# Varieties of holistic processing in developmental prosopagnosia



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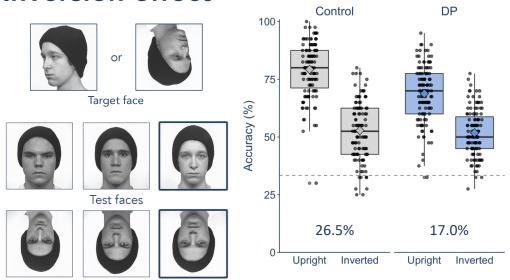
## Background

Developmental prosopagnosia (DP) is the lifelong deficit in face recognition. A number of theories suggest that a disruption of holistic processing mechanisms underlie DP. We tested this idea using three widely used measures of holistic processing of faces.

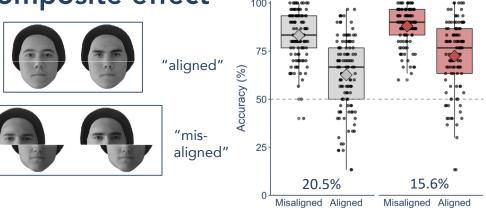
115 DPs and 115 controls completed the tasks. DPs were recruited from a sample we previously assessed on a battery of face and object processing tests.

	Age	Gender	Handedness	Education	CFMT
	M (SD)	(F, M, Other)	(R, L, Both)	M (SD)	M (SD)
Controls	34.77 (6.77)	70, 44, 1	102, 9, 4	3.21 (0.97)	56.95 (7.98)
DPs	33.49 (8.09)	77, 34, 4	92, 15, 8	4.10 (0.90)	35.82 (4.18)
р	.192	.171	.187	< .001***	< .001***

### **Inversion effect**



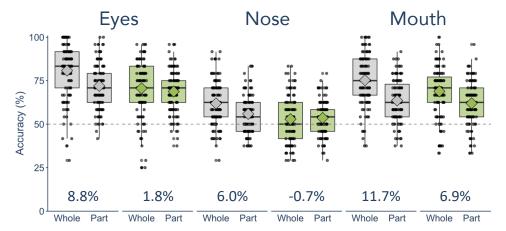
## Composite effect



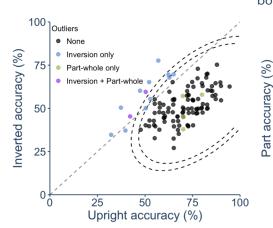
Control

#### Part-whole effect

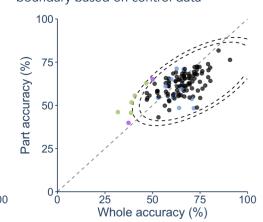


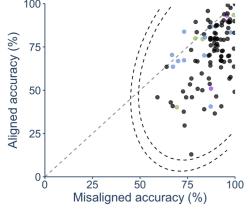


#### Varieties of DP



Dashed line indicates 97.5% and 99% boundary based on control data





DPs were not consistently impaired across all tasks. Generally, those impaired on one task were entirely within the normal range of control performance on other tasks.

Holistic processing deficits are **not** a unitary impairment in developmental prosopagnosia

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