```
function symm = left_right_delta_3D(data_array)

  [x num_items] = size(data_array);
  is_taken = zeros(1,num_items);
  total = 0;
  symm = 0;

  max_distance = 1; %initial value to cause the loop to execute

  %First we normalize the data to set of probabilities
  for i = 1 : num_items

    total = total + norm(data_array{i});

  endfor

  for i = 1 : num_items

    data_array{i} = data_array{i}/total;

  endfor
  %-----------------------------------------------------

  distance_matrix = find_most_distant_pair(data_array);

  %iterates through the distances between the data points, and measures the
difference between the most distance pairs

  while(max_distance > 0)

    max_distance = max(distance_matrix(:));
    [i j] = find(distance_matrix == max_distance);

    distance_matrix(i,:) = 0;
    distance_matrix(:,i) = 0;
    distance_matrix(:,j) = 0;
    distance_matrix(j,:) = 0;

    symm = symm + max_distance;

  endwhile

  symm = symm*2;

endfunction
```