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The best of both worlds: pragmatism, personality, investigator greed, self-identity and the multi-skills set in the choice of mixed methods

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Abstract

Much research is reported to align with one of the two main traditional paradigms (positivism or interpretivism). However, when sufficiently explored, a cross-over exists between the two. As an example, much of the qualitative research which is reported to be reflective of the interpretivist paradigm is completed using positivist approaches (Crotty, 1998; Denzin and Lincoln, 2008). Additionally, quantitative researchers who engage in data collection often ignore the idea of reflexivity but undoubtedly influence participants in some way through their communication, body language and facial expression, despite initially assuming a positivist stance. On closer inspection, it transpires that elements from both of the traditional paradigms have often been used together within education-based research.

This paper puts forward the case for use of pragmatic approaches when researching within education that can be termed ‘bi-paradigmatic combinationism’ (two paradigms combined). However, this paper argues that this concept revolves around the idea of ‘investigator greed’. This ignores traditional convention and is likely to use elements across both paradigms. The hypothesis of this research is that the idea of ‘investigator greed’ through ‘bi-paradigmatic combinationism’ is influenced by a number of internal and external factors: confidence, ability, personality and self-identity. We argue that pragmatism specifically is likely to be influenced by the
factors shown in Figure 1. The purpose of the paper is to theorise that these factors contribute to bi-paradigmatic combinationism and it is hoped that this paper will instigate our thinking as to how this area might be investigated further.

**Debates in paradigm choice**

Much of the literature divides approaches into neat categories (or paradigms) that can be selected (May, 2011). Hence, researchers often choose either a positivist or interpretivist paradigm. However, this approach might be viewed as flawed in that it is overly simplistic and fails to encapsulate the complexities that exist within many research projects (Haggis, 2008). Historically there has been debate between social-science researchers with regard to the optimum paradigm for the completion of research. Indeed, many scholars have feared a critical backlash if their work fails to identify within the realms of one of the two main paradigms: positivism or interpretivism (Oakley, 1999; Howe, 2004 and Creswell, 2011) or if they were seen to be converted from one to the other (Oakley, 1999). The notion of paradigms, in its modern usage, can be traced back to Kuhn (1962) who took the word from the Greek ‘paradeigma’. The translation of this is ‘example’ or ‘exemplar’ (Gokturk, 2005) although, it is now more commonly used as a conceptualisation or a view of the world that allows us to attempt to understand the world and the research completed (Kuhn, 2012).

Choosing one rather than the other, necessitates the exclusion of methods because they do not fit into the definition of that particular paradigm; a fact acknowledged by Guba and Lincoln (1994) when they discussed the idea of subsections within the two established paradigms. Oakley (1999) describes this binary choice as being akin to choosing sides in a game of football with the inherent bias that this entails, whilst Kelle (2006) is more succinct and describes the approach as ‘paradigm wars’.
Traditionally, there has been an affinity between the paradigm the chosen and the practical methods used (Morgan, 2014). Interpretivist practices may be seen alongside qualitative data collection; positivist approaches could be seen to side with quantitative data collection and pragmatism may have links with mixed methods data. However, researcher philosophy and practical choices are different (Denzin and Lincoln, 2005).

