



Research Culture Through Archer's Morphogenetic Lens: Integrating Research Leaders' and Scholarly Interpretations

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Abstract

There is a lack of consensus on the definition of research culture despite its increasing importance in higher education. Existing literature describes research culture using diverse terminology and varying emphases, resulting in fragmented understandings of the concept. This paper aims to develop a holistic understanding of the varying interpretations of research culture in the existing literature and compare them with those held by research leaders in Pakistani public universities. For this purpose, a qualitative research design was adopted. Semi-structured interviews were conducted with six senior research leaders from two public universities in Lahore, Pakistan. The data were analysed and organised around three fundamental organising questions: Who develops research? Where does research take place? and What shapes research practices?

Three broad perspectives were identified in the literature: researcher development, the research environment, and organisational culture. These perspectives implicitly describe research culture but are not explicitly viewed as dimensions of research culture. Similarly, the participants' views of research culture also reflected these perspectives, although they understood them with reference to their own contexts. However, neither the literature nor the participants' views described these interpretations as interconnected aspects of the broader phenomenon of research culture. This study also proposes Archer's morphogenetic approach as a coherent theoretical framework for integrating these interpretations into a holistic view of research culture. The proposed approach offers a theoretical basis for understanding and empirically examining research culture as a multidimensional social phenomenon in higher education.

Keywords: *Research culture; Research leadership; Higher education; Pakistani universities; Archer's morphogenetic approach; Researcher development*



Introduction

Research is considered a key component of the tripartite mission of universities, alongside teaching and community service (Ladebo, 2003). Universities are now expected to produce impactful research by fostering research-friendly environments. Consequently, the creation and sustainability of a vibrant research culture have become top priority for universities and policymakers (Sanyal & Varghese, 2006). International agencies such as the Royal Society, Wellcome Trust, and UK Research & Innovation promote a similar perspective by emphasising the cultivation of research-friendly values, attitudes, beliefs, behaviours, and conditions for producing quality research.

In Pakistan, research has also become a strategic priority, especially since the establishment of the Higher Education Commission (HEC) in 2002. The HEC has undertaken a series of initiatives to promote research in universities; however, these initiatives have primarily focused on increasing publication counts, international visibility, and the rankings of higher education institutions, while less attention has been paid to how research culture is understood in Pakistani universities (Lodhi, 2016). It is important to understand the conceptual basis of research culture and how it is interpreted by decision-makers, as differences in their interpretations may lead them to adopt different measures to create and promote research activities within a particular context (Puplampu et al., 2022)

Cheetham (2007) highlighted the difficulty of comprehending the concept of research culture, arguing that even the simple question, "What is a research culture?" remains difficult to answer. The literature also uses diverse terminology such as *culture of scholarship* (Kennedy et al., 2003) and *research management* (Connell, 2004), making the concept even more ambiguous. Perhaps the combination of two theoretically contested concepts, *research* (Hazelkorn, 2005) and *culture* (Tripathi, 2001, p. 129), is the root cause of the difficulty in describing the concept of research culture. As Hazelkorn (2005) argues, the meaning of research varies according to institutional missions, disciplinary traditions and funding priorities thereby making it difficult to establish a single understanding of research. Likewise, culture has been interpreted across anthropology, sociology, psychology, and organisational studies as shared values, beliefs, assumptions, norms, behaviours, symbols, and social practices (Tripathi, 2001). To develop a robust understanding of research culture, we require a framework that has strong philosophical footings, methodological rigour, and practical significance.

Although numerous studies have investigated research culture, most have adopted existing definitions and empirically examined its components or related research practices without critically exploring the philosophical foundations on which these definitions are based. Consequently, the theoretical basis of existing conceptualisations remains largely unexplored (Callard, 2023; Tikhonova & Raitskaya, 2024). Relatively little is known about how university research leaders understand research culture or how their perspectives compare with the dominant theoretical conceptualisations. This paper, therefore, aims to comprehend varying descriptions of



research culture in the exiting literature and compare them with those held by research leaders in Pakistani public universities.

Literature Review

Theoretical Conceptualisations of Research Culture

This section focuses on the key interpretations of research culture relevant to the perspectives of leaders. For this purpose, the section is organised around three fundamental questions about research culture: *Who develops research?* *Where does research take place?* and *What shapes research practices?*

Who Develops Research?

