Dealing with challenges to methodological pluralism : the paradigm problem, psychological resistance and cultural barriers

MIDGLEY, Gerald, NICHOLSON, John and BRENNAN, Ross

DEALING WITH CHALLENGES TO METHODOLOGICAL PLURALISM: THE PARADIGM PROBLEM, PSYCHOLOGICAL RESISTANCE AND CULTURAL BARRIERS

Abstract

This paper calls for methodological pluralism in industrial marketing research. We discuss three challenges that proponents of methodological pluralism have to address if their practice is to be seen as credible: the paradigm problem; psychological resistance; and lack of cultural readiness to accept pluralism. We review the works of a variety of authors from other disciplines who have tackled these problems, and identify useful ideas to take forward into a *model of learning*. This addresses the paradigm problem by making it clear that no pluralist methodology can exist without making its own paradigmatic assumptions. It deals with psychological resistance by talking in terms of *learning*, starting from wherever the researcher is currently situated (a large knowledge base is not needed to begin practicing methodological pluralism). However, this model does not deal with the question of whether the time is right, culturally, for methodological pluralism. We argue that the time will be right when it is widely appreciated that methodological pluralism adds value to industrial marketing research *practice*. The next step for our research community must be the accumulation of a body of empirical evidence to demonstrate that this added value does or does not exist.

Keywords: critical systems thinking; methodological pluralism; mixed methods; paradigm incommensurability; multimethodology; industrial marketing methods.

1.0: Methodological pluralism in marketing scholarship

There have historically been competing paradigms in marketing research. The dominant paradigm has been called 'functionalist' (Arndt, 1985; Burton, 2001; Hanson & Grimmer, 2007; Hunt, 2002; Tadajewski, 2004, 2008, 2009; Tadajewski & Hewer, 2012), but many advocates of 'interpretivist' research are also evident (e.g. Belk et al., 1988; Brown et al., 1996; Egan, 2009; Gummesson, 2003; Mathyseens & Vandenbempt, 2003). It has been argued that research published in leading industrial marketing journals demonstrates a better balance between these paradigms than within the marketing academy more broadly (Beverland & Lindgreen, 2010; Möller, 2013).

The above paradigmatic research communities make different philosophical, theoretical and methodological assumptions, which flow into their views on what kinds of methods they consider valid or legitimate. Broadly speaking, functionalists advocate the use of quantitative methods focused on observable phenomena, while interpretivists prefer qualitative methods that explore meanings from different human perspectives (Hanson & Grimmer, 2007). As a reaction against the splitting of the marketing research community into these competing camps, a small but growing group of researchers has spoken against notions of paradigm incommensurability (the idea that the paradigms are utterly irreconcilable) and advocated, in various different ways, the adoption of a *pluralist* approach to marketing scholarship (Anderson, 1986, 1988a, 1988b; Davies & Fitchett, 2005; Hunt, 1990, 1991; Hunt, 1992; Hunt, 1994; Levy & Kellstadt, 2012; Lewis &

Grimes, 1999; LaPlaca & Lindgreen 2016; Lowe et al., 2004; Lowe et al., 2005; Möller, 2013; Nicholson et al., 2014; Peters et al., 2013; Tadajewski, 2008, 2009; Tadajewski et al., 2014; Tadajewski & Hewer, 2012). These approaches to pluralism include the proposal of meta-theories that sit above and govern the use of ideas from the different paradigms (Hunt, 2013; Möller, 2013; Vargo & Lusch, 2004, 2008); the creation of paradigm interplay (Davies & Fitchett, 2005; Lowe et al., 2004; Lowe et al., 2005; Peters et al., 2013); and the deployment of integrative theories and frameworks (Nicholson et al., 2014), drawing most popularly in industrial marketing on the lenses of critical realism (Easton, 2002, 2010; Ehret, 2013; Harrison & Easton, 2002; Matthyssens et al., 2013; Peters et al., 2013; Ryan et al., 2012) and, to a lesser extent, structuration theory (Ellis & Mayer, 2001; Lee et al., 2012; Nicholson et al., 2013; Peters et al., 2009).

However, most of the above work has focused primarily on *theoretical* pluralism. With a specific eye on methodological developments in industrial marketing, Nicholson et al. (2014) point out that there are actually three dimensions of pluralism: theoretical, methodological and methodical. The latter two have received much less attention than the first, with only occasional calls to recognize the value of drawing upon both quantitative and qualitative methods to address the same research problem (e.g. Levy & Kellstadt, 2012; Tadajewski, 2008; Woodside & Baxter, 2013). The current paper focuses on *methodological* pluralism: the theory and practice of drawing upon methods from two or more different paradigmatic sources and using them together within a single study.

Since methodological pluralism is something that has only been called for relatively recently in marketing discourse, we believe that our understanding of it could be enhanced by reflections on mature debates in other disciplines. We focus in this paper on the line of reasoning that was stimulated by the seminal works of Jackson and Keys (1984), Jackson (1987a; 1987b; 1991) and Flood and Jackson (1991a; 1991b) in the disciplines of Systems Science and Operational Research (OR). This work has been largely neglected in Industrial Marketing scholarship. Within OR, methodological pluralism came to be called 'multimethodology' (Mingers & Gill, 1997), but it is essentially the same concept. Because of this disciplinary cross-over between Systems Science and Operational Research, we will refer to those engaged in the debate as the 'Systems/OR' community. By the mid-1990s, well over 100 Systems/OR researchers had actively contributed through journal papers, books, chapters and conference presentations (Midgley, 1996a). Indeed the debate still continues, albeit with less intensity now, as the argument for methodological pluralism has basically been won. Nobody in Systems/OR now questions the utility of methodological pluralism, even if there are still some murmurings of discontent about different researchers' theoretical underpinnings: e.g. see Walker (2007) and Zhu (2011), who argue that the debate in Systems/OR has missed the opportunity to draw upon the American pragmatist tradition (e.g. Dewey, 1938; James, 1904; Peirce, 1934; Singer, 1959) due to Jackson's (1987b) early dismissal of pragmatism as atheoretical. He basically set up a degraded version of 'pragmatism' as a

straw man to pit methodological pluralism against (Midgley, 2000), and this seems to have been accepted by some other authors without question.

Below, we draw extensively on the Systems/OR literature as we unfold our own perspective on how methodological pluralism should be conceived and what value can be derived from it. Our argument specifically responds to Woodside and Baxter (2013:382) who note that:

> "Because B2B decision researchers are likely to continue to use a broad range of theoretical bases, they will need a broader range of epistemologies and methodologies in future in order to investigate marketing phenomena."

Our concerns in this endeavor are similar to those of Tadajewski (2008), who looks at the politics of implementing and practicing paradigm commensurability; we focus on what philosophical, psychological and cultural challenges need to be addressed by industrial marketing scholars if methodological pluralism is to be both widely accepted and widely used.

First, however, let us start with some basic questions: what exactly is methodological pluralism? And why is it useful?

2.0: Two levels of pluralism and their value

To answer the first question above, it is vital to understand the difference between 'method' and 'methodology'. While methodology refers to the theory that justifies the use of particular methods, a method is a set of techniques operated in a sequence to

achieve a given purpose (Checkland, 1981; Jackson, 2000; Midgley, 2000). When we talk of methodological pluralism, we mean embracing the possibility of engagement at two levels: at the level of methodology, where we can acknowledge others' methodological ideas and thereby allow their insights to inform our own methodology (either temporarily, during a particular study, or on a longer-term basis as continual reference points); and also at the level of method, where we can use a wide range of methods in support of particular purposes.

When a methodology is proscriptive, refusing validity or legitimacy to the majority of methods, it can be called 'isolationist' (Jackson, 1987b). Most methodologies produced during the 20th Century, whichever paradigms they had origins in, are isolationist: they prescribe what their creators believe is the 'one best way' of doing things (Burrell & Morgan, 1979; Jackson, 1987b). In contrast, a pluralist can use the full range of available methods, but they are reinterpreted through the theoretical lens of a researcher's own methodology.

As there are different rationales for pluralism at the levels of methodology and method, they are dealt with separately below.

