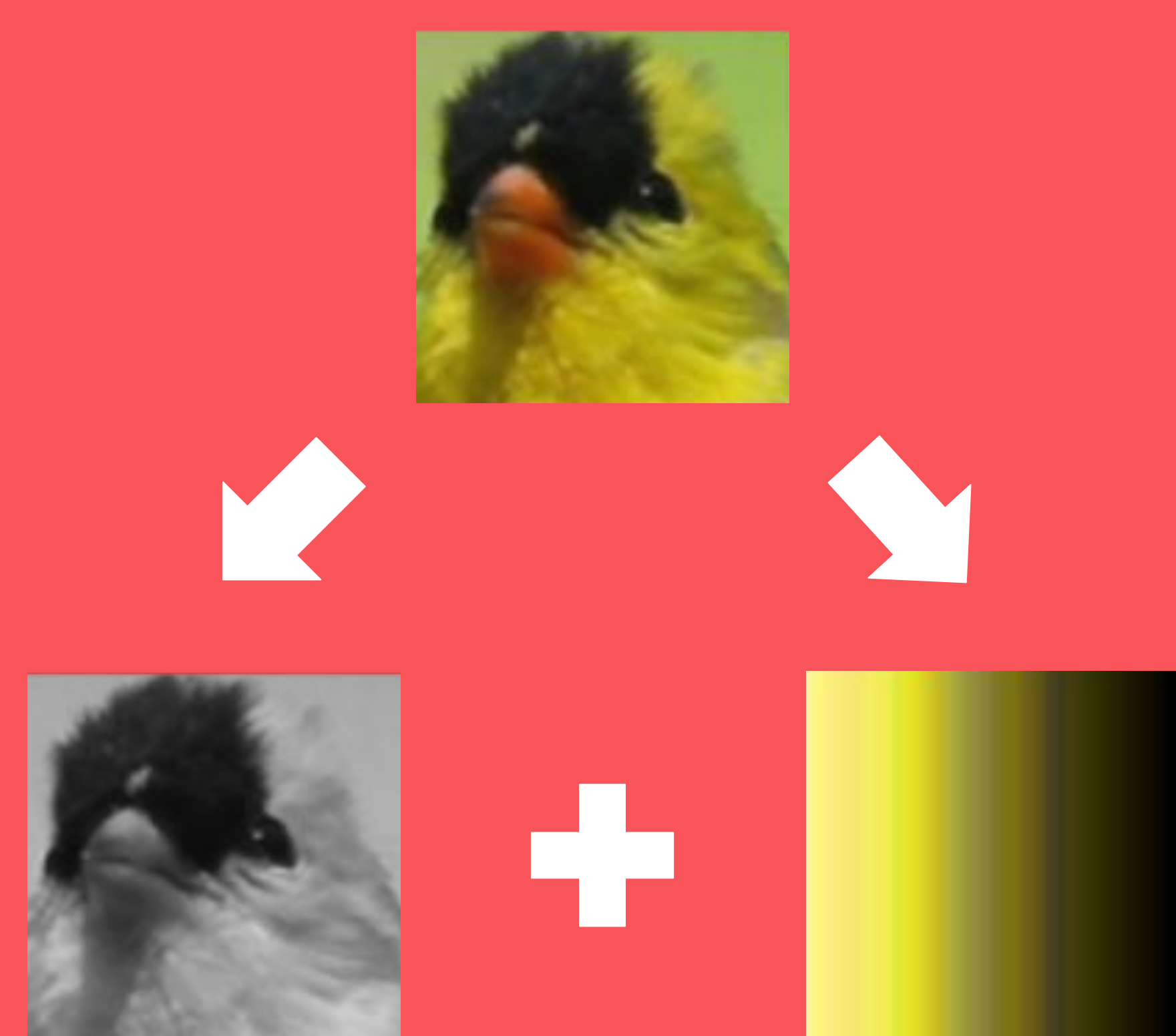


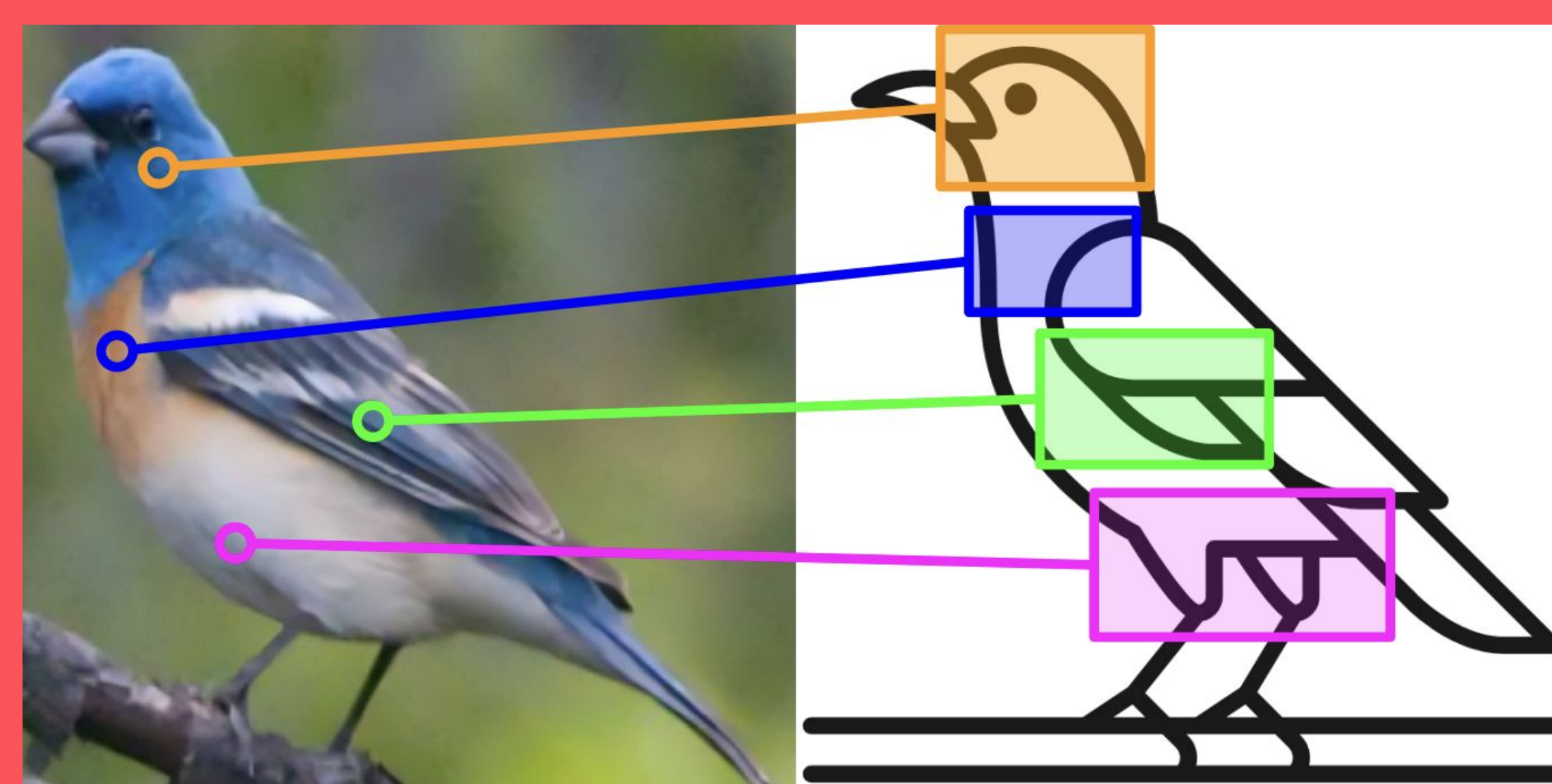
Prototypical parts are ambiguous and hard to understand?

