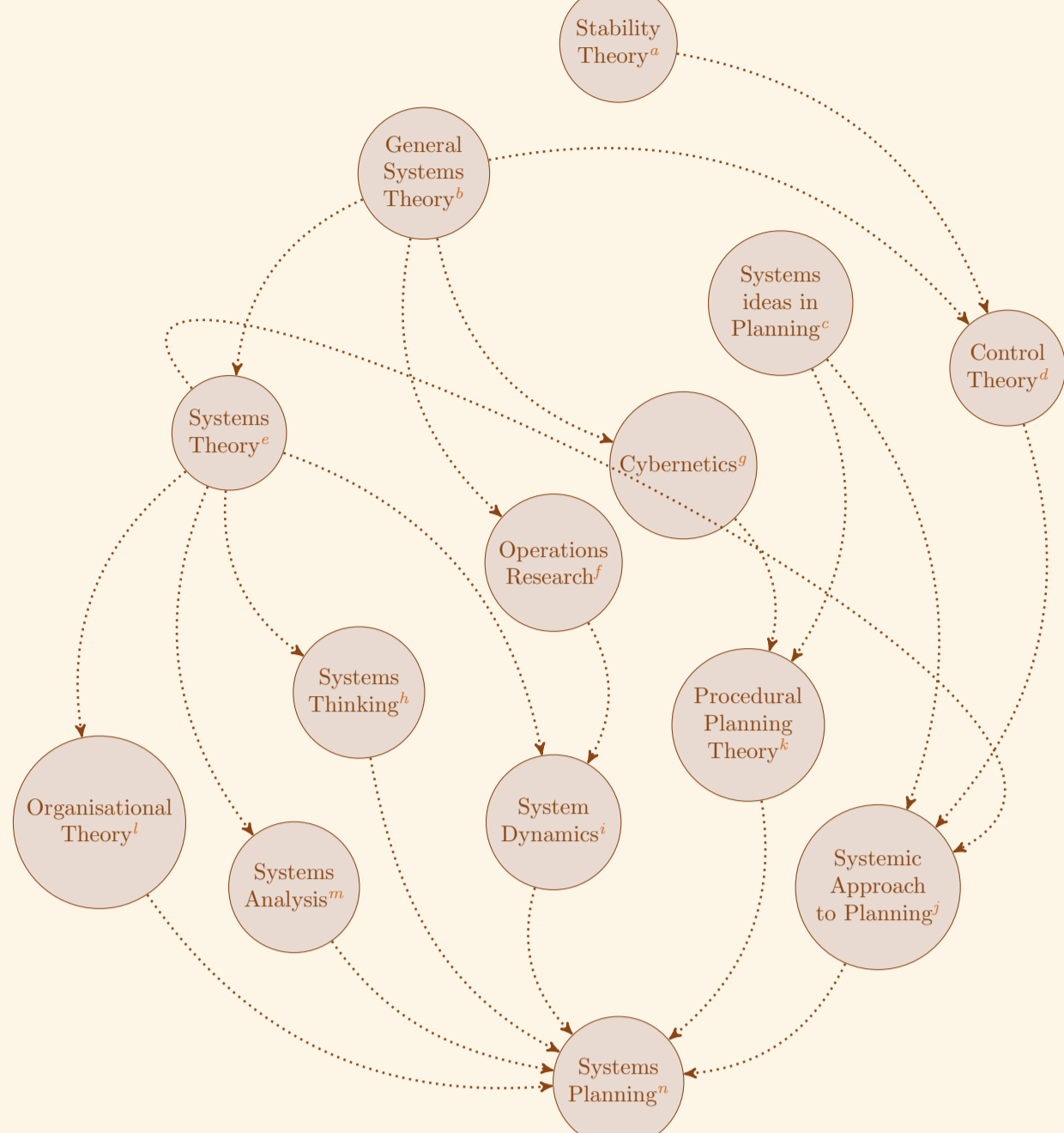


Note

Systems PlanningSM stems from well-known methodological developments in various fields of knowledge (Perdicoulis, 2010, p.16), both from the systems school (§1) as well as from other orientations (§2), and stands distinct from the mainstream praxis (Perdicoulis, 2015a,b) of ‘non-system’ (e.g. data-based) or systems approaches (e.g. with un-marked problem structure). Systems PlanningSM respects the alternative worldviews and practice, ‘letting them be the way they want to be’, and fosters a spirit of cooperation and mutual enrichment (e.g. ‘learn–learn’). To set a good example, Systems PlanningSM generously offers its knowledge and experience (Perdicoulis, 2014d) to anyone who cares to learn and participate.

