



Research Paradigms in Linguistic Research: An Optimality Theoretic Perspective

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Abstract

There appears to be a lack of attention to the issue of research paradigms in theoretical linguistics. Authors of recent articles published in leading theoretical linguistic journals in recent years typically do not articulate the philosophical assumptions that underpin their research and do not make any explicit reference to such paradigm-related issues as ontology, epistemology, etc. The purpose of this article is to provide a synopsis of the philosophical assumptions underlying five research paradigms—positivism, postpositivism, constructivism, critical theory, and pragmatism—that form the basis of the major approaches to linguistic research.

More specifically, the article delineates the distinctions between the five paradigms by comparing and contrasting their different views of reality, knowledge, and research methods. The paper then delves into how Optimality-Theoretic research fits into the research paradigm discourse revealing that it falls on the positivist/ postpositivist end of the ontological and epistemological paradigm spectrum, employing non experimental observational quantitative methodology and explanatory causal-comparative research design.

Keywords: Linguistic Research, Research Paradigms, Ontology, Epistemology, Methodology, Optimality Theory



نماذج البحث العلمي في مجال البحث اللغوي: منظور نظرية الأفضلية اللغوية

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المستخلص

يبدو أن هناك قصوراً في الاهتمام بمسألة نماذج البحث العلمي في مجال البحث اللغوي النظري. فغالباً ما يتجاهل مؤلفو المقالات المنشورة في المجلات اللغوية النظرية الرائدة خلال السنوات الأخيرة توضيح الافتراضات الفلسفية التي تقوم عليها أبحاثهم، ولا يشيرون صراحةً إلى أي من القضايا المتعلقة بنماذج البحث العلمي كالأنطولوجيا (علم الوجود) والإبستمولوجيا (نظرية المعرفة)، وغيرها. تهدف هذه الورقة إلى تقديم نظرة عامة على الأسس النظرية التي تقوم عليها المناهج الرئيسية في البحث اللغوي، مع التركيز بشكل خاص على الافتراضات الفلسفية التي تقوم عليها خمسة نماذج بحثية، وهي: الوضعية، وما بعد الوضعية، والبنائية، والنظرية النقدية، والبراغماتية. وبشكل أكثر تحديداً، توضح الورقة الاختلافات بين هذه النماذج الخمسة من حيث اختلاف وجهات نظرها حول الواقع والمعرفة ومنهجية البحث. ثم تتعمق الورقة في محاولة التعرف على نماذج البحث العلمي المستخدمة في الأبحاث اللغوية المبنية على نظرية الأفضلية اللغوية، مُشيراً إلى أن تلك الأبحاث تقع على الطرف الوضعي/ما بعد الوضعي من طيف النموذج البحثي الأنطولوجي والمعرفي، مستخدمة المنهجية الكمية القائمة على الملاحظة غير التجريبية وتصميم البحث التفسيري السببي المقارن.

الكلمات المفتاحية: البحث اللغوي، نماذج البحث العلمي، الأنطولوجيا، الإبستمولوجيا، المنهجية، نظرية الأفضلية اللغوية

1. Introduction

A research paradigm is an all-encompassing set of assumptions and ideas that researchers use to make sense of the world. According to Patton (2014, p.135), “A paradigm is a worldview—a way of thinking about and making sense of the complexities of the real world.” This comprehensive worldview exercises such a considerable influence that it directs scholars “not only in choices of method but in ontologically and epistemologically fundamental ways” (Guba and Lincoln, 1994, p.105). In the same vein, Carr and Kemmis (1986, p.71) argue that researchers’ perceptions of reality and knowledge are reflected in the research paradigm they select, and that such a framework “incorporates models of research, standards, rules of inquiry and a set of techniques and methods, all of which ensure that any theoretical knowledge that is produced will be consistent with the view of reality the paradigm supports.”

According to Phakiti and Paltridge (2015), there are five primary research paradigms that characterize linguistic (and social) research. In the first place, there is the positivist paradigm, which is based on the belief that there are universal rules that regulate social occurrences and that once these laws are established, researchers would be able to define, forecast, and manage a variety of social phenomena (Ernest, 1994, p.22; Pring, 2000, p.81).

The second paradigm is the postpositivist paradigm, which is a modified form of positivism that rejects the possibility of a precise perception of reality and holds that reality can only be roughly described (Phakiti & Paltridge, 2015).

