

# Is Functionalism Inconsistent?

Owain Griffin

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## Abstract

Can a theorem of pure mathematics definitively refute a philosophical view? According to one popular argument, the answer is yes. The theorem in question comes from model theory, and the philosophical view is functionalism: one of the most popular and well-studied views in the philosophy of mind. According to this argument, functionalism is logically inconsistent, and Beth's definability theorem demonstrates this by showing that functionalism collapses into reductionism - exactly what functionalists purport to deny.

In this paper, we examine whether the argument really is as devastating as its proponents have claimed. Unfortunately for those hoping to refute functionalism in this way, we show that the argument fails for reasons both logical and philosophical. In doing so, we explore Beth-style results in systems beyond first order logic, and show that in a system with a non-compact consequence relation appeals to Beth-definability must fail. We conclude that at best, this style of argument simply fails to challenge any actually held functionalist views, and at worst, relies upon an equivocation concerning the relevant notion of definability in order to derive its conclusion.

## References

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