It has been noted that although researchers have often felt the need to relate to the ideas of ontology, epistemology and methodology within one traditional paradigm, the process of data collection and analysis may have been executed very differently. As an example, positivists use the epistemological position that the researcher is fully detached from the research process and can therefore gather results which it views from a realist perspective and in doing so, often overlooks the idea of reflexivity (the idea that the researcher will influence data collection or data analysis in some way). This is particularly important to consider for projects where researchers communicate with participants (i.e. in the administration of the researcher’s own questionnaires, for example) because humans are naturally social beings whose judgements about others cannot fail to affect future behaviours and decisions. Additionally, Crotty (1998) and Denzin and Lincoln (2008) note that much research involving interpretation through qualitative findings is implemented using positivist ideals. Indeed, it is unhelpful to view research as wholly ‘interpretive’ or ‘positivist’ and the traditional divide between qualitative and quantitative research is viewed as rather too simplistic. Crotty (1998) argues that when sufficiently explored, much of the qualitative research believed to be reflective of the interpretivist paradigm is completed using positivist approaches (i.e. the researcher controls the process of data collection and has designed and influenced the research
instruments) but also co-constructs knowledge with participants and interprets that knowledge (with the latter aligning with the interpretivist paradigm). Similarly, Denzin and Lincoln (2008) concur with this and talk about qualitative research being grounded in both an interpretive and positivist tradition and they warn against trying to categorise research into the two separate paradigms as often elements of both are evident.

More recently, the rise of mixed methods research (Feilzer, 2009) has, amongst other things, instigated a positive new debate into the research agenda where ideas have influenced the creation of new paradigms: ‘post-positivism’ (Denzin and Lincoln, 2005; Groff, 2004; Henderson, 2011; Wildemuth, 1993), ‘critical theory’, ‘subjectivism’ and ‘pragmatism’. For the purposes of this paper, we focus on the contribution of pragmatism as a drive towards autonomy and freedom for research choices and see this flexibility as a trajectory to the creation of the ‘optimum’ paradigm, which includes how the researcher’s personality, beliefs, self-identity, experience and confidence influence the choices made in research which can contribute to effective inquiry. We argue for a less abstract approach to research which includes some basic principles: what researchers do and why they do it. We argue that a pragmatic approach is deeply aligned with the researcher’s personality and self-identity and reject the idea that any project is likely to be fully reflective of either of the traditional paradigms.

Mixed methods and Pragmatism
The rediscovery of pragmatism identified by Feilzer (2009) has meant that researchers can argue that they are able to select the right tools (i.e. those that are likely to best answer the research questions) rather than those that fit in to the frameworks proposed by the traditional paradigms. Indeed, pragmatism is seen to
underlie the use of mixed methods which challenges the idea that the world is exclusively qualitative or quantitative (Cohen, Manion and Morrison, 2018). However, as stated previously, pragmatism is not merely about data types, but is about viewing the world in a holistic way and not being constrained by a single approach. This idea of methodological pluralism has been identified as advantageous by Day and Sammons (2008) who suggest that work that uses pragmatic approaches and specifically mixed methods, is likely to reveal highly authentic accounts. This is evident in the thinking of Cohen, Manion and Morrison (2018) who also argue that using multiple approaches yields a richer and more reliable understanding than can be gained using a single approach due to the advantages of triangulation techniques.

Dewey (2008) feels that the philosophical systems of both interpretivists and positivists are equally important. As Morgan (2014) describes:

“on one hand, our experiences in the world are necessarily constrained by the nature of that world; on the other hand, our understanding of the world in inherently limited to our interpretations of our experiences…just two sides of the same coin”.

(Morgan, 2014, p.4)

This suggests that use of elements from both approaches allows both sides of the same coin to be explored in a holistic manner to enable the full picture to be realised. Some, however, may argue that using ideas from more than one paradigm is reflective of two research projects rather than one but we reject this idea. We argue that if the research focus and research questions within one phenomenon are being
answered within a project then this reflects one project, which is complimented by a mix of experiences and perspectives gathered in different ways.

Denzin and Lincoln (2008) talk of the researcher as being a *bricoleur*, or a quilt maker, whose job it is to weave in the disparate strands and to use the methods that work best for them. This eloquent description conjures up a concept that interweaves both positivist and interpretive assumptions. Therefore, instead of being constrained in loyalty to a particular way of working, pragmatism celebrates a fitness for purpose in relation to the research questions and is therefore eclectic in its methodological design. Indeed, the research question is of most importance in the design of mixed methods research approaches (Hesse-Biber and Johnson, 2013) where pragmatic practices should be celebrated where they honour the research questions.

