

Figure 1: Goal-Plan hierarchy for *Hanoi Towers* showing plan unfolding using bounded recursion with depth d. The top level goal (G[1]) is at d=0. Shown here is unolding upto d=3. All goals belongs to class G with type T represented as G[T]. The total number of plans in the hierarchy is always 4— the repetition at each level is purely to allow visualisation of the unfolding. Plans P_1 and P_2 are leaf plans and are shown as $P_{1/2}$ for brevity. For a puzzle with P_2 discs, P_3 will ensure sufficient recursion to ensure a solution is always found. Consequently, if a solution is not found in P_3 unfolds then we have made a bad move along the way and should be considered a failure. Note that in this domain a plan never fails per se, since a legal move can be made in every possible state.