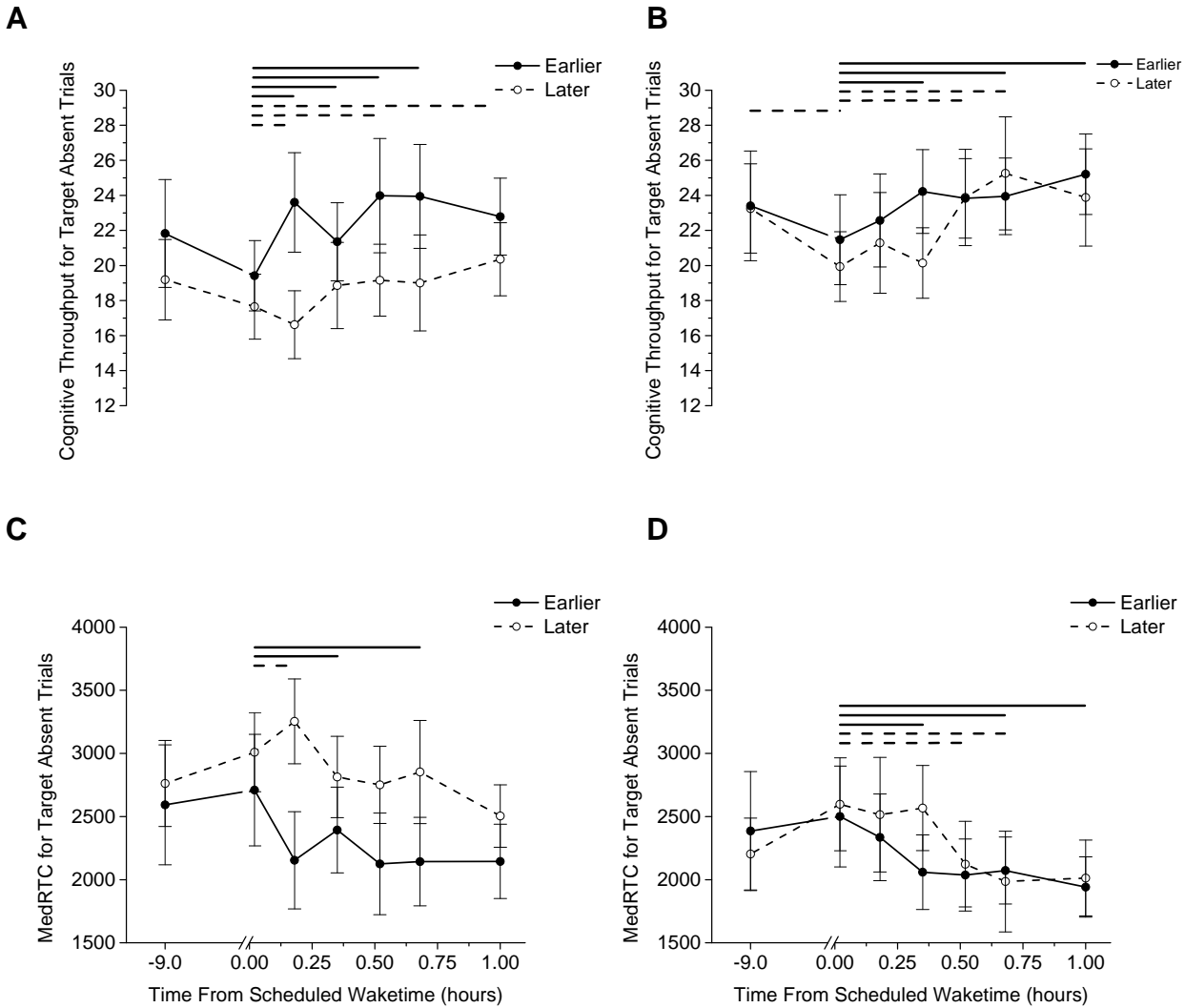


### ChronotypeMSFsc

### ChronotypeDLMO



**Figure S1.** Cognitive performance on the visual search task for the chronotypeMSFsc group (A and C) and chronotypeDLMO group (B and D). A and B represent cognitive throughput for correct responses on target absent trials; C and D represent median reaction time for correct responses on target absent trials. Solid and dashed lines represent significant differences ( $p < 0.05$ ) for time points at the ends of each line within the earlier and later chronotype groups, respectively.

**Table S1.** Sleep architecture for all subjects and comparing earlier and later chronotypes

	All Subjects (n=17)	ChronotypeMSFsc		ChronotypeDLMO	
		Earlier (n=6)	Later (n=7)	Earlier (n=7)	Later (n=6)
Percentage of recording time					
<b>Stage 1</b>	5.7 ± 0.6	6.5 ± 1.1	6.1 ± 1.0	6.3 ± 0.9	4.9 ± 0.0
<b>Stage 2</b>	50.4 ± 1.6	51.1 ± 1.7	48.8 ± 3.3	51.6 ± 1.2	49.6 ± 2.1
<b>SWS</b>	18.2 ± 1.4	18.1 ± 1.1	16.7 ± 2.9	16.8 ± 0.9	19.9 ± 2.6
<b>REM</b>	20.2 ± 1.1	18.3 ± 1.4	22.8 ± 2.0	19.4 ± 1.6	19.8 ± 2.3
<b>SE</b>	94.4 ± 0.8	94.0 ± 1.7	94.4 ± 1.3	94.2 ± 1.2	94.3 ± 1.9
Minutes of recording time					
<b>Stage 1</b>	27.2 ± 3.0	31.0 ± 5.3	29.2 ± 5.0	30.4 ± 4.1	23.7 ± 5.5
<b>Stage 2</b>	241.3 ± 7.8	244.8 ± 8.7	233.6 ± 15.6	247.4 ± 5.7	238.2 ± 10.0
<b>SW</b>	87.1 ± 6.9	86.3 ± 4.9	80.2 ± 13.8	80.6 ± 4.1	95.3 ± 12.7
<b>REM</b>	96.7 ± 5.5	87.6 ± 6.7	109.4 ± 9.9	93.3 ± 7.5	95.2 ± 11.1
<b>WASO</b>	26.8 ± 3.8	28.8 ± 8.1	26.7 ± 6.2	27.8 ± 5.9	27.6 ± 9.1
<b>TST</b>	452.3 ± 3.9	449.8 ± 8.1	452.4 ± 6.5	451.6 ± 6.2	452.3 ± 9.0
<b>SOL</b>	5.7 ± 1.4	7.0 ± 4.0	4.6 ± 1.1	7.2 ± 3.3	4.3 ± 1.3
<b>Wake in last 10 min of sleep episode</b>	0.4 ± 0.2	0.7 ± 0.4	0.4 ± 0.3	0.4 ± 0.9	0.3 ± 0.3
<b>Wake in last 30 min of sleep episode</b>	2.0 ± 0.7	2.0 ± 0.6	1.0 ± 0.6	2.8 ± 1.5	1.3 ± 0.7

Data represent mean±SEM; errors are standard error of the mean. Percentages sum to over 100% due to rounding.

**Table S2.** Sleep stage upon awakening

	<b>Stage 1</b>	<b>Stage 2</b>	<b>Stage 3</b>	<b>REM</b>	<b>Wake</b>
All Subjects (n=17)*					
	1	8	2	3	3
Chronotype MSFsc					
<b>Earlier</b> (n=6)	1	2	0	2	1
<b>Later</b> (n=7)	0	3	1	1	2
Chronotype DLMO					
<b>Earlier</b> (n=7)	0	4	0	1	2
<b>Later</b> (n=6)	0	2	1	2	1

\*missing data for one subject