

Euthanasia Reconsidered: Voting and Multicriteria Decision-Making in Medical Ethics

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Abstract : Discussion on euthanasia is a continuous process. Euthanasia is defined as 'deliberately ending a patient's life by administering life-ending drugs at the patient's explicit request'. With few exceptions, worldwide in most countries human societies have not been able to agree on some fundamental issues concerning ultimate decisions of life and death. Outranking methods in voting oriented social choice theory and multicriteria decision-making (MCDM) can be applied to issues in medical ethics. There is a wide range of voting methods, and using different methods the same group of voters can end up with different outcomes. In the MCDM context, decision alternatives can be substituted for candidates, and criteria for voters. The view chosen here is that of a single decision-maker. Initially, three alternatives and three criteria are chosen. Pairwise and basic positional voting rules - plurality, anti-plurality and the Borda count - are applied. In the MCDM solution, criteria are put weights by giving them the more 'votes'; the more important the decision-maker ranks them. A hypothetical example on evaluating properties of euthanasia consists of three alternatives A, B, and C, which are ranked according to three criteria - the patient's willingness to cooperate, general action orientation (active/passive), and cost-effectiveness - the criteria having weights 7, 5, and 4, respectively. Using the plurality rule and the weights given to criteria, A is the best alternative, B and C thereafter. In pairwise comparisons, both B and C defeat A with weight scores 7 to 9. On the other hand, B is defeated by C with weights 11 to 5. Thus, C (i.e. the so-called Condorcet winner) defeats both A and B. The best alternative using the plurality principle is not necessarily the best in the pairwise sense, the conflict remaining unsolved with or without additional weights. Positional rules are sensitive to variations in alternative sets. In the example above, the plurality rule gives the rank ABC. If we leave out C, the plurality ranking between A and B results in BA. Withdrawing B or A the ranking is CA and CB, respectively. In pairwise comparisons an analogous problem emerges when the number of criteria is varied. Cyclic preferences may lead to a total tie, and no (rational) choice between the alternatives can be made. In conclusion, the choice of the best commitment to re-evaluate euthanasia, with criteria left unchanged, depends entirely on the evaluation method used. The right strategies matter, too. Future studies might concern the problem of an abstention - a situation where voters do not vote - and still their best candidate may win. Or vice versa, actively giving the ballot to their first rank choice might lead to a total loss. In MCDM terms, a decision might occur where some central criteria are not actively involved in the best choice made.

Keywords : medical ethics, euthanasia, voting methods, multicriteria decision-making

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