Dow, Keynes and the Pragmatic Tradition

More in common?

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Abstract: Dow has demonstrated the significance of methodology for delineating schools of thought in macroeconomics. One methodological distinction relates to the perceived importance of uncertainty, especially for the economic theorist. Putting uncertainty centre-stage herself, as a post-Keynesian, Dow has returned repeatedly to issues such as the role of judgement in theorising, the norms of inquiry and the merits of pluralism. These contributions resonate with discussions within the philosophical tradition of pragmatism, and yet Dow does not draw heavily on this link. This chapter asks why and makes a case for positioning Dow's work more explicitly in this tradition.

Introduction

Dow's delineation between schools of thought in macroeconomics rests in part on a noting differing attitudes towards the uncertainty facing the economic theorist. In Dow's own methodological contributions uncertainty has a central role. Dow's monetary theory also demonstrates an appreciation for, and extension of, Keynes' use of uncertainty as an explanatory factor: our objects of study (economic agents) make decisions in the context of uncertainty - especially in relation to the future - and only by understanding that can we grasp concepts such as liquidity preference.

This chapter focuses on the uncertainty facing the theorist. A further distinction can be drawn between those who emphasise the source of that uncertainty being the nature of inquiry (an epistemic issue) and those who focus more on the idea of uncertainty arising due to the nature of the world – an ontological perspective. The epistemic idea assumes an unassailable gap between subject and object – between ideas and the world. The ontological perspective is an assertion *about* that world. Drawing a clean distinction is not trivial, and yet clearly there is some contention between these two perspectives. The ontologically uncertain will claim that the nature of the world determines the legitimacy of our forms of inquiry, whilst the epistemically uncertain will query the source of the ontologists' assertions about that nature. Current fashion among those who take uncertainty seriously – in the post-Keynesian school at least – is to favour the latter perspective, with Lawson's work on critical realism forming a focal point. Dow has aligned herself with these ideas. Nevertheless, the starting point of this chapter is to note the interest shown by Dow in the epistemic idea of uncertainty. This uncertainty has much in common with the concept of fallibility, something at the heart of pragmatist thought.

In the classical pragmatist tradition, it is thought that our human ideas are bounded by our human faculties and experiences, from which it is impossible to escape. Ascertaining the 'truth' of our ideas, in the strongest sense, asks the impossible – for some objective stance 'outside' ourselves, in the 'real world'. In place of evaluating knowledge claims in terms of their relationship to an elusive certainty, pragmatist epistemology evaluates claims in accordance with a range of criteria including alignment with experience, coherence with prior explanation and the logical rigour of methods used. Scoring higher on one criterion often means scoring lower on another, so we balance according to purpose.

As this evaluation is so important, it is essential to be able to compare and evaluate forms of logic, and to be aware of the strengths and weaknesses of different methods. Keynes' *Treatise on Probability* (2008 [1921]), sought to investigate the nature of inductive logic, and was therefore related to epistemic uncertainty. It can, in my view, be read as part of the pragmatist canon without too gross an intellectual manipulation. Keynes himself referred to the more famous of Charles Sanders

Peirce's contributions in the Treatise, and I draw out additional points of seeming alignment in interest from other writings of Peirce as part of the argument of this chapter. Is Dow's work part of the pragmatist canon also? I think there are many aspects of Dow's methodological discussion that have pragmatic echoes, and I will try again to offer some examples here. Dow however has taken a conscious decision to avoid any strong claim of alignment – an assertion substantiated below. This decision by Dow aligns with a failure by "new Keynes scholarship" – a literature devoted to understanding the significance of Keynes' philosophical thought - to pay much heed to the affinities between Keynes' philosophical ideas and those of Peirce.

Dow's dismissal of pragmatism feels significant and worthy of some explanation. Economics already has a school of thought – institutionalist economics - with acknowledged links with pragmatist ideas, that also took/takes uncertainty seriously. Therefore, linking pragmatism with post-Keynesian methodology would be natural step: It is the similarities between institutionalist and post-Keynesian thinking that is Dow's reason for not covering both schools of thought in her categorisation of the discipline, as we will see below. The consequence of Dow's choice is that the philosophy, vision, ideology – the *mode of thought* - of institutionalist economics is possibly underexplored by some in the post-Keynesian tradition, with the risk that some are accepting an ontological reading of uncertainty mainly through lack of familiarity with the epistemic alternative.

