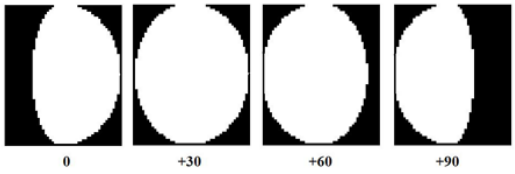

Figure 1: Part of half ellipsoids in $\theta_i = 0°, +30°, +60°, +90°$ degrees that can be seen from camera in $\theta_{new} = +40°$.

Fig. 1 illustrates this fact and shows how training half-ellipsoids in $\theta_i = 0°, +30°, +60°, +90°$ contribute in generating $\theta_{new} = +40°$ pose. It clearly shows that the smaller the $|\theta_{new} - \theta_i|$, the larger part of HE_{θ_i} can be seen in the camera. As the figure implies, HE_{30} plays the main role in generating $\theta_{new} = +40°$ pose while parts of HE_0 and HE_{90} are not visible in pose $\theta_{new} = +40°$. Thus, construction of every new pose is mainly done by high contribution of its near poses. When a point can be seen from several training HE_{θ_i}s, the weighted sum of its corresponding points on these HE_{θ_i}s determines its gray level. The weight for contribution of each HE_{θ_i} is proportional to $\frac{1}{|\theta_{new} - \theta_i|}$ and the weight function can be chosen from the family of reciprocal functions.