**Ontology, Epistemology and Methodology**

Traditionally research methodological choices have been focused on the research topic and the philosophical beliefs of the researcher (Patton, 2002). The interconnectivity between the research being undertaken and how researchers view the world combine to label the construction of reality that the researcher proposes (Patton, 2002). Terre Blanche and Durrheim (1999) assert that any research process contains three major dimensions: ontology, epistemology and methodology and that these dimensions present themselves differently within positivist and interpretivist approaches. The popularity of mixed methods has evoked the idea of a ‘pragmatist paradigm’ (Gorard, 2012, p.8) where choices echo or create a new paradigm which is flexible in its approach to ontology, epistemology and use of tools, (regardless of whether they are gathering quantitative or qualitative data) and are chosen because they are viewed to provide effective answers to the research questions (i.e. they are specifically related to goals). However, this goes beyond merely thinking ‘what
works’ but is enveloped within questions about beliefs, actions and subsequent actions and inquiry. In other words, the focus should involve inquiries regarding the nature of human experience and not the elements of ontology and epistemology. This principle should overcome the problem of being ‘constrained’ by siding with one paradigm, as freedom celebrates inquiry from every angle.

For the purposes of this paper, we are not suggesting that pragmatic practices consistently use a mix of quantitative and qualitative data. Morgan (2014) also argues that pragmatism should not just be seen as a justification for the use of mixed methods (i.e. choice of tools) and should be viewed as a philosophy in its own right. However, the choice taken to use mixed methods is more likely to align with the idea of pragmatism, since the researcher may need to be more flexible in terms of the ontological and epistemological positioning than is seen within the traditional paradigms. Mixed methods researchers may choose to gather both quantitative and qualitative data and a mix of tools may be used to support this process. When studying one phenomenon (i.e. one set of research questions), a researcher may look to conduct a range of information gathering techniques and the process of data collection may neither fit into ontology/epistemology associated with positivism (realism/knowledge creator) or interpretivism (relativism/co-constructor of knowledge) but ontology and epistemology may be thought about differently by the researcher in order to reflect pragmatism. In terms of epistemology, Morgan (2014) argues that pragmatism replaces the old-fashioned views of knowledge creation or co-construction and replaces it with broader moral values where the philosophy involves a freedom of inquiry. In relation to ontology, the term ‘critical realism’ can be used as a way in which to think about the debate between realism and relativism. Critical realism sits between relativism and realism and presumes that perceptions
are likely to reflect real-life events in some way and can be viewed as relating to experiences, but are not seen as a true reality, but as a reflection of reality, which can never fully be understood (Bhaskar, 2008, 2011; Collier, 1994; Guba and Lincoln, 1994).

Towards a new philosophy

The researcher is likely to make choices regarding philosophical approaches, associated paradigms and research questions which are underpinned by a mixture of external and internal factors (i.e. influences). The purpose of this paper is to highlight these factors in influencing methodological choices which reflect pragmatism and specifically, the use of mixed methods. The authors’ proposition is that the choice of approach is influenced by both internal and external factors. For example, previous researcher experience, personality, self-identity, confidence in the field, influence of supervisors/advisors or other colleagues/peers, the teaching of research methodology and reading the work of others can affect the choices made in relation to research methodology and these areas are seen to comprise of both internal and external factors. For the purposes of this paper, we propose a new concept of ‘investigator greed’ – where researchers seek opportunities to gather information using a variety of tools (including a mix of data types) to ensure optimum ‘coverage’ through triangulation techniques. We also highlight the concept of ‘biparadigmatic combinationism’ where researchers’ pragmatic freedoms allow them to use elements from both the traditional paradigms within the same project. This again highlights the work of Morgan (2014, p.4) who discusses investigation of the same phenomenon as “two sides of the same coin”.

The choices for pragmatism are seen to be influenced by a number of factors.
The following diagram (Figure 1) shows the possible influences for a choice of mixed methods (based on pragmatic notions).