Pragmatism 101

Pragmatism allows for fallibilism without scepticism where the aim of inquiry is human flourishing (Putnam, 1992; Pihlström, 2004). How can this statement be broken down? We leave the question of the aim of inquiry to begin with and focus on the first half of this description. Take fallibilism: as stated above, at the core of the pragmatic tradition is the belief that there is no process that can take us unquestioningly to truthⁱ. As such, all of our knowledge is fallible. This should not, however, leave us in despair; the pragmatist tradition has an epistemic outlook which: "[rejects]..the Cartesian focus upon the importance of defeating skepticism while endorsing the fallibilist view that any of our beliefs and methods could, in principal, turn out to be flawed" (Legg and Hookway, 2020, section 1). As Russell (1946) argues in his *History of Western Philosophy*: "To teach how to live without certainty, and yet without being paralysed by hesitation, is perhaps the chief thing that philosophy, in our age, can still do for those who study it" (p.14, quoted in Dow, 1996, p.9). My choice of quote is tongue-incheek, as Russell would not have enjoyed being associated with pragmatism, and infamously leaves Peirce out of his history.

Accepting fallibility increases the importance of the norms of inquiry. The pragmatist tradition is "tied to the study of the normative standards we should adopt when carrying out inquiries" (Legg and Hookway, 2020, section 1), on which we see Peirce's pronouncement: "what is more wholesome than any particular belief is the integrity of belief, and that to avoid looking into the support of any belief from a fear that it may turn out rotten is quite as immoral as it is disadvantageous" (Peirce 1877, quoted in Menard (ed), 1997, p.25). There are virtues of inquiry, and the way we discern what is good inquiry in a general sense is to consider the end or purpose of all inquiry, which for Peirce (as we shall see below) is the dispelling of reasonable doubt.

Pragmatism in Institutionalist Economics

The classical pragmatists - and in their turn the institutionalists – had more specific views on scientific method, and many of their writings were imbued with a sense of how important the turn in natural science to dynamic systems with emergent properties would be for the study of economic and social systems (Hodgson 2004). Veblen thought marginalist theory would be challenged by this developing understanding. In '*The Limitations of Marginal Utility*' Veblen argued, over one hundred years ago, that:

"neither Mr. Clark nor any of his associates in this line of research have yet contributed anything at all appreciable to a theory of genesis, growth, sequence, change, process, or the like, in economic life...[...].. To the modern scientist the phenomena of growth and change are the most obtrusive and most consequential facts observable in economic life" (Veblen, 1909, pp. 620-621).

The subject matter of economics, according to Veblen, was material civilization – a web of dynamic interconnections, processes and institutions we are socialised into reproducing:

"material civilization is a scheme of institutions – institutional fabric and institutional growth. But institutions are an outgrowth of habit. The growth of culture is a cumulative sequence of habituation, and the ways and means of it are the habitual response of human nature to exigencies that vary incontinently, cumulatively, but with something of a consistent sequence in the cumulative variations that so go forward – incontinently, because each new move creates a new situation which induces a further new variation in the habitual manner of response; cumulatively, because each new situation is a variation of what has gone before it and embodies as causal factors all that has been effected by what went before; consistently, because the underlying traits of human nature (propensities, aptitudes, and what not) by force of which the response takes place, and on the ground of which the habituation takes effect, remain substantially unchanged" (Veblen, 1909, p.628).

Marginalists were hampered in Veblen's view by the use of theories created according to the rules of deduction "instead of being drawn in terms of cause and effect" (Veblen, 1909, p.625) – they discounted fallible explanations and sought certainties, however empty. Pragmatism offered philosophical support for the pluralist approaches in institutionalist economics, and specifically for an inductive scientific method that was problem-focused and value-laden. It showed the necessity of recognising the habits, conventions and institutions through which economic processes must pass.

Post-Keynesianism has done much to explore and expand understanding of those economic processes, and these advances complement the institutionalist approach. There are now some theorists using the term PKI - "Post Keynesian Institutionalists": Whalen (2011) offers a nice selection and makes a compelling argument: "Together, Institutionalism and Post Keynesianism provide a formidable alternative to conventional economics: a broader framework for economic analysis and a more secure foundation for exploring and crafting economic policy options." (Whalen, p.44)ⁱⁱ. Minsky demonstrated the power of combining post-Keynesian analysis of business and credit cycles with institutional and psychological factors in his financial instability hypothesis and super-cycle. As he notes, the "actual path an economy traverses depends upon institutions, usages, and policies. In the final analysis, history remains history, although the range of what can happen is limited by basic economic relations" (Minsky, 2008 p.194).

Dow (and Lawson) on pragmatism and institutionalist economics

In base terms, the argument of this chapter is that Dow has somehow 'snubbed' the pragmatic tradition despite sharing many of its insights, possibly on flawed grounds, and arguably with negative consequences. Snubbing implies conscious choice, so this first claim requires considerable substantiation. In 'Macroeconomic Thought: A Methodological Approach' (1985) Dow has no separate section for institutionalist economics when detailing the separate schools of thought in macroeconomics, although there is a brief discussion under the heading of 'The Marginalist Revolution', where it is presented as a form of the German historical school. There is the following discussion of Veblen's method:

"Veblen's method was multi-disciplinary (see Veblen, 1899c). In particular he brought anthropological and psychological ideas to his analysis of human behaviour; he reacted strongly against the mechanistic behaviour ascribed by the marginalist to 'economics man'.

