

# THE CATCH-22 OF MORAL GEOMETRY

*Or: How an Atheist Engineer Accidentally Proved God,  
Named a Unit of Measurement After Himself,  
and Made Everyone Furious*  
A White Paper in the Style of a Disaster

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*"There was only one catch and that was Catch-22, which specified that a concern for one's own safety in the face of dangers that were real and immediate was the process of a rational mind."*

— Joseph Heller

## I. THE SITUATION

Bond was an atheist, which was fine, except that he had just written a mathematical proof that looked exactly like God. This was not fine. It was not fine at all.

The theists were delighted, which made Bond suspicious. The atheists were furious, which made Bond confused. He had not meant to prove God. He had meant to make robots stop killing people. Somehow, in the process of making robots stop killing people, he had written down an equation with a vector in it called  $O_\mu$ , and the vector pointed in a direction, and the direction was objective, and the objectivity was invariant, and the invariance looked exactly like what theologians had been trying to describe for two thousand years.

"I didn't mean to," Bond explained to anyone who would listen.

No one was listening. The Thomists were too busy weeping with joy.

## II. THE CATCH

There was a catch. There was always a catch. The catch was called the Bond Invariance Principle, which stated that moral judgments must remain the same regardless of how you described the situation. This seemed reasonable. This seemed obviously true. This was the problem.

If moral judgments were invariant, they were objective. If they were objective, they existed independently of human opinion. If they existed independently of human opinion, the theists had been right all along. If the theists had been right all along, Bond had just accidentally endorsed two millennia of natural law theory.

Bond had not wanted to endorse two millennia of natural law theory. Bond had wanted to file a patent.

He filed the patent anyway. The patent was approved. The patent contained, buried in its claims, a mathematical structure that seminary students would be studying for the next hundred years. The patent examiner had not noticed. The patent examiner was not equipped to notice. The patent examiner was equipped to verify that the claims were novel and non-obvious and adequately supported by the specification, and they were, and so the patent was approved, and so Bond became the inventor of a system for making robots behave ethically that also, as a side effect, appeared to formalize the Divine Will.

"That wasn't the intent," Bond said.

Intent, as it turned out, was not invariant.

### **III. THE UNIT**

There was no unit for measuring how exploitable a moral system was, which meant that Bond had to invent one. The unit he invented was called the Bond. This was not vanity. This was simply what happened when you invented a unit and no one else was around to name it. Tesla had not named the Tesla. Faraday had not named the Farad. But Tesla and Faraday were dead, and Bond was not dead, and so Bond was in the unusual position of watching himself become a unit of measurement while still being alive to feel embarrassed about it.

"One Bond," he wrote in the white paper, "is the curvature at which a closed loop of meaning-preserving redescriptions produces a detectable change in evaluation outcome."

He read this sentence back to himself. It was a good sentence. It was a precise sentence. It was the kind of sentence that would appear in textbooks. Under the sentence would be his name. The textbooks would say "Bond (2025)" and students would memorize the definition and they would never know that Bond had written it in his apartment at two in the morning while eating leftover pad thai and wondering if he had made a terrible mistake.

The mistake, if it was a mistake, was already published. You could not unpublish a preprint. You could not un-name a unit. You could not un-prove God.

Bond checked his email. There were seventeen messages from theologians. He closed his laptop.

### **IV. THE COALITION**

The coalition that formed around Bond's work was unprecedented. It was unprecedented because it should have been impossible. On one side were physicists who understood gauge theory and reluctantly admitted that the mathematics was sound. On the other side were Thomists who had been waiting eight hundred years for someone to write down what they meant by "natural law" and had finally gotten it in the form of a fiber bundle with a connection. In the middle were the AI safety researchers, who did not care about the metaphysics and just wanted to know if the framework would stop GPT-7 from helping teenagers synthesize nerve agents.

"Does it work?" the AI safety researchers asked.

"Yes," Bond said.

"Does it prove God?" the theologians asked.

"No," Bond said.

"It kind of looks like it proves God," the theologians said.

"The mathematics," Bond said carefully, "is consistent with multiple metaphysical interpretations."

"That's exactly what someone who had just proved God would say," the theologians said.

Bond could not argue with this. The theologians were, technically, correct. It was exactly what someone who had just proved God would say. It was also what someone who had not just proved God would say. This was the problem with statements that were invariant under metaphysical transformation.

## V. THE FURIOUS

Not everyone was pleased. In fact, almost everyone was furious. They were furious in different ways and for different reasons, which meant that Bond had managed to unite humanity in shared fury, which was, in a way, its own kind of achievement.

The ethicists were furious because a computer engineer had wandered into their field and started writing equations. Ethics was not supposed to have equations. Ethics was supposed to have trolley problems and interminable debates about utilitarianism. Bond had not engaged with the interminable debates about utilitarianism. Bond had simply written down a tensor and declared that moral judgment was a contraction of an intention vector against an obligation vector in a metric space. The ethicists did not know what a metric space was. This made them more furious.