**Figure 1: The influences for Bi-paradigmatic Combinationism**

As can be seen above, in making judgements regarding which methodologies to use, researchers may be influenced by many different aspects when opting for a mixed-methods, pragmatic approach. The white outlying circle holds the external influences which are: views of peers, supervisors and colleagues, teaching of basic research methodology, reading the work of others, experiences in the workplace, previous
attainment in education and prior experiences in education. Their potential influence on or relationship with other factors is shown by the red arrows. Some arrows are dotted to show that an association MAY exist as opposed to the full arrows which indicate associations which are LIKELY to exist. For some factors the arrows are bi-directional and indicates a reciprocal relationship or association between the two. As an example, self-identity is likely to have influenced and be influenced by previous attainment, shown by the bi-directional full red arrows. The views of a researcher’s peers, supervisors and colleagues may influence a researcher’s confidence in pragmatic approaches just as the amount of researcher confidence in pragmatic approaches may also affect the views of those they engage with (see reciprocal dotted red arrows). The workplace setting is likely to provide experiences which (positively or negatively) affect self-identity (full red line), but the workplace setting also may influence confidence, depending on the experiences gained (dotted red line). There are some important questions to pose here: do these external factors collectively influence a researcher’s decisions to have the confidence to use pragmatic, mixed method approaches? Are some factors more influential than others? How influential are the different factors?

The blue inner circle shows intrinsic factors which may be influenced by external influences (see red arrows). There are three intrinsic factors which are placed in ovals (confidence, ability (a multi-skill set) and personality) and these three are seen to be likely to associate with or contribute to self-identity which is placed in a rectangular box. These associations are shown by the black arrows. Confidence also is likely to have a reciprocal effect as can be seen by the additional black arrow. Collectively, these four factors feed into the darker rectangle which includes three main elements which contribute to our idea of ‘bi-paradigmatic combinationism’
The three main elements (as shown by the black arrows) are: investigator greed, mixed methods and pragmatism. Investigator greed is placed at the top as it is seen to be underpinned by mixed-methods and pragmatism. Below, some of the main factors are discussed in relation to their association with bi-paradigmatic combinationism.

**Attainment and ability**

Previous attainment (external) and ability (internal) can affect choices made in relation to methodologies because (put in simple terms), researchers who prosper with creative/interpretivist aspects of the arts are more likely to choose constructivist approaches, whereas those who excel in the logical reasoning associated with science and statistics may be more likely to use positivist aspects. However, researchers who find satisfaction and strengths within both realms (i.e. the multi-skills set) are more likely to use a pragmatic, mixed methods approach and this is likely to be intertwined within or at least linked to their self-identity (and therefore confidence) as can be seen in the diagram.

**Experiences, confidence and self-identity**

Whilst the choice of methodological approach is influenced by internal factors, such as the personality of the researcher, it is also the case that the previous experiences of the researcher affect the choices they make. Successful use of methods in previous research can directly impact on choices in the future, whilst the perceived failure of previous research can also affect decisions made.

The previous experience of an individual is one of the key factors that influence the confidence and self-identity of a person. Self-identity may be defined as ‘The ways in which the self is represented and understood in dynamic, multi-dimensional and evolving ways’ (Ecclestone, 2007, p.4) and as such it is important to recognise that
identity is both not necessarily a stable concept and that it is influenced by a variety of factors (Ferguson, 2009). Breaking down that definition, events that have happened in the past impact on the future as they alter the self-identity of an individual (Jenkin, 1984). Mezirow (1987) argued that each person has frames of reference that influence their choices when confronted with a decision regarding use of methodological choices. These frames of reference are set by a number of factors, personality, discussed earlier being one, but chief amongst the influencers is the environment in which an individual exists.