He concluded that individual and group or institutional behaviour are governed by technological conditions; in particular these conditions influenced *both* demand and supply. He foresaw that the attempts by large corporations to maintain profit rates and large unions to maintain wage rates would lead to contraction of output and eventual collapse of the capitalist system. There are strong parallels with Marx's thought in Veblen's analysis" (Dow, 1985, p.54-55).

Dow notes that the tradition lived on, mentioning Commons, Ayers and Mitchell among others, but the section is brief and Dow doesn't link the tradition to the classical pragmatic thought of Peirce, James or Dewey. The section finishes with the statement: "Eclecticism of method, however, has meant that the tradition lacks cohesion" (Ibid, p.55). This criticism begs the question as to when pluralism in method – seen as positive - crosses the line to become eclecticism in method, and how does the school of post-Keynesian economics avoid the same accusation? An alternative criticism might have been that there was a lack of a consistently-enough organised conceptual framework – a shared view on fundamental economic processes, arguably more present in post-Keynesian (or Kaleckian) economicsⁱⁱⁱ.

The philosophical journey taken in the chapter "Methodological Issues and Economics" launches from Russell's previously mentioned quote, traces through the rationalist/empiricist debate, explains and contrasts Dow's famous categories of Cartesian and Babylonian thought, considers the debates within logic regarding deductive and inductive reasoning and finishes with an in-depth discussion of the Kuhnian retort to Popper's views on 'the' scientific method. Kuhn is located as following from Quine and Duhem and followed by the constructive criticism of Lakatos. There is no further relationship drawn between the pragmatic tradition and the work of Quine and Kuhn. Pragmatism is mentioned in parenthesis as having "something in common" with the Babylonian mode of thought (Dow, 1985, p.14) but the term "Babylonian" is chosen precisely because it is "a relatively new term which does not pick up baggage from past debates" (Ibid, p.15).

In the 1996 update, "Modes of Thought" gets a devoted chapter and Cartesian and Babylonian thought are demarcated according to the categories of closed v. open systems of thought, atomism v. organism, dualism and finally "uncertainty, probability and expectations" (Dow, 1996, chapter 2). *Methodological Issues and Economics* is turned into *Methodological Issues in Economics*, and there are added sections on critical realism and pluralism. Pragmatism falls out of the index, although it remains in the equivalent parenthesis (now p.12). Institutionalist economics gets its own section (4.4) and an update on a recent revival: "Institutionalist or evolutionary economics, like the Post Keynesian and neo-Austrian schools, has in recent years achieved increasing support..[and].. achieved a greater degree of coherence" (Dow, 1996, p.60). There is an acknowledgement of the distinction between old and new institutionalist economics, and further reflection on Veblen's "world view" and the interconnections between institutionalist thought and other schools:

"Old Institutionalism, rather, continues in the Veblenian tradition, rejecting methodological individualism and focusing on irreversibilities, in knowledge acquisition and in evolutionary change in institutions and behaviour, all analysed in terms of open system (as theoretical system and as subject matter).

"Although institutionalist economics is a distinctive school of thought in terms of understanding of the economic process and theory of knowledge, it has much in common with Post Keynesian economics, and indeed has drawn influences also from neo-Austrian, Marxian and mainstream economics. It is thus an example of a school of thought which has much in common with a range of other schools of thought yet is incommensurate with them. While this is true of all schools of thought, the overlaps in the case of Institutionalist economics are relatively greater. Since the purpose here is to emphasize distinctiveness rather than commonalities, Institutionalism has not been singled out as one of the schools of thought for

elaboration of its conceptual foundations. In other words, the selection of schools of thought made here reflects the particular need to illustrate the importance of differences in methodological foundations, rather than to represent macroeconomics in its entirety" (Dow 1996, pp. 60-61).

Arguably, further important old institutionalist ideas regarding the nature of institutions are included in Dow through references to Lawson. However, aligning with Lawson also induces a movement away from the epistemic uncertainty of pragmatism, towards ontological uncertainty. Dow sees value in the demands of Lawson that social theorists take the methodological requirements drawn from the nature of social reality (social ontology) seriously. Lawson notes that he is at least in part unpacking the ideas already contained in prior economists, specifically Keynes, Marx, Veblen and Hayek (his ordering). For example Lawson quotes Veblen:

"The growth and mutations of the institutional fabric are an outcome of the conduct of the individual members of the group, since it is out of the experience of the individuals, through the habituation of individuals, that institutions arise; and it is in this same experience that these same institutions act to direct and define the aims and ends of conduct" (Veblen, 1909, p.243 quoted in Lawson, 1997, p. xiv).

