A Justified Approach to Business Leadership Research

Over the past several centuries, two distinct classes of research paradigms have independently progressively evolved[1].

Up to about the mid-20th Century, research undertaken was deemed generalisable only if the research was conducted by an objective external observer (external to the research context) attempting to test hypotheses deduced from actual or proposed theories. This research paradigm[2] was labelled a positivist research paradigm that involved a "realist ontology"[3] and a "naïve realist"[4] epistemology that yielded value-free objective knowledge. This "positivism" was justified because, at that time, the knowledge system was viewed as deterministic in stable equilibrium. Therefore, interesting gaps in understanding can be studied separately and the result then meaningfully reintegrated.

For centuries, in the natural sciences and all emerging disciplines seeking research community legitimacy, this positivist research approach [5] was accepted as the basis for discovering 'objective' generalisable deduced value-free truth. It supported Newtonian deterministic, mechanistic thinking characterised by linear cause-and-effect and systemic stability. Newton was further supported by the eighteenth-century British "empiricist"[6] philosophers Locke, Berkeley, and Hume, who argued that direct sensory experience,

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[1] Babich, B. E., From Fleck's 'Denkstil' to Kuhn's Paradigm: Conceptual Schemes and Incommensurability, *International Studies in the Philosophy of Science*, (2003). Daymon, C and Holloway, I (2002) *Qualitative Research Methods in Public Relations and Marketing Communications*. Routledge: London; Lincoln, Y., Lyneham, S.A., and Guba, E.G. (2011). Paradigms and perspectives in contention. In *The Sage Handbook of Qualitative Research*. Edited by Norman K. Denzin and Yvonna S. Lincoln. Thousand Oaks: Sage Publications, pp. 91–95.and others referred to separately. The word "paradigm" is used to refer to the philosophical assumptions or to the basic set of beliefs that guide the actions and define the worldview of the researcher (Lincoln et al. 2011

[2] A research paradigm involves
> 1.-A way of thinking about the nature of reality (the research paradigm's ontology) **–**
> **2.-**A way of knowing how knowledge may be gained (the research paradigm's epistemology) and
> 3.- The values driving the research (the research paradigm's axiology).

We shall also be concerned with the research philosophy that is the philosophical underpinning that underpins the research paradigm, and the research methodology that is the research tools that the research plan proposes to deploy and that reflect the proposed research paradigm.

[3] The world is perceived as existing independently of being perceived and open to being known objectively and without bias.

[4] Understanding how the world works is deduced from directly observed, value free causes and effects.

[5] Imagine everyone in the world wearing a pair of invisible glasses. These special glasses show them the world around them. Naïve realism is the belief that the world you see through your own personal pair of glasses is the only true world. It is as if no one else's glasses show any different picture. If something seems real to you, it must be real in the same way to everyone else.

[6] These empiricist philosophers argued that all knowledge derives from sensory experience. Another strand of empiricism advanced by Francis bacon and later by John Stuart Mill argued that knowledge of how the world works must be based on observation and tested against facts, if possible by controlled experiments (empirical evidence. See www.britannica.com/topic/ Empiricism

empiricism, was the most reliable source of knowledge. This approach dominated until the mid-20th Century.

In the twentieth Century, philosopher Karl Popper[7] argued, based on tenets of deductive logic, that scientific empiricism can never prove a theory or explanation true: it can only deal with theories that can be subjected to empirical testing and the possibility of being disproven. We can know what knowledge claims are false, but all other claims to knowledge, given the nature of inductive logic, are provisional. None can be asserted as certain or even probably true. However, if a theory survives multiple attempts at disconfirmation, it has what Popper called "verisimilitude".

With the advent of the 20th Century, relativity, quantum mechanics, and complex adaptive systems theory have progressively overwhelmed traditional deterministic thinking. The limitations of a purely objective, stable deductive/Newtonian positivist view of reality became apparent when challenged by inductive thinking that viewed reality as –

1. **Subjective.** The approach is defined through normative, inductive reasoning that delivers relativistic, probable conclusions. It contrasts with a deductive realistic rationale, in which the findings are true if the premise(s) are valid until falsified.[8]
2. **Probabilistic**. In complexity science, outcomes are probabilistic, and cause/effect relationships can be circular. Relationship networks are interactive, and systems are often unstable.
3. **Being true or false** is no longer an exhaustive dichotomy; they are the extreme poles of a continuum.
4. **Stability** is replaced by the notion that systems thrive optimally at the edge of chaos, and decay, or perish when stability and equilibrium dominate.