The simplest answer to this question is: researchers. In other words, enhancing researchers' capacity to undertake research is the foundation of promoting research in universities. The concept of culture has long been used to refer to the cultivation and intellectual development of individuals, as well as to the qualities of an educated person (Jahoda, 1993). This understanding provides a foundation for viewing research culture as the capability of individuals to conduct research. However, in the literature, this aspect is more commonly discussed under the term researcher development. Evans (2011, p.86), for example, defines researcher development as the process of enhancing researchers' capacity and willingness to undertake research in a sustained manner. To remain consistent with the literature, this paper uses the term researcher development to describe the researcher-related aspects of the phenomenon.

Over the years, several models have been proposed to explain how researchers develop themselves throughout their academic careers (Brew, 2001; Evans, 2011; Vitae, 2011). Despite the differences in their emphasis, the models share the underlying idea that research activities can be promoted by developing individuals' research-related skills, knowledge, and competencies. This perspective can be expanded to include AI literacy in response to recent technological developments (Wellcome Trust, 2020). In summary, despite their valuable contribution, these models focus primarily on individual development while downplaying the organisational and environmental influences.

Where Does Research Take Place?

From the research leaders' perspectives, the answer to the second question is: the university environment. It is the place where research takes place. Hill (1999, p. 1) also supported this view and described the broader meaning of "culture" as the environment in which something grows. He argued that research culture is "an environment in which research grows and multiplies". Similarly, Sawyerr (2004) claimed that institutional and material conditions enable research to grow. However, in the literature, the term *research environment* is more commonly used to describe the organisational conditions that foster research productivity (Santo et al., 2009; Robinson, 2005; Bland et al., 2005; Bland & Ruffin, 1992). Consistent with the literature, this paper defines the term *research environment* as the environmental conditions in which researchers conduct research.



The relationship between the research environment and research productivity has been examined in various conceptual frameworks (e.g Bland & Ruffin, 1992; Bland et al., 2005; Roberts et al., 2025; Robinson, 2005; Santo et al., 2009). These frameworks highlight various environmental factors such as infrastructure, policies, resources, mentoring, networking, and reward systems that influence the research productivity of academics (Bland & Ruffin, 1992; Bland et al., 2005; Roberts et al., 2025; Robinson, 2005; Santo et al., 2009). In this digital era, it can be extended to include digital infrastructure, and AI governance to accommodate unprecedented technological developments (Dwivedi et al., 2023). Since the research environment tends to describe the institutional conditions that facilitate research, it represents only one aspect of research culture. This means that there is a need to consider other factors along with the environmental aspects.

What Shapes Research Practices?

In light of the literature, the answer to the third organising question is: organisational culture. Schein (2004, p. 17) defines organisational culture as a "pattern of shared basic assumptions ... taught to new members as the correct way to perceive, think, and feel". Building on this understanding, Hill (1999, p. 2) extends the concept to research and defines research culture as "the values, ideals and beliefs about research within the organisation ... manifest in the research behaviours". Similarly, Evans (2007, p. 2) proposes one of the most widely cited interpretations of research culture, defining it as "the shared values, assumptions, beliefs, rituals and other forms of behaviour by which research is conducted and evaluated within an organisation". Likewise, The Royal Society (2018, p. 3) defines research culture as "the behaviours, values, expectations, attitudes and norms of our research communities ... [that] determine the way that research is conducted and communicated".

The underlying idea of these definitions is that commonly held values, beliefs, assumptions, attitudes, and norms shape similar research practices and behaviours of researchers (Tikhonova & Raitskaya, 2024). In fact, these definitions largely inherit the basic assumptions of organisational culture theory without addressing fundamental questions (Lodhi 2016). For example, is there any theoretical justification for focusing primarily on shared values, beliefs, assumptions, attitudes, and norms? Do commonly held values and beliefs necessarily lead to similar research practices and behaviours? Moreover, these interpretations pay little attention to examining their suitability for research settings (Callard, 2023). In fact, they also tend to assume that universities are culturally homogeneous entities while overlooking disciplinary variation and competing research traditions, which are fundamental characteristics of universities (Clark, 1983; Becher & Trowler, 2001; Roberts et al., 2025).