Lawson also quotes Commons:

"The business man who declines to use the banking system which has grown up in the past, the labourer who refuses to come to work when others come, may be industrious, but he cannot live in industrial society. This is familiar enough....But when customs change, or when judges and arbitrators enforce a custom by deciding a dispute, or when labourers or farmers strike in order to modify a custom of business, or when a revolution confiscates slaves or other property of capitalists, or when a statute prohibits a customary mode of living, or when a holding company extends an old custom into new fields – then it is realised that the compulsion of custom has been there all along, but unquestioned and undisturbed" (Commons, 1934, p.701 quoted in Lawson, 1997, p.32).

As well as drawing on these institutionalist lessons in understanding the processes of transformational social change, Lawson's critical realist position (drawn as it is from the philosophical system of Bhaskar) also contains considerably more, dare I say it, "baggage" – something Dow had previously sought to avoid. Despite this baggage, Dow makes an argument regarding the coherence of the "Babylonian" world view and critical realism (1999) that puts emphasis on the shared understanding of open v. closed systems of the "material" world; Dow is therefore clearly siding with Lawson's metaphysical focus, the 'ontological turn'. It may be assumed therefore that one implicit concern that Dow has with linking with the pragmatic tradition is that she, like Lawson, links such thinking with the idea of the 'epistemic fallacy' which I would summarise here as the idea that method can be evaluated prior to (or without ever) ascertaining the 'nature' of the world about which the method seeks to learn. Van Bouwel (2003) offers a full discussion of the epistemic fallacy and finds it wanting. Suffice it to say that pragmatists certainly put the problem the other way round – how is the prior knowledge about the nature of the world ascertained? The nature of theorising is prior to the content of our theory, even theories about existence.

A pragmatic version of Dow would require shifting back towards an epistemic perspective: differences across schools of thought would rest not on greater or less appreciation of the 'openness' of the universe, but due to distinctions regarding the level of critical awareness in the application of closed forms of reasoning such as modelling, when clearly that closedness is an artificially epistemic boundary - a metaphor even. See for example Kaldor (1977): "[m]ost abstract economic models postulate a "closed system", but they apply the conclusions reached to open systems, such as national economies, without being fully aware of the inconsistencies involved in this procedure" (Kaldor,

1977, reprinted in Targetti and Thirlwall (eds.)1989, p.426-427). The distinction is subtle, but possibly important.

There is further reference to pragmatism by Dow in "Economic methodology: an inquiry" (Dow, 2002), under the heading of 'Rhetoric'. Here pragmatism is described as an approach seeking "a practical (philosophical) resolution to the failure of rationalism to generate truth" (Ibid, p.115). Quine, Dewey and Peirce are named as belonging to the tradition, as is Rorty, and there follows some detail on Rorty's position, which is summarised as stating that "the value of science-as-a-social-construction lies in its usefulness, since we cannot satisfactorily judge it in terms of how it represents reality" (Ibid, p.115). This argument is then directly tied to Friedman's instrumentalism (although with the caveat that Friedman twists the position to his own taste) prior to a discussion on hermeneutics.

In summary, opportunities to discuss classical pragmatism in depth are not taken. The next section tries to draw out some links between Dow's position and the pragmatic tradition, to give a sense of why such a discussion would have been apt: Dow uses the ideas of Quine and Kuhn as steppingstones towards her presentation of modes of thought and characterisation of schools within macroeconomics, and the possibility of meaningful communication between them, as will be discussed below. There are then other moments of apparent affinity between Dow's contribution and theories of logic and epistemology from both classical and more modern pragmatism. Dow's categorisation of modes of thought speaks to Peirce's original critique of Cartesianism. Dow's focus on uncertainty *for the theorist* speaks to the pragmatist focus on fallibility, and there are pragmatic chimes in Dow's discussion of unnecessary dualisms (see for example Putnam (2002) on the collapsed fact/value dichotomy). The main focus will be on the links with Peirce, as this opens the way to talk also about the relation between Peirce and Keynes and exposes an argument against pragmatism that may have weighed on the 'new Keynes scholars' and Dow. This argument is challenged in the hope that the links between in particular post-Keynesian methodology and the philosophical tradition of pragmatism can be uncovered and strengthened.