The third paradigm is the constructivist paradigm, which is also referred to as the interpretive, interpretative, naturalistic, or hermeneutic paradigm. This paradigm aims to acquire a thorough comprehension of human cultural activities and experiences by describing and explaining the manner in which individuals make sense of social phenomena (Ernest, 1994, p.24).

Next comes the critical paradigm. This paradigm seeks to understand societal injustices and to intervene in order to alter existing realities and free individuals from repressive situations (Ernest, 1994, p.28). Finally, there is pragmatism which is not a paradigm in the conventional sense since it prioritizes problem-solving above following any philosophical tenets about the nature of reality and knowledge or any particular approach to research methodology (Phakiti & Paltridge, 2015).

Whereas researchers in the other social sciences often explicitly state their assumptions and beliefs about the nature of knowledge and reality in their published work, those working in linguistics often fail to address these issues and tend to focus more on the methodological aspects of

research. This raises questions about whether or not these concerns were taken into account by the researchers when developing their approach, which in turn raises further questions about the reliability of their methodology and their findings.

The purpose of the present study is to show the important role that these beliefs can have in linguistic research by presenting an overview of the philosophical assumptions behind research paradigms and delineating the distinctions among them in terms of their divergent perspectives on ontology, epistemology, methodology, data collection methods, and research quality standards.

2. Theoretical Framework

Regardless of the selected research paradigm, it will always include some philosophical assumptions about the study's subject, the nature of information pertaining to that subject, the means of acquiring such knowledge, and the methodologies used to get it. Not only do these philosophical assumptions define how researchers view the world, but they also have a significant impact on the research questions and methodologies that they choose to use, as well as the way in which they interact with the people who are the focus of their inquiry.

This present study compares and contrasts these five prominent research paradigms by outlining their respective responses to three key questions:

- What is the essence of reality?
- What does it mean to have knowledge of reality?
- How can we gain insight into the nature of reality?

These questions were addressed by conducting a systematic/Integrative review of the literature in which prior systematized information about the various paradigms was rigorously evaluated and then synthesized (Baumeister & Leary, 1997; Kirkevold, 1997).

2.1 Ontology

The positivist paradigm adopts a naïve realist perspective characterized by a firm conviction that there is one unchanging, objective reality that scientists can study, define, and reproduce. The paradigm further posits that the orderliness and structure of this reality make it conducive to systematic inquiry (Usher, 1996, p.12). Given that reality exists autonomously from human intellect (Cohen et al., 2018, p.6; Crotty, 1998, p.10; Richards, 2003, p.37), several researchers that investigate a certain occurrence will, notwithstanding their differences, arrive at the same findings, and once a connection between two occurrences in the social world has been proven causal, it is possible to make accurate projections about what will happen in the future.

Postpositivism, on the other hand, takes on a critical realist perspective. Proponents of postpositivism agree with positivists on the existence of an independent external reality; however, they caution that the complex nature of social phenomena entails that this reality can only be

apprehended partially owing to some inherent limitations to our capacity to fully grasp it. This framework acknowledges that the observer's inherent biases and preconceived notions can influence their conclusions and that, in order to achieve the most precise comprehension of reality, every claim regarding the nature of existence must be rigorously scrutinized.

As for critical paradigm adherents, they adopt a historical realist perspective. Reality, from their perspective, is "an apprehendable construct" (Richards, 2003, p.39) that "consists of historically situated structures" (Guba and Lincoln, 1998, p.208) generated and molded by various political, cultural, social, and economic influences. In other words, adherents of this paradigm accept that there is a reality, but this reality has been molded by the interplay of various cultural, political, ethnic, gender, and religious influences. Moreover, it is a central tenet of critical theory that no object can be studied without being influenced in some way by the researcher. To ensure that "no one is confused about the epistemological and political baggage they bring to the study site," critical theory researchers strive to be aware of and transparent about their own epistemological presuppositions before embarking on any given inquiry (Kincheloe & McLaren, 2011, pp.305-306).