These limitations suggest that research culture needs to be interpreted on a sound theoretical foundation that not only addresses the fundamental conceptual questions but also provides a basis for understanding how the research environment, researcher and cultural attributes interact to shape research culture as a holistic social phenomenon (Tikhonova & Raitskaya, 2024).

Towards an Integrated Approach to Research Culture: An Archerian Perspective



Archer (1995) argues that social phenomena comprise “the parts” and “the people.” The “parts” encompass the structural and ideational/cultural domains, whereas the “people” represent agency. She further explains that the “*parts* and the *people* shape and re-shape one another through their reciprocal interaction over time” (Archer, 1995, p. 194). From an Archerian perspective, research culture can be viewed as a social phenomenon that emerges through the interaction of researchers’ agency (the people), institutional structures, and research-related cultural ideas (the parts) within universities over a particular period. Research culture is, therefore, understood not as researcher development, the research environment, or organisational culture in isolation, but as the interplay among these interconnected domains.

Archer’s morphogenetic approach (1995) provides a useful framework for developing this holistic understanding for the following reasons. First, it is grounded in critical realist philosophy (Archer, 1995), which can be utilised to comprehend the complex nature of research culture on a sound theoretical foundation. Second, it explains social phenomena by analytically distinguishing among agency, structure, and culture (Archer, 1995). This provides a useful basis for connecting researcher development (agency), the research environment (structure), and organisational culture (culture) to develop a broader understanding of research culture (see Table 1). Third, Archer (1996) recognises the existence of diverse values, beliefs, and ideas within the cultural (ideational) domain by challenging the assumption that organisations possess a single set of shared values, beliefs, and norms. This provides an opportunity to acknowledge the disciplinary traditions, competing research approaches, and diverse academic ideas that characterise universities.

Fourth, Archer (1996) distinguishes cultural ideas from social behaviours and practices by conceptualising them as belonging to the systemic and social domains, respectively. She further argues that these domains may vary independently; consequently, homogeneity in cultural ideas does not necessarily imply uniformity in social behaviour or research practices. This distinction provides a useful basis for differentiating research-related ideas, values, and norms from the observable research practices of academics within universities.

Fifth, Archer offers an analytical framework for explaining stability or change (morphostasis or morphogenesis) in social phenomena by examining the interplay among agency (the people), structure, and culture (the parts) over time. At the same time, it enables a specific domain to be studied in relation to the other domains and within the broader social phenomenon. Consequently, the framework provides an opportunity either to examine research culture holistically or to focus on individual aspects -researcher development, the research environment, or cultural values- while considering their interconnections. This integrated approach provides a sound foundation for understanding research culture holistically.



Table 1

Integrating the Dominant Interpretations of Research Culture through Archer's Analytical Framework

Organising Question	Dominant Perspective in the Literature	Archer's Analytical Domain	Illustrative component
Who develops research?	Researcher Development	Agency (The people)	Researchers' knowledge, capabilities, motivations, and research practices
Where does research take place?	Research Environment	Structure (the Parts)	Leadership, governance, policies, funding, infrastructure, organisational support, and disciplinary context
What shapes research practices?	Organisational Culture	Culture (the Parts)	Cultural ideas, beliefs, values, assumptions, attitudes, expectations, and norms

Research Methods

Participants

A qualitative approach was used to achieve the research objectives of the study. As the study was exploratory in nature, six participants were purposively selected from two public universities situated in Lahore, Pakistan. This is consistent with Guest et al. (2006, p. 78), who suggest that “a sample of six interviews may have been sufficient to enable development of meaningful themes and useful interpretations”. The participants were selected based on their positions, which required their direct involvement in research management and institutional planning. The participants comprised two deans, two directors of Quality Enhancement Cell (QEC), and two directors of the Office of Research, Innovation and Commercialisation (ORIC). Moreover, the holders of these positions are responsible for research governance, leadership, quality enhancement, and the strategic development of research within public sector universities, thereby enabling them to provide informed perspectives on the conceptualisation of research culture.

Data Analysis

Data Collection and Analysis

Semi-structured interviews were used to collect the data as this method provides the flexibility to explore participants' understandings while maintaining consistency across interviews (Creswell & Poth, 2018). For this purpose, an interview guide was developed.

