

replacement.1 Introduction

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sec

Replacement is the axiom scheme which makes the difference between **ZF** and **Z**. We helped ourselves to it throughout ??-??. In this chapter, we will finally consider the question: is Replacement justified?

To make the question sharp, it is worth observing that Replacement is really rather *strong*. We will get a sense of just how strong it is, during this chapter (and again in ??). But this will suggest that justification really is required.

We will discuss two kinds of justification. Roughly: an *extrinsic* justification is an attempt to justify an axiom by its fruits; an *intrinsic* justification is an attempt to justify an axiom by suggesting that it is vindicated by the mathematical concepts in question. We will get a greater sense of what this means during this chapter, but it is just the tip of an iceberg. For more, see in particular Maddy (1988a and 1988b).

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Bibliography

Maddy, Penelope. 1988a. Believing the axioms I. *Journal of Symbolic Logic* 53(2): 481–511.

Maddy, Penelope. 1988b. Believing the axioms II. *Journal of Symbolic Logic* 53(3): 736–64.