Conversely, constructivist researchers take on a relativistic outlook that acknowledges the existence of multiple subjective realities, rather than one objective reality. These realities are internally constructed by individuals themselves and stem from "the interaction of the individual with the environment" (Ernest, 1994, p.29; Richards, 2003, p.37). In essence, advocates of constructivism do believe that the physical world exists but contend that it does not have meaning outside of human perception. What gives it meaning, i.e., what makes it a reality, are the mutual understandings that are built between people when they engage with the physical world. Accordingly, different people may experience the same event differently based on their own feelings, interpretations, and prejudices. Consequently, constructivists maintain that the most effective method of exploring this reality is by analyzing the meaningful actions and interactions of individuals.

As with constructivists, pragmatists perceive reality as fluid and molded by human experience and action, rather than as something that exists in isolation. Moreover, they do not feel required to subscribe to any one conventional framework of reality arguments, and consequently, they do not find it necessary to regard truth or reality as something that exists apart from human minds or as something that is co-constructed by society. Instead, they center their attention on advancing their knowledge about the research subject currently being investigated via a wide range of research methodologies (Phakiti & Paltridge, 2015). It stresses the real-world effects of actions and how they help us understand reality.

2.2 Epistemology

The positivist paradigm aligns with the objectivist perspective of knowledge (Ernest, 1994, p.29) which holds that facts and information exist independently of any inherent values and are only waiting to be discovered. In order to arrive at objective information that is devoid of any kind of prejudice, researchers that adhere to this paradigm consistently endeavor to maintain adequate distance from their subjects as well as to control their own values and opinions. Researchers within this paradigm are assumed to enter as disinterested observers who do not interfere with or alter the phenomena being studied and utilize words and symbols to explain things exactly as they are. It is the belief of positivists that social phenomena are governed by rules. As a result, the information sought under this paradigm is in the form of general rules developed by scientific techniques, allowing researchers to foresee and regulate future outcomes (Ernest, 1994, p.22).

Postpositivists reject the positivist premise of viewing the investigator and the investigated "object" as independent entities and that the investigator is capable of studying the object without influencing it or being influenced by it. Nonetheless, objectivity is still held up as a "regulatory ideal." Postpositivists further emphasize the importance of critical traditions (whether the results "fit" with prior knowledge) and the critical community (comprised of editors, referees, and other experts in the field) as external guardians of objectivity. Adherents to this paradigm seek objective knowledge through replication and consider replicated research results as likely to be true, though they remain subject to falsification (Guba & Lincoln, 1994, p.110).

In contrast, the constructivist paradigm is associated with the subjective perspective of knowing. According to this perspective, it is impossible to know the world with any degree of confidence, and no absolute knowledge is attainable by humans (Ernest, 1994, p.28). Observers' interpretations, assumptions, and biases inevitably color their perceptions of the world outside. People give social phenomena labels and meanings via their interactions with others and the larger community. Therefore, according to the constructivist paradigm, each person's understanding of the world is unique, based on their own unique set of experiences and insights. Research participants in this paradigm engage with researchers, who in turn become "part of the world to be researched" (Pring, 2000, p.81), such that the researchers' own discoveries emerge from this dynamic, leading to the disappearance of the traditional divide between ontology and epistemology within this paradigm (Guba & Lincoln, 1994, p.111). Consequently, the purpose of research conducted within the constructivist approach is to investigate how different people make sense of the social phenomena with which they engage rather than trying to uncover knowledge or truth that is independent of context or value.

Critical scholars, according to Guba and Lincoln (1998, p.208), perceive knowledge as being created via social and historical processes. These scholars contend that knowledge is "value mediated and hence value-dependent and thus intrinsically biased, whether on a moral, political, or ideological level, for the reason that it is crafted from the researcher's social vantage point, where the researcher, as Richards (2003, p.40) puts it, is committed to rectifying "the unequal and oppressive structures that have been now exposed" by "bringing about a change in the consciousness" of the studied.

Thus, research within the critical paradigm aims to do more than just shed light on social reality; it seeks to alter this reality. Critical researchers seek to expose the ideas and acts that restrict human freedom rather than generate knowledge of the social world as it is and preserve the knowledge status quo (Kincheloe, & McLaren, 2011). Critical paradigm researchers are tasked with challenging those in authority and shedding light on repressive systems that serve to keep people down and widen the gap between the haves and the have-nots. The job of the inquirer is defined as "instigator and facilitator," as stated by Guba and Lincoln (1994, p.113).