Bimrose and Brown (2010) explore how many people define and understand themselves (at least in part) via their work and how this can act as a psychological anchor to their lives, confidence and their identity. This can impact on not only their work lives but also their home lives and finally their lives as a researcher. For other writers, this is also a key part of identity and helps us understand ourselves and how others view us (Hodkinson and Hodkinson (2002) and Hodkinson et al (2004)).

Whilst this psychological anchor might bring some stability to our identity, there is a danger that if the anchor is only connected to work it can have the effect of holding individuals in chains, whereby they are unwilling to make any changes due to their comfort in the psychological frame of reference they find themselves in (Bimrose and Brown, 2010). The concept of self-identity helps to understand why the choice of methodological approach is governed by additional factors (as illustrated in the diagram) and is not merely as simple as one influence. The need for acceptance amongst individuals (Jenkins, 2014), as well as the requirements of the setting often influence choices and whilst it is not solely the work environment that influences self-identity, it is a powerful force and as such can influence choices made by individuals (as illustrated by arrows on the diagram).
Ecclestone’s (2007) definition talked about a multi-dimensional approach to self-identity and this also helps us understand its construction and how it impacts on decisions made. Goffman’s dramaturgical approach (1959) described how self-identity evolves through interpersonal interaction and how sometimes, individuals may ‘perform’ in order to project a desirable image. This means that self-identity is constructed of both ‘front stage’ and ‘back stage’ elements (Bullingham and Vasconcelos, 2013) and both are present when looking at the whole. Goffman (1959) describes the front stage elements in terms akin to an actor playing a part and presenting a self-identity to the audience whilst the backstage persona refers to what we do when we are not in a social situation and our actions are not perceived to be judged (Goffman, 1959). The two elements identified by Goffman (1959) can clearly be seen when looking at the choice of methodological approach. The need to preserve self-identity (Ecclestone, 2007) means that our front stage persona can influence choices made. In a research context this might mean that we select approaches for reasons which are not connected to the project such as the need to conform (i.e. abide by ‘traditional paradigms’) or alternatively the need to maintain an image. Alternatively, decisions might be made from a risk adverse approach whereby an individuals’ previous frames of reference are used to make a decision based on what has worked previously.

**Personality**
The relationship between self-identity and personality is well established (Ecclestone 2007) with self-identity seen as a fluid construct that can be influenced by previous experiences and any transitions a person has gone through (Field, 2006) as well as the personality of the individual. As such it might be described as being both externally located (how others view the individual) and internally located (an
individual’s perception of themselves). In contrast, personality is more of a fixed construct that influences self-identity but is also primarily internal in nature (Field, 2006). The degree of stasis of personality is a matter for debate with Zaccaro, Kemp and Bader (2004) arguing that personality can change over the course of a lifetime whilst others (notably Stogdill 1948) arguing that it is a predominately fixed part of an individual and that although there might be minor changes, often brought upon due to external events, the core personality remains stable. We feel that the latter is more likely and hence we have chosen to show absence of external influence on personality in the diagram.

Personality is a construct of habitual behaviours, emotional patterns of behaviour and cognitive thought and as such influences how we choose to live our lives (Cattell, 1948). On some levels, it defines how we perceive ourselves (for example we might view ourselves as extrovert or introvert) (Cain 2012) and hence we can see clear links with self-identity shown by the solid black arrow. This is only part of personality however, as it also influences our frames of reference (Mezirow, 2007) and how we view external stimuli. Whilst in some cases this merely helps us ascertain whether we see things in a positive or negative light (typified by a ‘glass half full, glass half empty’ question) in other cases, it controls our reaction to experiences and subsequently determines our methodological choices. Whilst the research questions are often considered the key determinant of philosophy, this neglects the emotional and cognitive responses brought upon by personality as well as habitual behaviours that an individual has learnt and can be influenced by. In other words, the researcher’s personality in itself influences the choice made in regard to research questions. Cain (2012) provides an illustration of this by describing how introverts might well shy away from face to face contact, preferring
instead to operate more remotely and therefore (as an example) may be unlikely to undertake interviews even if this approach best answers the research questions.

