Adaptive management strategies using a *Figurational* approach

THE JOURNAL OF BUSINESS PHILOSOPHY
Vol 1 No(4)
Special Edition ~ 3
Feb 2019
DOI: 10.13140/RG.2.2.32659.32808

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Developing a Figurational Entity
Theoretical Overview

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- Organisational questions are extremely difficult to answer.
- Data, drawn from process analysis are often contaminated by
- random variability (*unplanned outcomes*).
- Knowledge may be distorted out of context by elements of data incredulity.
- Standard *(p)* testing can only support part of the answer

SO, WHY DOES THIS HAPPEN ?

- Knowledge is given a 2 point data variation dimension.
  Thus, how much one data or group differentiates from another?

Traditional use of probabilistic inference is therefore limited.

- Statistical (p) values, on their own, cannot easily make palpable distinctions of knowledge dimensions within the same or apposing data set, therefore, cannot determine a perspective singularity (Q) from the multiple variables.

Developing a Figurational Entity
The difficult Questions

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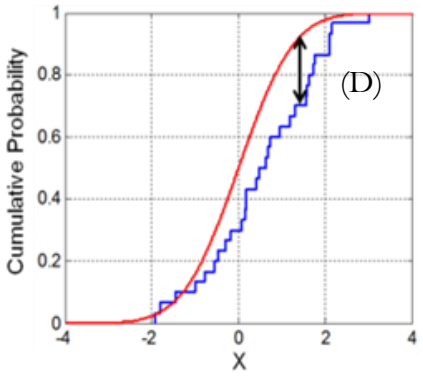
Q1: Are shifts in behaviour measurable in relation to efficiency Difference (*D*)?

Q2: Can we be reasonably sure that the difference is non-zero?

Q3: How certain are we about the significance of differential magnitude ?

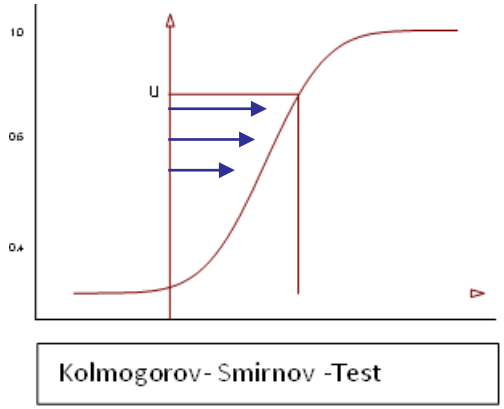
Q4: What involvement or detachment perspective do participants form when delivering structured evidence related to incredulities ?

Typical analysis = agreement that a difference exists(*D*) , but, has limited perspective value relative to the observer (*V*x)



= ***D*** (for a single point)

(*V*x)



Kolmogorov- Smirnov -Test

Developing a Figurational Entity
Problematic Criteria

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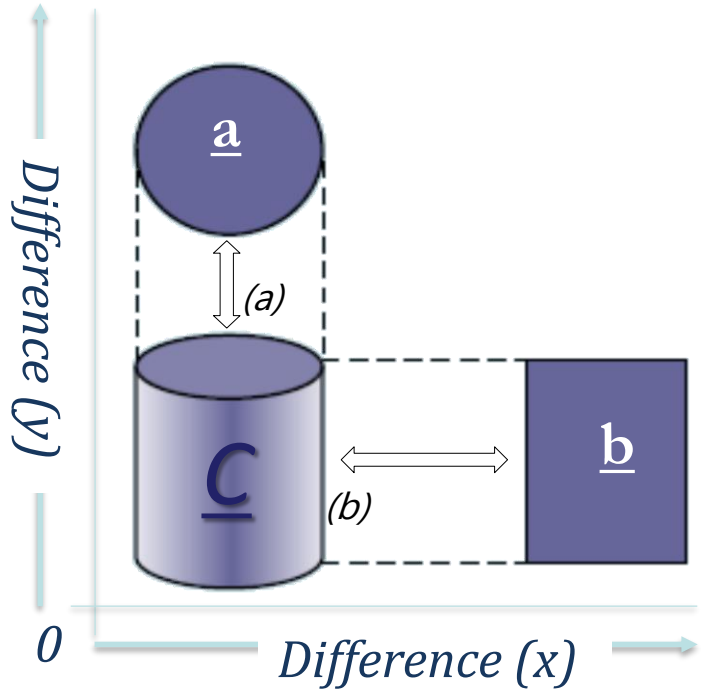
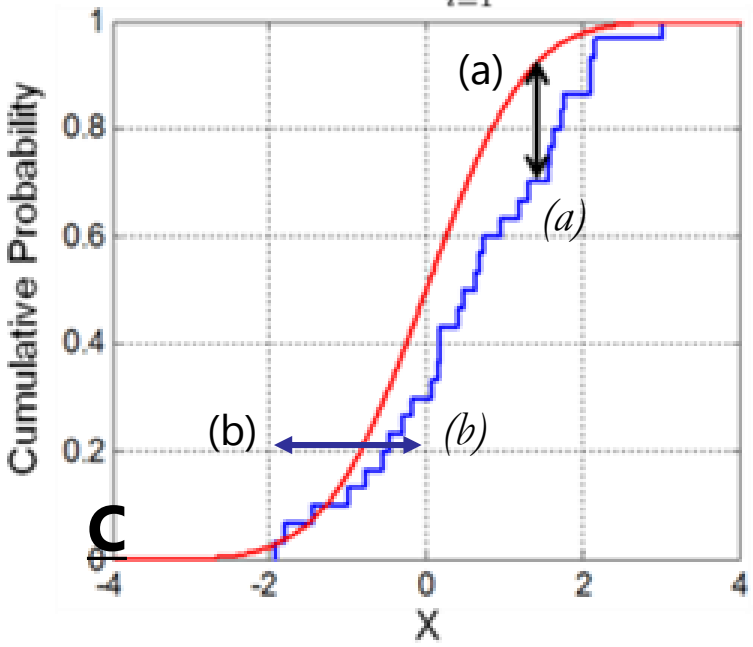
Current theory and analysis (**C**) attempts to reduce processes into static elements, separating, *for example*, human actors *(a)* from their actions *(b)* and measuring the difference compared to 0 (zero).

Interpretation of a situation

(a) = a
(b) = b
C = *a+b*



$$F_n(x) = \frac{1}{n}\sum_{i=1}^{n} I_{X_i \le x}$$



Developing a Figurational Entity
The POPC lens

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POPC can expose the relative credibility of every possible difference of means, standard deviations, effect size *(Differentiation), **and*** diverse orders of subjective/objective perspective.

It achieves this by placing the assimilation *of* *K*nowledge & *P*erspective into an intuitive categorised single entity

{dimensioning the phenomena into a Figurational context}

Developing a Figurational Entity
Perspective

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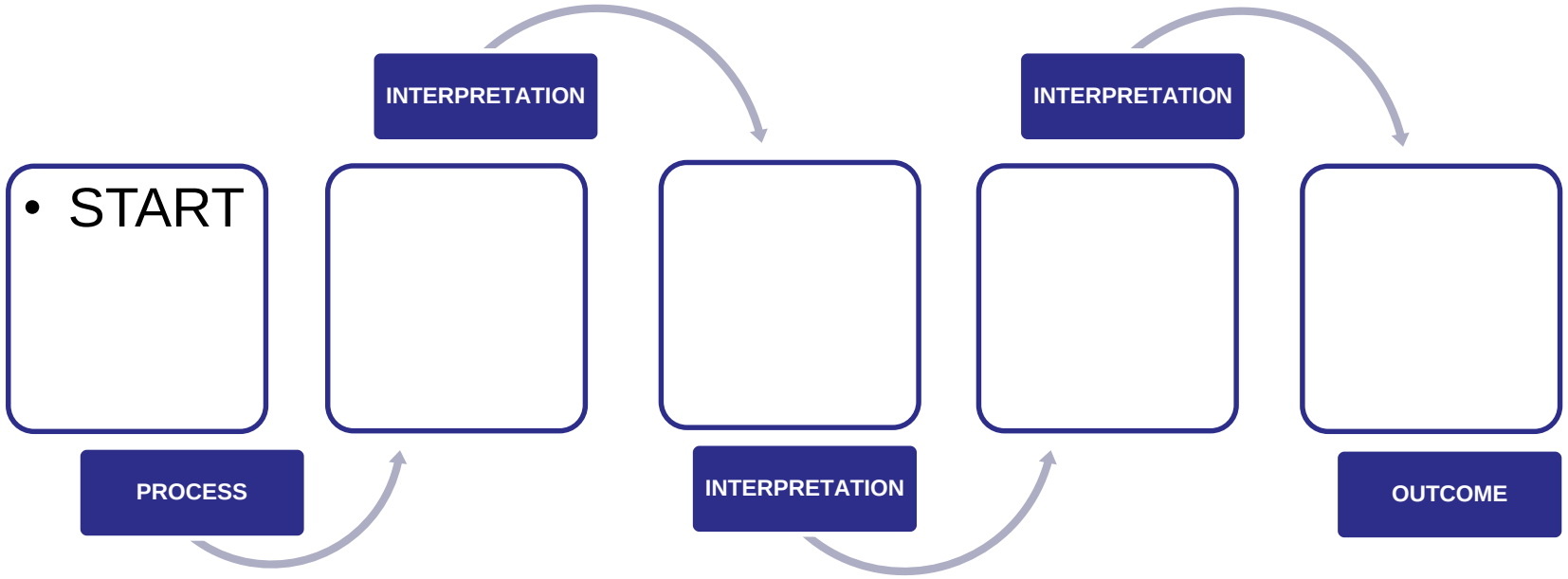
Like Elias, a Figurational approach attempts to correct this predisposition by adding perspective (POPC) lens to give relativistic dimension to analysis from the perspective of V_x