Adherents to the pragmatist paradigm are cognizant of the problems associated with objectivity and subjectivity in scientific inquiry. They recognize that researchers operate within a social context where norms and expectations shape the choice between an objective and subjective approach. For instance, impartiality is required in situations involving testing and evaluation, which may have significant consequences for individuals and society as a whole. However, subjectivity will be essential to promote insight into participants' brains when the aim of the inquiry is connected to persons' emotions or attitudes regarding particular sociocultural activities. Real-world research issues and conventional understandings of related procedures need to take both objectivity and subjectivity into account (Phakiti & Paltridge, 2015).

2.3 Methodology

Finding the fundamental causes of events is the goal of the methodical, controlled, and disciplined positivist paradigm approach (Ernest, 1994, p.22). In order to verify hypotheses using mostly quantitative techniques, researchers operating within this paradigm often use experimental and manipulative approaches, with a particular focus on "measurement of behavior and prediction of future measurements" (Anderson & Arsenault, 1998, p.5). Additionally, proponents of the positivist paradigm contend that rigorous objectivity may be achieved without sacrificing validity by carefully regulating study circumstances.

The positivist paradigm employs three main research designs: correlational research, which investigates, in an unmanipulated setting, the correlation among several variables to determine how much they correlate; quasi-experimental design, which offers researchers yet another (though less robust) framework for examining causal links in circumstances when

experimental control is impracticable; and finally experimental design, or the structured inquiry that explores cause-and-effect relationships between chosen variables to facilitate the prediction and regulation of various phenomena (Perry, 2005).

Within the positivist framework of inquiry, research methods are developed with the intention of gathering the most unbiased kind of data available about the issue that is being investigated. Positivist research methods facilitate this by allowing researchers to utilize observations, formulate and test hypotheses, and draw generalizations (Dörnyei, 2007). Quantitative and empirical methods predominate in positivist research. This necessitates variables to be carefully thought through and mapped out, observations to be made using standard sampling methods, and data to be analyzed using statistical tests and measures.

Structured interviews (in-person interviews with questions read aloud to respondents), structured questionnaires (with closed-ended, single-choice items), and structured observations (the researcher presents a full set of expected behaviors and simply checks if they happened) are some of the most prevalent research methods utilized within the positivist paradigm (Wellington, 2015, p.248).

As for evaluating the quality of scientific research, Guba and Lincoln (1998, p. 213), put forward four main criteria that may be utilized within the positivist and postpositivist research frameworks. The first criterion is internal validity, which is "the extent to which what we measure reflects what we expected to measure" (Anderson & Arsenault, 1998, p.13).

External validity, or "the generalizability of the obtained results," is the second important requirement for assessing research quality (Anderson & Arsenault, 1998, p.13). Reliability, or "the extent that an instrument would yield the same results each time it is administered," comes in third (Anderson & Arsenault, 1998, p.256). Objectivity, or how "distanced and neutral" the observer is, is the last criteria they propose (Guba & Lincoln, 1998, p.213).

Postpositivists hold the same position as positivists. They differ from positivists in that they advocate for a wider variety of methods for collecting and analyzing data (including qualitative data such as interviews and observations) as a means of falsifying hypotheses instead of verifying them. Postpositivist methodology seeks to address some of positivism's shortcomings by returning research to its natural habitat, amassing a wealth of contextual data, reviving the spirit of discovery in the scientific process, and, in the social sciences, especially, eliciting subjective accounts to better understand the motivations behind people's actions. A greater emphasis on qualitative methods is important for achieving all these goals. Nevertheless, postpositivist data gathering and analysis must still maintain as much objectivity as possible. Coding qualitative data, such as interview data, requires using at least two trained coders, with estimates of intra- and

inter-coder reliability determined and published. (Guba & Lincoln, 1994; Phakiti & Paltridge, 2015). As with positivists, adherents to postpositivism judge the quality of their research using the four criteria: external validity, internal validity, reliability, and objectivity (Guba & Lincoln, 1998, p.210).

On the other hand, the constructivist paradigm methodology is primarily focused on attempting to understand the world as it is perceived and created by humans. In order to do this, researchers in this paradigm often use methods that emerge in the field to gather subjective narrative data. This approach is predicated on the idea that interactions between the researcher and study participants are the only way to elicit and develop personal conceptions. Thus, a detailed account of the background leads to a knowledge of social reality. The design is often adaptable, with interpretations arising from participant experiences, which is another crucial aspect of research technique under the constructivist paradigm.