**Investigator Greed**

The concept of ‘investigator greed’ has been developed by contemplating the traits that underpin the researcher’s motivation to choose a mixed methods study design and complete research pragmatically to gain a wealth of information about a phenomenon in different ways. We posit that ‘greed’ in this sense denotes an intensive motivation or voracity to thoroughly explore a phenomenon so that the fullest picture can be realised. We define ‘investigator greed’ in relation to mixed methods as:

“Researchers’ choices in exploring a phenomenon using mixed methods are based upon satisfying the research questions in a fully holistic way using pragmatic practices which ignores traditional convention and are likely to use elements across both paradigms in a process called ‘bi-paradigmatic combinationism’”

We believe that this idea of ‘investigator greed’ can be influenced by external and internal factors as can be seen in the diagram and can therefore result in the use of mixed methods with encourages a pragmatic approach.

We use the word ‘greed’ to denote a hunger or a voracity for making research choices which defies the traditional binary approaches in order to find a sense of completeness in answering the research questions and this may be more likely to happen for someone who has a strong sense of self-identity, particular personality traits and the inner confidence to design research projects which do not conform to traditional paradigms. One analogy to consider in respect to our understanding of greed is behaviour at a mixed cuisine buffet. Individuals with a strong sense of self-identity and confidence may choose to consume foods from different cuisines within
the same sitting, which rejects culinary conventions (in the same way that pragmatic research choices reject conventional paradigms). However, if it satisfies and strengthens their body (in the same way as a project design which answers the research questions) and they can justify their choices of a mix and match approach then the outcome is likely to be positive, despite the feelings of others who may be eating at a nearby table (i.e. others in the world of research who may appear confused or look degradingly on their choices). Whilst an analogy of someone selecting the food from a buffet that they wish to eat in order to sate their appetite rather than following culinary conventions, might suggest an uncoordinated approach, this can actually help to strengthen and satisfy them, just like using a holistic pragmatic approach might strengthen and satisfy the findings gathered in exploring one phenomenon through mixed methods and helps to visualise the researcher’s greed in selecting the most appropriate methods to answer the research questions.

Concluding Thoughts

Whilst the idea of pragmatism is not a new one, ‘investigator greed’ and ‘bi-paradigmatic combinationism’ goes further than merely suggesting that a mixed methods approach can be justified when completing research. A pragmatic philosophy suggests that the researcher can select the methods that they view as appropriate for the research and match these to their pragmatic philosophy. However, ‘investigator greed’ seeks to explain why this choice has been made.

It can be argued that pragmatism is about flexibility of research philosophy when answering research questions and focuses on what works for the project as opposed to what is expected within traditional research practices. Hence, the use of pragmatic practices can be seen in researchers with investigator greed – those who choose to
explore a phenomenon using mixed methods with a view to satisfy the research questions in a fully holistic way which ignores traditional convention. However, investigator greed goes beyond the external factors that encourage a researcher to decide to adopt a pragmatic paradigm, instead it focuses on the inter, and intra-relationship between factors. Researchers with investigator greed are likely to be influenced by a number of external and internal factors. Personality, self-identity, ability and confidence levels all contribute to decisions made in regard to methodological processes which may defy the traditional approaches. This paper argues that bi-paradigmatic combinationism is underpinned by investigator greed and, as is reflected in pragmatism, should be seen as a valid choice in its own right. This holistic approach demonstrates that researching using this philosophy not only seeks to answer the research questions with a sense of completeness but is likely to be driven by the researcher’s self-identity, confidence and personality where expectations for traditional research approaches are challenged and the triangulated findings celebrated. A number of questions have arisen from this paper:

1) How can the intrinsic factors of self-identity, confidence and personality be explored in relation to their association with or influences on choices made for bi-paradigmatic combinationism?

2) How do extrinsic factors associate with or influence choices made in relation to bi-paradigmatic combinationism?
References


