Technology as Transsubjective Structural Context: The Uncertainty of Investor Expectations

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Ingrid Hahne Rima is one of those rare and wonderful heterodox economists whose work does not fit neatly into any one of the various heterodox schools, such as Post Keynesianism, Marxist economics, Sraffian economics or Institutionalist economics. Like Edward J. Nell, Heinrich Boris, Geoffrey Harcourt and Luigi Pasinetti, Rima draws on all of these traditions, and more. In addition, Rima is not easily pigeonholed when it comes to an area of specialization within the discipline, having contributed to the history of economic thought, labor economics, comparative systems and demographic economics. Perhaps her work can be best described as ‘Structuralist Post Keynesian’ or ‘Post Keynesian Institutionalist,’ terms that might be used to capture the approach of those who travel a ‘middle path’ between two sides of the Trieste summer school debates — ‘American’ Post Keynesians who focus on money, effective demand and the uncertainty of investor expectations, and the ‘Anglo-Italian’ followers of the Sraffa-inspired revival of classical political economy who emphasize the structure of production, capital accumulation and technical change (see Forstater, 2002, pp. 195–196; 2003, pp. 309–311). There is even a healthy dose of Kalecki, some of it via Eichner and Minsky, not to mention Joan Robinson, if we follow Harcourt’s taxonomy (e.g., Hamouda & Harcourt, 1988). For Rima, each leg of the Post Keynesian stool deals with important issues that cannot be ignored, and much of her work utilizes a framework that weaves together aspects of all three branches along with an approach to structural and technological change in the tradition of authors such as Adolph Lowe, whose work Rima has repeatedly looked to over the years for analytical guidance and inspiration (see, for example, Rima, 1984, 1993a, 1993b, 1997).
It is in this spirit that the present essay is written, arguing that human subjectivity is partly determined (or overdetermined) by economic and technological structure. To make this point I will use the example of the uncertainty of investor expectations in a capitalist economy, a topic of considerable importance for Post Keynesian and other heterodox economists. The title of the paper uses the term 'transsubjective' to highlight the fact that economic, technological, institutional and environmental structures are only accessed and understood through intersubjective structures of shared meaning, and that transsubjective structures define and are defined by human intersubjectivity, and both produce and are produced by such intersubjectivity. Technical organization is itself a social product, but nevertheless is provisionally 'given' for individuals and social groups, even though transsubjective structures undergo continuous transformation as a result of social activities. Thus, the terminology (used previously in attempting to formulate an 'interpreted-structural' economics, Storlager, 1987, 2001, and originally adopted from Milberg & Pietrzykowski, 1994; cf. Davis, 1998; Lewis, 2008) is meant to encourage recognition of the reciprocal and non-deterministic nature of the relationship between the 'structure of markets and technology' and identity, behavior and motivation (Milberg & Pietrzykowski, 1994, p. 101). The impact of (historically changing) socioeconomic structure on behavior and motivation, and the changing limits upon and consequences of economic action under different structural and institutional conditions, constitutes an endogenous transformational dynamic that can alter the efficacy of social conventions.

During the depression of the 1930s, Keynes and others began to emphasize the importance of expectations, especially investor expectations of future conditions, which influence decisions about present investment and in the aggregate determine the level of economic activity, output, income and employment. Hicks, a year before the General Theory appeared, stated the problem of analyzing 'anticipations' as one of 'deducing changes in anticipations from the changes in the objective data that call them forth':

once the connections between objective facts and anticipations has been made, theory again comes into its rights... Nevertheless it seems clear to me that... we should bring out very clearly the assumptions which we are making about the genesis of anticipations. For this seems to be the only way to overcome the extraordinary theoretical differences of recent years, which are, I think very largely traceable to this source. (Hicks, 1935, pp. 58–59, quoted in Kregel, 1986, p. 157)