Links between Dow and modern pragmatism: overcoming falsificationism

Where precisely are those opportunities to make links with, and to delve deeper into, the pragmatic tradition? Dow's appreciation of the significance of the ideas of Kuhn, but also those of Duhem and Quine is one such area. Dow's support for these ideas in how to overcome the naïve falsificationism that emerged from the demarcation debate regarding what is and what is not science is one element of her methodological thought that has a pragmatic flavour^{iv}. The philosophical flaw with Popper's philosophy of science and the turn to formalism (here meant as a growing dismissiveness of non-deductive methods) was elegantly demonstrated by Quine - ironically through quite formal means - within his writings on the philosophy of language. Quine's paper, *Two Dogmas of Empiricism* (1951) set out to achieve a formal analysis of analytical truth. The second of Quine's two dogmas was a form of reductionism regarding the relationship between statements and the world to which they relate:

"The notion lingers that to each statement, or each synthetic statement, there is associated a unique range of possible sensory events such that the occurrence of any of them would add to the likelihood of truth of the statement, and that there is associated also another unique range of sensory events whose occurrence would detract from that likelihood...[...]...The dogma of reductionism survives in the supposition that each statement, taken in isolation from its fellows, can admit of confirmation or infirmation at all. My countersuggestion ..[..].. is that our statements about the external world face the tribunal of sense experience not individually but only as a corporate body" (Ibid, p.355).

Something closely aligned to this view was put forward earlier by Duhem – hence the "Quine-Duhem thesis" label. Quine's argument draws out more clearly some interesting epistemic conclusions:

"The totality of our so-called knowledge or beliefs, from the most casual matters of geography and history to the profoundest laws of atomic physics or even of pure mathematics and logic, is a man-made fabric which impinges on experience only along the edges. Or, to change the figure, total science is a field of force whose boundary conditions are experience" (Ibid, p356). In other words, the significance of dropping the two dogmas is "a blurring of the supposed boundary between speculative metaphysics and natural science. Another effect is a shift towards pragmatism" (Ibid, p.340).

Kuhn's contribution to the demarcation debate was an attempt to move away from proscriptions regarding scientific method, towards describing knowledge growth throughout scientific history. As noted in Balashov and Rosenberg's (2002) anthology of the philosophy of science, "[i]f observational evidence underdetermines theories, we need an explanation of what has determined the succession of theories that characterizes science's history" (p.407). Kuhn described his approach as a "historically oriented view of science" (Kuhn 2012 [1962], p. xliv). Kuhn argued that in the early stages of scientific development, when the body of commonly accepted knowledge from which scientists could draw judgements regarding the plausibility or otherwise of new theories was relatively small, the criteria by which such judgements were made ('judgements' again, remember pragmatism 101) were not limited to experiential fit, or proper application of "scientific" method. Conclusions were rather determined by the researcher's "prior experience in other fields, by accidents of his investigation, and by his own individual makeup" (Ibid, p.4). While this is quite obvious when looking far enough back in time, it remains true at all times that an "apparently arbitrary element, compounded of personal and historical accident, is always a formative ingredient of the beliefs espoused by a given scientific community at a given time" (Ibid, p.4). Dow notes that specific to economics, and prior to Kuhn, Schumpeter (1954) had spoken of "vision" as something pre-analytical, grounding decisions regarding the scope and nature of inquiry. One year earlier saw the English language edition of Myrdal pointing to the role of ideology in economic reasoning (Myrdal 1953). All of these arguments fall within the pragmatism tradition – investigating methods and norms of inquiry in the context of fallibility.

Back to the classics: Peirce on logic, reasoning and probability

Arguably even more relevant than the post-Popper debates on method for Dow – and certainly more significant for Keynes, is the work of Peirce. First and foremost a logician (although with contributions ranging across philosophy, particularly notable in relation to theory of signs and meaning, as well as metaphysics), Peirce worked committedly to delineate and understand the relationships between different forms of reasoning. The discipline of logic, since Aristotle (see Smith, 2017) has included efforts to articulate the rules we follow when reasoning well, and the mistakes, or fallacies that we might commonly make (yet would concede are mistakes were they clearly pointed out to us, and we were *reasonable* people). Through Aristotle to Kant discussions of logic become more sophisticated, with a particular interest in the "synthetic" or non-deductive aspects of reasoning. "Ampliative" logic was a key interest of John Stuart Mill (Robson, 2011), who argued that knowledge even in mathematics ultimately rests on induction, not deduction. Mill also attempted to *describe* causal inference, in particular setting out two methods: The Method of Agreement and the Method of Difference. Both Keynes and Peirce were moved by Mill's efforts, although neither entirely agreed with his conclusions.

