

Striatal dopamine synthesis and cognitive flexibility differ between hormonal contraceptive users and non-users

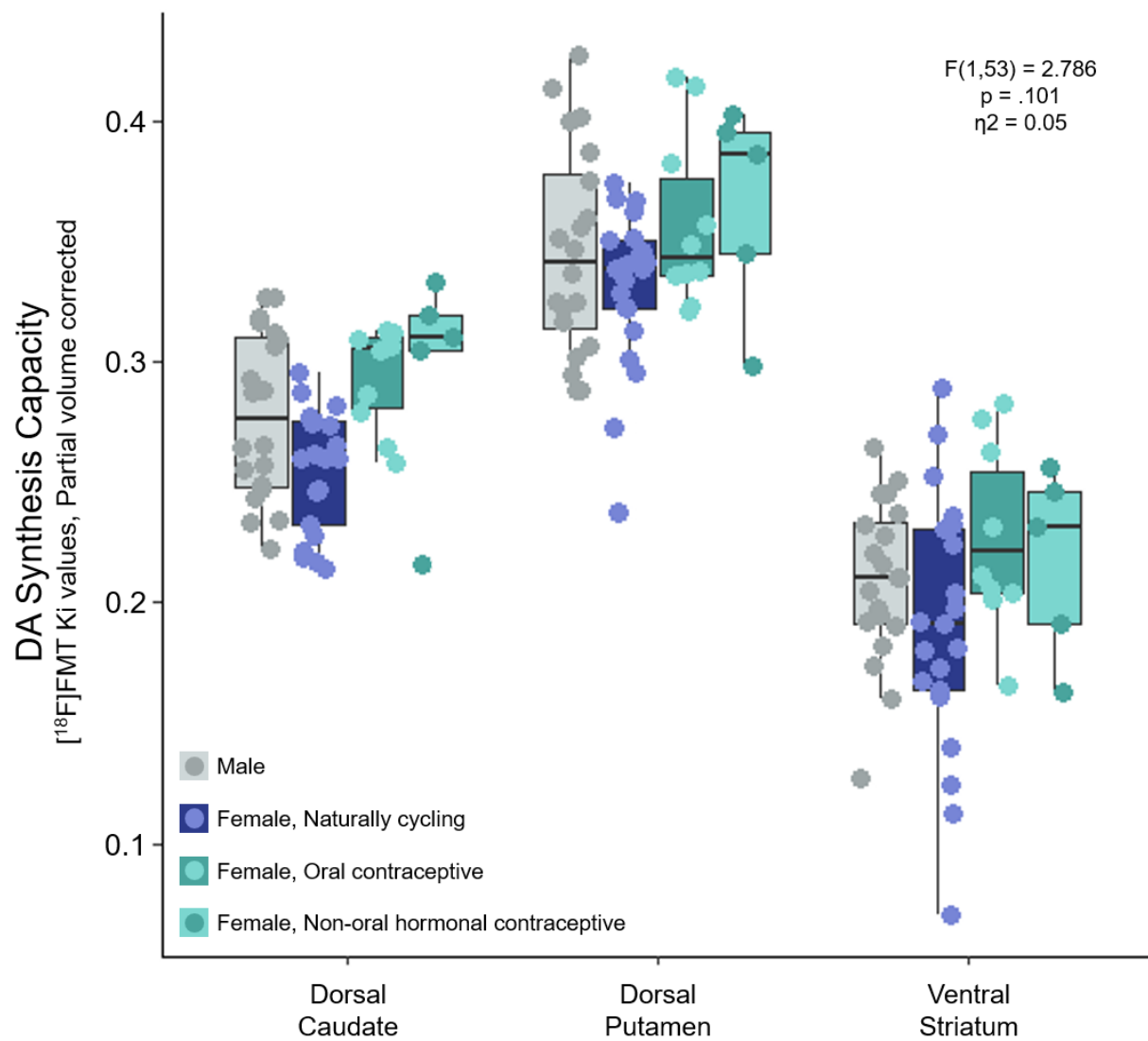
Caitlin M. Taylor, Ph.D., Daniella J. Furman, Ph.D., Anne S. Berry, Ph.D., Robert L. White III, M.D., Ph.D., William J. Jagust, Ph.D., Mark D’Esposito, Ph.D., Emily G. Jacobs, Ph.D.

Supplementary Information

Supplemental Table 1. DA-D2 binding potential and DA release by group and striatal region of interest

[¹¹ C]Raclopride BP Values				
	Dorsal Caudate	Dorsal Putamen	Ventral Striatum	
Male	6.2048 ± .9022	7.2033 ± .7939	4.0416 ± .4809	
Female (combined)	6.0164 ± .1005	7.3925 ± .0874	3.9975 ± .5846	
<i>Naturally cycling</i>	6.0122 ± .1182	7.4058 ± .7148	3.8966 ± .5602	
<i>Hormonal Contraceptive</i>	6.0231 ± .4048	7.3711 ± .5449	4.1604 ± .6083	

[¹¹ C]Raclopride BP PSC Values				
	Dorsal Caudate	Dorsal Putamen	Ventral Striatum	
Male	.0881 ± .0610	.1061 ± .0828	.0664 ± .0585	
Female (overall)	.0578 ± .0593	.1142 ± .0755	.0818 ± .0822	
<i>Naturally cycling</i>	.0586 ± .0553	.1159 ± .0779	.0798 ± .0960	
<i>Hormonal Contraceptive</i>	.0565 ± .0676	.1114 ± .0746	.0851 ± .0563	



Supplemental Figure 1. Effects of hormonal contraceptive use on DA synthesis capacity similar with oral and non-oral administrations. [¹⁸F]FMT Ki values in males, naturally cycling females, oral contraceptive users (pill; n = 10), and hormonal contraceptive users (i.e. ring, implant, injection, IUD; n = 5), by striatal region of interest. Note that hormone users show elevated DA synthesis, despite the route of administration.