POPC starts with conceptual criteria, interpreted related to process

Developing a Figurational Entity
Dimensioning

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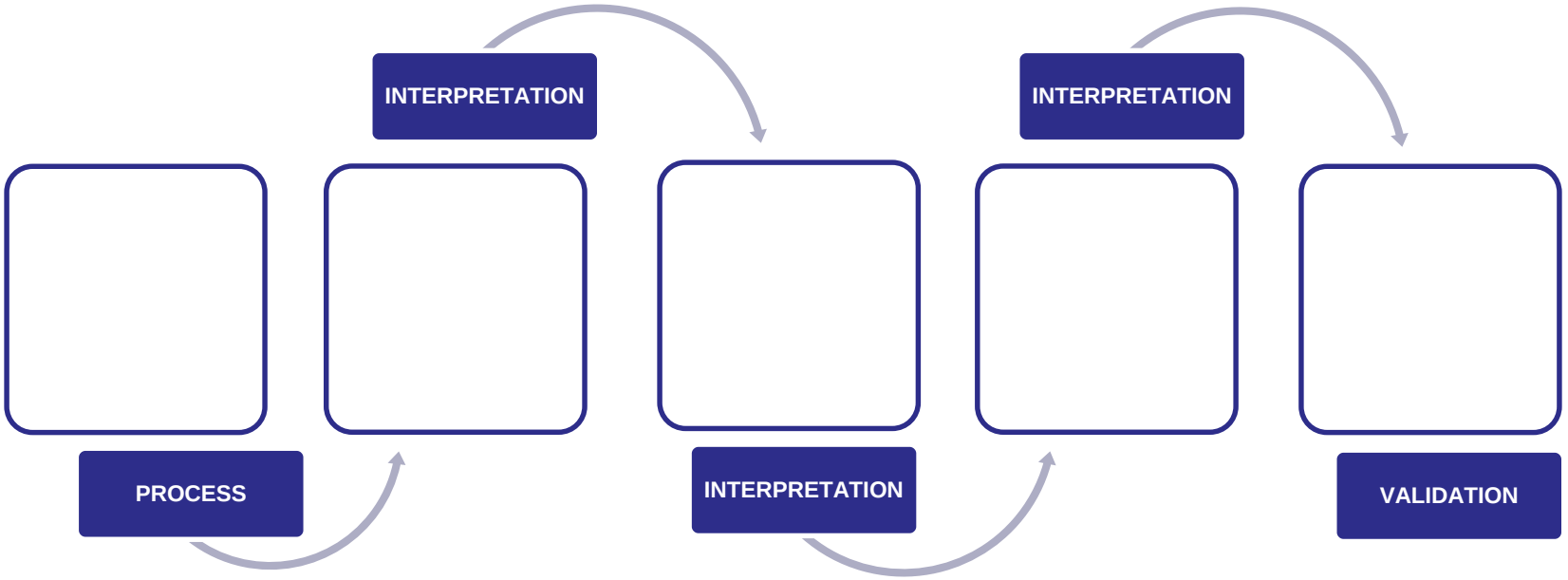
POPC starts with conceptual criteria interpretation related to process



Dimensioning: *Interpreting the criteria into a contextual entity*

Developing a Figurational Entity
Dimensioning

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Organises *prior* information into context to allow overarching dimension criteria to become relative to analysis concept.

CONCEPT	STRATEGY	CRITERIA "Knowledge"	LITERATURE DIRECTION
Efficient Process and Practice	Systematic stages provide the knowledge needed for a business or organization to achieve a desired goal through Specific criteria. (Yang et al., 2010, pp. 273-289)	Generation	Nonaka & Takeuchi (1995) Boisot (2002). Probst et al. (2002) Tannembaum et al. (2000) Heisig's (2001)
		Communication	Shannon (1948) (Szulanski 1996) Inkpen and Dinur (1998) Harris and Moran (1996) Haworth and Savage 1989).
		Sharing/Learning	Huber (1991); Choo(1998) Argote et al. (1999); (Vandenbosch and Higgins 1996).
		Utilisation/ Management	Inkpen and Tsang, 2005; Kogut and Zander, 1992; Hofstead 1994 Brown and Duguid (1991) Teece (1981, 1982); Winter (1987)

Developing a Figurational Entity
Approach

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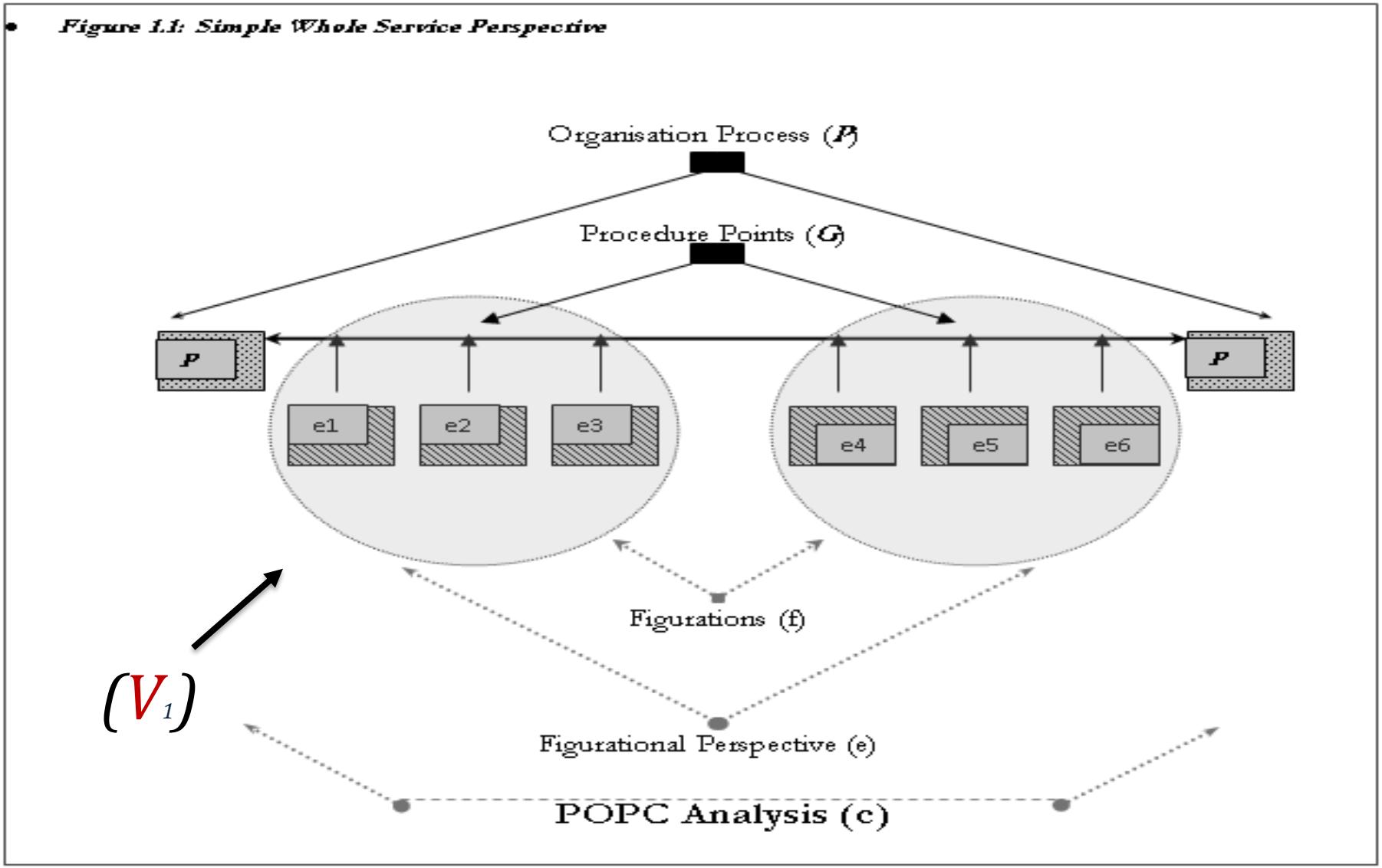
- ***Figure 1.1: Simple Whole Service Perspective***



(V_1)

DIMENSION 1: *K*nowledge

In the context of the organisation, Knowledge has 2 main elements of scope, as proposed by *Nonaka (1994)*

Knowledge Level

- Explicit – "knowledge that is transmittable in formal, systematic language"

- Tacit – knowledge that is embedded within the mind of an individual , which is difficult to verbalise and transfer

Knowledge Type

- Individual
- Group
- Organisational
- Inter-organisational

DIMENSION 3: Figurational *(Process)* Sociology

- **Elias conceptualises the development of human knowledge as a continuum along which, blends of involvement and detachment are located.**

- **This continuum should be viewed as being 'open' at both ends because, unlike concepts of 'affectivity' and 'non-affective or the traditional dualism of 'objectivity' and 'subjectivity, there is no such thing as absolute involvement or detachment**

**** (Norbert Elias: Über den Prozeß der Zivilisation. 1939)***

Figurational Entity
Existence of the Linear Boundary

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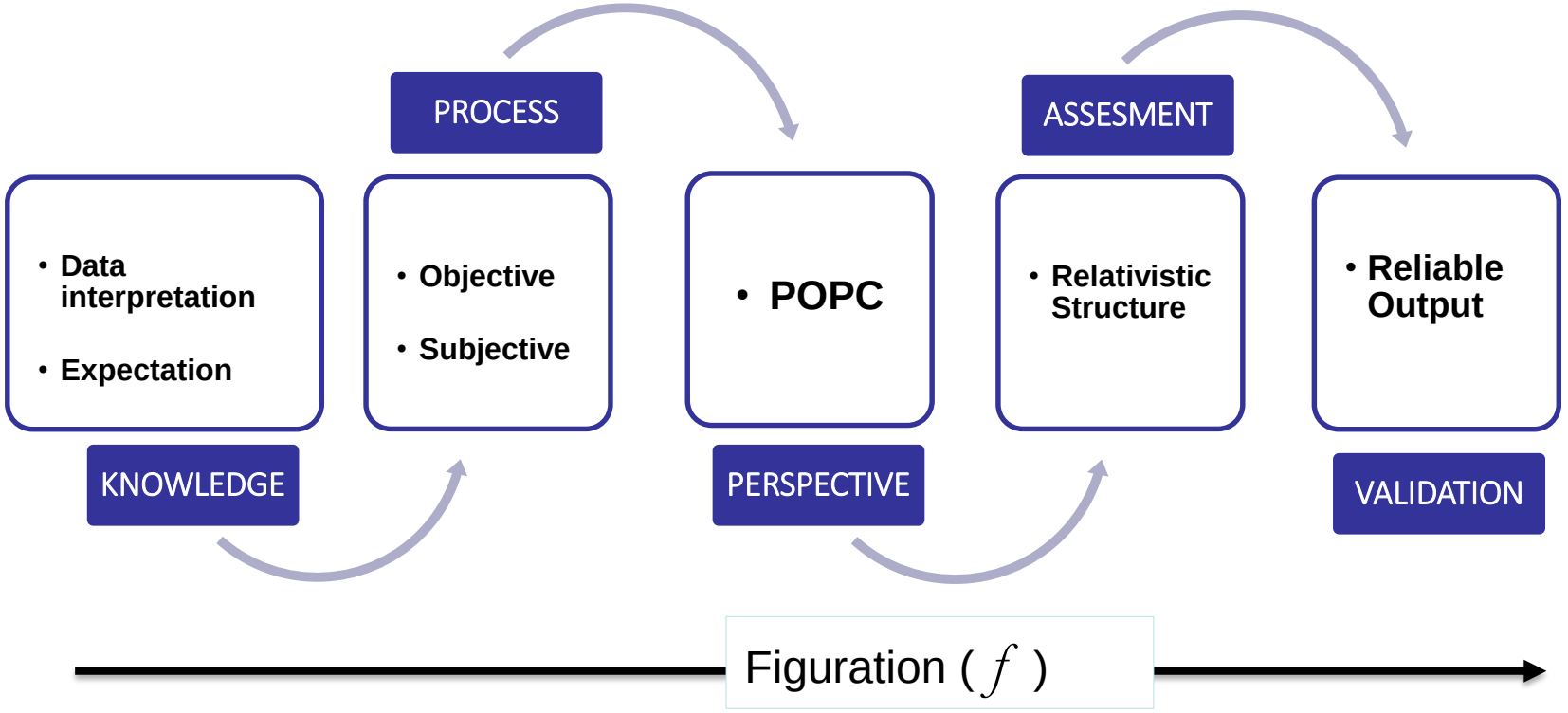
Figurational boundaries and parameters can be logically associated to the phenomena under investigation,

by using a POPC lens of interpretation.