Let us recall the earlier attempt to define pragmatism: *Pragmatism allows for fallibilism without scepticism where the aim of inquiry is human flourishing*. To bypass scepticism, Peirce rejected the "spirit of Cartesianism" in his famous paper of 1878 "*How To Make Our Ideas Clear*" (reprinted in Houser and Kloesel (eds), 1992, p.124). Peirce specifically dismissed the method utilised by Descartes in the *Meditations* - the method of radical doubt. For Peirce, doubt cannot be faked – either you truly doubt something or you do not. One leitmotif throughout the pragmatic tradition is that there

must be some level of commitment to descriptive accuracy when it comes to considering how we acquire (and justify) knowledge. Our actual methods of knowledge acquisition have been, over the last few hundred thousand years, phenomenally successful. Methodologies which suggest we should start doing things differently to what comes to us intuitively should be viewed therefore with great suspicion – a point key as we saw to the argument of Kuhn.

Doubt, as properly understood, is crucially important when it comes to inquiry, according to Peirce. For Peirce, doubt is the irritation that inspires inquiry. It occurs spontaneously from our practical interaction with the world. There are many things that we do not doubt, not because we have demonstrative truth of their infallibility, but because we have not been offered a reason to doubt them. As Legg and Hookway put it "We tend to treat our established beliefs as innocent until 'proven guilty' (Legg and Hookway 2020, section 4.1). See also Menand (1997) "With the doubt, therefore, the struggle begins and with the cessation of doubt it ends" (Menand, 1997 p.14). True doubt is the catalyst for inquiry, and inquiry aims at "fixing belief". The processes by which we fix belief were considered by Peirce in his 1877 paper "*The Fixation of Belief*" (reprinted in Houser and Kloesel, 1992, p.109). There Peirce argued that the proper end of inquiry is the settlement of communal opinion, or at least the potential settlement.

Peirce broke reasoning into three categories: deduction, induction and abduction (Peirce, 1878b, reprinted in Houser and Kloesel (eds), 1992, p.186; see also Peirce 1903b, reprinted in Houser et al.(eds), 1998, p.226). The term "abduction" refers to a form of ampliative reasoning, the formation of new theories and hypothesis that have a stab at explaining the world around us, our experience - a model of reasoning that relates to the contemporary notion of "inference to the best explanation" (Lipton, 2004)^v. In some places Peirce argued that processes of inquiry would make use of all three forms of reasoning at different stages; in anticipation of Popper, for example, Peirce saw one process of scientific method as passing from abduction to deduction, and to induction – we imagine a theory, deduce a consequence that should generally hold should that theory be true and test a particular case. Peirce continually probed and challenged his own ideas however. He was recognisant of a trade-off "between security and uberty (rich suggestiveness; potency). Deductive reasoning provides the most security, but it is austere and almost entirely without evocative power. Abduction, on the other hand, is abundant in its uberty though nearly devoid of security" (Houser et al., (eds) 1998, introduction xxxii). In his maturity Peirce's concern was that he had neglected uberty for security, and narrow interpretations of Peirce and pragmatism certainly read his work in this way, as will be picked up below.

Keynes on logic, probability and reasoning

Keynes wrote on induction and inference in his "Treatise on Probability" and clearly saw his theory of probabilistic reasoning as being a part of logic: "If logic investigates the general principles of valid thought, the study of arguments, to which it is rational to attach some weight, is as much a part of it as the study of those which are demonstrative" (Keynes, 2008 [1921], p.8). From the study of the subset of argument that leads to certain, demonstrable knowledge, Keynes described his aim as an attempt to re-generalise logic, so that we can consider what it means to be rational in arguments whose conclusions are probable (Keynes, 2008 [1921], chapter II). Formal logic seeks to determine relations of implication. Keynes' concern was the logic of the relationship of 'inference', a relationship appealed to by the 'everyday' arguments that form the body of science, politics, metaphysics and even rudimentary mathematics (remember Mill's influence). Our inferential arguments make use of natural language and of methods which are familiar and, to an extent, intuitive, such as induction and, more recently, statistical inference – forms of ampliative reasoning. Keynes set out to analyse these methods, and to demonstrate that they are valid. He organised this interest around the question of probability.

Keynes considered probability to be a measure of the degree of rational belief that a conclusion inspires, relative to its argument. Because we are dealing with rational belief, not belief in general, probability is objective, not subjective "in the sense important to logic" (Ibid, p.4). Probability itself is a relation between two sets of propositions – the first set being the premises of the argument and the second being the set of propositions that form the conclusion: "Between two sets of propositions, therefore, there exists a relation, in virtue of which, if we know the first, we can attach to the latter some degree of rational belief. This relation is the subject-matter of the logic of probability" (Ibid, p.6). This is distinct to thinking of probability as being a property of the event to which the propositions of the conclusion refer. It is this view of probability being a relationship between propositions that gives Keynes' work its logical aspect, rather than a metaphysical one. Keynes is interested in the logical validity of our arguments and is of the view that we can know this without knowing anything about the "real world". The truth of our conclusion may depend on something external to us, but the validity of our reasoning stands alone.

