Supplementary materials for: Pointing models for users operating under different speed accuracy strategies

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1 Pairplot for the EMG parameters of the JGP dataset (section 6.2)

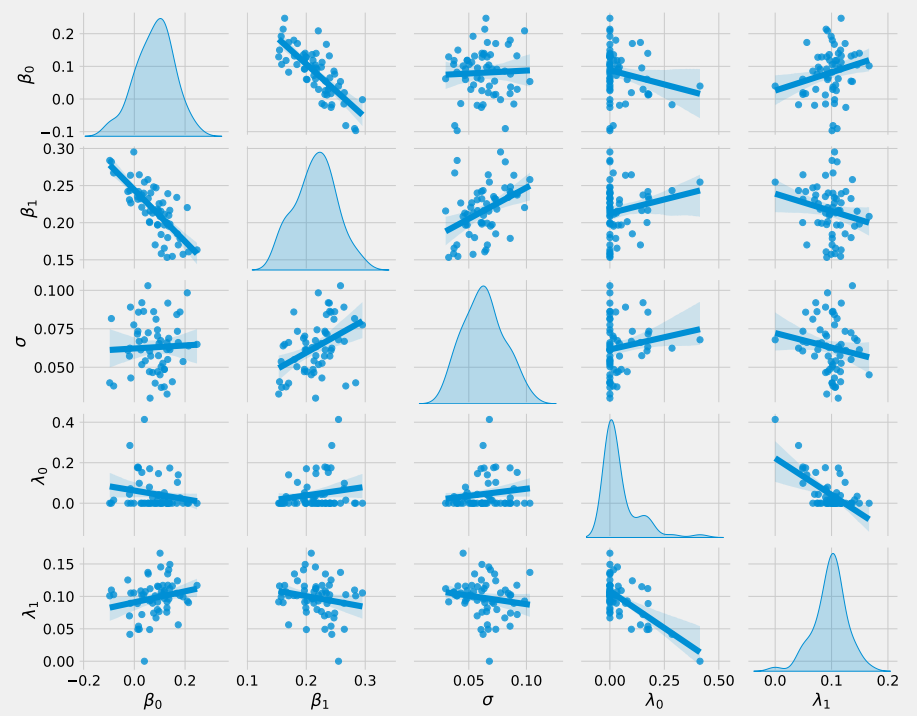

Figure 1: Pairplot for the EMG parameters of the JGP dataset. Each panel shows the correlation between the two quantities. A panel between a quantity and itself represents that quantities' distribution.

2 Number of successful fits for the copula fits per (D,W) pair (Section 6.3)

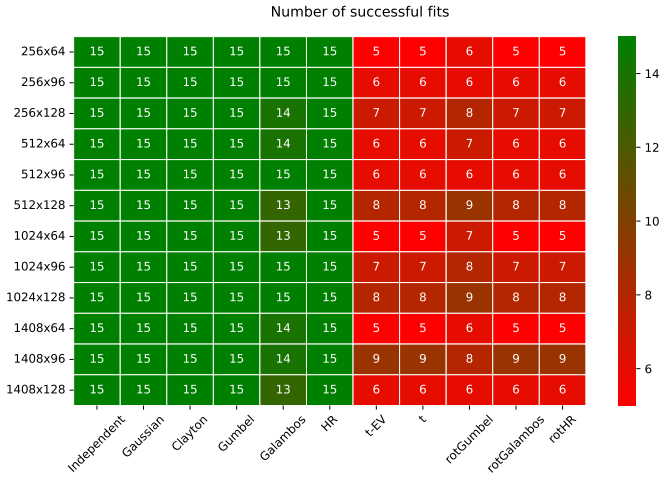

Figure 2: Number of successful fits for the copula fits per (D,W) pair. The number of unsuccessful fits is equally distributed over all conditions.

