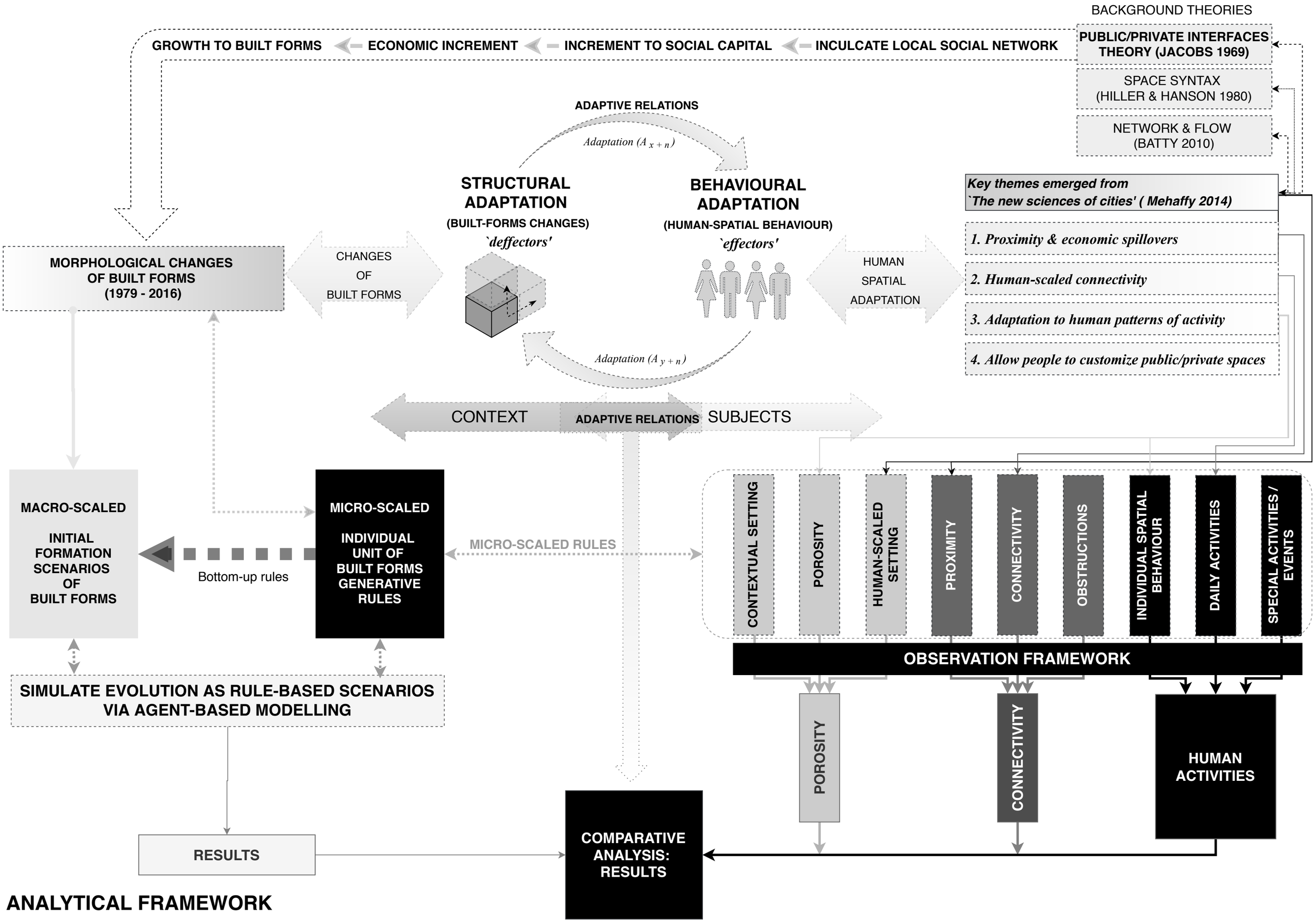
BACKGROUND THEORIES
PUBLIC/PRIVATE INTERFACES THEORY (JACOBS 1969)
SPACE SYNTAX (HILLER & HANSON 1980)
NETWORK & FLOW (BATTY 2010)
GROWTH TO BUILT FORMS
ECONOMIC INCREMENT
INCREMENT TO SOCIAL CAPITAL
INCULCATE LOCAL SOCIAL NETWORK
ADAPTIVE RELATIONS
Adaptation (A_{x+n})
STRUCTURAL ADAPTATION
(BUILT-FORMS CHANGES)
`deffectors'
BEHAVIOURAL ADAPTATION
(HUMAN-SPATIAL BEHAVIOUR)
`effectors'
Adaptation (A_{y+n})
Key themes emerged from `The new sciences of cities' (Mehaffy 2014)
1. Proximity & economic spillovers
2. Human-scaled connectivity
3. Adaptation to human patterns of activity
4. Allow people to customize public/private spaces
MORPHOLOGICAL CHANGES OF BUILT FORMS (1979 - 2016)
CHANGES OF BUILT FORMS
HUMAN SPATIAL ADAPTATION
CONTEXT
ADAPTIVE RELATIONS
SUBJECTS
MACRO-SCALED
INITIAL FORMATION SCENARIOS OF BUILT FORMS
Bottom-up rules
MICRO-SCALED
INDIVIDUAL UNIT OF BUILT FORMS GENERATIVE RULES
MICRO-SCALED RULES
CONTEXTUAL SETTING
POROSITY
HUMAN-SCALED SETTING
PROXIMITY
CONNECTIVITY
OBSTRUCTIONS
INDIVIDUAL SPATIAL BEHAVIOUR
DAILY ACTIVITIES
SPECIAL ACTIVITIES / EVENTS
OBSERVATION FRAMEWORK
SIMULATE EVOLUTION AS RULE-BASED SCENARIOS VIA AGENT-BASED MODELLING
POROSITY
CONNECTIVITY
HUMAN ACTIVITIES
RESULTS
COMPARATIVE ANALYSIS: RESULTS
ANALYTICAL FRAMEWORK