2.1 The value of learning from other methodologies

The essential value of being aware of, and learning from, a variety of methodological positions comes from the knowledge that no one theory, or set of theories − whether or

not they have been codified into a methodology − can ever be comprehensive (Francescato, 1992; Midgley, 2011; Morgan, 1986; Romm, 1996). Therefore, it is bound to be the case that others will have different insights to us. While we may disagree with, and want to challenge, some of their assumptions, it may also be the case that one or more of their ideas could usefully be incorporated in a methodology of our own. The purpose of learning from other methodologies is therefore that reflections on the similarities with, and differences from, one's own ideas can enable the continued evolution of one's own methodology (Gregory, 1992; Romm, 1996). The key to this learning is to welcome the insights of others without taking on any idea to the exclusion of all others (Midgley, 2011). Therefore, to say that (for example) marketing research requires a certain set of experimental methods should not lead to the conclusion that only these methods are valid. Those aspects of scientific methodology that promote a worldview which invalidates other methods need to be opened to challenge, but an experimental method (and indeed any other method which may have originally been derived from a proscriptive/isolationist methodology) can still be seen through the lens of a pluralist methodology. Of course, this raises the thorny issue of the nature of learning across paradigm boundaries, and we will look more closely at different authors' views on cross-paradigm learning later in the paper.

2.2 The value of a plurality of methods

The value of pluralism at the level of methods comes from observations of what happens if only a very narrow set of methods is used − indeed, it has been known for some people

to specialize in the use of just one. With an armory of just one or two methods, three significant, interlinked problems arise:

First, in an applied research setting, the researcher may not be able to deal effectively with situations where the theoretical assumptions flowing into their favorite method are at odds with the assumptions being made by key stakeholders. This kind of situation can create significant stakeholder dissatisfaction. If this dissatisfaction is experienced by powerful decision makers, and the chosen method contradicts their assumptions without opening up a dialogue with them, then it is likely that the research will be ignored or even actively undermined. This point is alluded to by Tadajewski (2008:280) when he comments that "the politically powerful have greater opportunities to define the nature of intellectual discourse".

Underlying this claim is a critically important idea: *no research method is neutral*. Spash (1997) discusses this at length, giving the example of cost-benefit analysis applied to environmental issues. Methods of cost-benefit analysis, which involve stakeholders in making trade-offs between economic and environmental values, automatically marginalize environmentalists who cannot accept the utilitarian trade-off mentality embedded in the methods: many environmentalists take a deontological stance (also discussed by Hunt & Vitell, 1986), arguing that there are environmental imperatives that cannot legitimately be traded for benefits elsewhere. If isolationist marketing research

creates this kind of marginalization by using methods that contradict the thinking of less powerful stakeholders, then it can potentially do more harm than good.

The second significant problem with using a narrow range of methods is that, as the research proceeds, the focal issues may change as people's understanding develops. So what may have started out as, say, a focus group study on different aspects of consumer behavior may reveal an issue of gender stereotyping that really needs to be followed up through a quantitative study of the uses of different types of imagery in advertising. If the researcher can only use focus groups, then he or she will be unable to deal with this change in focus − unless the new issue can be forced into the mold of the old one (also see Levy & Kellstadt, 2012).

The third problem associated with the use of a narrow range of methods is that researchers may see all issues through the methodological lens that these methods have traditionally been associated with. Therefore, it is not just that the use of a narrow range of methods makes the researcher unresponsive to both changing agendas and stakeholders who disagree with the assumptions flowing into the research, but also *he or she is unlikely to be aware of this fact*. This lack of insight, which comes from an unwillingness to explore the possibility that there may be other ways of seeing, is a substantial obstacle to developing a flexible and responsive research practice. The ability to mix methods drawn from a variety of methodological sources is necessary for such a practice.

When we talk about ‘mixing methods’, we should note that we mean more than just triangulation; exploring a given phenomenon from different angles using two or more complementary methods (Brewer and Hunter, 1989). While triangulation is a perfectly legitimate sub-category of mixing methods, it is relatively limited compared to the practice discussed by Midgley (1997a, 2000), who talks about defining an interrelated set of research purposes and creatively mixing methods in response. Indeed, it is not usually a matter of ‘stitching’ methods together in an additive fashion (although this can be done): a whole *system* (interrelated set) of purposes can be pursued through a *synergy* of different methods.

The absence of a substantive and widespread practice of mixing methods may, at least in part, explain the persistence of the ‘relevance gap’ between academic marketing research and marketing practice. This relevance gap is a current area of concern in the field of business-to-business marketing and is confirmed by the publication in 2014 of a special issue of the *Journal of Business & Industrial Marketing* entitled “B2B research and managerial relevance” (Åge & Cederlund, 2014). What is clear from several of the articles in this special issue is that marketing scholars are concerned that academic marketing knowledge in the business-to-business field fails to contribute to practice (Brennan et al., 2014; Gummesson, 2014; Kuusela et al., 2014). Notably, Baraldi et al (2014) report on a content analysis of the managerial implications arising from prominent business-to-business marketing articles, and find little evidence that these are of value to

marketing practitioners. Mingers & Brocklesby (1997) argue that managers commonly practice pluralism, unlike most researchers who are wedded to more limited paradigms that disallow the mixing of diverse methods. We argue that the practice of mixing methods, and the philosophy of methodological pluralism that underpins this, marks a step towards achieving greater stakeholder relevance in industrial marketing research.

3.0: Challenges to methodological pluralism

While it should be clear from the above that substantial value can be gained from methodological pluralism, we nevertheless need to acknowledge that there are challenges to be overcome. In our view, these are not insurmountable, but need to be explicitly identified and addressed. In particular, doubts have been raised as to the cultural feasibility and intellectual credibility of methodological pluralism (Brocklesby, 1994, 1997; Mingers & Brocklesby, 1996): for example, different methods have been conceived in different, arguably incommensurable paradigms. For instance, within industrial marketing, the American school of thought is largely associated with functionalist assumptions and quantitative approaches; the Scandinavian School of Relationship Marketing has been largely associated with interpretative, qualitative approaches; and the Industrial Marketing and Purchasing Group has likewise used interpretative, qualitative approaches, particularly the case study method (Hanson & Grimmer, 2007; Palmer et al., 2005). Each of the paradigms makes fundamentally different assumptions about the nature of reality (ontology) and our knowledge of it (epistemology), so how then may we mix methods without philosophical muddle? The rest of this paper is designed to raise

these concerns and answer them by presenting a model of learning which industrial marketing researchers may use to further develop their understandings of methodology and methods over time. Here, we follow Mingers and Brocklesby (1996:111-112) in distinguishing between three challenges to the feasibility of methodological pluralism, portrayed in Figure 1.

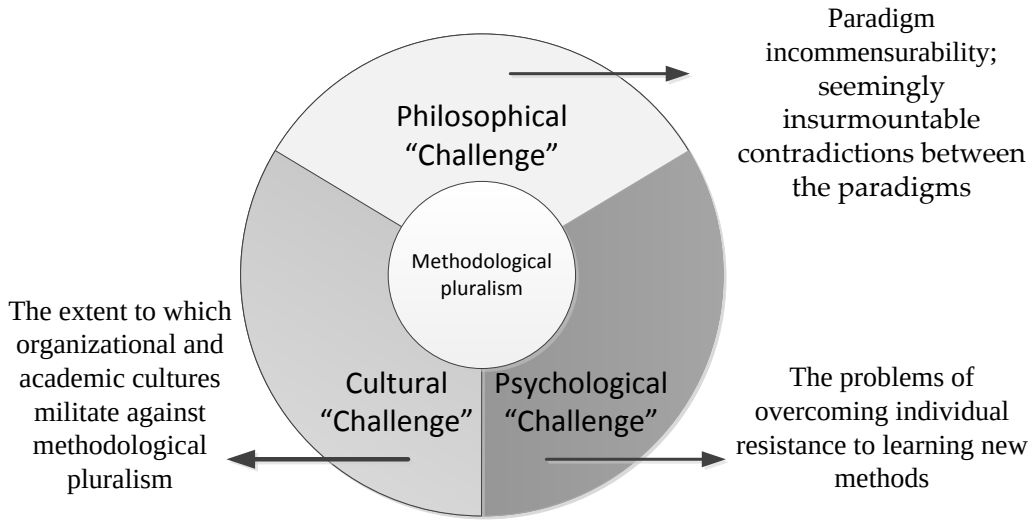

Figure 1: A model of challenges to achieving methodological pluralism (Based on Mingers and Brocklesby, 1996, p.111-112).

Each of these challenges will be discussed in turn, and then the arguments of various authors from both the Systems/OR and marketing disciplines will be reviewed. Finally, our own model of researcher learning will be presented, and we will argue that acceptance of this model addresses two of the three challenges, and offers a new understanding of methodology which will be particularly valuable to industrial marketing

scholars wishing to engage in methodological pluralism. The third challenge (the cultural one) will not be addressed by the model of learning − but then, we suggest that no methodology or model can create culture change except by demonstrating that it works in ways that others value. It will require empirical studies using multiple methods drawn from different paradigms, not just the model presented in this paper, to make this demonstration. So let us start by clarifying the nature of the philosophical challenge.

