Bugs Framework (BF): Vulnerability Model Weakness Type₁ Operand Error Type ₁ Operation Defect Type (Bug, Operation, Error₁) \leftarrow lookup() Bug Operation 1 Error 1 Fault₁ .Type \leftarrow Error₁ .Type Weakness Type 2 Operand Fault Type 2 Operand Error Type 2 (Fault₁, Operation₂, Error₂) \leftarrow lookup() Fault 1 Operation ₂ Error₂ Fault₂ .Type \leftarrow Error₂ .Type Weakness Type N Operand Fault Type N-1 Exploitation Type Fault N-1 Operation N **Final Error** Failure Final Error Bug Operation Error/Fault Failure ← Causation/Propagation lookup() - Causation Syntax Rules Semantic Rule **Semantic Function** BF, I. Bojanova, 2014 - 2023