Supplementary materials for "Optimality of human movement under natural variations of visual-motor uncertainty" by Gepshtein, Seydell, and Trommershäuser, 2007

Supplementary materials

- Table S1: Results of Bartlett's test for homogeneity of end point variance for slant 53.
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	Inner ring (targets 1-4)			Outer ring (targets 5-8)		
	р	χ^2	$ \Sigma ^{1/2}$	р	χ^2	$ \Sigma ^{1/2}$
AS	<0.0001	65.15	2.55	<0.0001	116.18	6.55
JT	0.0023	12.19	3.38	<0.0001	64.71	7.44
BB	<0.0001	35.72	4.17	<0.0001	97.04	7.10
DT	<0.0001	50.45	4.74	<0.0001	203.27	11.47
AT	<0.0001	25.55	4.63	<0.0001	59.13	8.69
ТМ	0.0002	17.02	3.62	<0.0001	44.24	6.56
SG	0.0000	120.72	4.33	<0.0001	77.45	12.22

Table S1. Results of Bartlett's test for homogene	ity of end-point variance	e, at slant 53.	The details ar	e as in Table
1 of the main text.				



Figure S1. The predicted effects of end-point error anisotropy and size of end-point error are separable. The three "equal-variability sets" correspond to the different plots in Figure 5A. The two "equal-anisotropy sets" (not shown in Figure 5A) indicate the predictions for constant end-point error anisotropy; end-point variability changes along the lines. The effect of anisotropy is represented by the offset of predictions from the main diagonal, and the effect of size of end-point variability is represented by the location of predictions along the main diagonal. The equal-variability and equal-anisotropy sets form separate parametric grids.

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Figure S2. Rose diagrams of the orientations of principle components of end-point error distributions for all conditions and all participants, at slant 53. The details are as in Figure 10 of the main text.



Figure S3. Observed shifts of aim point as a function of shifts predicted by the ideal planner, at slant 53. The details are as in Figure 12 of the main text.



Figure S4. Observed individual shifts of aim points within the quartiles of trials, in the aligned conditions on the outer ring of targets, slant 53. The details are as in Figure 15 of the main text.