

Defining Space & Time via Multiplicity iff Discernibility

A. Argument for the validity of *multiplicity iff discernibility* using standard set theory.

Suppose I construct a set whose domain of discourse is that of proper names and ...

1. ... you ask if Alice is a member of my set and I confirm membership. Someone else asks if Bob is a member of my set and I confirm membership. You may correctly infer that the order of my set exceeds unity *b/c discernibility is sufficient for multiplicity*.

2. ... you ask me to list its members. I give you {Bob, Bob, Bob}. You may correctly infer that the order of my set is unity *b/c discernibility is necessary for multiplicity*.

B. Definitions of Space & Time

Space – the construct of true multiplicity fm apparent identity. “I have *two* hydrogen atoms in this jar.”

Time – the construct of apparent identity fm true multiplicity. “The person typing this is the *same* person named Mark Stuckey who graduated in 1976 from Bellbrook High School.”