Within the constructivist worldview, qualitative research methodology has been supported by four primary traditions schools. First, there is ethnography, which looks at cultural practices of a particular community and tries to comprehend "the perspectives and interactions of the members of the social groups being studied" (Pring, 2000, p.106) via in-depth research. Phenomenology is another tradition in qualitative research that aims to understand and make sense of human experience by concentrating on people's actual, subjective perceptions of the world. Grounded theory, "a general methodology for developing theory that is grounded in data systematically gathered and analyzed" (Strauss and Corbin, 1994, p.273), constitutes the third main tradition. The last primary tradition within qualitative research methodology is case study research. As part of this tradition, researchers will use a variety of resources to investigate "a specific phenomenon within its real-life context" (Anderson & Arsenault, 1998, p.121).

Research methodologies that adhere to the constructivist philosophy are developed with the intention of enabling the most accurate and comprehensive subjective interpretation of human behavior. According to Cohen et al. (2018, p.23), the purpose of research methods that fall under this paradigm is to assist researchers in becoming involved in the social world of the people who are participating in their studies. At the same time, these methods are intended to provide the participants with the opportunity to describe and explain the meanings of their actions and interactions, as well as the reasons that guided them. Scholars operating within the constructivist framework have devised multiple data collection methods, such as having researchers immersing themselves in the social contexts of the participants, or having participants explain their own perceptions.

Participant observation is a popular technique for gathering data in constructivist research. It entails researchers taking part in their subjects' everyday lives while simultaneously observing their behaviors and

interpretations (Perry, 2005, p.115). Gaining an insider's perspective on the group being studied is the aim of this constructivist method.

The in-depth interview is another frequently employed constructivist strategy. Giving participants the opportunity to explain their experiences in their own words are the fundamental tenet of in-depth interviews (Perry, 2005, p.119); which according to the constructivist paradigm, might be either semi-structured or unstructured.

Similar to in-depth interviews, open-ended questionnaires provide participants with the freedom to use their own words to describe their experiences; but, unlike interviews, there is no researcher bias and participants remain anonymous. This makes them an important tool for constructivist data collecting.

As for judging research quality within the constructivist paradigm, researchers rely on how confident they are in their data and study conclusions (Richards, 2003, p.286). As a result, Guba and Lincoln (1998, p.213) provide four standards that are comparable to the four "positivist" standards previously established for evaluating the caliber or "trustworthiness" of research within the constructivist paradigm. These four constructivist quality standards are credibility or the extent to which research results are believable from the research participant's perspective; transferability or the extent to which research results can be transferred to other contexts or settings; dependability or the extent to which the same results would be obtained if the same phenomenon is observed more than once; and finally confirmability which refers to the extent to which research results could be corroborated by others.

Cohen et al. (2018, p.53) delineate that the research methodology of the critical paradigm is defined by two principal characteristics: it is dialogic in nature, and it also aims to be emancipatory and transformative. This methodology necessitates a dialogue between the researcher and the subjects of inquiry (Richards 2003, p.40). It seeks to conduct investigations that reveal misconceptions and distorted realities while promoting, in collaboration with participants, deeper self-awareness and transformative growth.

Cohen et al. (2018, p.53) identify two predominant research methodologies employed within this paradigm. First, there is ideology critique which can be understood as the process of scrutinizing what are often regarded as "consensual truths" (Friesen, 2008) or ideas that everyone seems to agree on and accepts without question. This involves evaluating these ideas in relation to the social and cultural contexts they inhabit, with the aim of revealing the underlying ideological interests at play. Another methodology within this framework is action research, which seeks to enhance awareness and catalyze actions that can "improve practice" (Pring, 2000, p.133). Thus, Carr and Kemmis (1986, p.162) describe action research as a self-reflective investigation performed by participants in social contexts to enhance the "rationality and justice" of

their own actions, their knowledge of these practices, and the circumstances in which the actions are carried out.