Try  **LucidPPN** offering insightful explanations thanks to

- shape and texture + color disentanglement



- consistent prototype to object part correspondence

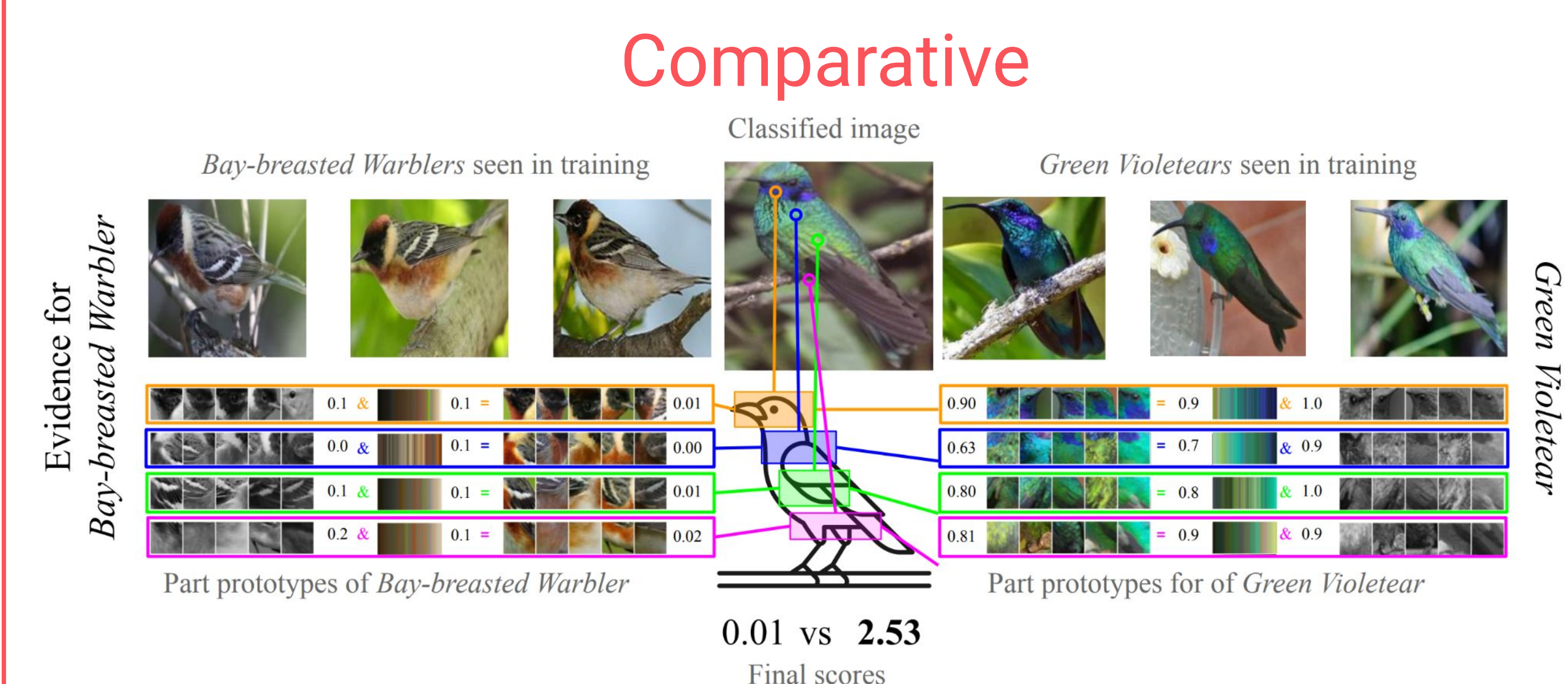