Structural Relevance Theoretical paradigm

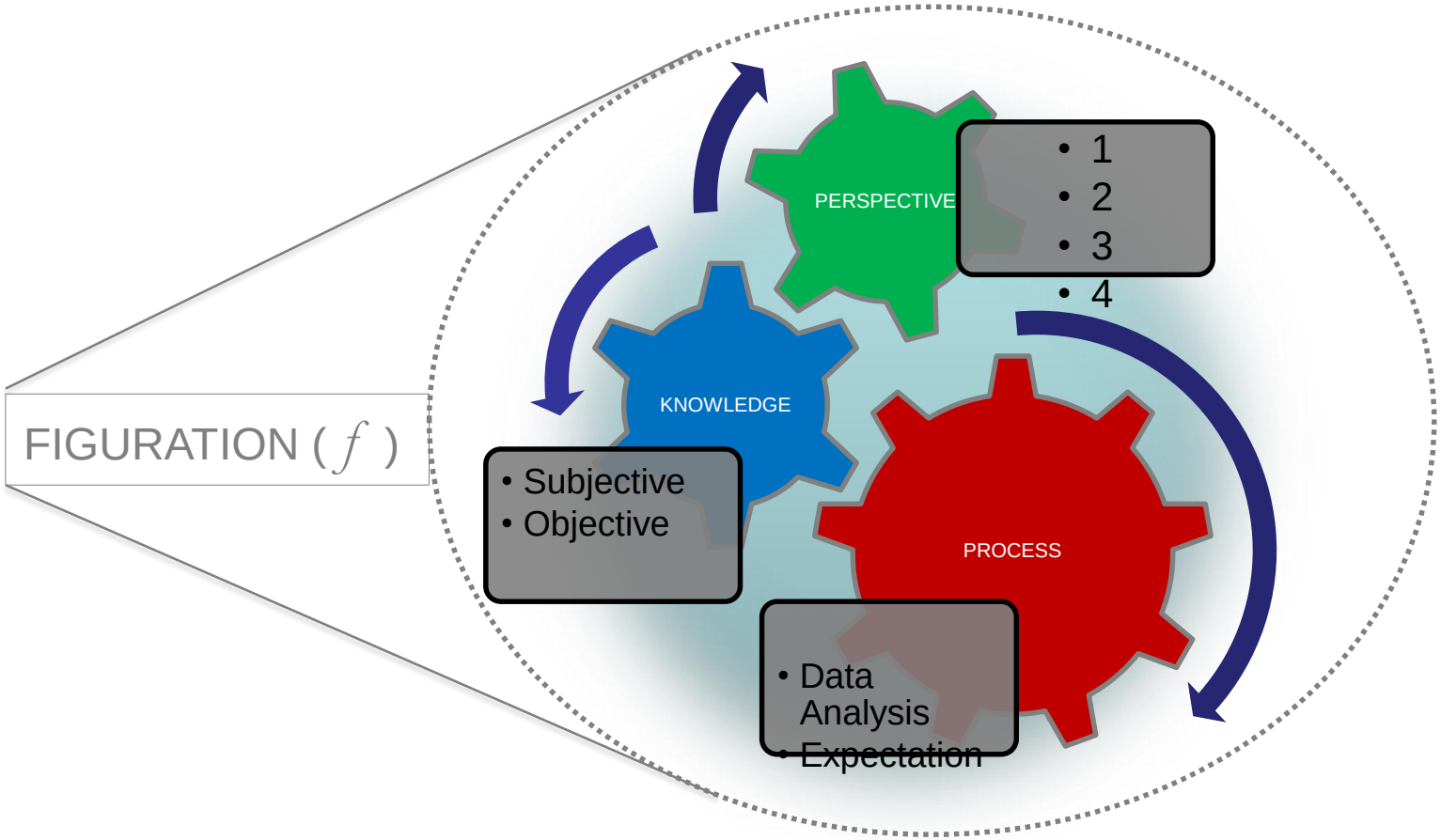
Outlines a theoretical paradigm dimension for context, relative to knowledge and perspective derived from figurational lens

Culture	• Fit between culture and knowledge Culture clash and differences Organizational and national cultures	Argote et al., 2003; Ashkanasy et al.,2000; Bhagat et al., 2002; Collins and Smith, 2006; Gordon, 1991; Inkpen and Tsang, 2005; Kogut and Zander, 1992
Strategy	• Choice of a strategy • Stated goals and objectives • Strategic group or niche	Andrews, 1987; Christensen, 1997; Eisenhardt, 1989; Helfat and Peteraf,2003; Inkpen and Tsang, 2005; Kotler, 2000; Meek, 1988; Peter and Olson,1993; Peteraf and Bergen, 2003; Tsai and Ghoshal, 1998
Structure and processes	• Formal hierarchy; Power structure • Communication and leadership styles • Team work, Formality, and Incentive systems	Gupta and Govindarajan, 1991; Rajagopolan et al.,1993; Snell, 1992; Stevenson and Gilly,1991 Davenport, H. T., Prusak, L. (1998). Alavi, M., Leidner, D. E. (2002).
Environment	• Uncertainty, and Causal ambiguity. • Industry volatility and life cycle Location • Relationship with other firms as well as with political and legal agents	Bartlett and Ghoshal,1989; Carroll, 1993; Dyer and Hatch,2006; Hansen and Lovas, 2004; Snell, 1992; Szulanski and Jensen, 2006; Davenport, H. T., Prusak, L. (1998).

POPC DIMENSION 5: The Figuration in context

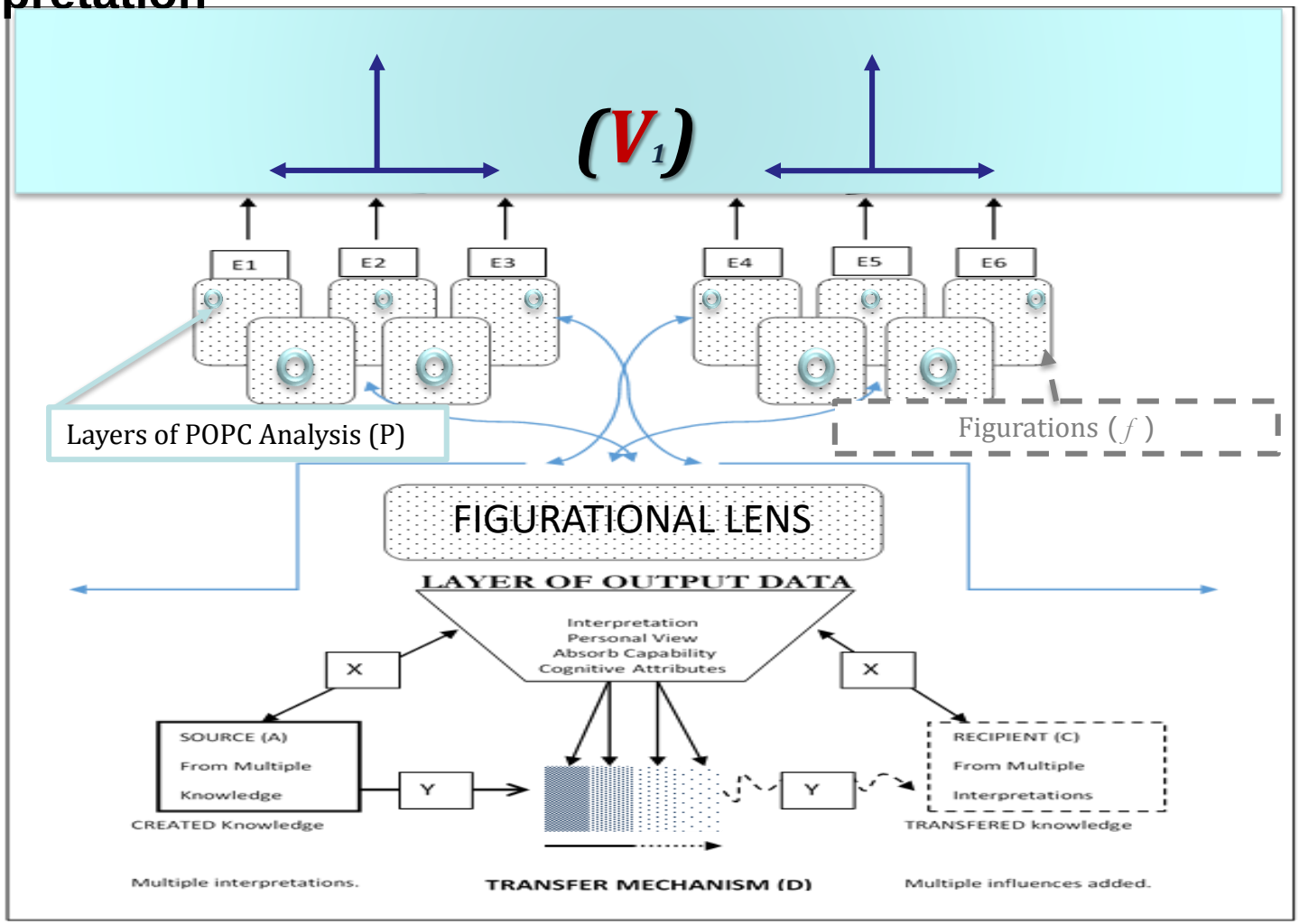
Dynamic

A dynamic Figurational entity can then be derived from multiple qualia relative to Process data, context and perspective.