In terms of data collecting methods, the critical paradigm lacks a distinct set of tools that distinguishes it from the constructivist or positivist/postpositivist frameworks. The uniqueness of the critical methodologies lies in the approach whereby scholars engaged in this framework employ both subjective interpretations and empirical observations to generate novel explanations and insights into social existence. Critical research methods are often characterized by a historical and comparative approach. To grasp the social structures that shape a particular social reality at any moment in time and space, it is essential for researchers to investigate the evolution of those structures within a specific context and to draw comparisons with their manifestations in different societies or cultures (Carr & Kemmis, 1986; Kincheloe & McLaren, 2011).

In discussions surrounding quality standards, critical paradigm research is only considered legitimate when contributing to the enhancement of humanity's social conditions. Guba and Lincoln (1998, p.213) state that the following three standards may be used to assess critical research projects: historical situatedness, or the degree to which a research study "takes account of the social, political, cultural, economic, ethnic, and gender antecedents of the studied situation," eroding ignorance or "the extent to which the inquiry acts to erode ignorance and misapprehensions;" and transformational impulse, which measures how much a research study "provides a stimulus to action, that is, to the transformation of the existing structure."

The most accurate way to characterize the pragmatist methodology is as a problem-oriented mixed methods approach. Pragmatists are always on the lookout for new ways to solve a research challenge, and they often turn to other research paradigms for inspiration. To get the most out of their studies, they combine the strengths of quantitative and qualitative techniques. Thus, pragmatists may use a mix of quantitative and qualitative research techniques, including a large-scale survey, a case study with in-depth interviews with all relevant stakeholders, and structured and unstructured observations (Phakiti & Paltridge, 2015; Lochmiller & Lester, 2017).

3. Analysis and Discussion

Although a number of recent publications have addressed the relevance of the research paradigm discourse within the realm of applied linguistics (Phakiti & Paltridge 2015; Phakiti et al 2018, etc.), there appears to be a lack of attention to the issue in theoretical linguistics. A cursory examination of the articles published in leading theoretical linguistic journals in recent years reveals that the authors of these articles typically do not articulate the philosophical assumptions that underpin their research and do not make any explicit reference to the paradigm-related issues that were discussed earlier.

A case in point is Prince and Smolinsky's Optimality theory (OT), a prominent linguistic theory, which constitutes the theoretical framework of my current research interest in phonological loanword adaptation. When reviewing the research literature pertinent to my OT-based research studies (see the reference lists in Abdulrazzaq 2023, Abdulrazzaq 2024, and Abdulrazzaq & Al-Ubaidy 2023a, Abdulrazzaq & Al-Ubaidy 2023b, Abdulrazzaq & Al-Ubaidy 2023c), it became evident that none of these works included any discussion of the aforementioned paradigm-related issues. The following is my perspective on how OT-based research fits within the research paradigm discourse.

At the ontological and epistemological levels, OT-based research aligns within the positivist/postpositivist side of the paradigm spectrum. The theory posits that its constructs (CON, GEN, EVAL, etc.) are psychologically real in the human mind (Den Ouden, 2004, p. 147) and that these constructs may accordingly be examined from a "scientific" perspective, through objective analysis. OT-based research further assumes that due to OT's explanatory adequacy (Blumenfeld, 2006, p. 1), objective observers independent from the social context can observe these phenomena from a distance and employ these psychologically real OT constructs to identify the underlying causes of linguistic phenomena and provide accurate explanations for them (Archangeli, 1999, p. 540).

From a methodological perspective, OT-based research leans toward the quantitative approach which focuses on the patterns, causes, and effects of human behavior, employing the quantitative research methodology to ensure the objectivity, control, and scientific rigor necessary for comprehending the phenomena under study.

The research design commonly used in OT-based research (see Abdulrazzaq, 2024; McCarthy 2008; Aloufi 2016, Alhoody 2019; Phetkla 2020, Harb 2016, etc.) utilizes nonexperimental observational methodology. In this approach, researchers act as passive observers, collecting data without administering treatments or manipulating the independent variable. This approach is chosen mainly because the ranking of language-specific constraints, which is the independent variable in this type of research, inherently cannot be manipulated since it has already taken place.

Since the aim of this research is to offer an explanatory account of any mismatches between outputs and inputs by utilizing universal constraints, constraint violability, and constraint ranking (Archangeli, 1999, p.540), an explanatory causal-comparative quantitative design is often used for this purpose. Explanatory studies seek causal explanations and exhibit greater rigor than descriptive studies. This type of research, which is usually experimental but can also be causal comparative, involves sufficient understanding of the variables and their relationships, allowing the investigator to exert some degree of control over the research conditions (McMillan, 2015, p.14).

