Rebuttal

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1 Rebuttal

W-1 : SOP and IntGrad are able to find most number of clusters.

| Attr. Method | Ratio Voids | Ratio Clusters |
|--------------|-------------|----------------|
| lime | 0.35 | 0.0004 |
| shap | 0.34 | 0.0001 |
| rise | 0.28 | 0.0 |
| intgrad | 0.47 | 0.0037 |
| gradcam | 0.33 | 0.0001 |
| archipelago | 0.22 | 0.0 |
| sop | 0.22 | 0.0032 |

Table 1: SOP and IntGrad are able to find most number of clusters.

 $\mathbf{W-2}$: MoRF and LeRF

| Attr. Method | MoRF (low) | LeRF (high) |
|--------------------------|------------|-------------|
| sop | 0.44 | 0.53 |
| lime | 0.13 | 0.68 |
| shap | 0.20 | 0.62 |
| rise | 0.35 | 0.66 |
| intgrad | 0.53 | 0.51 |
| $\operatorname{gradcam}$ | 0.35 | 0.59 |
| archipelago | 0.32 | 0.49 |
| fullgrad | 0.33 | 0.62 |

Table 2: MoRF and LeRF comparison among attribution methods.

Q3 : Fidelity for ImageNet

| Attr. Method | Fidelity Soft (low: better) |
|--------------------------|-----------------------------|
| lime | 0.29 |
| shap | 0.059 |
| rise | 6.77 |
| intgrad | 7.30 |
| $\operatorname{gradcam}$ | 21.43 |
| archipelago | 21.41 |
| fullgrad | 21.42 |
| sop | 0.0 |

 ${\bf Table~3:~Fidelity~for~ImageNet~across~various~attribution~methods.}$

$\mathbf{Q4}$: Fidelity for SST

| Attr. Method | Fidelity Soft (low: better) |
|--------------|-----------------------------|
| lime | 3.63 |
| shap | 0.29 |
| rise | 0.04 |
| intgrad | 5.94 |
| archipelago | 2.83 |
| pls | 2.27 |
| fresh | 0.0 |
| sop | -2e-10 |

Table 4: Fidelity for SST evaluated across various attribution methods.