Supplement

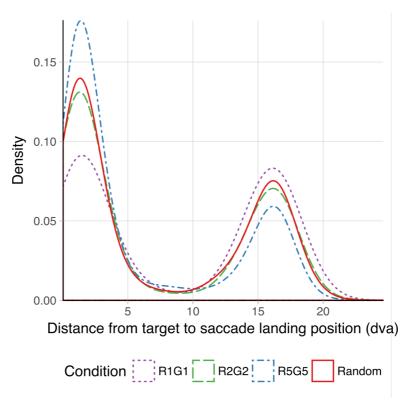


Figure S1: Probability density plots for the distance from target stimulus location to landing position of the first saccades in trials.

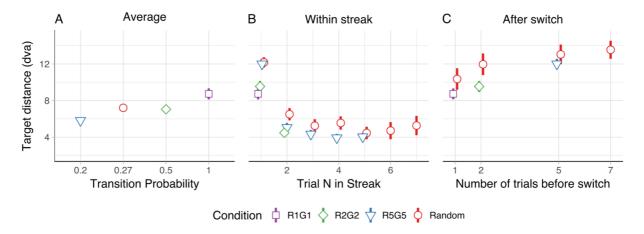


Figure S2: Distance from target stimulus location to landing position of the first saccade in a trial. Generally, distance increases as a function of the average transition probability (panel A). Within streak and after switch there is a tendency that target distance is smaller in predictable conditions (panels B, C). Bars show 95% Cis.

Table S1.

Helmert contrasts for RT within streak in R5G5 and Random conditions.

# of color in a streak	R5G5				Random			
	Estimate	SE	t	p	Estimate	SE	t	p
1 vs. later	0.1908	0.007	27.06	<0.001	0.1634	0.008	21.76	<0.001
2 vs. later	0.0266	0.007	3.76	<0.001	0.0440	0.009	5.09	< 0.001
3 vs. later	-0.0050	0.008	-0.67	0.50	0.0279	0.010	2.69	0.007
4 vs. later	-0.0213	0.009	-2.46	0.01	0.0251	0.011	2.28	0.023
5 vs. later	-	-	-	-	0.0158	0.013	1.26	0.206
6 vs. later	-	-	-	-	0.0062	0.018	0.35	0.728

Table S2.

Helmert contrasts for RT after switch in Random condition in trials preceded by streaks of different length.

Length of streak before the switch	Random			
	Estimate	SE	t	p
1 vs. later	-0.0688	0.014	-4.82	<0.001
2 vs. later	-0.0108	0.015	-0.71	0.477
5 vs. later	0.0158	0.018	0.89	0.375

Table S3.

Helmert contrasts for latency within streak in R5G5 and Random conditions.

# of color in a streak	R5G5				Random			
	Estimate	SE	t	p	Estimate	SE	t	p
1 vs. later	19.1073	3.051	6.26	<0.001	24.4357	3.225	7.58	<0.001
2 vs. later	0.5020	2.051	0.25	0.807	6.7333	2.626	2.57	0.011
3 vs. later	0.4707	2.123	0.22	0.825	3.2251	2.941	1.10	0.273
4 vs. later	1.6038	2.400	0.67	0.504	1.2154	3.133	0.39	0.698
5 vs. later	-	-	-	-	4.8124	3.481	1.38	0.167
6 vs. later	-	-	-	-	4.1542	4.962	0.84	0.403

Table S4.

Helmert contrasts for latency after switch in Random condition in trials preceded by streaks of different length.

Length of streak before the switch	Random			
	Estimate	SE	t	p
1 vs. later	-11.5886	8.045	-1.44	0.152
2 vs. later	-10.4332	10.146	-1.03	0.306
5 vs. later	6.2339	12.992	0.48	0.632

Table S5.

Helmert contrasts for overall direction within streak in R5G5 and Random conditions.

# of color in a streak	R5G5				Random			
	Estimate	SE	t	p	Estimate	SE	t	p
1 vs. later	60.5445	2.221	27.26	<0.001	54.5348	2.570	21.22	<0.001
2 vs. later	7.1663	2.270	3.157	0.002	11.7087	2.994	3.91	< 0.001
3 vs. later	2.4790	2.405	1.031	0.303	1.9793	3.510	0.56	0.573
4 vs. later	-1.4243	2.742	0.520	0.604	6.0539	3.722	1.63	0.104
5 vs. later	-	-	-	-	-4.7224	4.250	-1.11	0.267
6 vs. later	-	-	-	-	-3.7258	5.967	-0.62	0.532

Table S6.

Helmert contrasts for overall direction after switch in Random condition in trials preceded by streaks of different length.

Length of streak before the switch	Random			
	Estimate	SE	t	p
1 vs. later	-18.5075	5.023	-3.68	<0.001
2 vs. later	-9.4324	5.499	-1.72	0.087
5 vs. later	-4.5258	6.402	-0.71	0.480