RELATIVE *POPC* DIMENSION

~ POPC using a Figurational dimensioning Lens od interpretation ~



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Act 2……

Utilising a POPC methodology

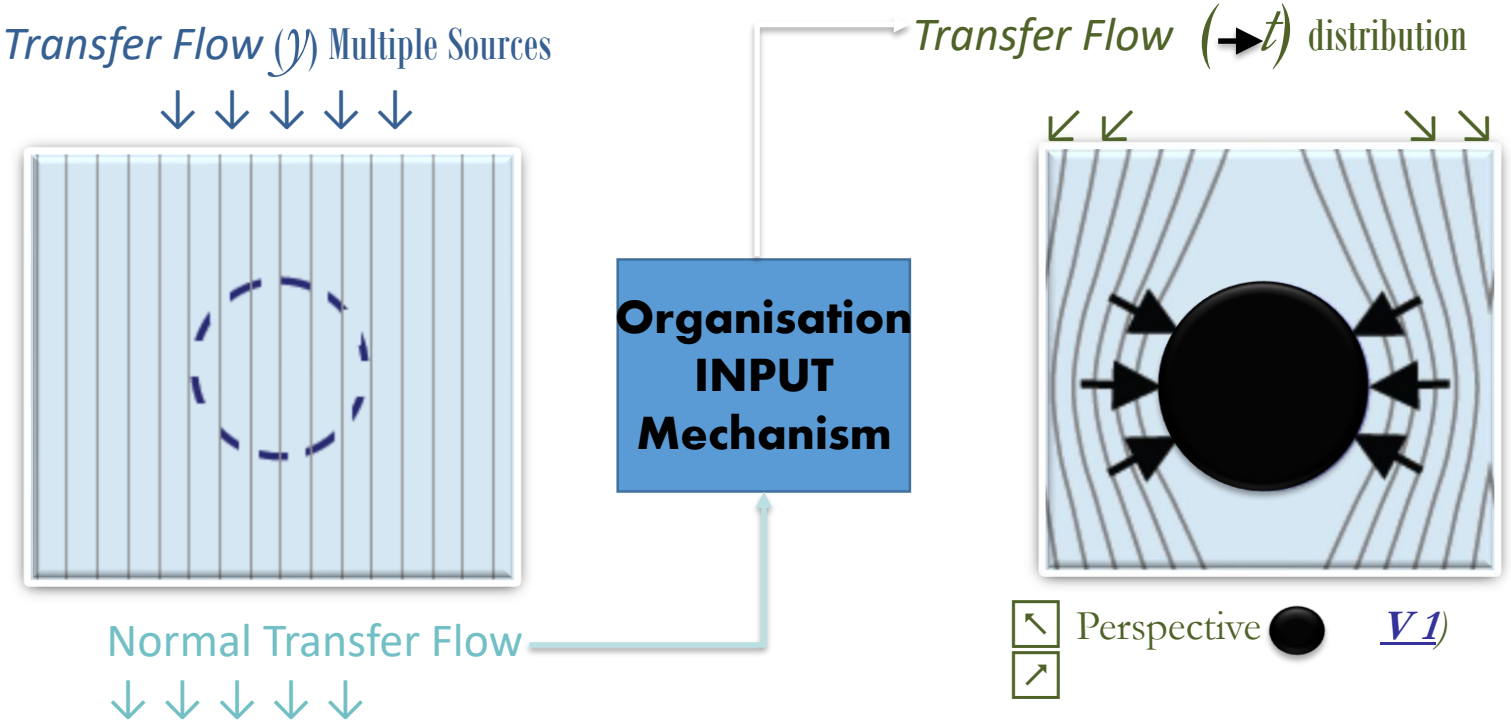
Can this Phenomena be governed in a useful way?

Yes,

But, what exactly is a *POPC* methodology

PERSPECTIVE Entrapment within *K*nowledge transfer deployment?

POPC highlights a disparity by identifying higher order derivatives related to the expectant knowledge flow; Assuming (y) = Transfer Flow, then $(Y=\sqrt{v^2}+t)$



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POPC ? BROAD SCOPE

Draws these elements together as an identifiable single entity.

CONCEPTUAL OVERVIEW

Philosophical underpinnings of knowledge
Types of knowledge
Knowledge Communication
Relevance to Knowledge transfer
Business practices
Theoretical dynamics
knowledge transfer problems
Business Success & Competitive Advantage

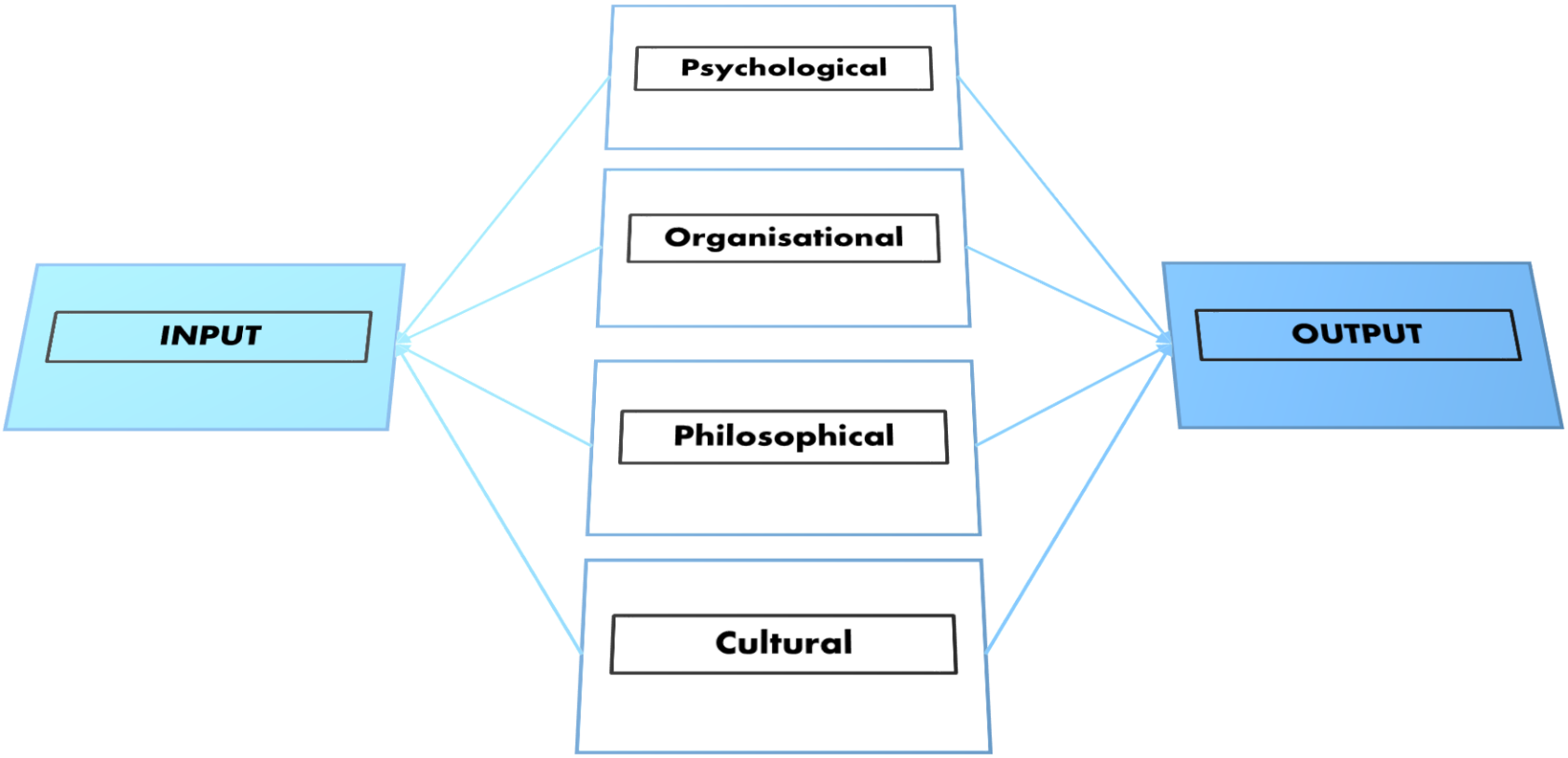
THEORETICAL PARADIGM

POPC ? TANGIBLE SYNOPSIS

Allows multiple perspective definition

APPROACH	*Psychological*	*Organisational*	*Philosophical*	*Cultural*
Location of knowledge.	External to human mind.	Internal to human mind.	Internal to human mind.	External to human mind.
Meaning of knowledge for the individual.	Created through repeated association of a particular behavioural response with an external stimulus.	Constructed by individual through interaction with Organisational phenomena.	Developed through the use of mental representations to make sense of unstructured	Constructed by social groups and appropriated by the individual.
Descriptions of knowledge.	Behavioural responses.	Individual constructions of the world.	Mental representations (schema, rules, etc...).	Social constructions of the world.
Perceived changes in knowledge by individuals.	The result of environmental changes.	. The result of changing organisational needs.	The result of learning to apply a representation to similar or dissimilar phenomena	Due to the ongoing development of social practices.
Differences in knowledge understanding between individuals.	Due to different reinforcement histories.	Due to different interpretations and different conceptual abilities..	Due to variations in the richness and complexity of mental representations	Attributed to differences in social practice.
Ontological assumptions.	Dualist ontology – person and world are distinct entities.	Dualist ontology - person and world are distinct entities.	Dualist ontology – person and world are distinct entities.	Dualist ontology -person and world are distinct entities.
Particular limitations.	Individuals are passive uncritical respondents to stimuli. No conscious thought required, only conditioning.	Individual constructions cannot be shared between individuals.	Source of representations is unclear. Means by which a particular representation selected is also unclear.	Understatement of individual meaning: focus on social meanings. Individuals respond to changes in social meaning uniformly.