In this context, philosophers and social scientists challenged positivist researchers' assumptions of the feasibility of securing objective, generalisable understandings. Positivists now view reality as imperfectly and probabilistically apprehensible. This probabilistic approach is called constructive (or critical) realism. Its epistemology utilises a mix of quantitative and qualitative methods. Scepticism is valued and drives the ongoing search for improved understanding. Reality can and should only be viewed through an espoused value set and discovered using dialectics. [9]

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[7] Popper, K.R. (1959) *The Logic of scientific discovery*, London, Hutchinson
[8] Failure to falsify a negative hypothesis justifies increased trust in the hypothesis and the theory it was derived from.
[9] 'Dialectics' is a term used to describe a method of philosophical argument that involves an idea exchange process between opposing views. Critical theorists essentially rely on dialectics to choose between theories.

This inductive approach is characterised by research questions, usually hypotheses, designed to discover the limitations of understanding. The data to be collected can be categorised in advance. However, establishing categories in advance assumes prior knowledge; more importantly, research categorisation can reflect the researcher's perspective and is likely biased[10].

The evolving relativistic view of reality caused qualitative research methodology to grow beyond being solely positioned as preliminary to quantitative research. It was recognised as a separate legitimate research approach to deal with data-rich, non-deterministic, complex dynamic situations.[11]

Influential qualitative researchers conclude that theories-:

> *"… are all inventions of the human mind and hence subject to human error. No construction is or can be incontrovertibly right; advocates of any particular construction must rely on persuasiveness and utility rather than proof in arguing their position". [12]*

Figure. Duck or rabbit? It's a matter of perspective.
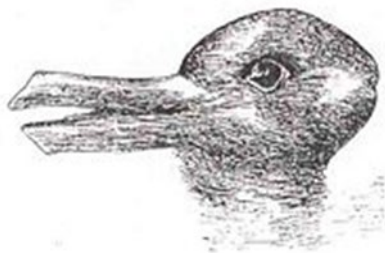
Kuhn used the duck/rabbit optical illusion (see Figure above) to demonstrate how a paradigm shift could cause one to see the same information differently due to the perspective applied.[13] The hare/duck image used by Kuhn highlights the importance of the observer's perspective. Which animal "appears" to be depicted depends on what the viewer focuses on. The image can be perceived as two different realities despite being the same. However, recognising that, as observers, we are part of what is observed does not imply that we cannot know with an acceptable level of confidence that what we are experiencing is there. Further, an experiment by Chabris and Simons, described in a New York Times

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[10] Scientific progress has been achieved by creative dialogue between and synthesis of different theoretical perspectives, as well-demonstrated through research drawn from atomic physics, climate modelling and child development in Massimi, M., (2022) *Perspectival Realism* Oxford University Press.

[11] It is interesting to note that this qualitative research methodology evolved from an attempted positivist approach to a relativist pragmatic view of reality.

[12] Guba, E. G., & Lincoln, Y. S., Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage. P 108 (1994)

[13] Also see: https://www.google.com/search?q=paradigm+shift+examples&rlz=1C1CHBF_en

article as "one of the most famous psychological demos ever," revealed that people who focus on one thing can easily overlook something else. A video was created where students pass a basketball between themselves. Many (but not all) viewers asked to count the number of times the players with the white shirts pass the ball fail to notice a person in a "gorilla suit" who appears in the centre of the image. At first sight, this experiment seems to support Guba and Lincoln's conclusion and the broader philosophical position that all claims to knowledge (indeed all knowledge) are relative to the perspective of those advancing the knowledge claim.