3 Fits for ID_e models as function of ID, W and D for the JGP dataset (section 6.4)

Table 1: Mixed Linear Model Regression Results for ID_e on ID, W and D

Model:	MixedLM	Dependent Variable:	ide
No. Observations:	714	Method:	REML
No. Groups:	15	Scale:	0.0187
Min. group size:	46	Log-Likelihood:	391.8485
Max. group size:	48	Converged:	Yes
Mean group size:	47.6		

	Coef.	Std.Err.	z	P> |z|	[0.025	0.975]
Intercept	0.262	0.313	0.838	0.402	-0.351	0.875
ID	0.846	0.115	7.331	0.000	0.620	1.072
w	-0.992	1.835	-0.541	0.589	-4.588	2.604
ID:w	-0.664	2.198	-0.302	0.763	-4.972	3.645
D	0.593	1.578	0.376	0.707	-2.499	3.686
ID:D	-0.042	0.202	-0.206	0.837	-0.438	0.355
w:D	5.022	5.825	0.862	0.389	-6.395	16.440
ID:w:D	-1.378	1.741	-0.791	0.429	-4.791	2.035
Group Var	0.001	0.004				

Table 2: Mixed Linear Model Regression Results for ID_e on ID and W

Model:	MixedLM	Dependent Variable:	ide
No. Observations:	714	Method:	REML
No. Groups:	15	Scale:	0.0187
Min. group size:	46	Log-Likelihood:	391.3947
Max. group size:	48	Converged:	Yes
Mean group size:	47.6		

	Coef.	Std.Err.	z	P> |z|	[0.025	0.975]
Intercept	0.016	0.077	0.211	0.833	-0.134	0.167
ID	0.918	0.023	40.672	0.000	0.873	0.962
w	0.162	0.742	0.219	0.827	-1.291	1.616
ID:w	0.379	0.232	1.637	0.102	-0.075	0.833
Group Var	0.001	0.004				

Table 3: Mixed Linear Model Regression Results for ID_e on ID and D

Model:	MixedLM	Dependent Variable:	ide
No. Observations:	714	Method:	REML
No. Groups:	15	Scale:	0.0187
Min. group size:	46	Log-Likelihood:	386.7450
Max. group size:	48	Converged:	Yes
Mean group size:	47.6		

	Coef.	Std.Err.	z	P> |z|	[0.025	0.975]
Intercept	0.100	0.041	2.409	0.016	0.019	0.181
ID	0.890	0.017	51.507	0.000	0.856	0.924
D	0.296	0.067	4.423	0.000	0.165	0.427
ID:D	-0.040	0.018	-2.241	0.025	-0.076	-0.005
Group Var	0.001	0.004				

4 Pairplot for the EMG parameters for the GOP dataset (section 7.5)

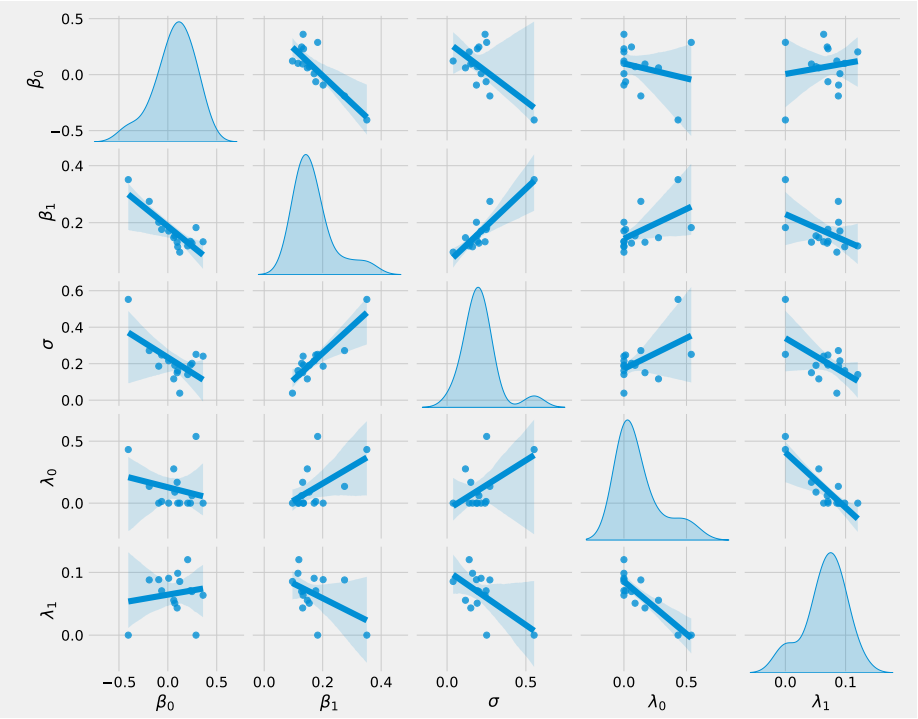

Figure 3: Pairplot for the EMG parameters for the GOP dataset. See the label of Figure 1.