Though not experimental due to the absence of manipulation of independent variables or control of extraneous variables through random assignment, OT does maintain some control over the interaction and ranking of constraints (i.e., the independent variables), ensuring that no third constraint is responsible for them. This allows it to provide a preliminary causal explanation regarding which constraint ranking leads to the selection of a winning candidate.

Internal validity is achieved in OT-based research by using a variety of means to control for extraneous variables. In terms of the direction of causality, the internal validity is supported by the fact that temporal sequencing is straightforward in OT. According to this theory, the independent variable first operates on underlying representation, and then surface representation is generated. In other words, the underlying representation (the input form) comes before the surface representation (the output form).

As for third variable/alternate causing problems, OT has a built-in mechanism against third-variable problems. According to McCarthy (2008, p.42), one indispensable element to any valid ranking argument is “No disjunction The ranking argument is secure only if there is no third constraint that could also be responsible for the winner beating the loser.” One method for establishing this within OT-based research is through the use of comparative tableaux. In these tableaux, the argument for constraint 1 dominates constraint 2 with no third-variable problems can be securely established by locating a loser row where constraint 1 favors the winning candidate over the losing candidate, constraint 2 favors the loser over the winner, and no other constraint favors the winner over this loser (McCarthy, 2008, p.108).

4. Conclusions

The purpose of this research was to explore the theoretical perspectives that underpin the major approaches to linguistic research and outline the differences among the philosophical assumptions that underlie these approaches. Much like other social science disciplines, linguistic research is generally conducted within one of five basic philosophical frameworks that influence the way researchers see the world around them. These comprehensive frameworks are the positivist paradigm, postpositivist paradigm, the constructivist paradigm, the critical paradigm, and the pragmatist paradigm. The substantial differences between these five paradigms in terms of their perspectives on the nature of reality and the nature of knowledge profoundly influence the decisions that researchers take when deciding on their data collection methods research methodology, and the criteria they use for evaluating the quality of their research.

In terms of the nature of reality, perspectives ranged from the naïve realist perspective, whose proponents believe in the existence of a single fixed objective reality that can be measured and described by researchers

and replicated by others, on one end, to the relativistic outlook, on the other end, that does not see the social world as fixed or stable, and rather acknowledges the existence of various subjective realities stemming from "the interaction of the individual with the environment".

As for the nature of knowledge, views varied from positivists' objectivist view of knowledge which maintains that there is objective external knowledge that exists in the world, and can be discovered by the human mind, to the subjectivist view of where certainty about the world is unattainable, and where reality is just a subjective creation of people's experiences and insights at a given moment.

The choices scholars make regarding their research methodology, on the other hand, span from quantitative, experimental, and manipulative approaches that emphasize hypothesis verification through primarily quantitative methods, particularly focusing on "measurement of behavior and prediction of future measurements, on one end to qualitative methodologies that seek to understand the world as experienced and constructed by individuals through the collection of subjective narrative data, which are unique to the researcher-participant dynamic and can only be honed via conversation.

A thorough examination of the research methodology employed in a selection of research articles employing OT-analysis of loanword phonology revealed that at both the ontological and epistemological levels, OT-based research fits comfortably within the positivist/postpositivist side of the paradigm spectrum. OT asserts that OT constructs are psychologically real in the human mind and posits that objective observers detached from the social context can remotely observe these phenomena from a distance and employ nonexperimental observational methodology to discern the underlying causes of linguistic phenomena and provide precise explanations for them.