An additional idea of Keynes' was the idea that different probability relations could have different weights (Ibid, Chapter IV). The same numerical probability relation could exist between two different sets of arguments and conclusions, but the first set of arguments could consist of just five propositions, and the second consist of fifty. Keynes raises the possibility that the second probability relation would therefore have more weight. The argument set could differ in quality as well as quantity; we might have differing levels of confidence in the truth of our premises for example. We may feel differently about the conclusion drawn from a small set of premises about which we feel confident than a conclusion drawn from a large set of premises whose truth is highly questionable.

Under the influence of Russell and Moore, Keynes argues that objective probability relationships are known through intuition – our knowledge of them is something immediate, direct (as in Russell's knowledge by acquaintance) and/or irreducible (as in Moore's conception of simple terms such as 'good'). Keynes' assertion that probability relations are known intuitively is contentious and was publicly repudiated by Keynes a few years after publication (see for example Gillies, 2000, Chapter 3). Keynes' interest in the processes of inferential reason, and in "ordinary discourse logic" are still interesting however, and are reason, no less, to place Keynes in the pragmatist tradition himself.

In the Treatise Keynes refers to Peirce's 'Theory of Probable Inference' and 'On an Improvement in Boole's Calculus of Logic'. Also of relevance for Keynes' philosophical interests would have been 'The Probability of Induction', where Peirce puts forward his own argument about the importance of evidential "weight" in probabilistic argument: "our belief ought to be proportional to the weight of evidence, in this sense, that two arguments which are entirely independent, neither weakening nor strengthening each other, ought, when they concur, to produce a belief equal to the sum of the intensities of belief which either would produce separately" (Peirce, 1878, reprinted in Houser and Kloesel (eds.) 1992, p.159; see also Kasser, 2016 on this topic).

Peirce's categorisation of "The Three Normative Sciences" (Peirce 1903b, in Houser et al. (eds.) 1998, p.196) might also have appealed: Peirce was referring to logic, ethics and esthetics (sic). Modern textbooks insist that students are clear on the distinction between normative and positive statements and refrain from the former in their economic science. Keynes however referred to economics, in the Cambridge tradition, as a "moral science" (Davis 1991, in Bateman and Davis (eds) 1991). This reminds us again of the opening definition of the pragmatic tradition: pragmatism allows for fallibilism without scepticism where the aim of inquiry is human flourishing. Pragmatism stands against any suggestion that the normative and positive can be clearly separated in inquiry. The contemporary pragmatist debate regarding the collapse of the fact/value dichotomy (see Putnam, 2002) is arguably one dual worthy of more consideration by Dow. The unapologetic purpose of institutionalist economics draws deeply on the influence of Dewey, even today. Compare for example the criticism aimed at Keynesian policy urging a magnitude of investment but not a direction, with the

institutionalist Kapp (2011) arguing that "[i]nvestments and production will have to be guided by substantive human needs" (p96), and noting that in principle it is scientifically possible to determine and define such social minima "not only in respect to elemental biological requirements but also to the psychological, safety, and aspirational needs" (p92)^{vi}. Here is a vision of economic moral science: guided by ethical purpose, that itself has scientific foundations^{vii}.

Carabelli's interpretation of Keynes' philosophy

Following the work of Carabelli (1988), Keynes is understood to have put forward a coherent philosophical framework incorporating probability, intuition and judgement. Furthermore, this Keynesian philosophy is deemed to offer a sound and fecund epistemological foundation for post-Keynesian economic "vision". In the decades following Carabelli's work there were a number of other important publications: 1989 saw O'Donnell's *Keynes, Philosophy, Politics and Economics*; 1994 saw Davis's *Keynes's Philosophical Development*; 1996, Bateman's *Keynes's Uncertain Revolution* and Coates's *The claims of common sense Moore, Wittgenstein, Keynes and the social sciences* in 2004. This literature was largely favourable to Keynes' philosophical thought, and supportive of the suggestion that this thought underlies his economic theory in an essential way. This body of work was later referred to collectively by Lord Skidelsky as 'the new Keynes scholarship' (2003).

One interesting argument made by Carabelli and picked up in particular by Coates (2004), was that there was an important influence of the later Wittgenstein on Keynes – or if not an influence, then an affinity. An argument suggesting the former, i.e. retrospectively justifying Keynes' work from the prospective of post-analytic philosophy, requires arguing that Keynes was not simply philosophically aware, but was a philosophical visionary, which is a tall order. As there is no reference to Wittgenstein in the index of the Treatise the latter argument is really the most that can be hoped for. But of more interest for our purpose is the question of why instead (or as well) didn't Carabelli and the other 'new Scholars' not more closely link Keynes to Peirce and the pragmatist tradition?

