnuson, J. S. (2008). Statistical and computational models of the visual world paradigm: Growth curves and individual differences. *Journal of Memory and Language*, 59(4):475–494.