The interviews were transcribed and analysed using open coding to identify themes, which were subsequently organised around the three guiding analytical questions developed in the literature



review: Who develops research? (researcher development), Where does research take place? (research environment) and What shapes research practices? (organisational culture). The findings are presented following the same structure, enabling a systematic comparison between research leaders' conceptualisations of research culture and the dominant theoretical conceptualisations identified in the literature.

Ethical principles such as informed consent, confidentiality, and voluntary participation were maintained throughout the study. Moreover, all identifying information relating to both participants and universities was removed to protect anonymity and pseudonyms were used throughout the paper.

Findings and Interpretation

Researcher Development

The participants' responses suggest that they view research culture in terms of researcher development. They consider researcher development a continuous process that enables researchers to acquire methodological skills and produce high-quality knowledge to solve local problems.

One of the important aspects highlighted by the participants was the development of the intellectual capacity of researchers through critical examination of existing knowledge. As one of the participants, serving as a dean, expressed his opinion: "a new researcher ... should develop critical evaluation in his thoughts. He should not ... reproduce knowledge ... he should question them" (D1).

One of the directors of ORIC (R2) stated that the aim of researcher development should be to prepare researchers who can produce original and meaningful knowledge. He expressed his observation in these words: "young researchers ... simply replicate ... instead of creating new knowledge and indigenous knowledge and relevant knowledge".

Similar views were also expressed by another participants, who emphasised the quality of research along with its practical application in solving local problems. According to R1, "there should be rigor and relevance ... we need research ... related to our local issue ... it should be contextualised ... more action oriented ... [and] more practical".

In addition, the participants acknowledged the importance of methodological skills for researchers but viewed their development as a continuous process of expanding and updating these competencies to produce knowledge. As Q2 (director of the QEC) explained: "it is not that you just read the research method ... so many developments in the methods ... whatever new techniques are coming, so you have to keep abreast with it".

Similarly, D2 pointed out the significance of research skills, particularly data analysis, by highlighting existing deficiencies in this area. He stated that "we even don't know, especially in social sciences, what kind of formula we may apply to analyse our research data ... how we can utilise these scientific tools. I think we are much, much behind on these sides of research".



In general, the conceptualisation of research leaders is similar to the researcher development approach found in the literature, which considers research culture as a process that emphasises the development of researchers' competence and capabilities. However, the participants also view the ability to produce context-specific knowledge that can address local problems as an important aspect of the phenomenon.

For Archer (2003, p. 130), agency involves people's capacity to reflect upon their social context, identify their concerns, and formulate courses of action in relation to the circumstances they encounter. This agentic characteristic was evident in both the literature and the participants' perspectives, particularly in their emphasis on researchers' ability to critically evaluate existing knowledge, continually develop their methodological capabilities, and produce original and contextually relevant knowledge. Researcher development can therefore be understood as reflecting an agentic dimension of the phenomenon of research culture.

Research Environment

The participants pointed out the significance of various environmental factors in promoting research culture, which indicates their underlying conceptions of the phenomenon. Their responses suggested that governance, resources, leadership, procedures, and incentives are important components of the research environment.

One of the participants, R2, pointed out the negative effect of exiting rivalry within the university on the promotion of research, observing that "the professional rivalry in the departments... [is] hampering the research culture in the university". Another participant, D1, shared his views that "...researchers have to struggle to overcome various administrative hurdles". These responses highlight the importance of governance and administrative processes by pointing out their constraining influence on research.

The provision of necessary resources was also considered an important part of the research environment. As one of the deans, D2, described, "the material...and access to it are important... for conducting quality research". The importance of the appropriate allocation of financial resources was also highlighted. For instance, one Director of ORIC contended that "the allocation of money must be linked with the worth of the topic" (R2). Another director ORIC specifically referred to the availability of financial support, noting that "we have a lot of funds for... conducting studies to address indigenous issues" (R1).

Participants also identified another important element of the research environment: institutional promotion policies that could encourage academics to engage in research. As participant D1 observed, "the faculty... know the importance of being engaged in research because all their promotions are very much dependent on the output of research".