3.1: The philosophical challenge

At the level of philosophy we have to face the paradigm problem, which can be summarized as follows. All methodologies make different philosophical and theoretical assumptions − i.e., they are born in different paradigms − so if we wish to bring them together in a framework, or mix methods from them, we have to justify this at the level of philosophy. Some authors (Burrell & Morgan, 1979; Jackson & Carter, 1991, 1993) claim that philosophical paradigms are irrevocably incommensurable. This might lead one to suppose that methodological pluralism is a non-starter. Others claim that rational analysis may bridge the paradigm gap, allowing for a 'unification' of paradigms (Davies & Fitchett, 2005; Gioia & Pitre, 1990; Han, 2000; Lowe et al., 2004; Reed, 1997) or that communication across paradigm boundaries is possible even if unification is neither feasible nor desirable (Gregory, 1992; Tadajewski, 2008; Willmott, 1993). Proponents of methodological pluralism claiming coherence must inevitably develop a position on the paradigm problem otherwise they risk being accused of theoretically contradictory eclecticism (a concern for Hunt, 1990, 1992, 1994, 2003).

3.2: The cultural challenge

The cultural challenge has been described by Brocklesby and colleagues (Brocklesby, 1994; Brocklesby & Cummings, 1995; Mingers & Brocklesby, 1996; Mingers, 1997), referring to the Management Science community and its attitude to 'multimethodology' (their name for methodological pluralism), as follows:

> "The question....is whether the existing cultural constitution of the management science community will facilitate or act as a barrier against the widespread adoption of multimethodology as a research strategy. Obviously this depends on the size of the cultural gap between where we are now, and where − in relation to multimethodology − we would like to be (Mingers & Brocklesby, 1996:115).

They make a point in relation to the Systems/OR community that has equal resonance for marketing researchers: that few of us are trained in sufficient depth to facilitate the fluent use of methods commonly associated with different paradigms. Brocklesby (1994:80) also offers

> "…doubts about the extent to which formal guidance for methodology choice is sufficient to nullify the influence of cultural factors that predispose individuals to favor particular methodologies".

Examples include the use of case study methods by IMP scholars (grounded in interpretive assumptions) and the use of survey methods by scholars in the American school (based on functionalist assumptions).

3.3: The psychological challenge

Authors identifying psychological barriers to methodological pluralism include Brocklesby (1995, 1997) and Mingers and Brocklesby (1996). In his 1997 work, Brocklesby claims the following:

> "It is one thing to say that there has been some degree of accommodation between the various.... paradigms because the combatants no longer completely ignore one another, or because it is now possible for "alternative" researchers to publish in dominant paradigm journals…but, for an individual agent, multimethodology [methodological pluralism] demands a form of accommodation that is altogether more daunting. Reorienting educational programmes with the intention of creating a new breed of.... scientist who can routinely traverse the boundaries of the various paradigms is, itself, a difficult enough proposition, but transforming someone who has been thoroughly socialised in a single paradigm and has years of investment in a particular approach is an even more ambitious project" (Brocklesby, 1997, p.190).

Essentially, the challenge for industrial marketers is psychological resistance to methodological pluralism.

Mingers and Brocklesby (1996:117) also ask whether individuals have "cognitive predilections" which predispose them to prefer one paradigm, and therefore one set of methods, over another: e.g., people may have a greater or lesser facility for mathematics (to support statistical analysis in quantitative research) and for advanced interpersonal skills (to support interviewing and focus group facilitation in qualitative research). If people have different personalities that affect their paradigm allegiances, then it will no doubt take a great effort for them to learn new methods outside the set that they feel comfortable with (Mingers & Brocklesby, 1996).

3.4: Proposed solutions

Over the last 25 years, these problems have been addressed by a variety of authors in the Systems/OR community. By far the greatest focus has been on the philosophical challenge (the paradigm problem), primarily because this was identified well before the others. Marketing scholarship has also tended to focus on this. Over the coming pages we will review some of the main contributions to the debate. We will then present a new model of learning that we believe takes the debate one stage further.

3.4.1: Meta-paradigmatic thinking

To address the paradigm problem, Flood (1989, 1990), Jackson (1990, 1991, 1993) and Flood and Jackson (1991a, 1991b) draw upon Habermas's (1972) theory of knowledge-constitutive interests. In brief, this is the idea that, as a species, all human beings have a 'technical' interest in work, a 'practical' interest in achieving mutual understanding, and an 'emancipatory' interest in freedom from oppressive power relationships. Flood and Jackson align three types of methodology with the three interests: quantitative, modelling methodologies are used to support the technical interest; qualitative, meaning-orientated methodologies are viewed as supporting the practical interest; and confrontational, boundary-challenging methodologies are seen as supporting the emancipatory interest.

Flood (1990) says that this approach is 'meta-paradigmatic' − governing the use of other paradigms. Essentially, Flood and Jackson 'solve' the philosophical challenge by the use

of a meta-theory which guides the practical use of sub-paradigms. Their approach would seem to be similar in form to the arguments of several marketing scholars who propose meta-theoretical solutions (Hunt, 2013; Möller, 2013; Vargo & Lusch, 2004, 2008), even though their meta-theories are quite different to Flood and Jackson's.

However, in our view, there is a significant contradiction in this idea. Flood's (1990) claim that his work is 'meta-paradigmatic' is undermined by the epistemological assumptions made in Habermas's (1972) theory of knowledge-constitutive interests: that there are three inherent interests of the human species. These assumptions are alien to and incommensurate with assumptions made by the proponents of the various paradigms that Flood and Jackson try to contextualize: those paradigms have completely different epistemological foundations. Therefore, by accepting Habermas's theory, Flood actually sets up *new paradigmatic assumptions*: he does not rise above the paradigm debate at all (see also Midgley, 1989a; 1989b, 1996a).

We do not regard this 'solution' to the paradigm problem to be credible, and indeed both Flood and Jackson have now turned their backs on it too (Flood & Romm, 1996; Jackson, 1999). It should also be noted that Flood and Jackson's use of Habermas's (1972) theory of knowledge-constitutive interests does not address the cultural and psychological problems. Therefore, we suggest that it is appropriate to abandon this line of argument.

3.4.2: Towards a new paradigm

When Flood and Jackson first proposed this meta-paradigmatic thinking, Midgley (1989a) saw the above problem and wrote a critique of their position. He has consistently argued that it is impossible for any approach to methodological pluralism to be meta-paradigmatic. Far from being meta-paradigmatic, we suggest that those engaging with methodological pluralism are trying instead to establish the foundations for a *new* paradigm (Midgley, 1989a, 1989b, 1990, 1992, 1996a, 1997b, 2000, 2016; Nicholson et al., 2014). Of course, pluralists can still learn from other paradigms (Gregory, 1992), but this learning is always geared to the enhancement of one's own paradigmatic position − there is no pretense that other people's methodological ideas are used in exactly the manner that their creators intended.

Midgley (1992) put forward a different pluralist theory. Rather than follow Flood and Jackson's (1991a,b) use of Habermas's (1972) epistemology, he recognized that different ways of knowing (facets of epistemology) may well reflect different aspects of the world (facets of ontology). He argued that our ontological perspective must be multi-faceted to support methodological pluralism, as different methods ultimately need to be aligned with different ontological categories. He therefore offered a theory of 'four domains of complexity' (Midgley, 1992, 1996b, 2001, 2016). The four domains are:

1. 'Natural world' complexity; or the complexity of 'what is'. The ideal of inquiry into this form of complexity is *truth* – but note the term 'ideal' which, following

Popper (1959, 1972), indicates that truth is something we aim for, but we can never know for certain whether it has been achieved.

2. 'Social world' complexity, or the complexity of 'what ought to be' in relation to actual or potential action. The ideal of inquiry into this form of complexity is *rightness*.
3. 'Subjective world' complexity; or the complexity of what any individual (the self or another) is thinking, intending or feeling. The ideal of inquiry into this form of complexity can be called *understanding subjectivity*.
4. We very often have to deal with interactions between phenomena in the above three domains of complexity. This means that there is also the *complexity of these interactions*, which needs to be a focus of inquiry.

