

Scarcity, Systems, and the Transplant Trolley Problem

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Abstract

Contemporary applications of the Trolley Problem often attempt to demonstrate the persistence of unavoidable moral dilemmas in real-world professional contexts. A recent example is *The Transplant Trolley Problem* (Osorio & Palchik, 2022), which frames transplant surgeons' allocation decisions as morally analogous to pulling the lever in the classic trolley thought experiment. This paper argues that such framing is conceptually mistaken. The ethical dilemma described does not arise from individual moral agency but from systemic scarcity treated as a natural and immutable condition. By mislocating responsibility at the level of the surgeon, the trolley framework obscures the incoherence of the system that produces the scarcity in the first place. When scarcity is recognized as a contingent, system-generated constraint rather than a feature of reality itself, the moral dilemma dissolves. The transplant surgeon is not a lever-puller but an operator embedded within a constrained causal chain they did not create and cannot resolve. This analysis reframes the transplant dilemma as a logic problem of system design rather than a moral problem of individual choice.

1. The Transplant Trolley Problem as Framed

Osorio and Palchik's *The Transplant Trolley Problem* compares the ethical position of transplant surgeons to the canonical trolley scenario. In the traditional formulation, an observer faces a binary choice: divert a runaway trolley to save five people at the cost of one, or refrain from acting and allow five to die. The moral tension arises from the assumption that the observer's intervention determines who lives and who dies.

In the transplant analogy, organ scarcity functions as the runaway trolley, while the surgeon's allocation decision functions as the lever. Each choice is framed as an active moral intervention, regardless of whether the surgeon acts or refrains from acting. The implication is that transplant medicine presents an unavoidable moral tragedy in which responsibility for loss is inescapably personal.

This framing assumes that scarcity is a given condition of the world rather than a product of system design. The moral weight placed on the surgeon depends entirely on that assumption.

2. Scarcity as a System-Level Condition

Scarcity in transplant medicine is not a natural phenomenon in the same sense as gravity or weather. It is the outcome of interlocking systems: funding structures, regulatory frameworks, technological limitations, cultural practices surrounding donation, and economic barriers to access.

Transplant surgeons are not participants in the supply-and-demand chain that produces organ scarcity. Their role begins after the system has already constrained the available options. In this respect, their position is analogous to a mechanic facing a parts shortage. The mechanic may determine which repair can be performed with the available components, but they are not morally responsible for the shortage itself.

Treating systemic scarcity as an immutable moral condition misplaces responsibility. It transforms a design failure into a personal ethical burden borne by those closest to its effects.

3. Why the Surgeon Is Not the Lever

The trolley thought experiment is carefully constructed to trap the observer into believing there are only two possible outcomes. The tracks split conveniently. The people are already positioned. The train cannot be stopped. The scenario exists solely to force a binary moral conclusion.

Real-world systems do not operate this way unless they are designed to do so.

In transplant medicine, the surgeon does not choose between two lives in isolation. They operate within protocols, eligibility criteria, and institutional constraints that predefine which choices are even available. The appearance of moral agency emerges only because the system has already collapsed a complex causal chain into an artificial binary.

The surgeon is not pulling a lever. They are standing at the end of a pipeline whose structure they did not design. Assigning them moral responsibility for outcomes produced upstream is a categorical error.

4. Artificial Moral Dilemmas and Systemic Incoherence

The trolley problem endures in philosophical discourse because it presents moral conflict as a feature of reality itself. However, the scenario's power lies in its artificiality. Trains do not naturally present observers with neat ethical forks. Such dilemmas must be constructed.

The transplant system mirrors this construction. Scarcity is treated as inevitable, and the resulting allocation decisions are framed as tragic but necessary. This framing deflects attention away from the system's incoherence and toward the supposed moral heroism or burden of individual actors.

The criteria used to allocate organs—age, health status, lifestyle, financial stability—implicitly assign differential value to human lives. This valuation is not a medical necessity but a byproduct of operating within an artificially constrained system. Medicine, as a practice, does not require such valuations; systems under scarcity do.

5. Solvability and Misplaced Responsibility

The persistence of the transplant dilemma is often defended by claiming that scarcity is unavoidable. Yet advances in technology, funding, and policy repeatedly demonstrate that constraints once treated as fixed can be altered. This reveals an important distinction: the problem is not solvable by surgeons, but it is solvable at the system level.

A dilemma that cannot be resolved by the individual facing it, but can be resolved by restructuring the system that produced it, is not a moral dilemma. It is a coordination failure.

By continuing to frame allocation decisions as ethical tragedies, the system perpetuates its own logic. Surgeons, in accepting the moral framing, remain embedded in a cause-and-effect loop that repeats indefinitely. Recognizing the incoherence of the system allows for withdrawal from that loop without assigning blame to those constrained by it.

6. Conclusion

The transplant context does not validate the real-world applicability of the Trolley Problem. Instead, it exposes the limitations of trolley-style moral reasoning when applied to complex systems. Scarcity-driven dilemmas are not expressions of moral reality but artifacts of system design.

When responsibility is correctly located at the level of structural organization rather than individual choice, the supposed ethical tragedy dissolves. The surgeon is neither hero nor villain. They are a skilled professional operating within constraints that must be addressed elsewhere.

The question is not which lever should be pulled, but why the system continues to manufacture levers at all.

References

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