1 Historical View — Pedigree



Methodological heritage of Systems PlanningSM, with broad-brush links

- ^a A. Lyapunov
- ^b L. von Bertalanffy
- ^c P. Geddes; P. Abercrombie
- ^d H. Black; H. Nyquist; R. Bellman
- ^e L. von Bertalanffy; A. Rapoport; K. Boulding; W.R. Ashby; G. Bateson; C.W. Churchman
- ^f P. Blackett; C.H. Waddington; F. Yates; G. Dantzig
- ^g N. Wiener; A.S. Beer; A.G. Pask; L. Couffignal
- ^h P. Senge; P. Checkland; D. Meadows
- ⁱ J.W. Forrester; J.D. Sterman
- ^j J.B. McLoughlin; G. F. Chadwick; A. Wilson
- ^k A. Faludi
- ^l H.A. Simon; J.G. March
- ^m H.T. Odum; E. Odum
- ⁿ A. Perdicoulis

2 Concurrent View — Mainstream Alternatives

2.1 Reference

- ACTION RESEARCH — typically a ‘planning-action-analysis-conclusion’ cycle; associated with the single/ double loop learning (Argyris, 1982)
- BALANCED SCORECARD/ BSC — perspective-based performance cards; ‘action-objectives’ in *ad hoc* relations *in lieu* of a proper strategy or system (Kaplan and Norton, 1996)
- BUSINESS ANALYSIS — typically an ‘identify needs-propose solutions’ sequence; includes the famous SWOT analysis (IIBA, 2009)
- PRINCIPAL COMPONENT ANALYSIS/ PCA — data-based statistical (multivariate analysis) method for reducing the complexity of a ‘system’ (Jolliffe, 2002); related to *factor analysis* (FA) and *canonical correlation analysis* (CCA)
- BUSINESS PROCESS MODELING NOTATION/ BPMN — set of rules for the standardised graphical notation of business procedures of organisations (Object Management Group, 2013)
- CRITICAL THINKING — the objective analysis and evaluation of an issue in order to form a judgement; notably cultivated by Socrates (Plato, ca. 360 BC)
- DESIGN THINKING — typically a ‘build empathy-define-ideate-prototype-test’ cycle, or a simpler (e.g. informal) ‘understanding-solution’ cycle (Archer, 1965)
- DESIGN METHODOLOGY/ RESEARCH/ SCIENCE — umbrella term for the study of ‘how people design’, from architecture and planning to engineering and industrial design (Cross, 1993)
- QUALITY BY DESIGN — typically a ‘goals-market-needs-features-processes-controls’ sequence, giving particular attention to the process (Juran, 1992)
- QUALITY CONTROL — elements (e.g. processes, records); competence (e.g. knowledge, skills); spirit (e.g. integrity, confidence, motivation) (Deming, 1950)
- STRATEGIC CHOICE APPROACH/ SCA — collaborative decision-making under uncertainty; ‘problem-solution-comparison-decision’ cycle (Friend and Hickling, 2005)
- SYSTEMS THINKING — sees the world as a complex system in which ‘everything is connected to everything else’ (Sterman, 2000; Senge, 2006)
- SYSTEM DYNAMICS — a method to enhance learning in complex systems; typically uses stocks, flows, feedback loops, and time delays (Sterman, 2000)
- SYSTEMS ENGINEERING — the design and management of complex systems over their life cycles; uses systems thinking principles (BKCASE, 2014)
- UNIFIED MODELING LANGUAGE/ UML — modelling language for software development as a standard way to visualise the design of a system (Object Management Group, 2005)
- WORKFLOWS — instructions for the implementation of operations; synonym of procedure, method, or protocol; Systems PlanningSM is distinct from the mainstream praxis (Perdicoulis, 2015a)

2.2 Juxtaposition

- BIG DATA *cf.* Big Understanding™ (Perdicoulis, 2016, 2013b,c, 2017)
- CONCEPT MAPS *cf.* CPD (Perdicoulis, 2012a)
- CRITICAL DECISION FACTORS (CDF) *cf.* RBP (Perdicoulis, 2012f)
- DATA, IMPRINTED, AND DEEPER LEARNING *cf.* Systems learning (Perdicoulis, 2014e, 2010)
- INDICATORS/ INDICES (E.G. DPSIR) *cf.* RBP (Perdicoulis and Glasson, 2011)
- ISO 9001 ‘PDCA’ (DEMING/ SHEWHART CYCLE) *cf.* ‘XYZ’ problem definition (Perdicoulis, 2015c)
- KAPLAN-NORTON STRATEGY MAPS *cf.* DCD (Perdicoulis, 2012c, 2013a)
- SWOT ANALYSIS *cf.* Graphic SWOT™ (Perdicoulis, 2012f,d,e, 2018)
- SYSTEM DYNAMICS CLD *cf.* RBP (Perdicoulis, 2012b)

Bibliography

Archer, L.B. (1965) *Systematic Method for Designers*. London: Council of Industrial Design.