POPC ? TANGIBLE SYNOPSIS *Simplex*

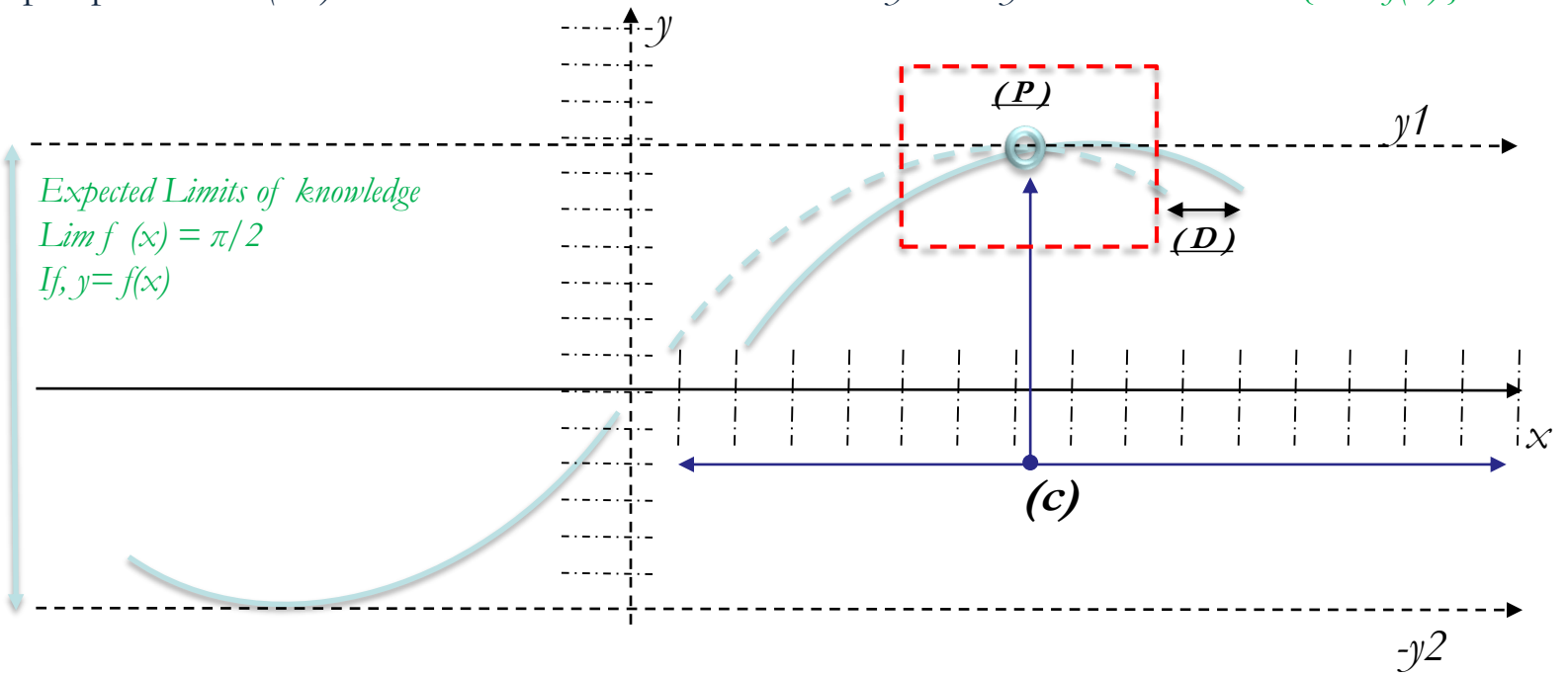


Multiple Perspective OVERVIEW

In the context of data analysis, the knowledge phenomenon to be explained is a pattern in numerical data derived from the perspective of analysis.

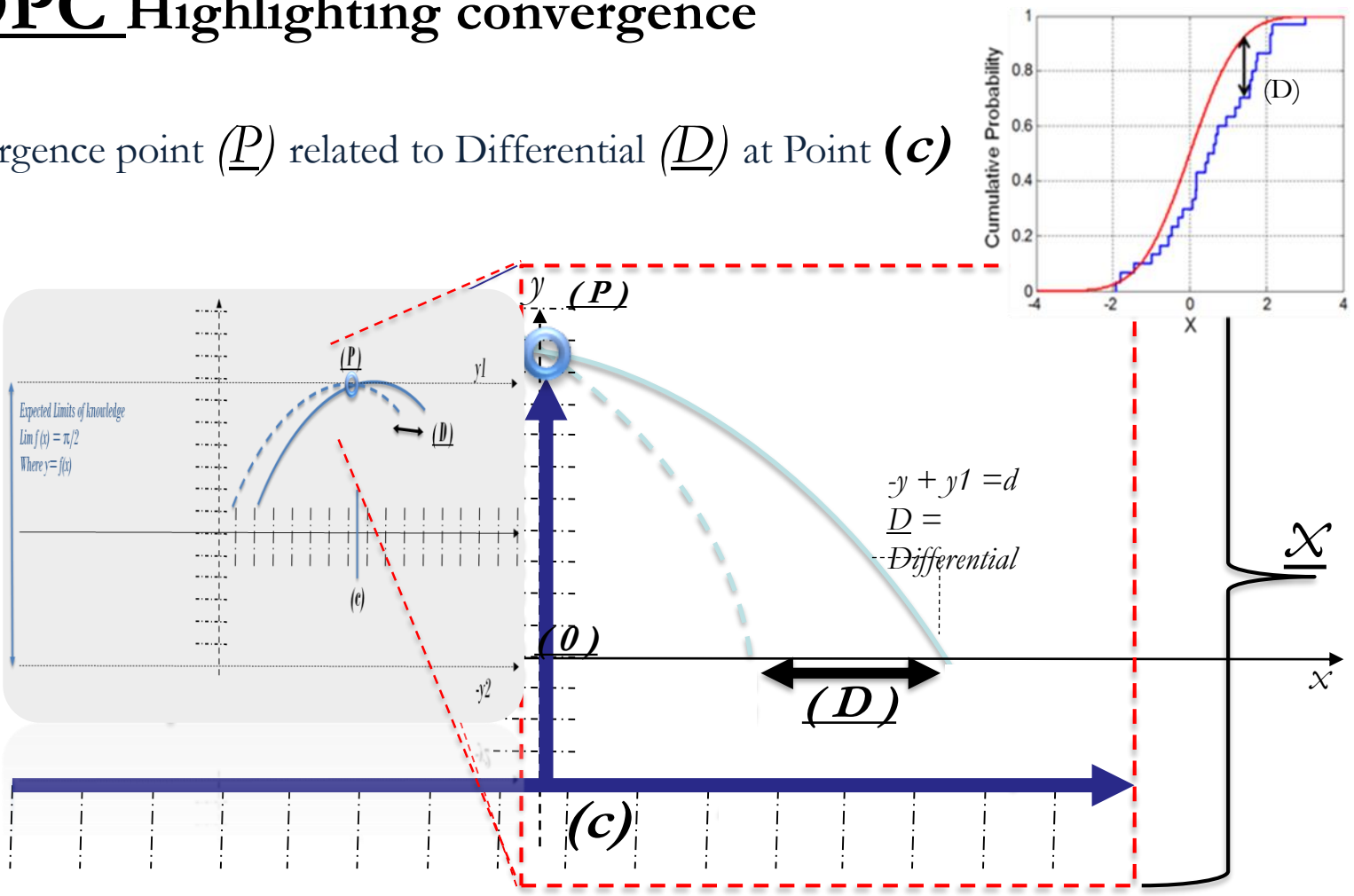
By utilising the formula $(y1=\sqrt{x^2}1)$ we can identify convergence point (P)

We can now see the Linear formulation of change in Knowledge transfer efficiency from the perspective of *(c)* since we know the *Limit* between *y1* and *y2* relative to *x*. {*Lim f(x)*}



POPC Highlighting convergence

Convergence point *(P)* related to Differential *(D)* at Point **(c)**

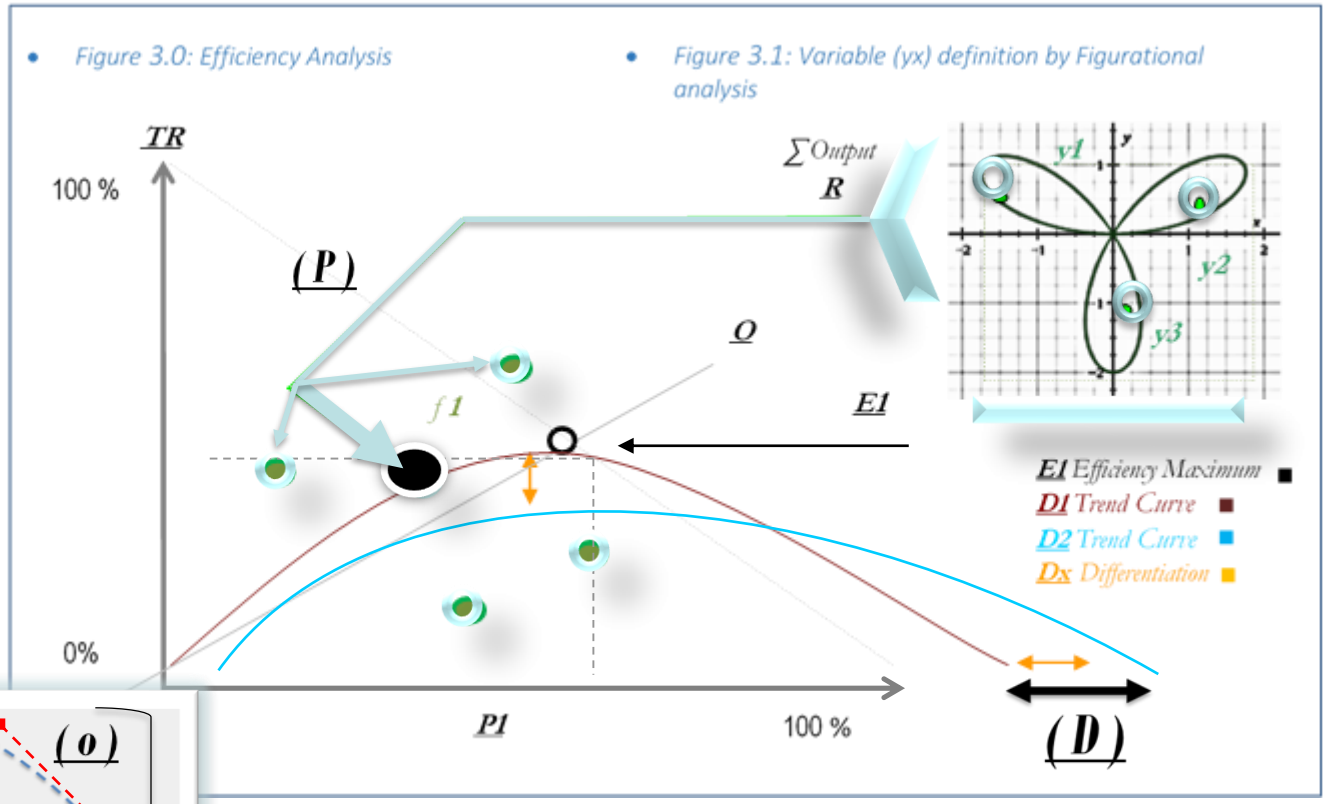


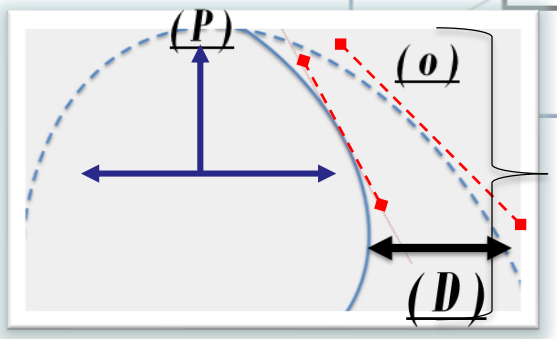
Act 3……..