On closer analysis, the experiment demonstrates the limits of extreme relativism. Some viewers did notice and report the gorilla-suited intruder. When asked to view the video without counting passes of the basketball between players in white shirts, almost everyone notices the gorilla-suited intruder. Thus, the accounts of what is shown in the video are subject to error but are not "inventions of the human mind". It is quite possible to gather evidence to show that some observers can mistakenly believe there was no intruder in a gorilla suit, test explanations for this, and show conditions under which the error does not occur. This experiment reinforces three key points:

- The real world exists and can be known whether it is perceived or not.
- We can be wrong about that reality in ways that can be explained (here by drawing on valid theories about human cognitive processing capacity).
- Perspective and biases limit what each individual is aware of; however, drawing on multiple perspectives improves the quality of what can be inferred. Further identifying and accounting for bias also can enhance our perceptual limits.

The philosopher A.C. Grayling. set out the essence of an argument that, in part, justifies a more complex view of reality –

> "*One cannot know or believe just one thing. A commonplace belief about some object or state of affairs in the world is a component of a network of beliefs between complex relations of support and dependency.*" [14]

Incorporating points from Grayling and others, the following is concluded–

- We are a part of reality and cannot stand aside from it as a solely "objective" external observer. While some experience living in a desert, others experience living in a rainforest, which is so different that they feel like different worlds. However, they are parts of the same world. Constructivists argue that the real world exists, which we construct from the observer's perspective and, according to Grayling, progressively augments through induced networks of related meaning.

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[14] Grayling A.C. (2008) *Scepticism and the possibility of knowledge* Bloomsbury, London, pps 184-203

- When dealing with social situations and human behaviour, different participants can and often will have different experiences and perspectives, arriving at possibly contradictory accounts of the social reality in which they participate[15]. However, by incorporating multiple observer perspectives, a broader agreement regarding reality can be reached, which assists us in "finding agreed solution action" and justifies transferring insights from the original context to other sufficiently similar contexts[16]. In a turbulent, rapidly evolving social and business world, we can only propose and act confidently within relatively short-term planned cycles.

Therefore, a pragmatic constructivist paradigm and philosophy supported by an action research methodology is recommended for business research. Its ontology seeks an understanding of the relevant reality by integrating multiple perspectives, and its epistemology aims to secure, at least in the short term, effective leadership team action that is:

- Shared
- Results in joint, collaborative action
- Supported by mixed-method research, including triangulation, bias reduction, and leveraging relevant heuristics in situations that are not critical and require rapid decision making.

Confirmation of the proposed research approach can be gained from two factual observations: Mixed-method research, triangulation from multiple perspectives and applying heuristics[17], combine to improve the robustness of research. The proposed business research methodology is action research, which ensures that the leadership team supports the adopted research findings through involvement in the research process and its actionable conclusions.

Therefore, instead of using abstract ontological and epistemological concepts, it is recommended that business researchers adopt a research philosophy that bridges the gap

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[15] As pointed out by Massimi (2022), differences in theoretical perspectives exist in physical and and biologocial sciences as well as in psychology and sociology, and integrating different perspectives can be the basis for major progress in our understanding of reality.

[16] Transferability and dependability are two of the four criteria for assessing the quality of qualitative research by Lincoln, Y.S, and Guba, E. G., (1985) *Naturalistic inquiry.* Newbury Park, CA: Sage, and in relation to case study research by: Fuchs, O., and Robinson, C. (2023) Operationalising critical realism for case study research *Qualitative Research Journal, 24*(3): 245-266.

[17] Rule-of-thumb approach to solving problems and making rapid and efficient decisions.

between abstract concepts of ontology and epistemology to secure jointly agreed action and successful adaptive outcomes.

Action research is highly adaptable, allowing researchers to mould their analysis to their needs and provides an immediate and actionable path forward. Therefore, the ontological and epistemological tenet is that action that leads to an enhanced competitive position is jointly discovered and agreed upon by the leadership team (or a representative leadership group) utilising whatever methods are best suited given prevailing circumstances. Like other qualitative research, action research studies have very limited generalisability and are challenging to replicate. They also have a high risk of confirmation bias[18.] However, these disadvantages are deemed manageable, given the intended use of the research and the proposed corrective action.

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[18] A researcher forms a hypothesis or belief and uses collected data to confirm that belief while dismissing evidence that does not support it