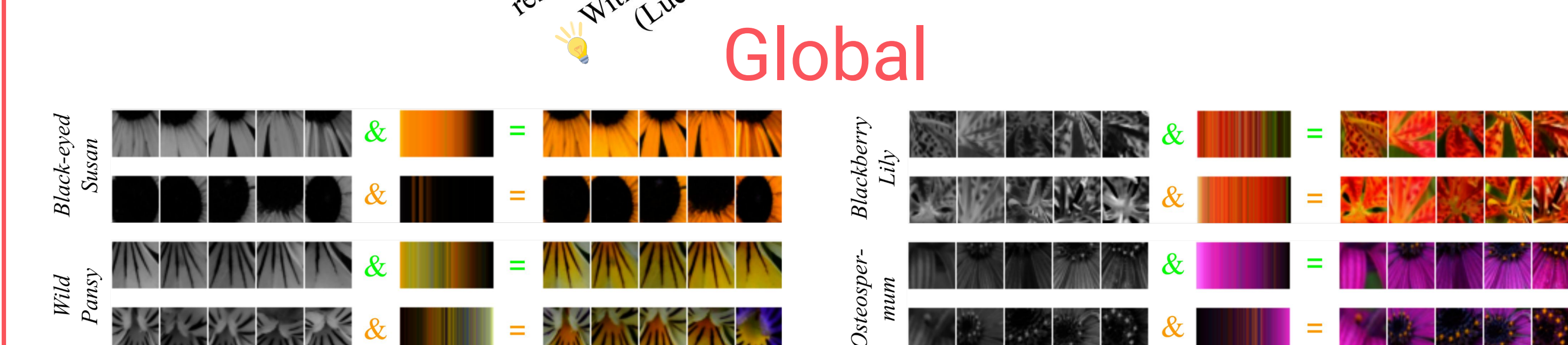
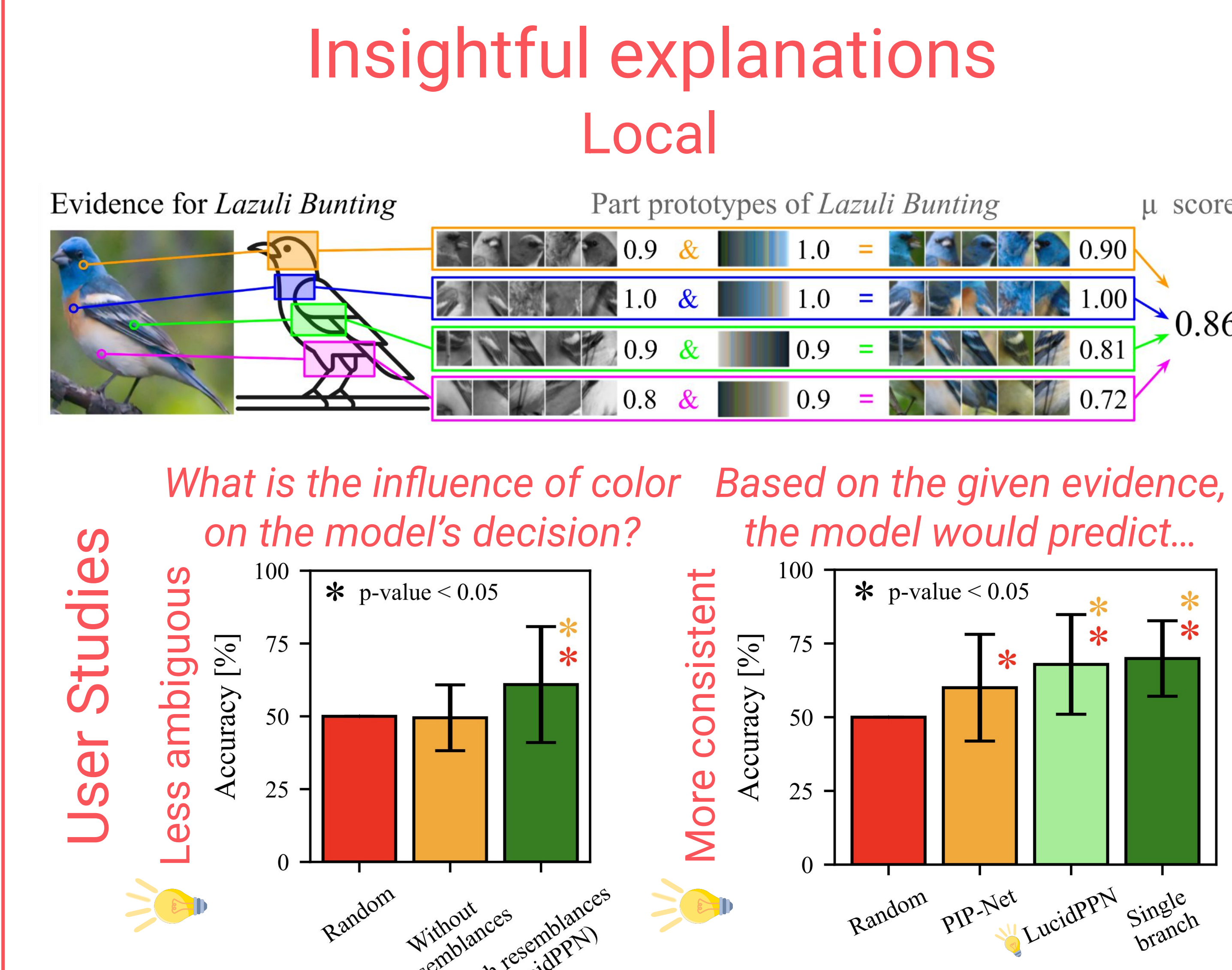
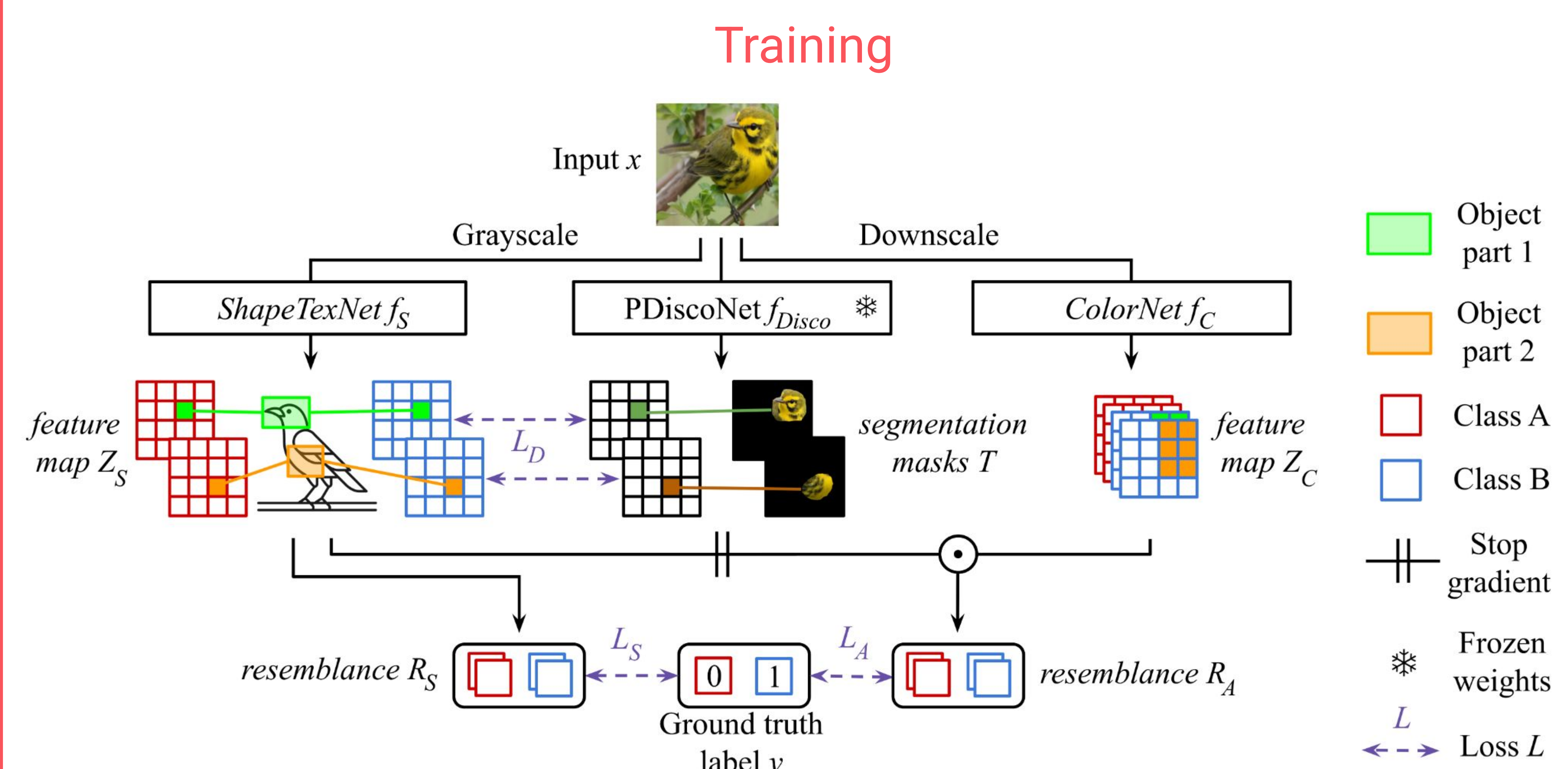
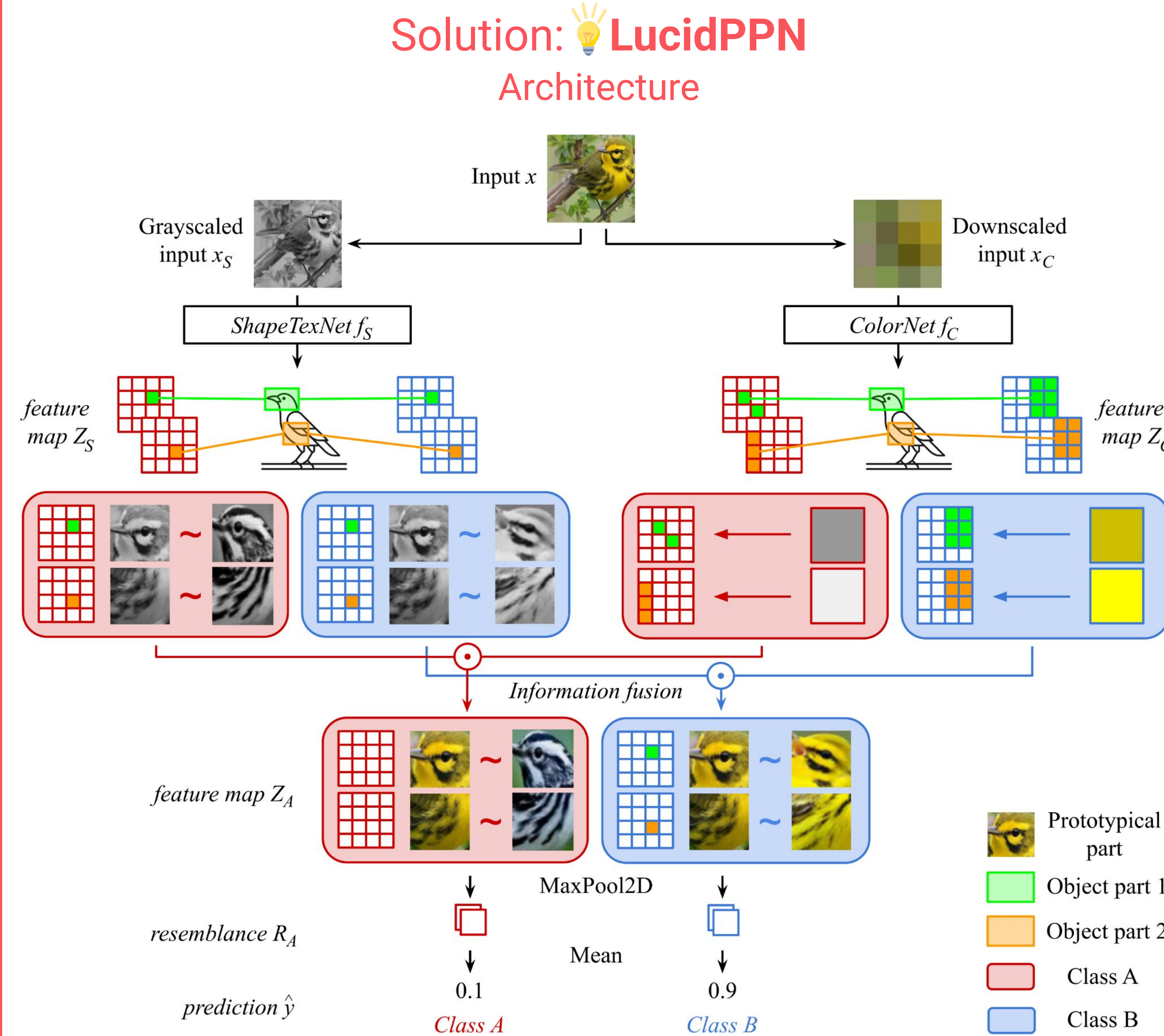
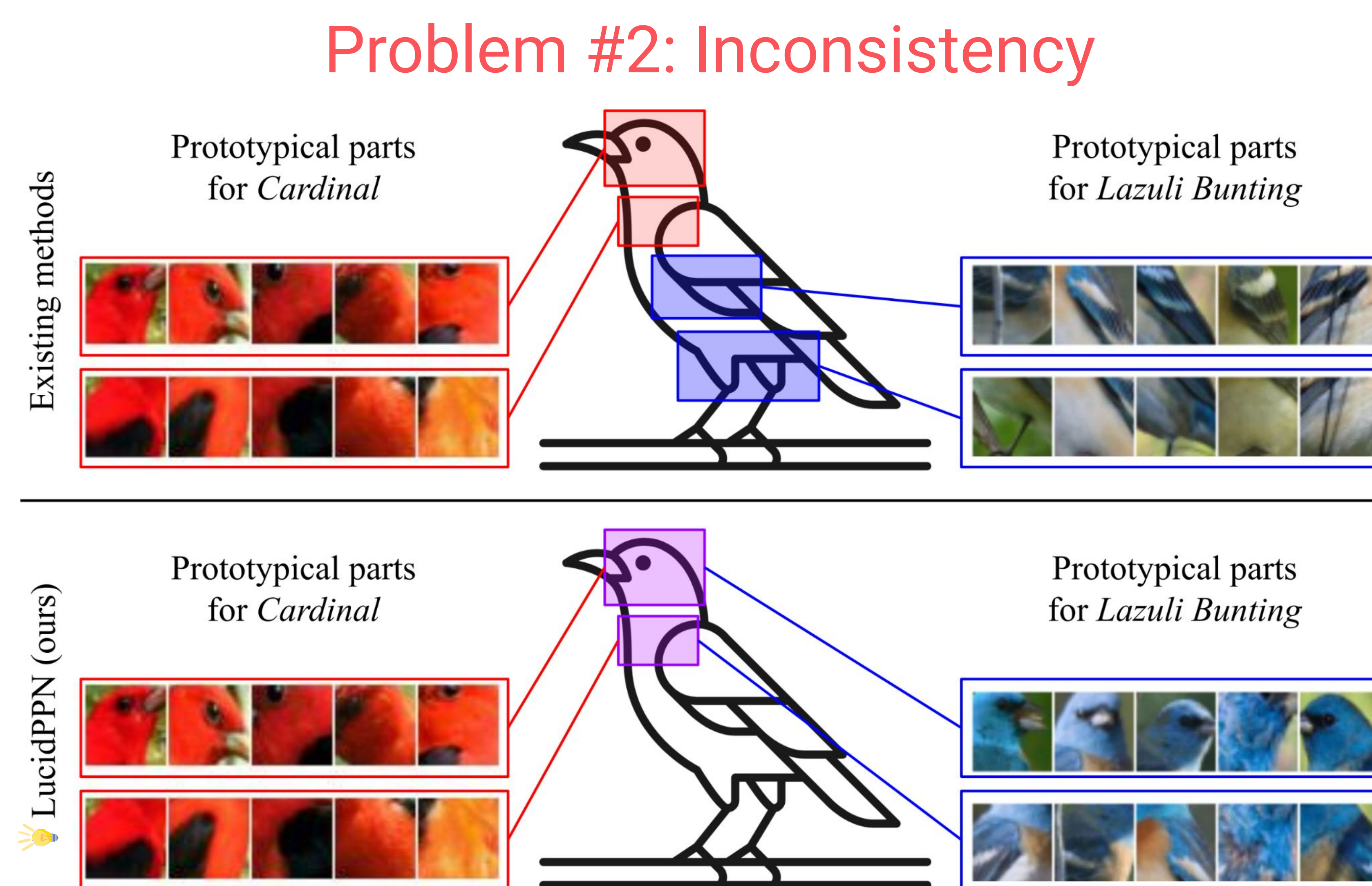
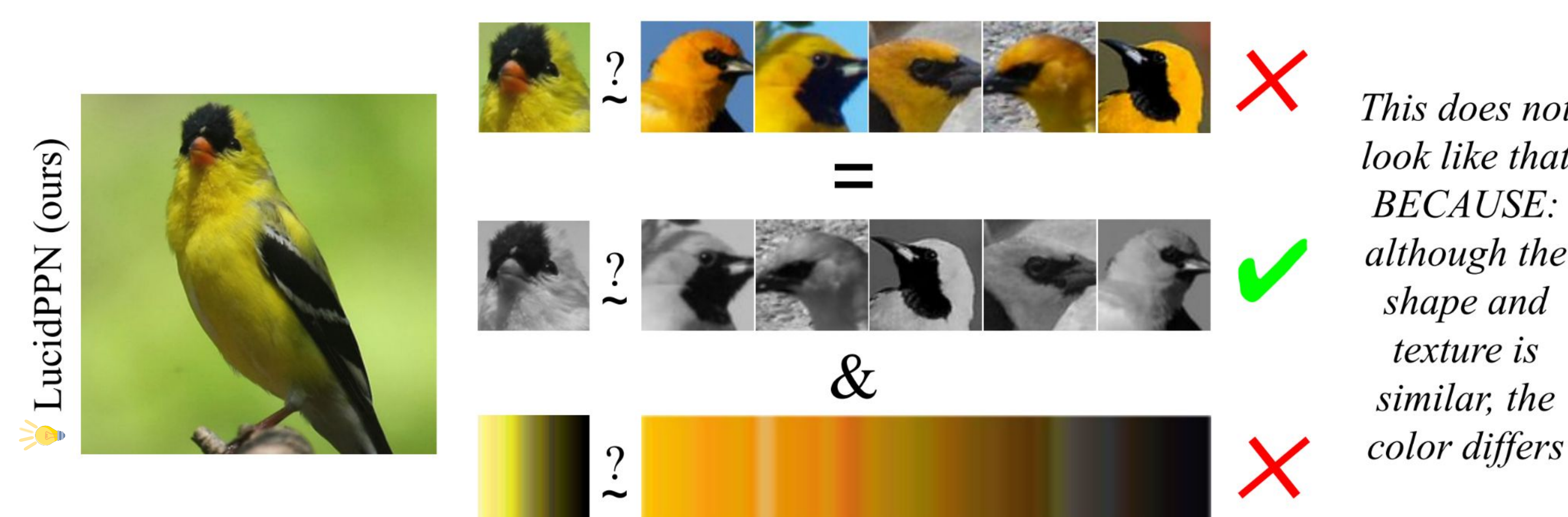