5 Violinplot for the Galambos Copula, GO dataset (section 7.6)

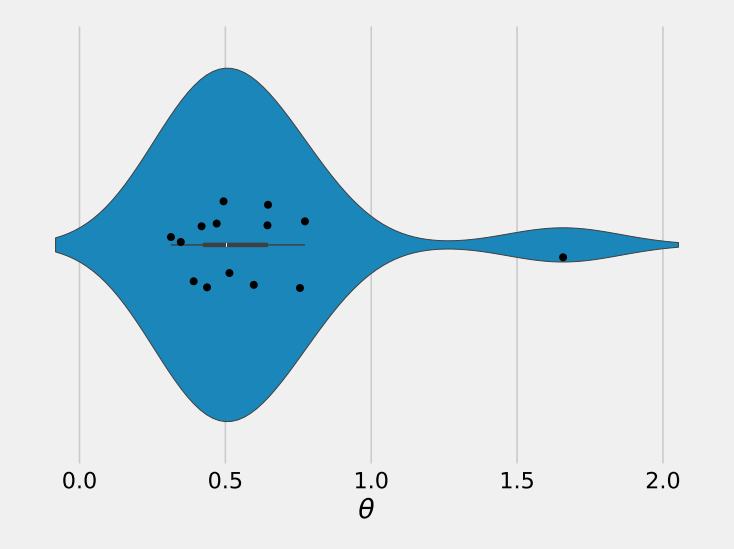

Figure 4: Parameter of the Galambos copula in the balanced condition in the GO dataset.

6 Parameters of the t-copula, GO dataset (section 7.6)

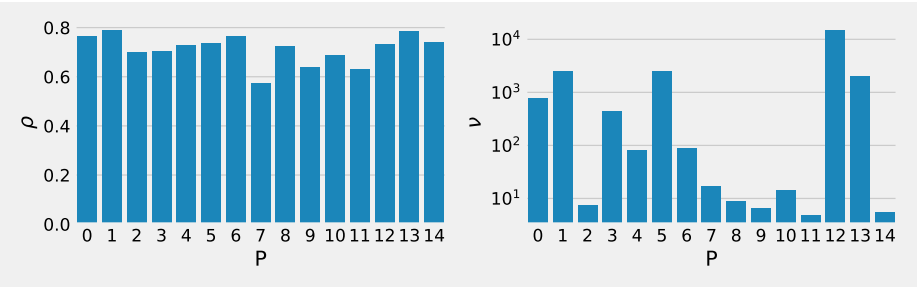

Figure 5: Parameters of the t-copula (GO dataset). Left: ρ, right: ν.

7 Parameter values for the Gaussian copula for the YORMK dataset (section 8.6)

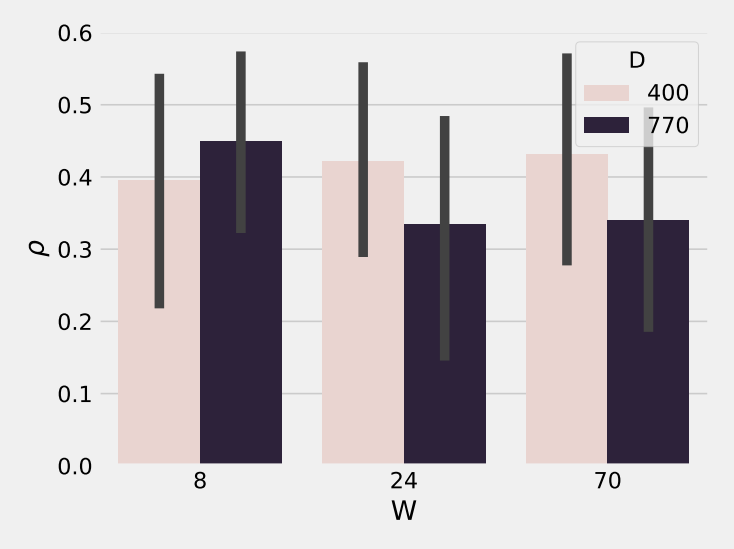

Figure 6: Gaussian copula parameters for different D and W conditions

Table 4: Effect of D and W on ρ. The statistical model evaluated is $\rho \sim$ W*D + (1|participants).

