Quantifier rules: existential introduction

WEEK 7 . TOPIC INTRODUCTION

EXISTENTIAL INTRODUCTION

1. $\boldsymbol{\phi(c)}$
2. $\exists \boldsymbol{x\Phi}$[c/x] I∃1

The **φ**[c/x] part means ‘Take **φ** and replace *one or more* instances of c with x.’ This applies to any constant, not just c!

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E.g.

1. Fa→ Ga :assumption
2. ∃x(Fx→ Gx) :I∃1

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Check-in: Does this make sense? Why can I replace a claim about a constant with a claim about a variable?
A: Because the existential quantifier is saying there's at least one object for which such and such is true, namely, that object that the claim was originally about!