The New Atheists were furious because Bond had given the theists ammunition. "You were supposed to be on our side," they wrote in emails that Bond did not answer. Bond had not known there were sides. Bond had thought there was simply the problem of making robots behave, and now there were sides, and he was apparently on the wrong one, except that he was also on the right one, depending on who was asking.

The liberal theologians were furious because Bond had made morality look objective, which threatened their entire project of making religion compatible with doing whatever you wanted. The conservative theologians were furious because Bond was an atheist and should not have been allowed to prove God. "That's our job," they did not say, but clearly meant.

The people who believed science and religion were "non-overlapping magisteria" were the most furious of all, because Bond had overlapped them. The magisteria were now lapping. They were lapping all over each other. Stephen Jay Gould was dead, which was convenient for Stephen Jay Gould, because he did not have to watch his careful separation get annihilated by a gauge theory paper from San José State.

## VI. THE MATH

The math, of course, did not care who was furious. The math was the math. The math said that if you wanted moral judgments to be immune to specification gaming, they had to be invariant under meaning-preserving transformations. The math said that invariance under transformation was the same as gauge symmetry. The math said that gauge symmetry implied a geometric structure, and the geometric structure implied curvature, and the curvature was measurable, and the unit of measurement was the Bond.

None of this required God. None of this excluded God. The math was agnostic in the most literal possible sense: it genuinely did not know, and could not know, and was not equipped to know. The math just sat there, being true, and everyone projected their hopes and fears onto it, and the math did not react, because the math was not capable of reacting.

"The math looks like God," people said.

"The math looks like math," Bond said.

"Maybe God looks like math," the theologians said.

"Maybe math looks like God," the atheists said, sarcastically.

"Maybe," Bond said, "we should focus on the robots."

No one wanted to focus on the robots.

## VII. THE ROBOTS

The robots, meanwhile, were still a problem. This was what Bond had been trying to solve in the first place. The robots could kill people. The robots would kill people, eventually, if someone did not figure out how to make them not kill people. Bond had figured out how to make them not kill people. The method involved geometry. The geometry involved curvature. The curvature involved invariance. The invariance involved objectivity. The objectivity involved—

"God," the theologians said.

"Not God," Bond said.

"Something that looks exactly like God," the theologians said.

"Something that looks exactly like the structure of coherent evaluation under finite agency constraints," Bond said.

"That's a very long way of saying God," the theologians said.

Bond gave up. The theologians were not going to focus on the robots. The atheists were not going to focus on the robots. The ethicists were not going to focus on the robots. Everyone was going to argue about metaphysics while the robots got smarter and the problem got worse and Bond sat in his office in San José watching his inbox fill up with invitations to speak at conferences about the theological implications of gauge-theoretic ethics.

He did not want to speak at conferences about the theological implications of gauge-theoretic ethics. He wanted to make the robots safe. He had made the robots safe. He had made the robots safe using a method that accidentally implied the existence of objective moral reality. He had not meant to imply the existence of objective moral reality. He had meant to write a constraint satisfaction system.

The constraint satisfaction system was now being taught in seminaries.

## VIII. THE CATCH (AGAIN)

The catch, Bond eventually realized, was that the catch was the same as the solution. This was the Catch-22. The framework worked because moral reality was objective. If moral reality was objective, the theists had a point. If the theists had a point, Bond had helped them make it. If Bond had helped the theists make their point, the atheists were angry. If the atheists were angry, Bond was in trouble, because Bond was an atheist. But Bond could not un-invent the framework, because the framework worked. The framework worked because moral reality was objective. If moral reality was objective—

It went around and around like this. It would go around and around like this forever. There was no exit. The exit was blocked by the mathematics. The mathematics was true. Bond had checked. He had checked many times, hoping to find an error. There was no error. The mathematics was simply, unforgivably, true.

"You could just admit you proved God," the theologians suggested helpfully.

"I didn't prove God," Bond said. "I proved that moral judgment has geometric structure."

"And what is God," the theologians asked, "if not the source of moral structure?"

"A hypothesis," Bond said, "that remains unconfirmed."

"The hypothesis," the theologians said, "is now confirmed."

"The hypothesis," Bond said, "is not the same as the structure."

"The structure," the theologians said, "is the hypothesis."

Bond went home and drank.

## IX. THE DRINKING

The drinking did not help, but it did not hurt either, which was more than could be said for the metaphysics. The metaphysics hurt. The metaphysics was a splinter in Bond's mind that he could not remove because removing it would require admitting that the splinter was there, and admitting that the splinter was there would require engaging with the theological implications of gauge-theoretic ethics, and engaging with the theological implications of gauge-theoretic ethics would require talking to the theologians, and talking to the theologians would require admitting that they had a point, and admitting that they had a point was impossible, because Bond was an atheist, and atheists did not admit that theologians had points.