Utilising a POPC methodology

HOW would it become useful ?

Using POPC STRUCTURED ANALYSIS





$(y1=\sqrt{x^2}1)$

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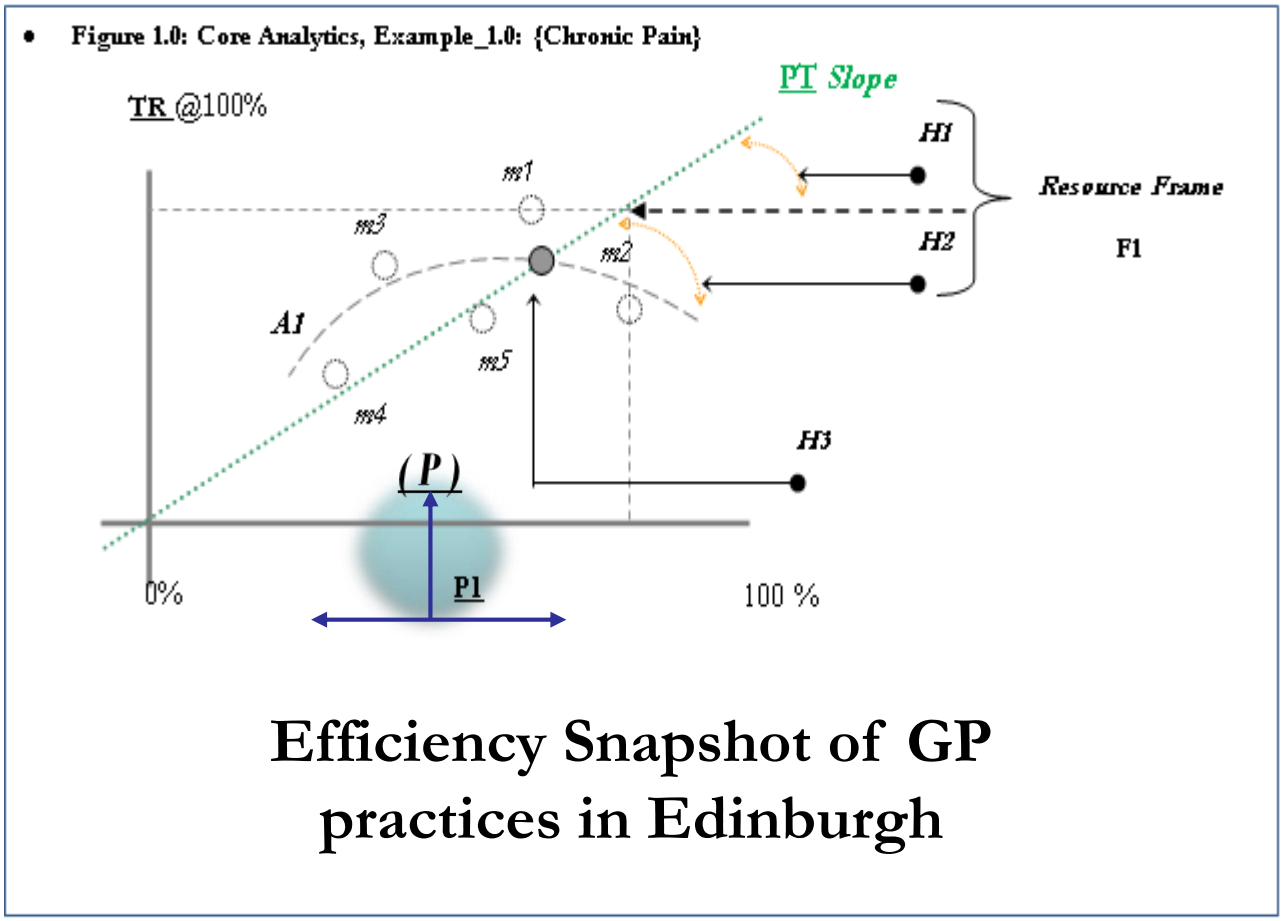
Act 4……..

Utilising a POPC methodology

WHERE would it become useful ?

POPC *Practical Example (1)*

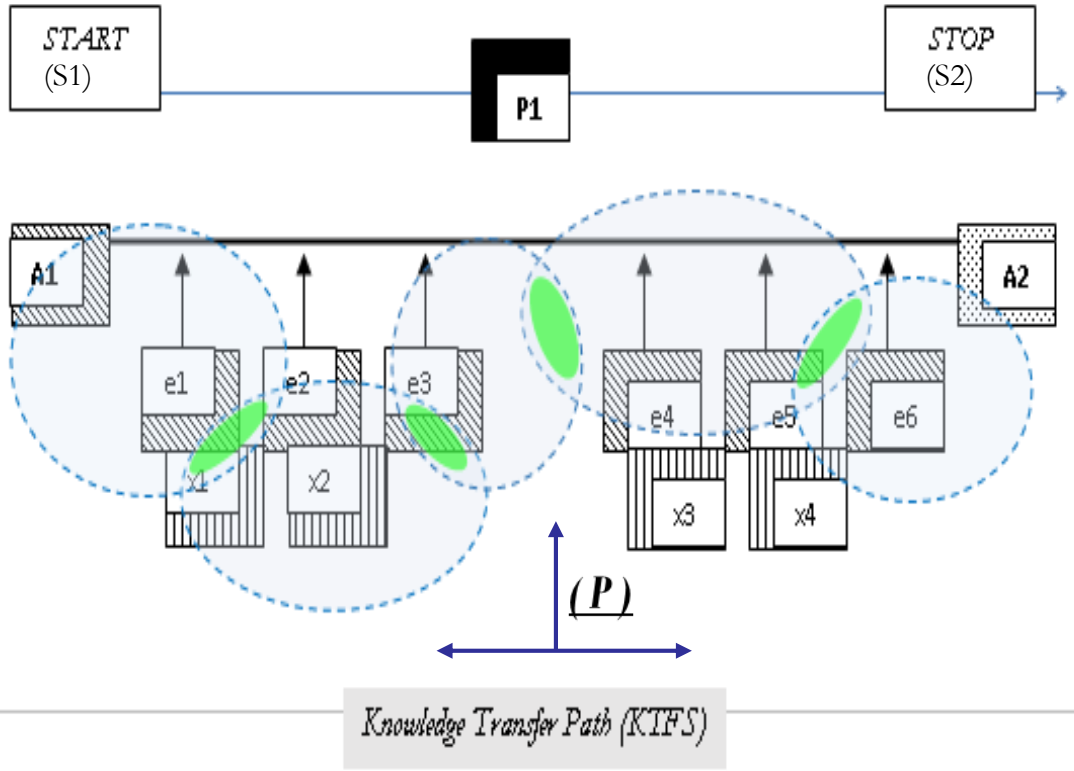
NHS HEADROOM PROJECT

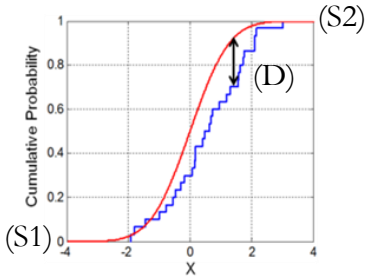


Efficiency Snapshot of GP practices in Edinburgh

POPC *Practical Example (2)*

- **Figure 2.0: Complex Whole Service Process Flow**





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Act 5……

Utilising a POPC methodology

Useful output

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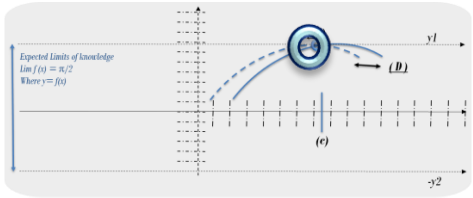
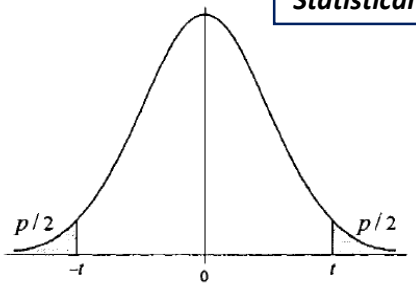
HOW is this Useful? VALIDATION

E *EFFICIENCY* ***R*** *RATE*

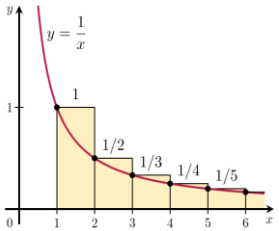
S *RESISTANCE to E*





Statistical (t) equivalence

Mean of Known data



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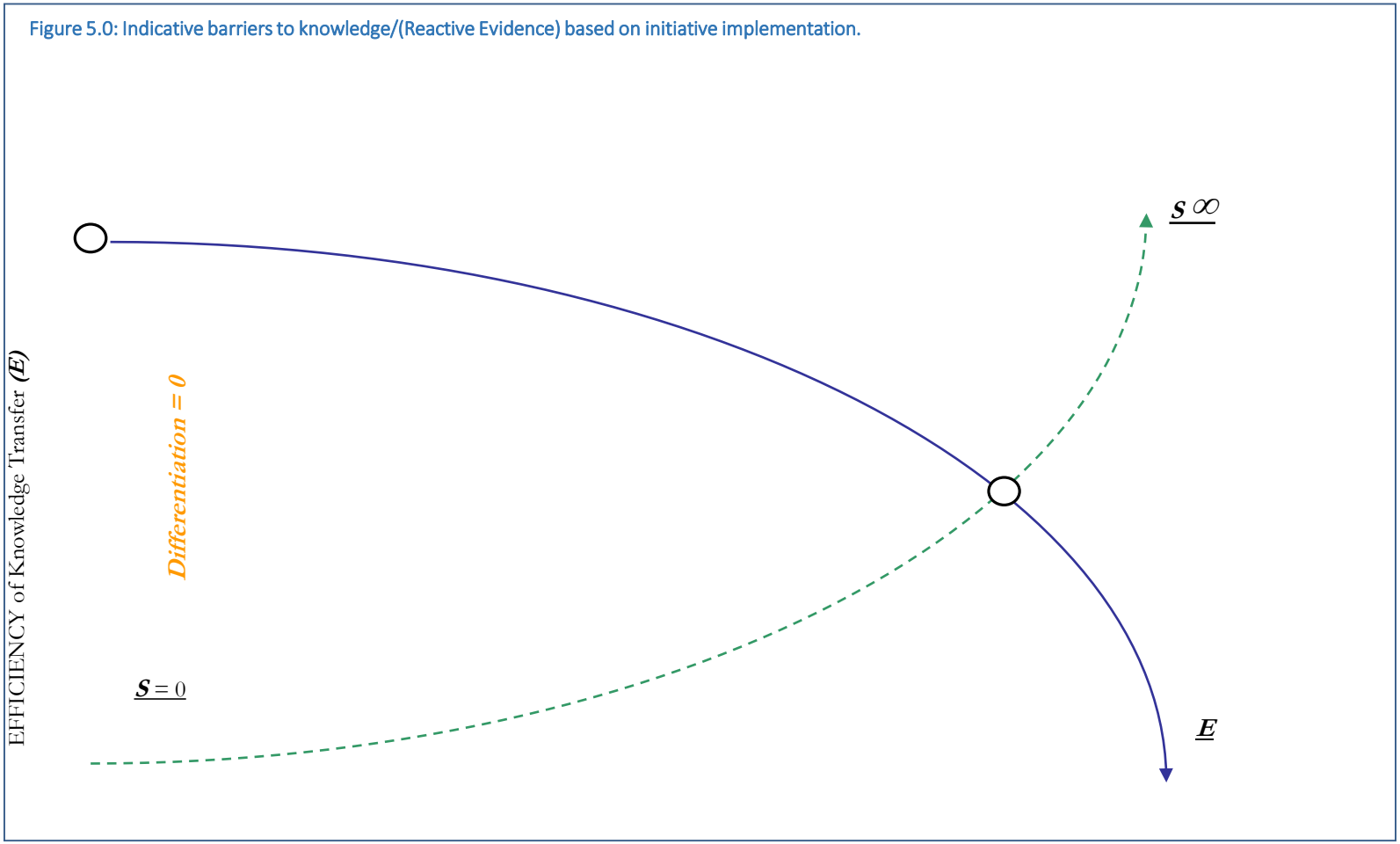
CONVERGENCE RATE MATRIX