	Coef.	Std.Err.	z	P> |z|	[0.025	0.975]
Intercept	0.413	0.123	3.372	0.001	0.173	0.653
W	0.002	0.003	0.756	0.449	-0.003	0.007
D	-0.000	0.000	-0.033	0.974	-0.000	0.000
W:D	-0.000	0.000	-0.790	0.430	-0.000	0.000
Group Var	0.040	0.125				

Table 5: ¡caption¿

8 Replications of Figure 7 with different seeds (Subsection 11.1)

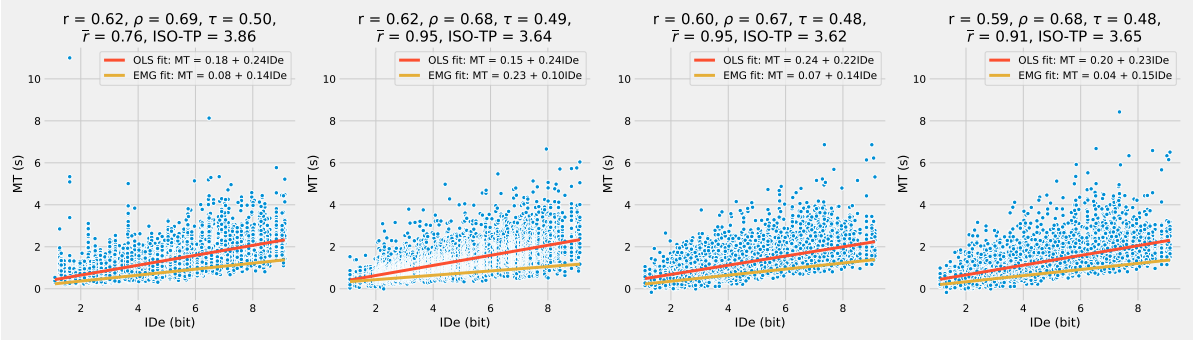

Figure 7: Seed = 777

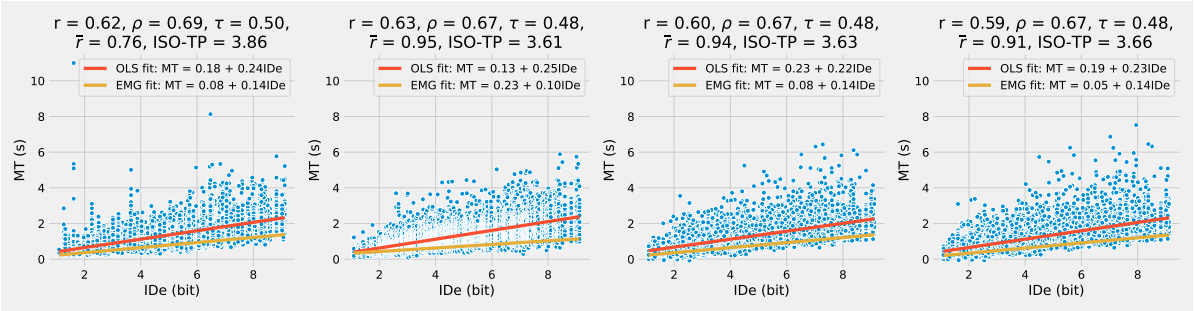

Figure 8: Seed = 999

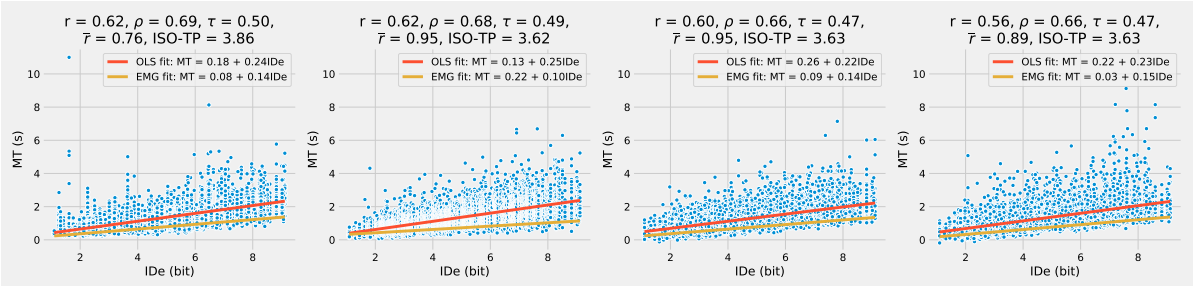

Figure 9: Seed = None

9 Correction on β_0 instead of λ_1 for Model 3 (Subsection 11.1)

