It has been consistently shown that medial prefrontal cortex (MPFC) is engaged in processing of self-related information, however, the reason for this preference remains largely unknown. The aim of this study was to investigate whether activity in this region is indeed modulated by the self-relevance factor, or perhaps more generally, by the familiarity and/or the emotional significance factors. We were also interested whether these factors interact with the modality of stimulus presentation. We used an fMRI method to compare hemodynamic responses during processing of self-, close other’s, famous and unknown people’s names. Stimuli were presented both visually and aurally. We did not find any significant differences between processing of self- and close other’s names in MPFC. However, both self- and close other’s names were related to stronger responses in MPFC than famous and unknown names. The effect was analogous in two modalities. These results suggest that MPFC is not specifically engaged in processing of self-related information, but more generally, in processing of highly familiar and/or emotionally significant social information. This effect seems independent from the modality of stimulus presentation.