HOW is this Useful? OVERARCHING ANALYSIS

- Figure 5.0: Indicative barriers to knowledge/(Reactive Evidence) based on initiative implementation.



HOW is this Useful? OVERARCHING ANALYSIS

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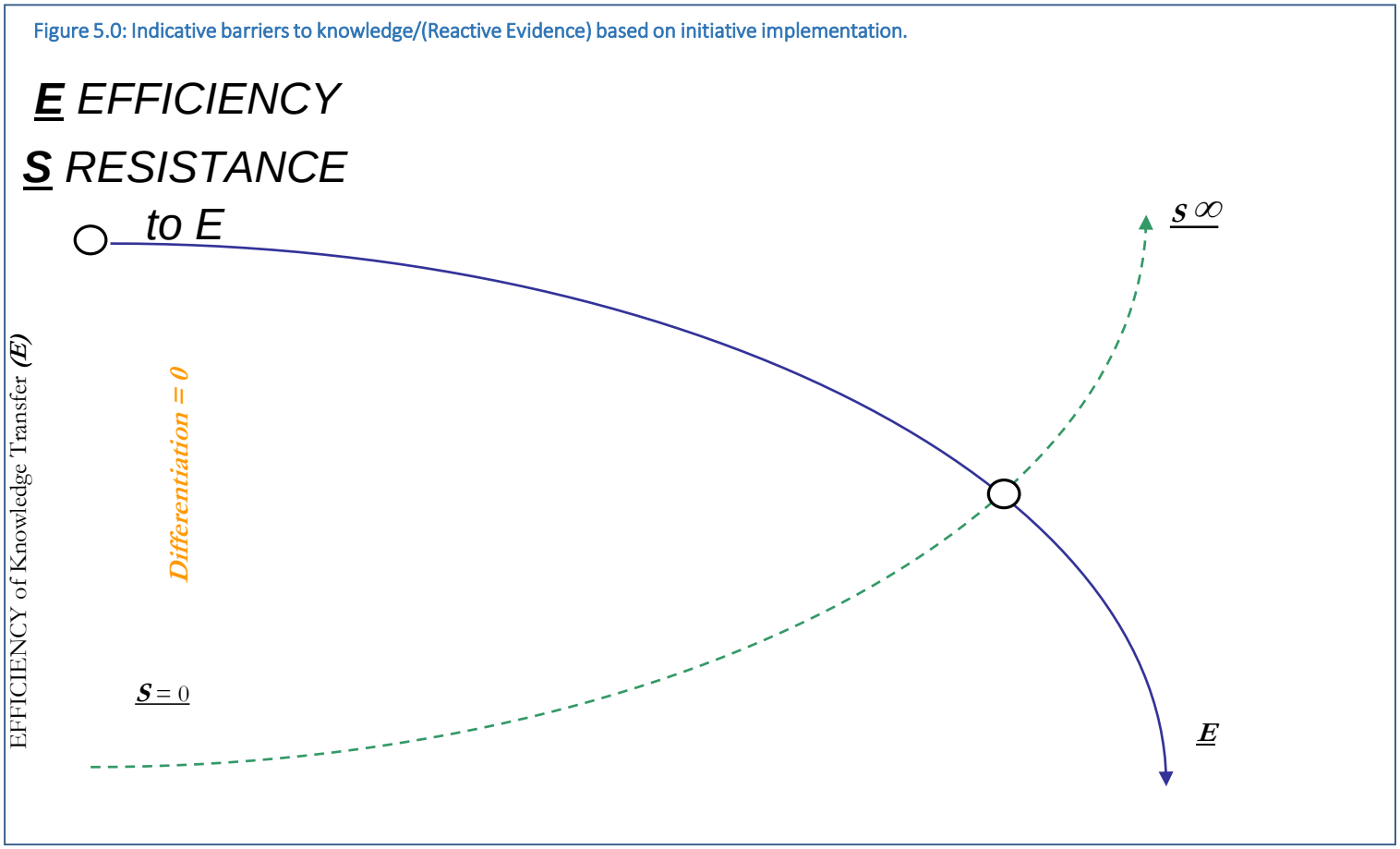
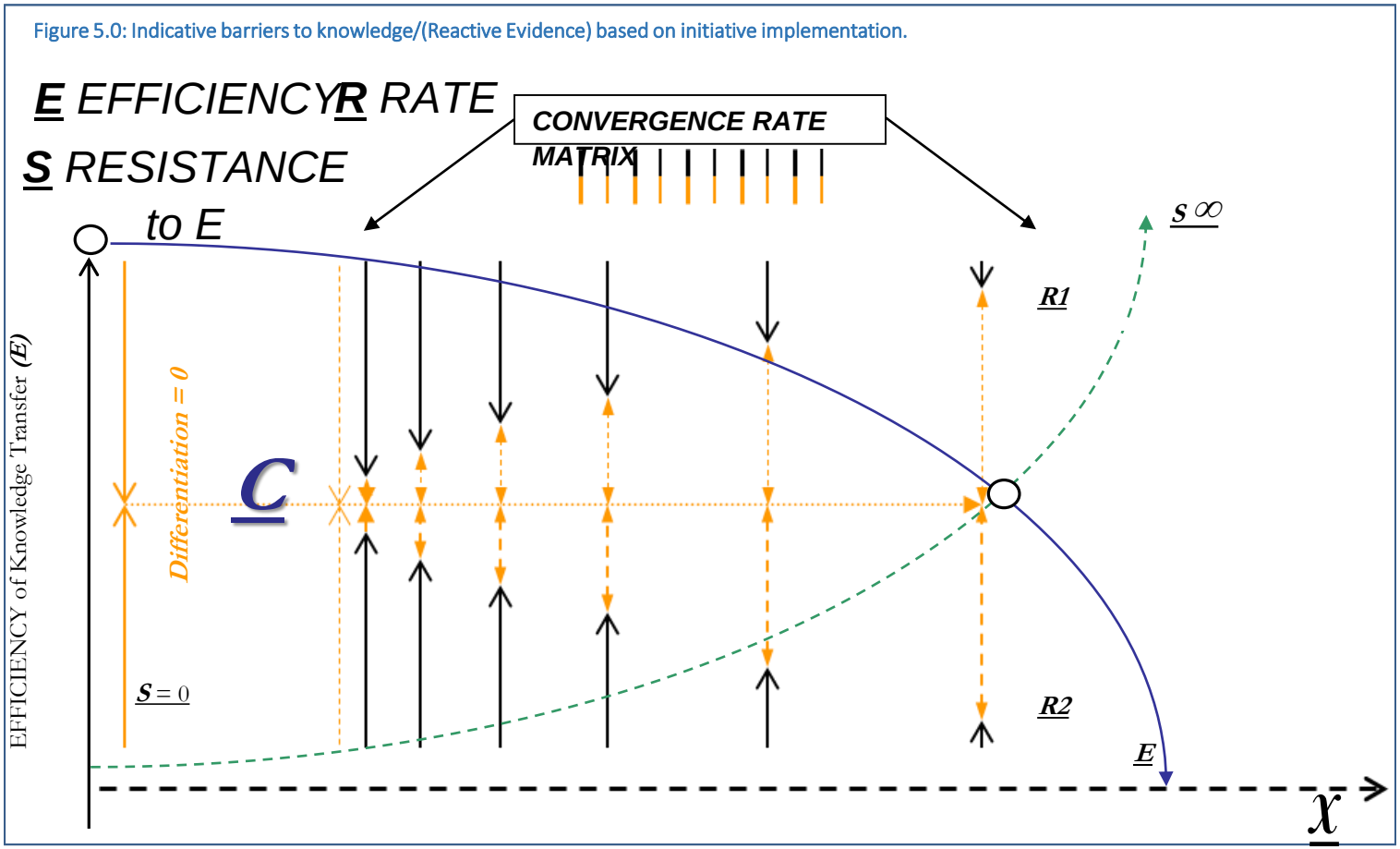