Midgley (1992) then went on to propose that 'hard' systems methods (mostly quantitative modeling methods from the positivist and neo-positivist traditions) are useful for understanding the natural world, because they are essentially truth-seeking; 'soft' systems methods (mostly qualitative dialogue methods from the interpretative and phenomenological traditions) are useful for social world complexity, because they explore subjective and inter-subjective views on what ought to be done in a given context, so are clearly orientated to normative inquiry (here, methods in Systems/OR are a little different to the interpretative tradition in marketing, which is less concerned with the normative); and he pointed out that there are very few methods in the systems sciences to support the exploration of subjective worlds (he suggested importing some

from disciplines like Psychology and Psychoanalysis). Most importantly, Midgley (1992, 2016) claimed that exploring the *interactions* between the above three types of complexity (i.e. dealing with the fourth form of complexity) is fundamentally important in the construction of any research project, given that most complex phenomena need to be seen as multi-faceted, and exploring the interactions between the different forms of complexity justifies and underpins the construction of mixed method research designs.

Note, however, that Midgley (1992) does *not* portray his approach as meta-paradigmatic. Rather, he proposes a new pluralist paradigm, with explicit ontological and epistemological assumptions. For other, more recent texts exploring the connections between pluralism at the levels of methods, methodology, epistemology and ontology, see Esbjörn-Hargens and Zimmerman (2009), Edwards (2010), Esbjörn-Hargens (2010) and Du Plessis (2014).

It is because we do not believe that paradigmatic thinking can be transcended that we stress the mixing of *methods*, not methodologies. We argue that we can learn from other methodologies to aid the on-going construction of our own, and we can detach methods from their original methodological principles in order to use them in new ways. This is now a widely accepted way of thinking about methodological pluralism in the Systems/OR community (e.g. Brocklesby, 1997; Flood, 1995a, 1995b; Flood & Romm,

1996; Gregory, 1992, 1996a, 1996b; Midgley, 1992, 1997b, 2000; Mingers, 1997; Munlo, 1997; Yolles, 1996, 1999).

This argument addresses the paradigm problem: there is no need to claim that we are operating across paradigms − we just have to acknowledge that we are setting up a new position which encourages learning about ideas from other paradigms, but reinterpreted in our own terms. However, it does not explicitly address the cultural or psychological challenges because its production pre-dated their identification. Nevertheless, Brocklesby (1997) builds his own argument that psychological barriers can be overcome using Midgley's approach.

Brocklesby (1997) argues that the psychological barrier to multi-paradigm thinking exists because of the demands of moving between fundamentally different sets of assumptions. It is difficult enough, when wedded to one paradigm, to accept the possibility that another one has anything valid to offer − but moving freely between two or more paradigms, changing one's assumptions as one goes, is considerably harder. For example, at one moment it requires a person to believe that there is a real world that he or she can know, and at the next moment he or she may need to deny this 'basic fact' altogether. This is simply contradictory. However, it is entirely different to say that we can develop a 'new' set of paradigmatic assumptions that embraces the best of several old sets. Brocklesby (1997:211) proposes that:

> "Whereas multi-paradigm multimethodology would have an agent move from one paradigm to another depending on which methodology, or part thereof is being used at any moment, an alternative possibility has methodologies originating in different paradigms being employed in the service of a *new* paradigm.… This option.... provides the authority to throw away the old rule books and play by new rules. The new rules circumvent the need to be constantly adjusting one's philosophical position depending upon which methodology or technique is being used at any moment in time, which, as we have seen, can create difficulties".

3.4.3: Paradigm (in)commensurability

Flood and Romm (1995, 1996) acknowledge the argument advanced by Midgley and others − that any attempt to embrace methodological pluralism will require the intervener to make assumptions that other methodologists may not agree with. It is therefore very difficult to suggest that there is genuine commensurability between paradigms: there is no position outside the paradigm debate from which to achieve this commensurability. Nevertheless, they insist that it *is* still possible to contextualize other ways of thinking from a pluralist perspective. People may thereby choose the most appropriate approach to each research project, depending on perceptions of the circumstances and the wishes of the researcher(s) and other agents involved. Because Flood and Romm (1995) see both the paradigmatic nature of pluralistic practice *and* the possibility of contextualizing ideas from other paradigms, they refuse to talk about either paradigm commensurability *or* incommensurability. Instead, they express the irony of the problem with the phrase "paradigm (in)commensurability" (note the 'in' is bracketed).

Our own view is that resorting to a phrase like "paradigm (in)commensurability" expresses the irony of the paradigm problem very well, but it does not take us any further in dealing with the three challenges that provide the focus for this paper (Figure 1). It merely indicates the bluntness of the language of paradigms in helping us deal with the relationships between our own ideas and the ideas of others. Let us explain.

When Kuhn (1962) first popularised the term 'paradigm', his insights were revelatory for many philosophers of science: previously, science had been seen as an activity that allowed incremental progress by continually developing our store of knowledge. However, this older view did not take account of the experiences of scientists who often found themselves involved in lengthy theoretical debates with others. People trying to introduce new thinking encountered great resistance: old ideas were often defended by their advocates for many years. When Kuhn suggested that different groups of scientists make different paradigmatic assumptions, and that one view eventually 'replaces' the other, this seemed to explain the difficulties people experienced in convincing others of their point of view. We suggest that the language of paradigms has been very important because of the light it has thrown on how scientific communities function.

Nevertheless, the first indications of its bluntness were identified quite early on. For instance, Masterman (1970) points out that Kuhn uses the term 'paradigm' in a large number of different ways—Kuhn cannot cover every angle without doing so. While the language of paradigms has certainly generated insights, we wish to argue that its

inadequacies become transparent when we think about individual learning. For paradigms to change, it must be possible for individual agents to propose new ideas that step outside old paradigmatic assumptions. The question is: what kind of 'paradigm' is operational when an individual initially breaks the paradigmatic mold? What about the maverick who uses tools that are not associated with an existing paradigm? And, in the context of methodological pluralism, what is the status of the work of an individual who proposes a position which draws on ideas from other paradigms? Tsoukas (1993) claims that an individual cannot give birth to a paradigm: a paradigm is only born when the individual's ideas have become widely accepted. What then is the relationship between paradigms and the thinking of individuals? Gregory (1992) and Yolles (1999, 1996) have both addressed these questions, so their work is discussed next.

3.4.4: Critically appreciating alien paradigms

Like Midgley (1989a), Gregory (1992) insists that it is impossible to transcend the paradigm debate: each attempt to do so must inevitably involve researchers in making new paradigmatic assumptions. However, she advances our thinking by examining the nature of communication between people based in different paradigms. Every time one person listens to another whose thinking is based in another paradigm, he or she can only interpret what they are saying through his or her own terms of reference. However, this does not mean communication is impossible − just that care is needed not to be either dismissive or to think that full understanding has been achieved. Tadajewski (2008) similarly acknowledges that a person from one paradigm can appreciate another speaking

in a different ‘paradigmatic dialect’. This way of thinking advances the debate because it allows us to see paradigms in relation to the perspectives of individual researchers. Learning through the appreciation of others’ viewpoints can feed back, via communication, to transform one’s own paradigm. Brocklesby (1997) further notes that when one moves from a paradigm of origin to another and back again, on return a researcher is likely to behave differently than they did before first stepping out of their isolationist paradigm.

Gregory’s (1992) approach not only deals with the paradigm problem, it also addresses the problem of psychological resistance to methodological pluralism. This is because the primary emphasis is on learning: for the researcher to start learning, there is no need for him or her to have full knowledge of a multitude of methods and methodologies. There is only a need for a critical attitude: a preparedness to listen to others when we encounter them, and a willingness to research new approaches. Of course, there can be no absolutely objective need for new approaches, but processes of self-reflection, dialogue with others, observation of circumstances, and ideology critique can help to highlight the limitations of one’s current armory of methods.

3.4.5: Virtual paradigms

Yolles (1999, 1996) also addresses the paradigm problem by shifting the focus to the level of the individual researcher. He argues that, while paradigms are formalized sets of shared assumptions held in common by groups (not just research communities, but also

organizations), individual agents can establish ‘virtual’ paradigms: that is, they can work out a set of assumptions through which ‘reality’ and ideas (including methods and methodologies) from other paradigms can be interpreted. A virtual paradigm may be temporary (like a working hypothesis or model), or it may be developed over the longer term. A virtual paradigm may also become a true paradigm if others begin to share the assumptions: when it comes to be shared right across an organization or community, the paradigm’s transition from ‘virtual’ to ‘true’ status can be said to be complete. Yolles (1996) puts it like this:

> “....if paradigms are to be compared and coordinated.... [this can only be done] through the creation of a virtual paradigm because (1) without a paradigm, nothing can be said about reality, and (2) new language shows that a new paradigm has been created.... Its creation is dependent on the modeller, to whom it is totally relative. Different modellers may define different virtual paradigms, and classify situations in a modelling space according to the paradigm that they choose through which to see. In due course, however, if it becomes accepted by a group and if norms develop that modellers use in order to classify situations, then the paradigm loses its status as *virtual*” (Yolles, 1996:568-569, emphasis in the original).

