定理3 $\vdash_{PC} (A \to (B \to C)) \to (B \to (A \to C))$

证明:

1 $(A \to (B \to C)) \to ((A \to B) \to (A \to C))$ 公理2

2 $(A \to B) \to ((A \to (B \to C)) \to (A \to C))$ 对(1)用前件互换定理2

3 $((A \to B) \to ((A \to (B \to C)) \to (A \to C)))$
$\to (B \to ((A \to B) \to ((A \to (B \to C)) \to (A \to C))))$ 公理1

4 $B \to ((A \to B) \to ((A \to (B \to C)) \to (A \to C)))$ (2)与(3)用分离规则

5 $(B \to ((A \to B) \to ((A \to (B \to C)) \to (A \to C))))$
$\to ((B \to (A \to B)) \to (B \to ((A \to (B \to C)) \to (A \to C))))$ 公理2

6 $(B \to (A \to B)) \to (B \to ((A \to (B \to C)) \to (A \to C)))$

7 $B \to (A \to B)$ 公理1 (4)与(5)用分离规则

8 $B \to ((A \to (B \to C)) \to (A \to C))$ (7)与(6)用分离规则

9 $(A \to (B \to C)) \to (B \to (A \to C))$ 对(8)用前件互换定理2