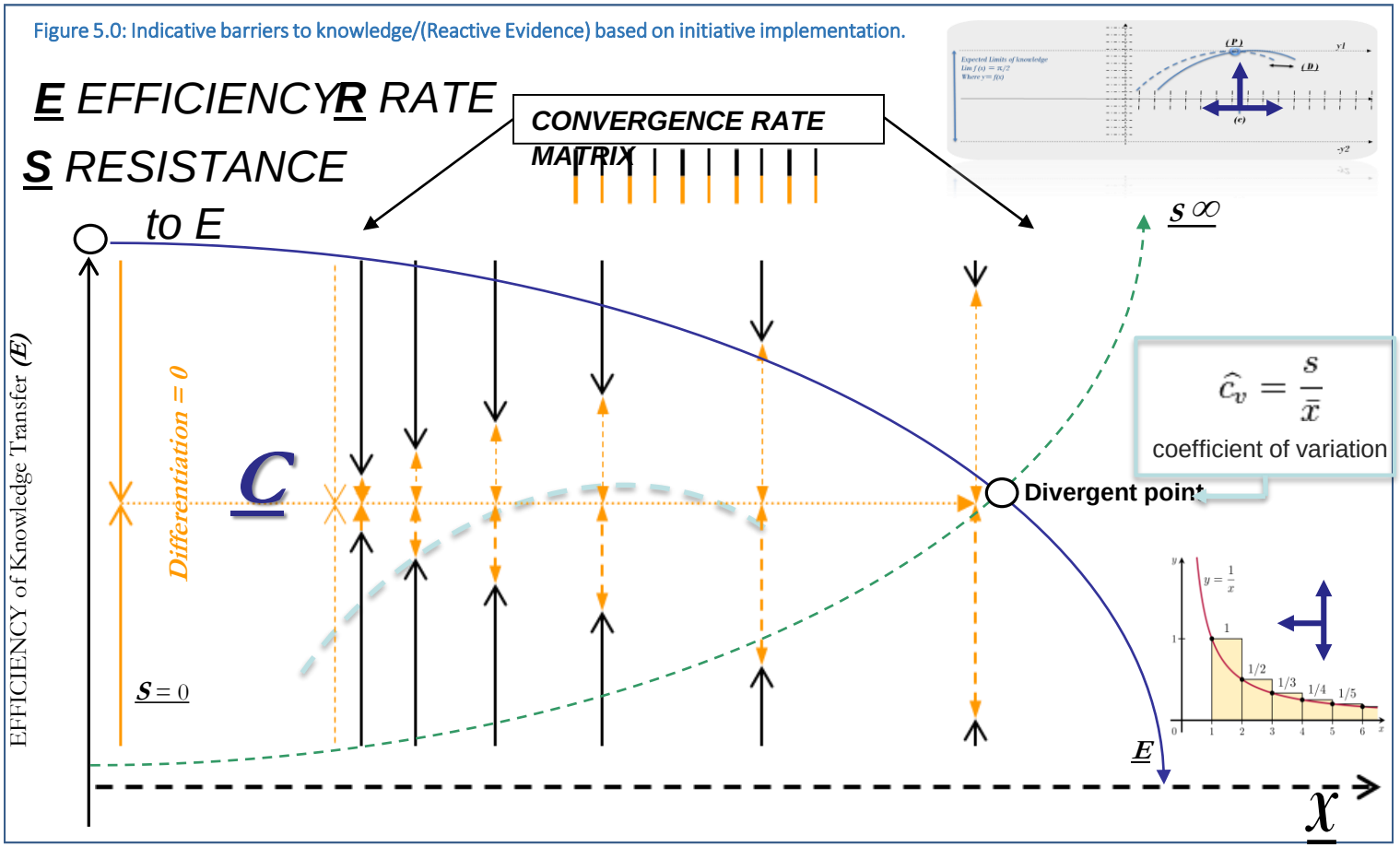
HOW is this Useful? POPC CONVERGENCE RATE MATRIX

- Figure 5.0: Indicative barriers to knowledge/(Reactive Evidence) based on initiative implementation.



HOW is this Useful? POPC Divergent Point

- Figure 5.0: Indicative barriers to knowledge/(Reactive Evidence) based on initiative implementation.



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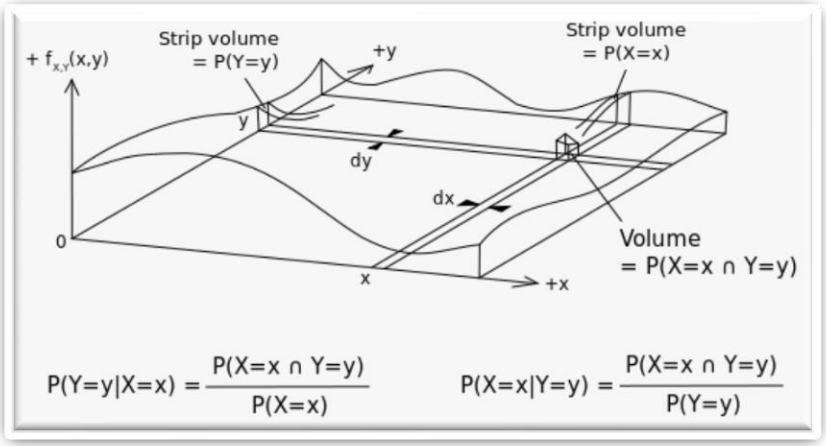
Act 6……

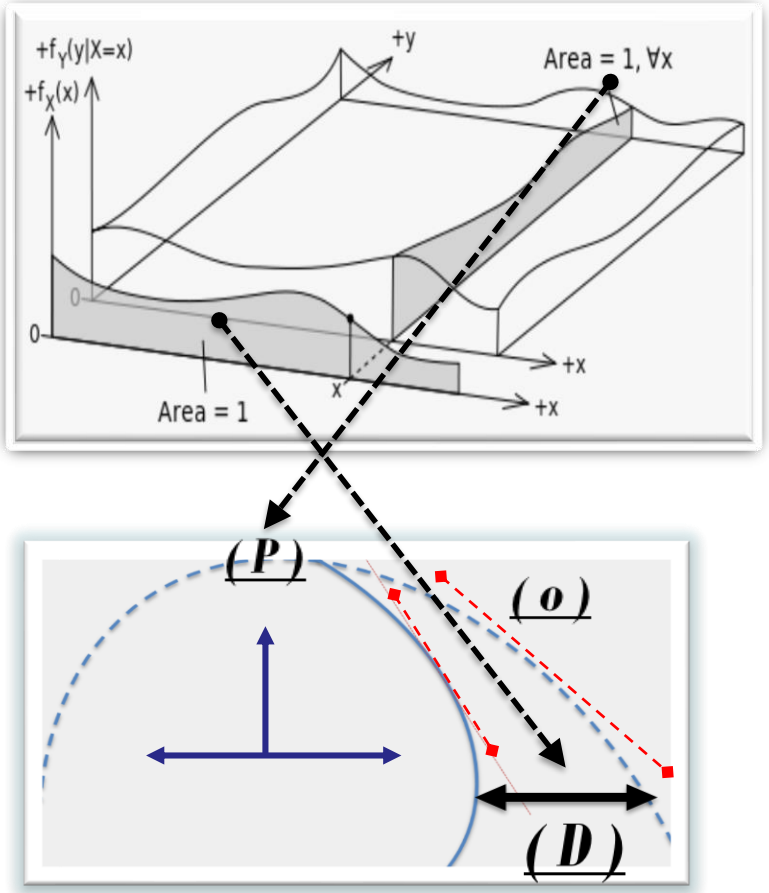
Utilising a POPC methodology

GROWING the theory

Continuing Research: BAYESIAN PROBABILITY

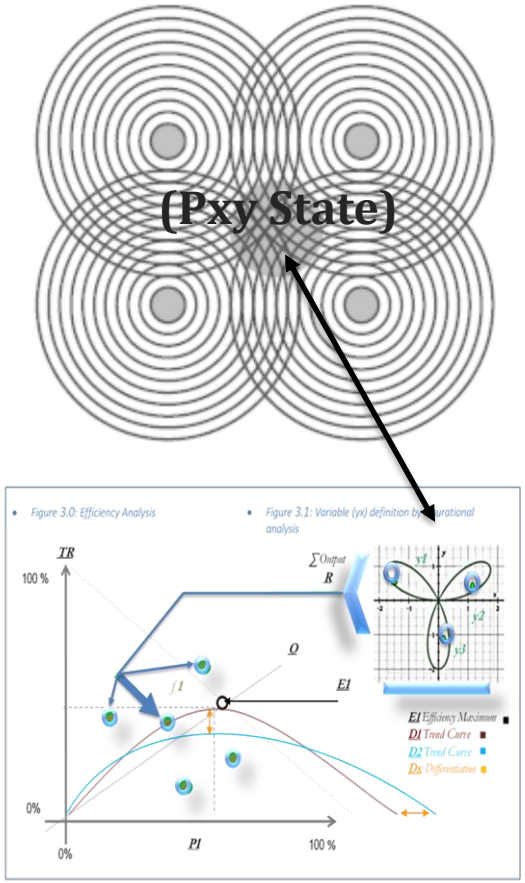
In contrast to interpreting probability as the "frequency" or "propensity" of POPC phenomenon, Bayesian probability is a quantity that we could assign as a variable representing a state of knowledge at a particular POPC convergence point ***(P)***





This would allow a **POPC Event space perspective** *(or Pxy State)* to be generated from continuous random variables *X* and *Y and therefore relative to a previous differentiation*.

Continuing Research: PREDICTIVE PROCESS UTILISATION



A known **Pxy state** would strengthen both phenomenon and observational dimensions

Phenomenon	Observation
Perfect Knowledge (p)	If (p) =cumulative perspectives
Figurational interference (i)	Influence of (i) on (p)
Unified structure (u)	Is (u) ∞
Relativistic interference (r)	How do the unified structure effect each other
Cumulative interference (**R**)	At which point does the structure become –ve efficient
Transfer of knowledge	Can deviation of transfer flow be quantified

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Act 7……

Utilising a POPC methodology

Summing Up

Problematic criteria: Current assessment's?

- *Knowledge is given a dimension of a 2 point data variation, thus, how much one data group differentiates from another?*
- *Traditional use of statistical methods of probabilistic inference to interpret knowledge to resolve these duality issues is therefore limited.*
- *Statistical (p) values, on their own, cannot make discernible distinctions of knowledge within the same or apposing data set, therefore, cannot determine a perspective singularity from multiple variables.*

- **Questions are extremely difficult to answer because data are often contaminated by random variability (noise), and knowledge is distorted out of context by elements organisational of incredulity. Standard (p) testing can only account for part of the answer**

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Benefits of POPC: Propensity within the same criteria

- *Empowerment* of ***perspective*** as a main determinate of resource implication, as **POPC** can accept *'null hypothesis'* as a valid perspective.
- *Allow* interpretation of interactive social relationships as ongoing rich data processes, including fundamental data 'outliers'.
- *Apply* flexibly to complex hierarchical models and realistic data structures, including small samples, large samples, unbalanced designs, missing data and unknown variables.
- *Prioritise* demand of finite resources by reducing the effect of unknown outcomes and implements power analysis in both retrospective and prospective forms.
- *Provide* rich information about the relative credibility of all candidate parameter values for any descriptive model of the data, without prescriptive reference to *p* values

What are the Drawbacks of POPC?

- *Complex*
- *Difficult to introduce*
- *Specialist knowledge needed*
- *Unknown benefit*
- *Low credibility*

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Act 8……..

Utilising a POPC methodology

Finale

Thank you for listening