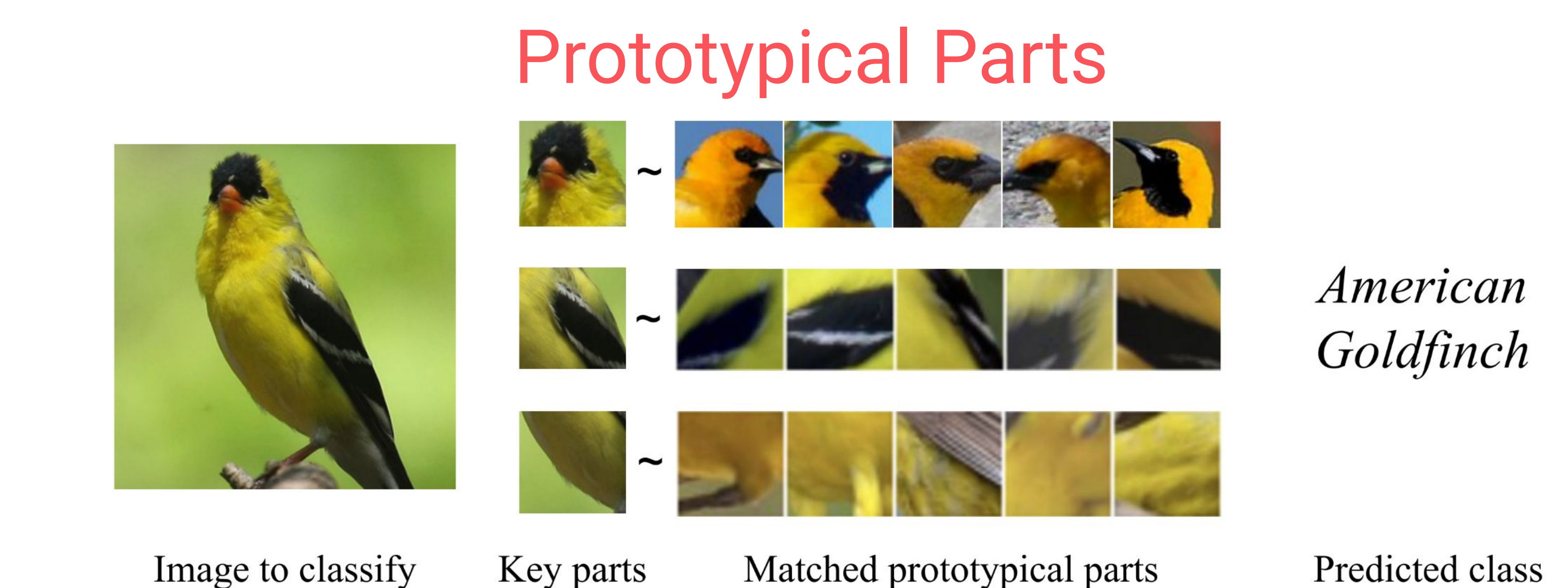


LucidPPN: Unambiguous Prototypical Parts Network For User-Centric Interpretable Computer Vision

Mateusz Pach, Koryna Lewandowska, Jacek Tabor, Bartosz Zieliński, Dawid Rymarczyk



Paper
Code



Competitive accuracy

	CUB	CARS	DOGS	FLOWER
ProtoPNet (Chen et al., 2019)	79.2	86.1	77.4 ± 0.2	92.1 ± 0.3
ProtoTree (Nauta et al., 2021b)	82.2 ± 0.7	86.6 ± 0.2		
ProtoPShare (Rymarczyk et al., 2021)	74.7	86.4	74.1 ± 0.3	90.3 ± 0.2
ProtoPool (Rymarczyk et al., 2022c)	85.5 ± 0.1	88.9 ± 0.1	71.7 ± 0.2	92.7 ± 0.1
PIP-Net (Nauta et al., 2023)	84.3 ± 0.2	88.2 ± 0.5	80.8 ± 0.4	91.8 ± 0.5
 LucidPPN	81.5 ± 0.4	91.6 ± 0.2	79.4 ± 0.4	95.0 ± 0.3

ColorNet and ShapeTexNet validation

	CUB	CARS	DOGS	FLOWER
ShapeTexNet	80.4	91.7	78.6	93.6
 LucidPPN	81.8	91.7	78.9	95.3

	Original	Hue-perturbed
PIP-Net	83.9	53.0
ShapeTexNet	80.3	80.3
 LucidPPN	81.9	71.7