Argyris, C. (1982) *Reasoning, Learning, and Action*. San Francisco: Jossey-Bass.

BKCASE (2014) *Guide to the Systems Engineering Body of Knowledge* (v. 1.3). Hoboken, NJ: The Trustees of the Stevens Institute of Technology.

Cross, N. (1993) Science and Design Methodology: A Review. *Research in Engineering Design*, 5:63–69.

Deming, W.E. (1950) *Elementary Principles of the Statistical Control of Quality [Lectures on Statistical Control of Quality]*. Tokyo: Nippon Kagaku Gijutsu Remmei.

Friend, J., and A. Hickling (2005) *Planning Under Pressure: The Strategic Choice Approach* (3rd ed.). Oxford: Elsevier Butterworth-Heinemann.

IIBA (2009) *A Guide to the Business Analysis Body of Knowledge* (v. 2.0). Toronto, Ontario: International Institute of Business Analysis

Jolliffe, I.T. (2002) *Principal Component Analysis* (2nd ed.). New York, NY: Springer.

Juran, J.M. (1992) *Juran on Quality by Design*. New York, NY: Free Press (Simon & Schuster).

Kaplan, R.S., and D.P. Norton (1996) *The Balanced Scorecard: Translating Strategy into Action*. Boston, MA: Harvard Business School Publishing.

Mintzberg, H., B. Ahlstrand, and J. Lampel (1998) *Strategy Safari: a Guided Tour Through the Wilds of Strategic Management*. New York: The Free Press.

Object Management Group (2005) *Unified Modeling Language (UML) — ISO/IEC 19501:2005*

Object Management Group (2013) *Business Process Model and Notation (BPMN) — ISO/IEC 19510:2013*

OECD (2003) *OECD Environmental Indicators: Development, Measurement and Use*. Paris: Organisation for Economic Co-operation and Development.

Perdicoulis A. (201) Preparing for a SWOT exercise. *Systems Planner*, 43.

Perdicoulis A. (2017) Big data is heuristic; the essence still lies in the obliterated dynamics (ed. 2017-01-19). Perdicoulis Publishing: Systems PlanningSM Blog.

Perdicoulis, A. (2016) *Office*. Perdicoulis Publishing: Folio Division, Technical Collection.

Perdicoulis A. (2015c) Iterations in planing and management. *Systems Planner*, 34.

Perdicoulis A. (2015b) Alternative workflows. Perdicoulis Publishing: Folio Division, Artwork Collection.

Perdicoulis A. (2015a) Aggregated operational instructions as workflows. *Systems Planner*, 32.

Perdicoulis A. (2014e) The making of strategy. *Systems Planner*, 30.

Perdicoulis, A. (2014d) *Publishing*. Perdicoulis Publishing: Folio Division, Technical Collection.

Perdicoulis, A. (2014c) *Niche*. Perdicoulis Publishing: Folio Division, Technical Collection.

Perdicoulis, A. (2014b) *Language*. Perdicoulis Publishing: Folio Division, Technical Collection.

Perdicoulis, A. (2014a) *Methodology*. Perdicoulis Publishing: Folio Division, Technical Collection.

Perdicoulis A. (2013c) Correlation and causality. *oestros*, 12.

Perdicoulis A. (2013b) Shadow measurements. *oestros*, 9.

Perdicoulis A. (2013a) *Stakeholder examination*. Perdicoulis Publishing: Web Division, Webcast Video.

Perdicoulis A. (2012f) A strategy board for impact assessment. *Systems Planner*, 15.

Perdicoulis A. (2012e) System to strategy. *Systems Planner*, 11.

Perdicoulis A. (2012d) Safeguarding SWOT. *Systems Planner*, 6.

Perdicoulis A. (2012c) The semantic content of strategy maps. *Systems Planner*, 5.

Perdicoulis A. (2012b) Labelling the problem in causal diagrams. *Systems Planner*, 4.

Perdicoulis A. (2012a) Concept maps and CPDs. *Systems Planner*, 3.

Perdicoulis A. (2011) *Building Competences for Spatial Planners: Methods and Techniques for Performing Tasks with Efficiency*. London: Routledge.

Perdicoulis A. (2010) *Systems Thinking and Decision Making in Urban and Environmental Planning*. Cheltenham: Edward Elgar.

Perdicoulis, A., and J. Glasson (2011) The use of indicators in planning — effectiveness and risks. *Planning Practice & Research*, 26(3):349–367.

Plato (ca. 360 BC) *The Republic* [translated by B. Jowett (En); I.N. Gryparis (Gk)]. Project Gutenberg.

Senge, P.M. (2006) *The Fifth Discipline: The Art and Practice of the Learning Organization* (2nd ed.). London: Random House.

Sterman, J.D. (2000) *Business Dynamics*. Boston: Irwin McGraw-Hill.