

Note 2 on 'uncertainty' for the Katz Conference

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Uncertainty?

Academics often use the term 'uncertainty' as a rhetorical device to frame answers to questions they cannot fully specify. In the management arena, we propose 'entrepreneurs' as those who drive change in 'uncertain markets'. But what are uncertain markets and how do entrepreneurs 'resolve' their uncertainties? And why with profit rather than loss? Or we propose 'entrepreneurs' as those who 'learn better' or are 'more aware of market opportunities'. Sounds good and spawns a deal of consulting. But where do 'market opportunities' come from, how do we know them - and what, precisely, do successful entrepreneurs 'learn'? Or we see uncertainty as a cause of 'transaction costs'. But if such costs are determinable they are factor costs, while if they are not determinable what is gained by mentioning them? The fuzziness here leads some to say uncertainty is 'an unintelligible expression without a straightforward description'. Obviously, uncertainty is under-specified by definition for specification makes certain. 'Risk' is a less ambiguous term for the many who see uncertainty as exemplified by 'probabilistic data'.

When not framed as 'risk' uncertainty points towards what is 'not known' and indirectly towards whatever epistemology the author presumes gives meaning to the term 'known'. Thus, the first point is that 'uncertainty' can apply to differing epistemologies - such as truth by assumption (what is uncertain is presumed logical but yet to be reasoned, like the proof of Fermat's last theorem), by experience (yet to be validated empirically or falsified like the Higgs boson), by revelation (a faith yet to be adopted or dismissed), etc. The question is less "What do you mean by uncertainty?" than "In what epistemology do you locate knowing?"

Today's economics and management academics generally see two modes of knowing: (A) realist/positivist or (B) subjectivist/existentialist/constructivist/interpretivist. These terms are loose but sufficient to distinguish situations A, presumed knowable in principle, from those B that are not. There can be uncertainties in either.

In our positivist-dominated era academics in Camp A presume rigorous science can reveal Truth that, being logically constructed, is 'knowable'. It is 'objective', lying beyond the individual (scientist) constructing his knowledge. Many A-campers regard the B approach as convoluted rubbish. Today Camp B is smaller and embattled.

Its members also presume knowledge is humanly constructed but deny Camp A's assumption that Truth (knowing) is only about the reality constructed by Mother Nature. They presume mankind creates multiple social, psychological, institutional, and political reality/realities. The differences between the two camps lead to interminable debates about 'two cultures' and whether the methods of the social sciences are the same as those of the natural sciences.

Consequently, some ground clearing must precede the discussion of uncertainty. In the Camp A

'uncertainty' is presumed prevalent, perhaps supported by claims such as 'Man is weak', 'signals are confusing', 'data is incomplete', or 'reality is complex'. None, though, can be proven. Notwithstanding, Camp A's task is to reduce the manager's/agent's uncertainty about their decisions and practices. Science, research, learning, Big Data, bottom up discussion, etc. may be useful. While some presume certainty as learning's goal, others settle for uncertainty reduced enough to 'satisfice', for practice to seem mindful and justifiable rather than arbitrary or mindless.

Camp B sees things very differently. The emphasis shifts from better analysis, from gathering and reducing more data into statistically tighter conclusions, and towards the exercise of imagination (sometimes dubbed 'judgment'). Agents use their imagination to construct meaning from chaos, not by reducing uncertainty about the known but by creating something not present in the data and projecting it into the lives of others. Camp B lies well beyond Camp A's thinking and analysis, but remains stubbornly on its horizon.

The history of our grove shows the Camp B discussion is professionally high-risk. Unfortunately, not many seem interested in how or why this came to be, though the history is revealing about the gulf between them. But it does mean that Camp B's heroes seem well past their sell-by date for those in Camp A who insist on recency as a test of Truth - because they presume our 'science' is 'progressing'. Camp A's heroes include Hayek, Shannon, Nash, and Friedman. Camp B's include Knight, Coase, and Simon, though some might add von Mises, Schumpeter, Kirzner, and Penrose. Differentiating their contributions is scholarly stuff and not of interest to most in the economics/management field.

Knight

This Note argues Knight and 'Knightian uncertainty' are foundational to the Camp B discussion - and that we can see Coase's and Simon's thinking as shaped by Knight's more original notions of uncertainty.

One characteristic of major academics is blinding clarity about the question to be addressed - along with obsessive entrepreneurial zeal. We know Simon was still an undergraduate when he arrived at his career-forming question "How can people make reasoned decisions when the conditions for rational choice are absent?" He went on to propose 'bounded rationality' and invent 'artificial intelligence'.

One reading of *Administrative Behavior* is that a properly administered organization can be rational and so accommodate its participants' bounded rationality. In 1934 Simon was an omnivorous undergraduate student and research assistant in Knight's department at Chicago, auditing upper level courses. It may be that bounded rationality was his take on Knightian uncertainty. It implied people created a rationality, not naively subjective, but related to their goals and the context they inhabited. It was bounded, implying something knowable lay beyond the boundary.

Likewise, the story is that Coase's career-forming question "when to organize within the firm or

across the market?" came to him as a student in Plant's lectures. Coase did not mention reading the samizdat notes later gathered into Knight's *The Economic Organization*. These were circulating at LSE and elsewhere well before Coase headed off to the US in 1932 - where he attended some of Knight's lectures. In the notes that became Chapter 1, Knight wrote economics 'dealt with the social organization of economic activity'. He posited five types of social organization including markets and organizations and pondered their relative merits.

Knight's views on uncertainty seem key to understanding its place in Coase's and Simon's work, and thus in the work of other Camp B laborers. The question that precipitated Knight's career was "Why do markets not compete away all profits?" Of course, this was about 'real-world' markets, as opposed to the instantly-clearing 'certainties' of mainstream economics. Yet the connection between real-world markets' uncertainties and profit is far from clear.