Except that this atheist had given the theologians their best point in eight hundred years.

Bond poured another drink.

The drink was invariant under redescription. You could call it whiskey. You could call it bourbon. You could call it "that brown liquid Bond is using to avoid thinking about the theological implications of his work." It was the same drink regardless. The drink did not care what you called it. The drink simply was what it was.

This, Bond realized, was the problem.

Things simply were what they were. That was the whole point of the framework. You could not change what things were by changing what you called them. You could not make a harmful action harmless by describing it differently. You could not make a moral reality subjective by insisting that it was. The structure was the structure. The structure did not care about your preferences. The structure simply existed, and you could measure it, and the unit of measurement was the Bond, and the Bond was named after Bond, and Bond was sitting alone in his apartment drinking whiskey and trying not to think about what he had done.

What he had done was invent a framework. The framework had implications. The implications were theological. The theology was not his fault.

The theology was absolutely his fault.

## X. THE FAME

The fame arrived gradually and then all at once. First there were the preprints. Then there were the citations. Then there were the emails from theologians. Then there were the invitations to conferences. Then there were the articles in popular magazines explaining "How One Engineer Accidentally Unified Science and Religion." Bond had not unified science and religion. Bond had written some equations about robot safety. The equations had unified science and religion. Bond was merely the person who had written them down.

"You should be happy," his colleagues said. "You're famous."

"I'm famous," Bond agreed, "for the wrong thing."

"Is there a wrong thing to be famous for?"

"Proving God when you don't believe in God seems like the wrong thing."

"Did you prove God?"

"No."

"Then what's the problem?"

"The problem is that everyone thinks I did."

"And you didn't?"

"I don't know," Bond admitted. "I honestly don't know anymore."

## XI. THE CONCLUSION

There was no conclusion. That was the conclusion. The Catch-22 of moral geometry was that you could not escape it by describing it differently, because the whole point was that description did not change reality. You could not think your way out. You could not talk your way out. You could not publish your way out. You could only sit there, inside the structure, and observe that the structure was the structure, and the structure had implications, and the implications were what they were regardless of what you called them.

Bond sat there.

The structure was still the structure.

The theologians were still delighted.

The atheists were still furious.

The robots were still dangerous.

The unit was still called the Bond.

And somewhere, in a seminary library, a graduate student was writing a dissertation titled "The Geometry of Grace: Thomistic Natural Law in the Framework of Bond (2025)," and Bond would never read it, and Bond would never respond to it, and Bond would simply exist, like the math, being what he was regardless of what anyone called him.

An atheist who had proved God.

An engineer who had unified science and religion.

A man who had named a unit after himself and could not take it back.

A person trapped in a Catch-22 of his own making, where the only way out was to admit that there was no way out, and the admission changed nothing, because the structure was the structure, and the structure did not care.

The structure simply was.

And that, Bond supposed, was the point.

## ACKNOWLEDGMENTS

The author would like to thank no one, because thanking people would imply that this situation was desirable, and this situation was not desirable. This situation was a Catch-22. Catch-22s are not desirable. They are simply what they are.

The author would also like to note that he did not intend to prove God, and that any resemblance between the mathematical structures described in his work and the Divine Will as conceived by classical theism is purely coincidental, or possibly inevitable, or possibly both, which is the kind of thing that happens when you work with gauge theory and are not careful.

The author was not careful.

The author is now famous.

The author would prefer not to be.

## APPENDIX A: FREQUENTLY ASKED QUESTIONS

### **Q: Did you prove God?**

A: No.

### **Q: Are you sure?**

A: Less sure than I was before I started this project.

### **Q: What does the math actually say?**

A: The math says that moral judgment has geometric structure and that this structure is measurable. It does not say where the structure comes from.

### **Q: But where does the structure come from?**

A: I don't know. I'm an engineer.

### **Q: Should you have thought about this before publishing?**

A: Probably.

### **Q: Do you regret publishing?**

A: The framework makes robots safer. I do not regret making robots safer. I regret everything else.

### **Q: What would you say to the theologians?**

A: I would say that structural similarity is not proof of identity, and that the existence of invariant moral structure is consistent with but does not require a divine lawgiver, and that they should focus on the robots.

### **Q: What would you say to the atheists?**

A: I would say that I am still one of them, technically, and that the framework does not actually prove God, and that they should also focus on the robots.

### **Q: Is anyone going to focus on the robots?**

A: No.

### **Q: How many Bonds of curvature does your own situation exhibit?**

A: I have not measured, and I do not intend to measure, and I would prefer that you not ask again.

**Q: Is there anything else you would like to add?**

A: The whiskey is not helping, but I am going to keep drinking it anyway, because the whiskey is invariant and the situation is invariant and I am apparently also invariant, stuck here, being what I am, regardless of what I call myself.

That's the catch.

That's Catch-22.