In our view, Yolles has dealt with the paradigm problem in a useful and interesting manner, building on the observation that any vision of pluralism must be paradigmatic. Indeed, Yolles’s idea of a virtual paradigm helps us escape from Tsoukas’s (1993) criticism of Midgley's writing on the paradigm issue: Tsoukas argues that an individual or small group cannot claim to set up a new paradigm − it is always a large group or community phenomenon (apparently leaving no room for a maverick to do something different). However, using Yolles’s language, an individual or small group can claim to establish a virtual paradigm. For instance, through an analysis of the literature, it would

be possible to trace the development of the IMP tradition from ‘virtual’ to ‘true’ status, as more and more people embraced it.

Unlike the paradigm problem, Yolles does not explicitly address the psychological and cultural challenges. We surmise that Yolles would have the same answer as Gregory (1992) to the psychological challenge: that on-going learning about methodology and methods at the individual level, via the establishment of virtual paradigms, is a means to overcome the psychological barriers to methodological pluralism that are partly the result of an unrealistic expectation that researchers should come into the world ready-equipped with a full armory of methods.

However, perhaps Yolles’s thinking is most relevant in relation to the cultural challenge. While Gregory and Midgley have not addressed this at all, and Mingers and Brocklesby (1996) talk in very general terms about changing the education of future generations of academics, Yolles at least clarifies the mechanism through which cultural change towards a more pluralist practice might come about: the establishment of a virtual paradigm that begins to gain wide-spread support, until it becomes a fully-fledged paradigm in its own right which others can commit themselves to. Indeed, it is quite possible to have a variety of pluralist paradigms which people can choose between: as Mingers and Brocklesby (1996), Midgley (1997b), Mingers (1997), Mingers and Gill (1997) and Nicholson et al (2014) show, there are a number of virtual paradigms out there which have the potential to grow into something more.

4.0: A proposal for a model of learning

Having reviewed some of the writings that have addressed the three challenges facing methodological pluralism, we can now move on to present the model of learning that we argue can offer a new methodological understanding. We intend to construct the model in a series of stages, adding greater complexity at each stage. When complete, we will reflect back on the three challenges and discuss how the model does (or does not) address them.

We should note that this model represents an ideal learning practice that can be used for critical reflection at any level of agency: individual researchers can work towards this pattern of learning for themselves, as can small groups and whole communities of researchers. In writing the text below, we have tended to use language associated with individual learning, but it would only take a minor linguistic adjustment to argue the case for group and/or community learning too. We should also be clear that, when we say that this is an ideal learning practice, we mean that it is a model of good practice to aim towards, not one to be operationalized all in one go. It would be unrealistic to specify a minimum set of skills to start pluralist practice in industrial marketing research (as Mingers and Brocklesby, 1996, argue, most of us are products of education systems that limit the scope of skills development), but we do need to be willing to learn as we go.

Let us start by reflecting back on the relationship between a pluralist methodology and isolationist methodologies, as discussed in Section 2. A pluralist methodology can have a

wide range of methods associated with it, some of which may have been drawn from isolationist approaches, but their use comes to be seen through the lens of the pluralist methodology. Learning about the existence of different methods, and their possible strengths and weaknesses, needs to be an on-going process: one can start with just a couple of methods and proceed from there.

4.1: Continuity and discontinuity

Let us now look at how learning about methodologies and methods comes about. We can see a pluralist methodology as a virtual paradigm: essentially it is associated with the activities of an agent (whether an individual researcher or a group). If the agent is a relatively large group, constituting a research community, one could say that the paradigm is 'true', not 'virtual' − but here we will continue to refer to it as a virtual paradigm, if only not to be presumptuous. Because learning is an on-going process, the armory of methods will grow and develop as the agent becomes more and more experienced at pluralist marketing research. This is a relatively straight-forward kind of skills acquisition.

However, learning also takes place at the level of methodology as well as methods. An important assumption we make is that a pluralist methodology is dynamic, not static. If it is possible to learn from others, then it is necessary for a methodology to evolve. Therefore, we must oppose the usual practice in academia of building a 'crenellated' paradigm (Cova et al 2015; Nicholson et al, 2014) and then defending it like a castle

against enemies. People with this kind of attitude see the modification of a methodology as a sign of weakness (Burrell, 1999). We view it as a strength, as long as learning is part of a process of construction in which ideas change in relation to both practical problems, dialogue with others, and theoretical reflection. Building a methodology is more like constructing a house, where extensions can be added, internal walls demolished, rooms redecorated, etc., to enhance both its function and the experience of living in it. This is different from the uninformed vacillation of someone who is so unsure of what they believe that every new idea is swallowed wholesale (perhaps what Hunt, 1994, refers to as 'mindless pluralism'). Constructing a methodology is a much more considered process, but is still essentially dynamic.

Importantly, if the methodology (virtual paradigm) changes on an on-going basis, there are always going to be tensions and discontinuities between different aspects of it that have been introduced at different times under different circumstances. In this sense, the methodology can be described as a 'fragmentary whole' (a deliberately paradoxical concept). It is the task of the agent, as part of his/her/their on-going learning, to balance two potentially contradictory activities: maintaining coherence and introducing new ideas. If there is too much emphasis on listening to new ideas, and these are not brought into a coherent perspective, then there will be no methodology to speak of − just a fragmentary set of theories, principles and rules for research practice. The result will be projects which jump from one impulse to another in a seemingly haphazard manner. Certainly, the researcher who falls prey to fragmentation is likely to be influenced by all

the new fads that come along, regardless of their worth (Jackson, 1995). In addition, he or she will not have a consistent language to communicate insights to others, so learning is unlikely to be passed from one generation to another (Jackson, 1987b). Finally, the agent who contradicts him or herself on a regular basis, without a coherent story to explain the contradictions, will lose credibility in the eyes of others, and may experience an unpleasant feeling of dissonance.

Conversely if, in the interests of internal coherence, an agent closes off to influences from ideas other than his/her/their own, learning at the methodological level will be minimal at best. The likely outcome will be an impoverished methodology (virtual paradigm) which is self-justifying: if practice is always interpreted through the same methodological idea, then evidence that the methodology is impoverished will simply not be seen by the agent − research practice needs to be interpreted through more than one methodological idea for potential problems to be surfaced effectively (Romm, 1996). Of course, an impoverished, self-justifying virtual paradigm is unlikely to be seen as useful by others, so will not become widely shared.

Maintaining the ‘right’ balance between coherence and openness to new ideas is like learning to ride a bicycle: one starts by regularly falling off, but fairly quickly the knowledge of how to make on-going adjustments in the contexts of practice and dialogue with one's peers becomes tacit, and riding becomes smooth and straight-forward.

4.2: Philosophical reflections

Having clarified what it means for a pluralist methodology to be a 'fragmentary whole', we can now add the next layer of complexity into the model: reflections on philosophy. Midgley (2000) explicitly argues the case for the relevance of philosophy to methodology. The development of a philosophical position very much mirrors the development of a methodological one: a philosophical position can be a fragmentary whole which can take in and interpret ideas from other peoples' philosophies.

Fundamentally, the reason for exploring philosophy (from a methodological point of view) is to ask penetrating questions about the assumptions that methodologies make—about their connections with other (in this case philosophical) discourses that flow through and influence the design, selection and use of methods. Again, we return to the work of Spash (1997) for a good example: by exposing the utilitarian philosophy implicit in supposedly 'neutral' cost-benefit analyses, Spash demonstrates their hidden bias in favor of economic exploitation and against environmental conservation.

4.3: Reflections on practice

The next layer of complexity comes from reflections upon marketing research *practice*. It seems to us to be pointless to explore methodology for its own sake: methodology only has meaning in relation to the projects in which it is applied (also see Midgley, 2000). The actual feedback from practice to methodology happens when the agent reflects on

experiences of application. Explicit evaluations of methodologies and methods in the context of practice can also enhance this reflection (Midgley et al, 2013; White, 2006).