Overall, the research leaders' conceptualisation of the research environment largely corresponds with the research environment approach found in the literature, which emphasises the role of institutional factors in promoting research (Bland et al., 2005; Bland & Ruffin, 1992; Robinson, 2005; Santo et al., 2009). However, participants provided a more contextualised account by



highlighting how resources, governance, administrative procedures, institutional politics, and incentive mechanisms can facilitate or constrain research practices.

Viewed through Archer's framework, the participants' responses reflect the structural dimension of the broader phenomenon of research culture. This structural characteristic was evident in both the literature and participants' perspectives, particularly in their emphasis on governance, material resources, administrative procedures, and financial incentives that create conditions for research activities.

Organisational Culture

One of the key features of research culture that emerged from the data was its understanding in term of shared values that exist in academic communities. Research culture is not about research outputs; rather, it is about shared values. As stated by the Director of ORIC, "Research culture is ... the values which are pursued ... shared among the researcher communities" (R1). The other Director of ORIC suggested that "such values should start much earlier than people join academic careers" (R1).

The participants went on to state that these common values are only valuable to the extent that they are put into practice through openness, dialogue, and critique. A dean noted that a strong research culture requires researchers to "...exchange their views" and "...tolerate the criticism of the other one" (D1). In the same way, a director of the QEC said that "...providing a digital library... does not guarantee quality work" but rather emphasised the value of "...heated debate... symposia and people discussing things" (Q2). Taken together, these points of view show that research culture is not simply a set of common values but is rather a dynamic process in which academic values come to life.

In general, the conceptualisations held by research leaders appear to resonate with the organisational culture perspective, which regards research culture as a set of common values, beliefs, and norms (Schein, 2004; Evans, 2007; The Royal Society, 2018). However, the participants also emphasised that these values become meaningful through dialogue, discussion, and tolerance of different viewpoints but they did not explicitly distinguish between values/norms and research practices.

Viewed through Archer's framework, the participants' responses indicate the ideational/cultural dimension of the phenomenon. This cultural characteristic was evident in both the literature and participants' perspectives, particularly in their emphasis on research-related values and ideas that influence research practices. However, in contrast to the participants' conceptualisation, Archer acknowledges variation in values and beliefs. Moreover, she distinguishes between values (cultural ideas) and practices (social interactions), arguing that they belong to different strata of a social phenomenon.



Conclusion Discussion

This study aimed to understand the phenomenon of research culture by comparing its various interpretations discussed in the dominant literature, particularly in the field of higher education, with those held by research leaders/administrators in two Pakistani public universities, and then to put forward a holistic view of the phenomenon by relating these different aspects through the theoretical lens of Archer's morphogenetic approach.

The findings show considerable convergence between the perspectives discussed in the literature and those of the participants. Research culture was interpreted in terms of researcher development, the research environment, and organisational culture, although participants described these aspects in ways that reflected their institutional contexts. However, both the literature and participants' perspectives generally focus on specific aspects of research culture rather than interpreting them as interconnected parts of the broader phenomenon (Tikhonova & Raitskaya, 2024).

Drawing on Archer's morphogenetic approach, this paper brings these interpretations together by conceptualising researcher development as the agentic dimension, the research environment as the structural dimension, and organisational culture as the cultural dimension of the broader phenomenon of research culture. Importantly, in contrast to both the interpretations found in the literature and those of the participants, this integrated approach to the phenomenon also maintains Archer's analytical distinction between cultural ideas and social practices, thereby avoiding the dominant assumption that shared values, beliefs, and attitudes towards research necessarily result in uniform research practices.

In the language of Archer, research culture can be understood as a complex social phenomenon emerging through the interplay of researchers' agency, research-related structures, and cultural ideas over a particular period. In other words, research culture emerges over a specific time span through the interplay of researchers, the environment in which they interact, and the research-related cultural ideas they hold, including values, beliefs, attitudes, and assumptions. This integrated understanding of the phenomenon moves beyond treating researcher development, the research environment, and organisational culture as alternative definitions of research culture and provides a theoretical basis for examining the interplay among these dimensions in university settings. While the empirical findings are based on a small number of research leaders from two Pakistani public universities, the proposed approach may provide a basis for future research to examine and further develop this conceptualisation across different institutional, disciplinary, and national contexts.



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