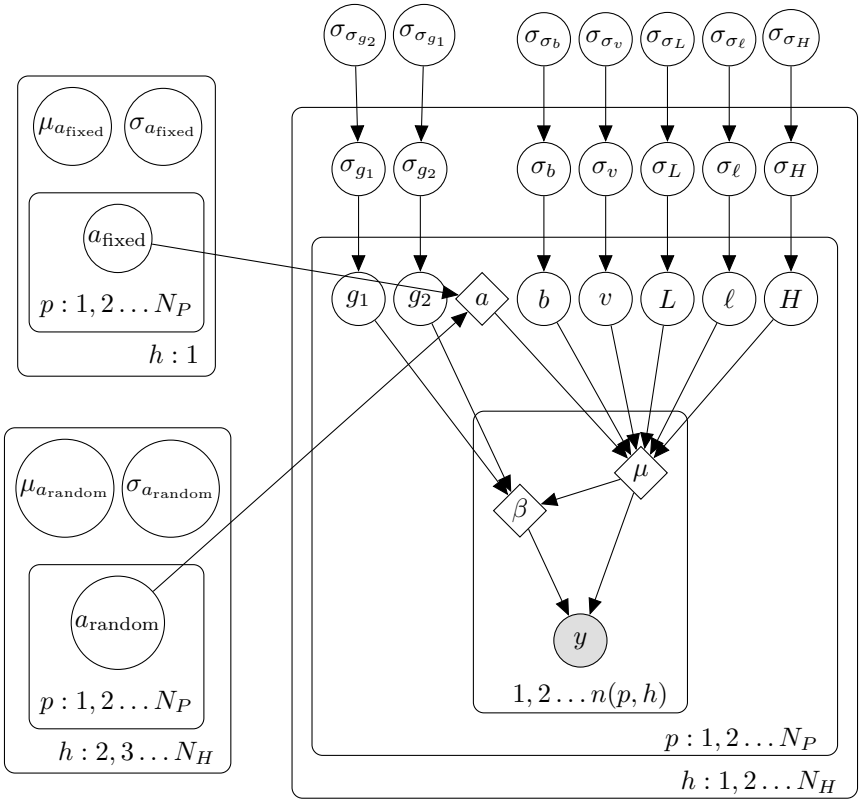
It's often the case that there is some group structure present within participants. The default model can then be extended to exploit such structure which allows for direct comparison of group parameters. We introduce partial-pooling of group parameters by placing a group-specific prior on each parameter. The group-specific priors are then informed by global priors which are shared between groups. The global priors are informed by hyperpriors, which are shared between all groups and chosen to be weakly informative.

Fig. 4.3.2 shows the graphical representation of group model implemented by hbmep. In section 5.2, we use this model (with $N_G = 2$) to directly compare the group threshold parameters μ_a of uninjured and injured participants.



Although the group threshold parameters μ_a and σ_a are assumed to be generated from a common population, we consciously avoid pooling these parameters. The reason for doing so is two folds. Firstly, often there is enough information available to directly specify these parameters. Secondly, we expect these parameters to be different between groups. For instance, the thresholds are the most likely to be affected by injury.