Earlier, we mentioned Romm's (1996) argument that reflections on practice need to be undertaken using multiple methodological positions, otherwise evidence of problems might not be revealed. This is important if one's methodology is not to become self-justifying, and it is part of learning from other methodological positions: to ask how other methodologists might evaluate one's practice, and then to question whether they have a point that should be taken on board in terms of one's own methodological development, the selection/design of methods, and/or future practice.

4.4 Espoused methodology and methodology in use

Brocklesby (1997) notes that members of paradigmatic research communities need to become explicitly conscious of being in a paradigm to even begin the transition to a pluralist perspective. Within the marketing discourse, Easton (1995:411) similarly notes that: "…what is often obscure is the fact that assumptions have been made and values smuggled into the decisions without the decision maker being aware of the process". Vargo and Lusch (2004:2) further argue that "…a worldview or dominant logic is never clearly stated but more or less seeps into the individual and collective mind-set of scientists in a discipline". Paradigmatic assumptions that are "smuggled" in, "seep" in or are not "clearly stated" may limit the scope of methodological pluralism, even if the researcher wants to embrace it.

Therefore, the final layer of complexity enters the picture when we consider how we might frame critical reflection on practice to counter the unthinking acceptance of ideas that only validate or legitimate a narrow range of methods, even when the researcher says they are a pluralist. Argyris (1985), Argyris and Schön (1974) and Schön (1983) make a very useful distinction between *espoused theory* and *theory in use*, which we want to adapt for inclusion in our model of learning. 'Espoused theory' is what an agent *says* they use by way of theory, methodology, principles, etc., and 'theory in use' is what they *actually* use, inferred from stakeholders' observations. Argyris and Schön suggest that the gap between 'espoused theory' and 'theory in use' can sometimes be quite wide, and the agent is almost always unaware of this fact. This is because theories in use tend to be "smuggled" in, while espoused theories are the subject of conscious reflection. Indeed, if people try to 'force' agents to see that their words and deeds are contradictory, they are likely to resist the insight. Therefore, Argyris and Schön say that agents need support to explore the gap between espoused theory and theory in use − and this support should take the form of facilitated dialogue forums and space for self-reflection. In essence, theories in use need to be brought into consciousness to be subjected to the same scrutiny as espoused theory.

Because we find the word 'theory' to be too specific, here we adapt Argyris and Schön's concepts. For the purposes of this discussion, we are interested in methodology and methods. Therefore, we prefer to talk about the evaluation of *espoused methodology*,

meaning evaluation against stakeholders' and others' interpretations of *methodology in use*. The explicit evaluation of methodology, especially involving research participants in reflections on projects, is very important: there is simply no other way to assess whether a researcher's claims about the use of particular methodological principles stand up (Midgley et al., 2013; White, 2006).

5.0: Concluding reflections on the three challenges

Earlier, we said that we have presented this model as our response to the three challenges to methodological pluralism. Below, as the final act in our paper, we will show how the model addresses these challenges.

5.1: Addressing the paradigm problem

Our answer to the paradigm problem was clarified quite early on: we do not believe that it is possible to be 'meta-paradigmatic', unlike some other marketing scholars (Hunt, 2013; Möller, 2013; Vargo & Lusch, 2004, 2008). Methodological pluralism involves us in setting up a *new* position which encourages learning about ideas from other paradigms, but reinterpreted in our own terms. This is an argument advocated previously by Nicholson et al. (2014), and it is also arguably in line with ideas advanced by Tadajewski (2004, 2008, 2009, 2010). The new position reinterpreting ideas from other paradigms can be seen as a 'virtual' paradigm (Yolles, 1996), owned by an individual or small group

− or, if it is shared sufficiently widely, it could be called a paradigm in its more traditional sense.

5.2: Minimizing the psychological problem

Our answer to the psychological problem of resistance to methodological pluralism, which occurs largely because of the wide span of knowledge it appears to require from a marketing researcher, is to emphasize learning over time, starting from the knowledge base the researcher has at the point at which he or she realizes the value of mixing methods. If this knowledge base consists of no more than one or two ideas from a single paradigm, then *that's a start* − the researcher can reach out and begin learning from there. Even learning about an appropriate model of learning can be undertaken over time − but hopefully the model we have presented in this paper (and others in the literature) will be helpful in this regard, as will more general writings on methodology.

5.3 Dealing with the cultural problem

The one challenge that the model in this paper does not address is the cultural problem. Mingers and Brocklesby (1996) express doubts about whether the culture is right amongst academics for more than a minority to accept methodological pluralism. They talk about the need to establish new kinds of education programs to promote this kind of thinking. However, the bottom line in terms of cultural acceptance is whether or not methodological pluralism is perceived as adding value to people's current marketing research practices. We are personally convinced of this added value, especially if there is

no expectation that marketing researchers should enter the world with a widely informed, ready-made set of methods. These can be picked up through an on-going process of learning. What is therefore needed is an extended body of evidence in industrial marketing for the value (or otherwise) of methodological pluralism, and we look forward to contributing to its development.

Bibliography

Åge, L.-J., & Cederlund, C. A. (2014). Editorial: B2B research and managerial relevance. *Journal of Business & Industrial Marketing, 29*(7/8), 633-641.

Anderson, P. F. (1986). On method in consumer research: a critical relativist perspective. *Journal of Consumer Research, 13*(2), 155-173.

Anderson, P. F. (1988a). Relative to what - that is the question: A reply to Siegel. *Journal of Consumer Research, 15*(June), 133-137.

Anderson, P. F. (1988b). Relativism revidivus: In defence of critical relativism. *Journal of Consumer Research, 15*(3), 403-406.

Argyris, C. (1985). *Strategy, change and defensive routines*. Boston, MA: Pitman.

Argyris, C., & Schön, D. A. (1974). *Theory in practice*. San Francisco: Jossey-Bass.

Arndt, J. (1985). On making marketing science more scientific: role of orientations, paradigms, metaphors, and puzzle solving. *Journal of Marketing, 49*(3), 11-23.

Baraldi, E., La Rocca, A., & Perna, A. (2014). Good for science, but which implications for business? An analysis of the managerial implications in high-impact B2B marketing articles published between 2003 and 2012. *Journal of Business & Industrial Marketing, 29*(7/8), 574-592.

Belk, R. W., Sherry, J. F., Jr., & Wallendorf, M. (1988). A naturalistic inquiry into buyer and seller behavior at a swap meet. *Journal of Consumer Research, 14*(4), 449-470.

Beverland, M., & Lindgreen, A. (2010). What makes a good case study? A positivist review of qualitative case research published in Industrial Marketing Management, 1971-2006. *Industrial Marketing Management, 39*(1), 56-63.

Brennan, R., Tzempelikos, N., & Wilson, J. (2014). Improving relevance in B2B research: Analysis and recommendations. *Journal of Business & Industrial Marketing, 29*(7/8), 601-609.

Brewer, J. & Hunter, A. (1989). *Multimethod research: a synthesis of styles*. London: Sage.

Brocklesby, J. (1994). Let the jury decide: assessing the cultural feasibility of Total Systems Intervention. *Systems Practice, 7*(1), 75-86.

Brocklesby, J. (1995). From single to multi-paradigm systems research. In Stowell, F. A., Ison, R. L., Armson, R., Holloway, A. R., Jackson, S. & McRobb, S. (Eds.), *Systems for sustainability: people, organizations, and environments*. New York: Plenum.

Brocklesby, J. (1997). Becoming multimethodology literate: an assessment of the cognitive difficulties of working accross paradigms. In Mingers, J. & Gill, A. (Eds.), *Multimethodology: the theory and practice of combining management science methodologies* (189-216). Chichester: Wiley.