The relations between Coase and Knight were clearly complicated. Note Coase's remarks about Knight in *The Nature of The Firm*, yet Coase also conceded Knight was the person whose thinking had greatest impact on his own. Coase set out with socialist views but moved towards libertarianism, partly under Plant's influence, pointing to the failures of planning. This sentiment is central to Coase's *The Problem of Social Cost* (1960).

Knight was a student of philosophy and theology before he moved/was pushed into economics. He was ideologically committed to 'freedom', by which he meant the individual's ethically constrained rights to own and dispose. Hence his *The Ethics of Competition*. He saw the benefits efficient markets could achieve muddied by 'Knightian uncertainty'. The role of economics was to study social arrangements that facilitated freedom in such uncertain circumstances, arrangements now labeled 'social institutions'. Real world markets and real world firms are such. Put differently, Knight saw economics was about giving ordinary (heterogeneous) people opportunities to engage in real-world markets and so make their freedom real. He spent his career arguing against social institutions he saw as curtailing economic freedom, such as nationalism and religious fanaticism. He offers insight into our times.

Knightian Uncertainty

Knight and Coase saw economics and economic institutions as socially generated responses to real-world uncertainty - no uncertainty, no firms, nor markets either. It follows that neither of them had much time for the Camp A project of a 'rigorous' theory of the firm. The positivist strategy is to presume certainty and then surface defects, labelled uncertainties, in what is known. This obscures the Camp B viewpoint by dogmatic choice of method. In contrast, Knight presumed a practical economics of 'mixed methods', along the lines of JN Keynes's *The Scope and Method of Political Economy*. Positivism, especially in the hands of Milton Friedman, proposed but a single method.

Knightian uncertainty is a metaphor for the human condition of all-against-all in which we struggle to generate habitable order from inhabitable chaos by the building the social institutions that make our society possible - political, theological, and economic. Chaos is 'the problem' to be

solved; darkness must become light.

These social institutions are not theoretical constructions, they are arrived at tortuously, through history as people's imaginations engage their situation. The uncertainties resolved cannot ever be fully or rigorously specified. They are contingent and temporary and reflect humans' ethical, cognitive, and experiential limitations.

More importantly, the uncertainties engaged are 'particular', not mere implementations of some general principle that positivists might seek. Hobbes's Leviathan was one such 'institution', but it had no blueprint or design. Crucially it excised the freedoms Knight held dearest. The full constellation of social uncertainties were not engaged, 'the problem' was brutally simplified to make it solvable.

Knight presumed markets allow more freedoms, but they too must be organized by real people. So economics' aim was to study real-world social institutions, including markets, and thereby help resolve the unlimited and un-specifiable uncertainties of the human condition. Economics would thereby supplement the existing political and legal approaches to generating and managing social institutions.

Knight's characterization helped the Chicago School dominate economics and politics - at least until today - in contrast to Robbins's views about optimizing the use of scarce resources that fostered rigor at the expense of relevance. Eventually, part of the history we should all know about but tend to ignore, the Chicago School economists bent to post WW2 politics and embraced certainty and rigorous modeling, deeply disappointing both Knight and Coase. Simon took a lifeboat into CMU's psychology department.

So What?

These arguments lead to several conclusions. First, Knight's notion of uncertainty opened up a penetrating social analysis that stands against the one dominating our professional field. It clarifies our community's divergences - Camp A's, to reduce uncertainty and end up with deterministic models/theories, versus Camp B's, to explore how we bring reasoning, ethics, and imagination to constructing and managing social organizations which can help ordinary people inhabit a richer and more decent world.

There is no point in repeating here what I have written about the Camp B project and its methods ¹.

But we can find support from a surprising quarter - Porter's 5 forces framework (FFF), undoubtedly one of the best-known and most influential analyses emerging from the management

¹ Spender, J.-C. (2014). *Business Strategy: Managing Uncertainty, Opportunity, and Enterprise*. Oxford: Oxford University Press.

field. Though Porter was a credentialed economist before he shifted camps, FFF is not economics as economists understand it - despite being highly relevant to anyone concerned with profit in our democratic capitalist system. FFF is Camp B work, further highlighting Camp A's disinterest in profit and Knightian uncertainty and denial of its politics.

When Porter published his model in 1980 he bucked the academic convention in many ways, most obviously by not including a methodology chapter (as he had in his 1976 book/thesis). The book's missing chapter ultimately appeared in two papers, in *AMR* in 1981 and in *SMJ* in 1991. Key was Porter's move away from the theory-hypothesis-test Camp A orthodoxy. His papers stressed 'framework', Porter's way of pointing to the specific set of uncertainties an entrepreneur might be able to resolve profitably through mindful action.

These characterized an entrepreneurial 'opportunity space' that could be seized/occupied through appropriate social institutionalization/s - doing deals with others with the power to disturb the firm's rent-stream. They cannot be collapsed into rigorous theory, nor into generalities that can be empirically tested with large populations of firms 'doing strategy'. Note Porter made no attempt to explain the 'causes' of these circumstances, the uncertainties that led to the possibility of a profit-yielding opportunity space. Put differently, his analysis focused exclusively on protecting the firm's existing rent streams and paid no attention to their sources or creation.

The considerable business impact of Porter's FFF is in obvious contrast with Williamson's Camp A claim to have empirically validated his theory of 'transaction cost economics' - which has had little business impact. The lesson is ironically Knightian. The real world remains concerned with uncertainties and the judgments of the entrepreneurs who resolve/transform them into profit.