References

- Abdulrazzaq, A. H. (2023). Generative phonology models of universal grammar: constraint-based optimality theory as opposed to the rule-based SPE model. *Alustath Journal for Human and Social Sciences*, 62(2), 428-437. <http://doi.org/10.36473/ujhss.v62i2.2069>
- Abdulrazzaq, A.H., (2024). Demystifying Diphthong Adaptation Patterns within English Loanwords in Iraqi Arabic: An Optimality-Theoretic Analysis. *Forum for Linguistic Studies* 6(5), 447-460
- Abdulrazzaq, A. H. & Al-Ubaidy, S. M. A. (2023a). Models of Phonological Loanword Adaptation: the Optimality Model as Opposed to the Perceptual and Phonological Models. *Al-Adab Journal*, 1(143), 17-24.
- Abdulrazzaq, A. H. & Al-Ubaidy, S. M. A. (2023b). Patterns of diphthong adaptation within English loanwords in Iraqi Arabic. *3L: Language, Linguistics, Literature*, 29(2), 199-215. <http://doi.org/10.17576/3L-2023-2902-14>

- Abdulrazzaq, A. H. & Al-Ubaidy, S. M. A. (2023c). Vowel adaptation patterns within English loanwords in Iraqi Arabic. *Crossroads. A Journal of English Studies*, 40, 5-34. <http://doi.org/10.15290/CR.2023.40.1.01>
- Alhoody, M. M. (2019). *Phonological adaptation of English loanwords into Qassimi Arabic: an optimality-theoretic account*. [Unpublished doctoral dissertation]. Newcastle University.
- Aloufi, A. (2016). *The Phonology of English Loanwords in UHA*. [Unpublished doctoral dissertation]. University of Sussex.
- Anderson, G., & Arsenault, N. (1998). *Fundamentals of educational research*. Falmer Press.
- Baumeister, R. F., & Leary, M. R. (1997). Writing narrative literature reviews. *Review of general psychology*, 1(3), 311-320.
- Carr, W., & Kemmis, S. (1986). *Becoming critical: education, knowledge, and action research*. Routledge.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8thed). Routledge.
- Crotty, M. (1998) *The Foundations of Social Research*. Sage Publications
- Den Ouden, D. B. (2004). Multi-level OT: An argument from speech pathology. *Linguistics in the Netherlands*, 21(1), 146-157.
- Donmoyer, R. (2006). Take my paradigm... please! The legacy of Kuhn's construct in educational research. *International Journal of Qualitative Studies in Education*, 19(1), 11-34.
- Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford: Oxford University Press.
- Ernest, P. (1994). *An introduction to research methodology and paradigms*. Exeter: RSU, School of Education, University of Exeter.
- Friesen, Norm (2008) Critical Theory: Ideology critique and the myths of e-learning. *Ubiquity*, 9 (22).
- Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (pp. 105–117). Sage.
- Harb, M. A. (2016). An optimality-theoretic account of English loanwords in Hawaiian. *Open Journal of Modern Linguistics*, 6(3), 230-242.
- Kincheloe, J. L., & McLaren, P. (2011). Rethinking critical theory and qualitative research. In *Key works in critical pedagogy* (pp. 285-326). SensePublishers.
- Kirkevoid, M. (1997). Integrative nursing research—an important strategy to further the development of nursing science and nursing practice. *Journal of advanced nursing*, 25(5), 977-984.
- McCarthy, J. J. (2008). *Doing optimality theory: Applying theory to data*. Blackwell.
- Patton, M. Q. (2014). *Qualitative research & evaluation methods: Integrating theory and practice*. Sage publications.

- Perry, F. L. (2005). *Research in applied linguistics: becoming a discerning consumer*. Routledge.
- Phakiti, A. & Paltridge, B (2015) Approaches and Methods in Applied Linguistics Research. In B. Paltridge, & A. Phakiti (Eds.). (2015). *Research methods in applied linguistics: A practical resource*. Bloomsbury Publishing.
- Phakiti, A., De Costa, P., Plonsky, L., & Starfield, S. (Eds.). (2018). *The Palgrave handbook of applied linguistics research methodology* (pp. 423-457). Palgrave Macmillan.
- Phetkla, C. (2020). *Vowel adaptation in English loanwords in Thai*. [Unpublished doctoral dissertation]. Newcastle University.
- Pring, R. (2000). *Philosophy of educational research*. London: Continuum.
- Strauss, A. & Corbin, J. (1994). Grounded theory methodology: an overview. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research*, pp. 273-285. Sage Publications
- Richards, K. (2003). *Qualitative inquiry in TESOL*. Palgrave Macmillan.
- Usher, Robin (1996). A critique of the neglected epistemological assumptions of educational research. In D. Scott & R, Usher (Eds.) *Understanding educational research*. Routledge.
- Wellington, J. (2015). *Educational research: Contemporary issues and practical approaches*. Bloomsbury Publishing.