Brocklesby, J., & Cummings, S. (1995). Combining hard, soft and critical methodologies in systems research: the cultural constraints. *Systems Research, 12*(3), 239-244.
Brown, S., Bell, & Carson. (1996). *Marketing apocalypse eschatology, escapology, and the illusion of the end*. London: Routledge.
Burrell, G. (1999). Commentary. In Brownlie, D., Saren, M., Wensley, R. & Whittington, R. (Eds.), *Rethinking marketing* (58-62): Sage.
Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organisational analysis*. Aldershot: Ashgate.
Burton, D. (2001). Critical marketing theory: the blueprint? *European Journal of Marketing, 35*(5/6), 722-743.
Checkland, P. (1981). *Systems thinking, systems practice*. Wiley: Chichester.
Cova, B., Pardo, C., Salle, R. & Spencer, R. (2015). Normal vs spectacular science: The IMP Group and BtoB marketing. *Industrial Marketing Management, 49*, 80-83.
Davies, A., & Fitchett, J. A. (2005). Beyond incommensurability? Empirical expansion on diversity in research. *European Journal of Marketing, 39*(3/4), 272-293.
Dewey, J. (1938). *Logic: the theory of inquiry*. New York: Henry Holt and Company.
Du Plessis, G. P. (2014). An integral ontology of addiction: a multiple object existing as a continuum of ontological complexity. *Journal of Integral Theory and Practice, 9*(1), 38-54.
Easton, G. (1995). Methodology and industrial networks. In Möller, K. & Wilson, D. T. (Eds.), *Business marketing: an interaction and network perspective* (411-492). Norwell, Massachusetts: Kluwer Academic Publishers.
Easton, G. (2002). Marketing. A critical realist approach. *Journal of Business Research, 55*(2), 103-109.
Easton, G. (2010). Critical realism in case study research. *Industrial Marketing Management, 39*(1), 118-128.
Edwards, M. (2010). *Organizational transformation for sustainability: an integral metatheory*. New York: Routledge.
Egan, J. (2009). Reflections on the art-science debate. *Marketing Review, 9*(1), 31-38.
Ehret, M. (2013). Emergence of business markets: a critical realist foundation. *Industrial Marketing Management, 42*(3), 316-323.
Ellis, N., & Mayer, R. (2001). Inter-organisational relationships and strategy development in an evolving industrial network: mapping structure and process. *Journal of Marketing Management, 17*(1/2), 183-222.
Esbjörn-Hargens, S. (2010). An integral approach to climate change: why truth is not enough. *Journal of Integral Theory and Practice, 5*(1), 1-43.
Esbjörn-Hargens, S. & Zimmerman, M. E. (2009). *Integral ecology: uniting multiple perspectives on the natural world*. New York: Integral Books.
Flood, R. L. (1989). Six scenarios for the future of systems 'problem solving'. *Systems Practice, 2*(1), 75-99.
Flood, R. L. (1990). Liberating systems theory: toward critical systems thinking. *Human Relations, 43*(1), 49-75.

Flood, R. L. (1995a). *Solving problem solving*. Chichester: Wiley.
Flood, R. L. (1995b). Total systems intervention (TSI): a reconstitution. *Journal of the Operational Research Society, 46*(2), 174-191.
Flood, R. L., & Jackson, M. C. (1991a). *Creative problem solving: total systems intervention*. Chichester: Wiley.
Flood, R. L., & Jackson, M. C. (1991b). Critical systems thinking: directed readings. In. Chichester: Wiley.
Flood, R. L. & Romm, N. R. A. (1995). Diversity management: theory in action. *Systems Practice, 8*, 469-482.
Flood, R. L., & Romm, N. R. A. (1996). Contours of diversity management and triple loop learning. *Kybernetes, 25*(7/8), 154-163.
Francescato, D. (1992). A multi-dimensional perspective of organizational change. *Systems Practice, 5*, 129-146.
Gioia, D. A., & Pitre, E. (1990). Multiparadigm perspectives on theory building. *Academy of Management Review, 15*(4), 584-602.
Gregory, W. J. (1992). *Critical systems thinking and pluralism: a new constellation.* PhD thesis, City University, London.
Gregory, W. J. (1996a). Discordant pluralism: a new strategy for critical systems thinking. *Systems Practice, 9*(6), 605-625.
Gregory, W. J. (1996b). Dealing with diversity. In Flood, R. L. & Romm, N. R. A. (Eds.), *Critical systems thinking: current research and practice* (37-61). New York: Plenum.
Gummesson, E. (2003). All research is interpretive. *The Journal of Business & Industrial Marketing, 18*(6/7), 482-492.
Gummesson, E. (2014). The theory/practice gap in B2B marketing: reflections and search for solutions. *Journal of Business & Industrial Marketing, 29*(7/8), 619-625.
Habermas, J. (1972). *Knowledge and humna interests*. London: Heinemann.
Han, J. (2000). A framework of value-focused systems thinking. *Systemic Practice and Action Research, 13*(1), 97-109.
Hanson, D., & Grimmer, M. (2007). The mix of qualitative and quantitative research in major marketing journals, 1993-2002. *European Journal of Marketing, 41*(1/2), 58-70.
Harrison, D., & Easton, G. (2002). Patterns of actor response to environmental change. *Journal of Business Research, 55*(7), 545-552.
Hunt, S. (2003). *Controversy in marketing theory: For reason, realism, truth, and objectivity*: ME Sharpe.
Hunt, S. D. (1990). Truth in marketing theory and research. *Journal of Marketing, 54*(3), 1-15.
Hunt, S. D. (1991). Positivism and paradigm dominance in consumer research: toward critical pluralism and rapprochement. *Journal of Consumer Research, 18*(1), 32-44.

Hunt, S. D. (1992). For reason and realism in marketing. *The Journal of Marketing, 56*(2), 89-102.
Hunt, S. D. (1994). On rethinking marketing: our discipline, our practice, our methods. *European Journal of Marketing, 28*(3), 13-25.
Hunt, S. D. (2002). *Foundations of marketing theory; towards a general theory of marketing*. Cincinnati:OH: ME Sharpe.
Hunt, S. D. (2013). A general theory of business marketing: R-A theory, Alderson, the ISBM framework, and the IMP theoretical structure. *Industrial Marketing Management, 42*(3), 283-293.
Hunt, S. D., & Vitell, S. (1986). A general theory of marketing ethics. *Journal of Macromarketing, 6*(1), 5-16.
Jackson, M. C. (1987a). New directions in management science. In Jackson, M. C. & Keys, P. (Eds.), *New directions in management science*. Aldershot: Gower.
Jackson, M. C. (1987b). Present positions and future prospects in management science. *Omega, 15*(3), 455-466.
Jackson, M. C. (1991). *Systems methodology for the management sciences*: Springer.
Jackson, M. C. (1993). Don't bite my finger: Haridimos Tsoukas' critical evaluation of Total Systems Intervention. *Systemic Practice and Action Research, 6*(3), 289-294.
Jackson, M. C. (1995). Beyond the fads: systems thinking for managers. *Systems Research, 12*(1), 25-42.
Jackson, M. C. (1999). Towards coherent pluralism in management science. *Journal of the Operational Research Society, 50*(1), 12-22.
Jackson, M. C. (2000). *Systems approaches to management*. New York: Kluwer/Plenum.
Jackson, M. C., & Keys, P. (1984). Towards a system of systems methodologies. *Journal of the operational research society, 35*, 473-486.
Jackson, N., & Carter, P. (1991). In defence of paradigm incommensurability. *Organisation Studies, 12*(1), 109-127.
Jackson, N., & Carter, P. (1993). 'Paradigm Wars': a response to Hugh Willmott. *Organization Studies, 14*(5), 721-725.
James, W. (1904). The pragmatic method. *Journal of Philosophy*, 1, 673-687.
Kuhn, T. S. (1962). *The structure of scientific revolutions* (2nd ed.). Chicago: University of Chicago Press.
Kuusela, H., Närvänen, E., Saarijärvi, H., & Yrjölä, M. (2014). Challenges for B2B research relevance: a top executive perspective. *Journal of Business & Industrial Marketing, 29*(7/8), 593-600.
LaPlaca, P. J. & Lindgreen, A. (2016). Letter from the co-editors-in-chief Industrial Marketing Management. *Industrial Marketing Management, 55*, 1-4.
Lee, R. P., Johnson, J. L., & Tang, X. (2012). An investigation into the role of IT integration, relationship predictability and routinization in interfirm relationships: from the structuration perspective. *Industrial Marketing Management, 41*(2), 368-377.