My impression is that Carabelli seems to reject Dewey's focus on purpose as offering support for instrumentalism (the idea that theory is good if it enables prediction, regardless of its relation to meaning) – we saw above the same argument being made by Dow in relation to pragmatism more broadly. Purpose is here being understood in too narrow a sense. Purpose should be understood as moral purpose, as much if not more than as 'use'. There is also a sense that for Carabelli and for Dow, pragmatism leads to narrow views of science, such as verificationism. In this they are not alone: "From the perspective of the logical empiricists, the pragmatic thinkers were viewed as having seen through a glass darkly what was now seen much more clearly. The myth developed (and unfortunately became entrenched) that pragmatism was primarily an anticipation of logical positivism, in particular, the positivist's verifiability criterion of meaning" (Bernstein 1992, p.817). It isn't difficult to see where the idea comes from. Peirce put forward a number of pragmatic "maxims", and the narrower of these (those pulling towards security, and away from uberty) could clearly be read in this way. See for example the following passage from '*Pragmatism as the Logic of Abduction*' that clearly suggests a pathway towards the verificationist principle of Ayer:

"Admitting, then, that the question of pragmatism is the question of Abduction, let us consider it under that form. What is good abduction? What should an explanatory hypothesis be to be worthy to rank as a hypothesis? Of course, it must explain the facts. But what other conditions ought it to fulfil to be good? The question of the goodness of anything is whether that thing fulfils its end. What, then, is the end of an explanatory hypothesis? Its end is, through subjection to the test of experiment, to lead to the avoidance of all surprise and to the establishment of a habit of positive expectation that shall not be disappointed. Any hypothesis, therefore, may be admissible, in the absence of any special reasons to the contrary, provided it be capable of experimental verification, and only in so far as it is capable

of such verification. This is approximately the doctrine of pragmatism" (Peirce, 1903b, in Houser et al., (ed.) Vol II. p.235)

However, the quote does not end at that point, and neither should our judgement of Peirce's idea. Peirce continues: "But just here a broad question opens out before us. What are we to understand by experimental verification?" Peirce most certainly did not have a narrow meaning in mind, i.e. something to do with labs and controlled conditions. A wider reading involves some sense of the pragmatist view of our transactional relationship with the world. Also, here again an explanation is good that improves our ability to successfully achieve our purpose, but our purpose can just as likely be moral or aesthetic as it can be in some way practical.

Conclusion

There are clear echoes of pragmatist themes in the work of both Keynes and Dow. Pragmatist epistemology leads to conclusions similar to those carefully and powerfully made by Dow: that underdetermination in theory does not mean that we are reduced in methodology to description, or to relativism. Pragmatists have long argued that it is possible still to articulate what makes good theory, by pointing to the range of criteria that seem important (or reasonable) - explanatory reach, internal consistency, tractability, usefulness etc. There will always be trade-offs, such as between stability and uberty. No one theory will be superior on all counts; pluralism of theory is therefore a strength. Acknowledgement that no one method will be superior on all counts leads to the same conclusion regarding pluralism of method. Norms of inquiry are important, as is the purpose of inquiry. If the reasons I have uncovered in this chapter – chiefly, too narrow a reading of pragmatist ideas - are what stand in the way of the pragmatic tradition being taken as seriously by Dow and the post-Keynesians as by the institutionalists, then I think they should be reconsidered. A more thorough grounding in the tradition could avoid the risk that its insights be needlessly re-discovered, or worse, put forward in less convincing, more superficial ways.

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ⁱ There are in fact pragmatist theories of truth, all of which object to a naïve correspondence theory.

ii Interestingly, none of the contributors reference Lawson or critical realism

iii Morgan and Rutherford, M. (eds.) 1998 offers an excellent range of views on the determinants behind the demise of institutionalist influence in the interwar period.

^{iv} See for example Wade Hands (2004) for a full discussion on the links between Deweyan pragmatic philosophy and contemporary economic methodology

^v Lawson acknowledges Peirce's efforts in a footnote: "This (Aristotelian) mode of inference is interpreted as retroduction by, for example, Peirce (1867), Hanson (1958), Bhaskar (1978), McMullin (1984) and as abduction by Peirce (1867) and various Institutionalist economists. Peirce is probably the most important contributor here" (Lawson 1997: 294 (footnote)).

vi Disappointingly, Kapp's subchapter "The American Influence: Pragmatism, Darwinism, Brook Adams" of "Intellectual Antecedents of Institutional Economics" is missing (Berger and Steppacher 2011 p11 editorial introduction.

vii With thanks to Sebastian Berger for introducing me to Kapp, and to this debate.

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