Scientists, inevitably, must make value judgments under all kinds of circumstances with or without the acknowledgment of epistemic and non-epistemic values they hold. Both of the values are deeply entrenched in one's decision-making, especially the fact that the non-epistemic values, the norms and the maxims that are often ignored by the evaluators, cannot be eliminated. One of the most controversial topics existing in society — organ transplantation — forces the scientists as doctors to make value judgments while choosing the recipient of the transplant because of the lack of organ donors. Two hundred and seventy-eight patients died waiting for a transplant in 2014 in Canada. How the criteria for selecting recipients works has caused multiple debates as an international issue since organs are scarce commodities worldwide. This makes one question if the selection process is sufficiently reasonable and objective while involving value judgments from the doctors. The doctors, then, should avoid making value judgments while choosing the recipient, if possible.

Requests or demands for organ transplant usually exceed the amount of supply available at the time. How Ontario, Canada operates and implements the organ transplant waiting list is by using "a complex computer program", which evaluates through categories such as the candidate's "blood type, age, body size, genetics, medical severity, presence of certain antibodies (protein substances made by the body's immune system), length of time on the waiting list, and geographic area" to choose the most suitable people at the top of the waiting list. The computer program mechanism for picking the patient is a type of value judgments, as the criteria for evaluation consist of categories is inputted by the scientists as doctors beforehand. The program itself is value-laden. These evaluation factors, for the computer program, are mostly epistemic values chosen by the doctors, and during the process of choosing these factors, the doctors did make value judgments on deciding what factors are most significant and practical for selection. In addition, all the quantitative epistemic values that are acting as the evaluation factors cannot guarantee to filter out the most suitable patient successfully, to find the one whom all the other patients who have similar physical conditions would agree with. All of their lives are in danger; they are difficult to be persuaded that the other needs a transplant surgery earlier than them when all of them share similar physical conditions. The situation could become even more complicated if one of the matchable people, on the top of the waiting list, is someone whom the doctors, who are responsible for picking the final recipient, know. The patient could be their beloved ones; non-epistemic values such as the personal connection with the candidates, then, would interfere

the decision making unavoidably. There also exists a possibility of finding more than one suitable people who have the same prioritizing ranking in the computer program, while only one organ is available to carry out the transplantation. The doctors then, under this situation, are pressured to make value judgments to choose not only based on epistemic values, what the computer program provides, but also with non-epistemic values, and the selection becomes very subjective. On the other hand, some argue that "[the patient's] gender, religion, beauty, income, contribution to society or any other factor [that is based on one's non-epistemic values]" should be independent of whether the person would receive the organ or not. In other words, under the same physical conditions, even with some extreme cases that the patient was a criminal and "injured an organ while robbing a bank", he or she should be viewed with the same consideration as a young teenager who has great potentials in the future and could possibly contribute and benefit the society more in long-term after the transplant relatively. This is simply because both of them will benefit from the surgery equally; both of them will be cured.

Moreover, in order for a patient to enter the organ transplant waiting list has many former requirements and restrictions. Patients who are alcoholics, for instance, "[are] required to stop drinking for six months" before they are eligible for a liver transplant in Ontario. Although this policy is mainly due to the fact that "livers are a scarce and finite resource", this policy is carried based on some value judgements involved with non-epistemic values, as the doctors judging the patients who have alcoholic background that they "could damage the new, [donated] organ by continuing to drink". They argue that, as the doctors, "have a responsibility to ensure the organs are used wisely". However, while the patients abstain from drinking for six months before they are eligible for a transplant, some of them might not be able to make it, as their livers could stop functioning within a few weeks after the diagnosis. Their lives are in danger, but they could have done nothing else but waiting for their own death because of the policy. This policy violates Canadians' right to universal health care.

This brings to the question of whether the doctors should make the value judgements, to be in power of picking who can survive. The value judgments based on both epistemic and non-epistemic values are certainly subjective. One possible solution to the concern of fairness of the whole selecting process for the organ transplant, the fact that the doctors often have to make value judgments to pick the final recipient, is to completely randomize the selection process. The doctors must definitely make value judgments if they are required to, but they should not make

value judgements if it is avoidable. The chance of getting a transplant will be purely based on luck, by complete randomness, similarly as a lottery draw, and is dependent on how urgent the patients need the transplant. Patients who need the same organ and have the same period of the time limit, together, enter the draw. No human-beings are needed to make a decision; thus, the scientists are not required to make value judgments to pick. No selection bias such as prioritizing the "good people" to get organ transplant based on what the patients have done, or their reputations, would take place. Therefore, true equality is achieved by not making any value judgment.

To conclude, for choice making on recipient of organ transplant, if a decision is needed to be made, the scientists as doctors must make value judgements, but they should avoid personal preference to achieve pure fairness, an equal opportunity for all kinds of patients to gain a transplant, in favor of the ethic system of the categorical imperative. In more general cases, the public believes the scientists, as the experts in their field, would make the best decision that benefits the society. The reliability of the scientists plays a necessary role for future development and improvement in society in the areas of generating scientific knowledge for future generations by accepting or rejecting scientific hypotheses, or the specific application in areas such as medication and technology. All of these begin with value judgments about each advance's merit. However, there is no guarantee that all scientists could make the same decision, the best decision since each of them holds a distinct set of non-epistemic values and a unique understanding of the definition of the best decision. Their decisions could even conflict among themselves. Thus, the best alternative for the selection process of organ transplant recipient, is that no value judgments should be involved, if possible.

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