Levy, S. J., & Kellstadt, C. H. (2012). Intagraphy: A multi-method approach to situational analysis. *Journal of Business Research, 65*(7), 1073-1077.
Lewis, M. W., & Grimes, A. J. G. (1999). Metatriangulation: building theory from multiple paradigms. *Academy of Management Review, 24*(4), 672-690.
Lowe, S., Carr, A. N., & Thomas, M. (2004). Paradigmapping marketing theory. *European Journal of Marketing, 38*(9/10), 1057-1064.
Lowe, S., Carr, A. N., Thomas, M., & Watkins-Mathys, L. (2005). The fourth hermeneutic in marketing theory. *Marketing Theory, 5*(2), 185-203.
Masterman, M. (1970). The nature of a paradigm. In Lakatos, I. & Musgrave, A. (Eds.), *Criticism and the growth of knowledge*. Cambridge: Cambridge University Press.
Mathyseens, P., & Vandenbempt, K. (2003). Cognition-in-context: reorienting research in business market research. *Journal of Business and Industrial Marketing, 18*(6/7), 595-606.
Matthyssens, P., Vandenbempt, K., & Van Bockhaven, W. (2013). Structural antecedents of institutional entrepreneurship in industrial networks: a critical realist explanation. *Industrial Marketing Management, 42*(3), 405-420.
Midgley, G. (1989a). Critical systems and the problem of pluralism. *Cybernetics and systems, 20*(3), 219-231.
Midgley, G. (1989b). Critical systems: the theory and practice of partioning methodologies., *Prceedings of the 33rd annual meeting of the International Society for General Research (Volume II)*. Edingburgh.
Midgley, G. (1990). Creative methodology design. *Systemist, 12*(3), 108-113.
Midgley, G. (1992). Pluralism and the legitimation of systems science. *Systems Practice, 5*(2), 147-172.
Midgley, G. (1996a). What is this thing called critical systems thinking? In Flood, R. L. & Romm, N. R. A. (Eds.), *Critical systems thinking: current research and practice* (11-24). New York: Plenum.
Midgley, G. (1996b). The ideal of unity and the practice of pluralism in systems science. In Flood, R. L. & Romm, N. R. A. (Eds.), *Critical systems thinking: current research and practice* (25-36). New York: Plenum.
Midgley, G. (1997a). Developing the methodology of TSI: from the oblique use of methods to creative design. *Systems Practice, 10*(3), 305-319.
Midgley, G. (1997b). Mixing methods: developing systemic intervention. In Mingers, J. & Gill, A. (Eds.), *Multimethodology: the theory and practice of combining management science methodologies* (249-290). Chichester: Wiley.
Midgley, G. (2000). *Systemic intervention: philosophy, methodology, and practice*. NY: Kluwer/Plenum.
Midgley, G. (2001). Rethinking the unity of science. *International Journal of General Systems, 30*, 379-409
Midgley, G. (2011). Theoretical pluralism in systemic action research. *Systemic practice and action research, 24*(1), 1-15.

Midgley, G. (2016). Four domains of complexity. *Emergence: Complexity and Organization, 18*, doi: 10.emerg/10.17357.6ffd4f1cee07b1eab0d5e11f6522261b.

Midgley, G., Cavana, R. Y., Brocklesby, J., Foote, J. L., Wood, D. R. R., & Ahuriri-Driscoll, A. (2013). Towards a new framework for evaluating systemic problem structuring methods. *European Journal of Operational Research, 229*, 143-154.

Mingers, J., & Brocklesby, J. (1996). Multimethodology: towards a framework for critical pluralism. *Systemist, 18*, 101-131.

Mingers, J., & Brocklesby, J. (1997). Multimethodology: towards a framework for mixing methodologies. *Omega, 25*(5), 489-509.

Mingers, J., & Gill, A. (1997). *Multimethodology: the theory and practice of combining management science methodologies*. Chichester: Wiley.

Mingers, J. C. (1997). Multi-pradigm multimethodology. In Mingers, J. & Gill, A. (Eds.), *Multimethodology: the theory and practice of combining management science methodologies* . Chichester: Wiley.

Möller, K. (2013). Theory map of business marketing: relationships and networks perspectives. *Industrial Marketing Management, 42*(3), 324-335.

Morgan, G. (1986). *Images of organization*. London: Sage.

Munlo, I. G. (1997). *Critical systems thinking, theory and practice: a case study of intervention in tow British Local Authorities* University of Hull.

Nicholson, J. D., Brennan, R., & Midgley, G. (2014). Gaining access to agency and structure in industrial marketing theory: a critical pluralist approach. *Marketing Theory, 14*(4), *395-416.*

Nicholson, J. D., Tsagdis, D., & Brennan, R. (2013). The structuration of relational space: Implications for firm and regional competitiveness. *Industrial Marketing Management, 42*(3), 372-381.

Palmer, R., Lindgreen, A., & Vanhamme, J. (2005). Relationship marketing: schools of thought and future research directions. *Marketing Intelligence and Planning, 23*(2/3), 313-330.

Peirce, C. S. (1934). *The collected papers of C.S. Peirce*. Cambridge, MA: Harvard University Press.

Peters, L. D., Gassenheimer, J. B., & Johnston, W. J. (2009). Marketing and the structuration of organizational learning. *Marketing Theory, 9*(3), 341-368.

Peters, L. D., Pressey, A. D., Vanharanta, M., & Johnston, W. J. (2013). Constructivism and critical realism as alternative approaches to the study of business networks: convergences and divergences in theory and in research practice. *Industrial Marketing Management, 42*(3), 226-246.

Popper, K. R. (1959). *The Logic of Scientific Discovery*. Originally published as *Logik de Forschung*, 1935. New York: Harper.

Popper, K. R. (1972). *Objective Knowledge*. Oxford: Oxford University Press.

Reed, M. I. (1997). In praise of duality and dualism: rethinking agency and structure in organizational analysis. *Organization Science, 18*(1), 21-42.

Romm, N. (1996). Inquiry and intervention in systems planning: probing methodological rationalities. *World Futures: Journal of General Evolution, 47*(1), 25-36.

Ryan, A., Tahtinen, J., Vanharanta, M., & Mainela, T. (2012). Putting critical realism to work in the study of business relationship processes. *Industrial Marketing Management, 41*(2), 300-311.

Schön, D. A. (1983). *The reflective practitioner: how professionals think in action*. London: Maurice Temple Smith.

Singer, A. E. (1959). *Experience and reflection*. Churchman, C.W. (ed.). Philadelphia: University of Pennsylvania Press.

Spash, C. L. (1997). Ethics and environmental attitudes with implications for economic valuation. *Journal of Environmental Management, 50*(4), 403-416.

Stumpf, S., & Dunbar, R. (1991). The effects of personality type on choices made in strategic decision situations. *Decision Sciences, 22*(5), 1047-1069.

Tadajewski, M. (2004). The philosophy of marketing theory: historical and future directions. *The Marketing Review, 4*(3), 307-340.

Tadajewski, M. (2008). Incommensurable paradigms, cognitive bias and the politics of marketing theory. *Marketing Theory, 8*(3), 273-297.

Tadajewski, M. (2009). The debate that won't die? values incommensurability, antagonism and theory choice. *Organization, 16*(4), 467-485.

Tadajewski, M. (2010). Towards a history of critical marketing studies. *Journal of Marketing Management, 26*(9/10), 773-824.

Tadajewski, M., Chelekis, J., DeBerry-Spence, B., Figueiredo, B., Kravets, O., Nuttavuthisit, K., Penaloza, L., & Moisander, J. 2014). The discourses of marketing and development: towards a 'critical' transformative marketing research. *Journal of Marketing Management, 30*(17-18), 1728-1771.

Tadajewski, M., & Hewer, P. (2012). Paradigmatic and geographic diversity in marketing theory and practice. *Journal of Marketing Management, 28*(1-2), 1-7.

Tsoukas, H. (1993). "By their fruits ye shall know them": A reply to Jackson, Green, and Midgley. *Systemic Practice and Action Research, 6*(3), 311-317.

Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing, 68*(1), 1-17.

Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic: continuing the evolution. *Journal of the Academy of marketing Science, 36*(1), 1-10.

Walker, R. J. (2007). *Social auditing as social learning: a theoretical reconstruction*. PhD thesis, University of Hull.

White, L. (2006). Evaluating problem-structuring methods: developing an approach to show the value and effectiveness of PSMs. *Journal of the Operational Research Society, 57*(7), 842-855.

Willmott, H. (1993). Breaking the paradigm mentality. *Organization Studies, 14*(5), 681-719.

Woodside, A. G., & Baxter, R. (2013). Achieving accuracy, generalization-to-contexts, and complexity in theories of business-to-business decision processes. *Industrial Marketing Management, 42*(3), 382-393.

Yolles, M. (1999). *Management systems: a viable approach*. London: Financial Times Pitman Publishing.

Yolles, M. I. (1996). Critical systems thinking, paradigms, and the modelling space. *Systems Practice, 9*(6), 549-570.

Zhu, Z. (2011). After paradigm: why mixing-methodology theorising fails and how to make it work again. *Journal of the Operational Research Society, 62*(4), 784-798.