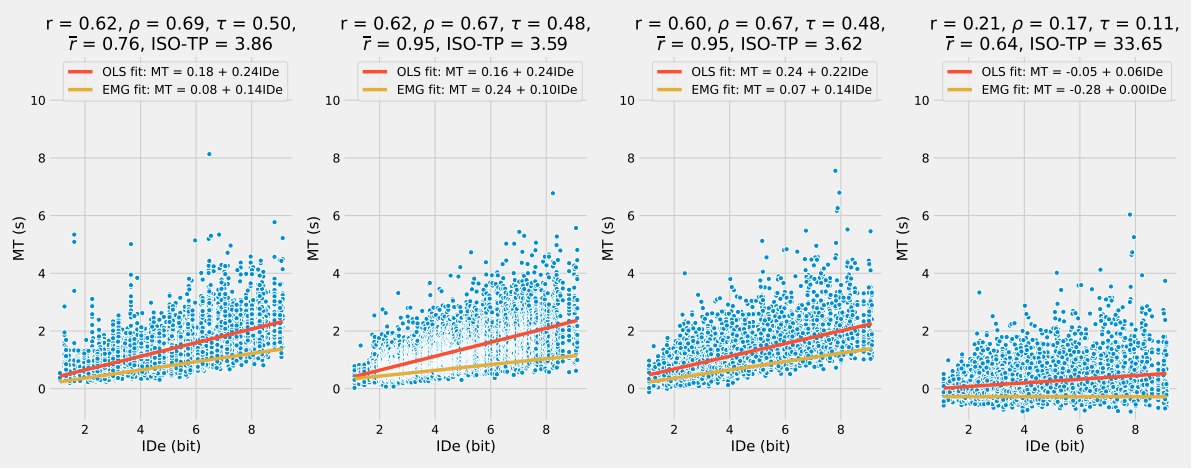

Figure 10: Effect of correction $beta_0$ instead of λ_1 for model 3.

10 Participant internal consistency concerning strategies (section 13.3)

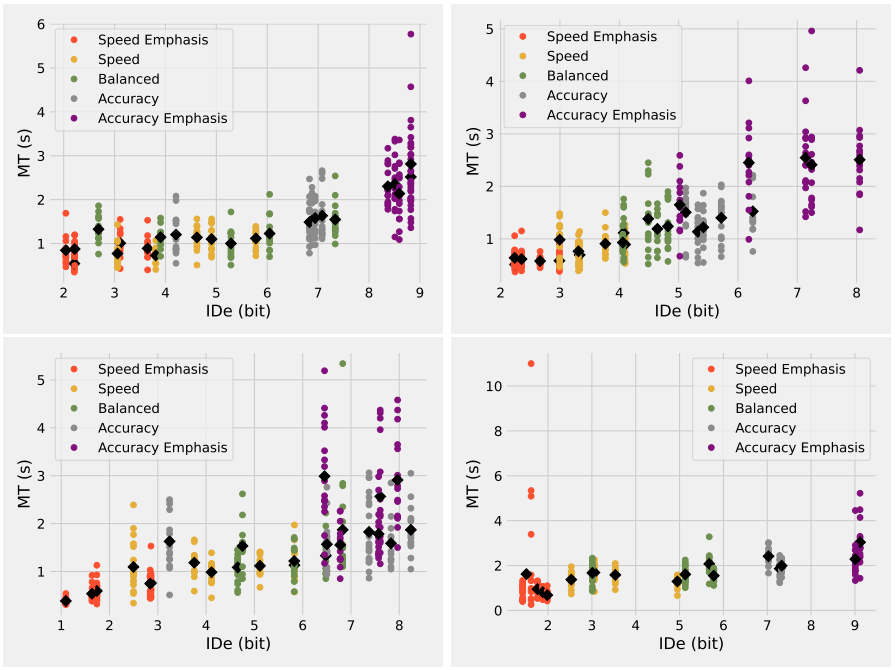

Figure 11: The internal consistency of 4 different participants of the GO dataset. Some participants, like the one in the bottom right panel are quite consistent within the same strategy, while some participants, like the one in the bottom left panel have a lot of overlap between strategies.