Keynes himself was not always as focused on the issue of the 'objective data,' sometimes treating uncertainty as an existential subjective state, as in 'we simply do not know' (Keynes, 1937, p 114). Often Keynes did seem to admit that there are different degrees or even qualities of uncertainty, which would not be the case under a state of total ignorance (Dequech, 2000, p. 53). But even without complete ignorance, different degrees of uncertainty could still be due to existential subjective uncertainty, in that the 'computational and intellectual limitations' of agents may vary (Lavoie, 1992, p. 54). But 'in a non-ergodic world, the future cannot be known prior to its creation regardless of the processing powers we impute to agents' because 'the future is transmutable' (Dunn, 2000, p. 428). In several places, however, Keynes does seem to acknowledge some objective conditions that determine the state of expectations, independently of 'the agent's competence' (Lavoie, 1992, p. 54).

In The General Theory and related writings, Keynes lays out the different notion of time in his analysis as opposed to the neoclassical orthodoxy. In Chapter 5 of The General Theory, Keynes (1936, p. 46) states that:

Time usually elapses... and sometimes much time – between the incurring of costs by the producer (with the consumer in view) and the purchase of the output by the ultimate consumer. Meanwhile, the entrepreneur (including both the producer and the investor in this description) has to form the best expectations he can as to what the consumer will be prepared to pay when he is ready to supply them (directly or indirectly) after the lapse of what may be a lengthy period; and he has no choice but to be guided by these expectations, if he is to produce at all by processes which occupy time.

Keynes's references to 'sometimes much time' and 'what may be a lengthy period' imply that it is not just the nature of the future in historical time which creates some generic subjectivity uncertainty. The length of time itself partially determines the degree of uncertainty, with the longer the time, the greater the uncertainty, as the more chance the unexpected can occur. 'The longer the lapse of time between decision and consequence, all other things being equal, the more likely the individual is to believe he or she is making a decision in an uncertain environment' (Davidson, 1994, p. 89).

This idea is further supported in Chapter 12, where Keynes (1936, pp. 149–150) writes that:

Our knowledge of the factors which will govern the yield of an investment some years hence is usually very slight and often negligible. If we speak frankly, we have to admit that our basis of knowledge for estimating the yield ten years hence of a railway, a copper mine, a textile factory, the goodwill of a patent medicine, an Atlantic liner, a building in the City of London amounts to little and sometimes nothing, or even five years hence.

Keynes returned to this theme in his 1937 paper, 'The General Theory of Employment':

The whole object of the accumulation of wealth is to produce results, or potential results, at a comparatively distant, and sometimes at an indefinitely distant, date. Thus the fact that our knowledge of the future is fluctuating, vague, and uncertain, renders wealth a peculiarly unsuitable subject for the methods of the classical economic theory. This theory might work reasonably well in a world where goods were necessarily consumed within a short interval of their being produced. But it requires, I suggest, considerable amendment if it is to be applied to a world in which the accumulation of wealth for an indefinitely postponed future is an important factor; and the greater the proportionate part played by such wealth accumulation the more essential does such amendment become. (Keynes, 1937, p. 113, original emphasis)

For Winslow, longer time horizons are associated with higher degrees of uncertainty because fewer factors may be treated as given:
the shorter the distance into the future of the events we want to forecast, the greater will be the number of factors which can be treated as given. (Winslow, 1989, p. 1175)

[Rational prediction becomes more difficult the more distant are the events to be predicted because, while the amount of existing knowledge which is relevant to prediction grows smaller as this distance increases, the amount which is required grows larger because the number of factors which can be treated as given decreases. (Winslow, 1989, p. 1178; see also, p. 1180)

Others have pointed to a number of institutions that affect the degree of uncertainty. The list includes money, contracts, the legal system and the State, the firm, and technical innovation (see Davidson, 1994; Dequech, 1999, 2000; Dunn, 2000; Lavoie, 1992). But what transsubjective structures (over)determine the length of the production period?

Adolph Lowe argued that technological structure was one such important factor. Discussing response time to changing market conditions, Lowe (1951, p. 429) writes that:

"The faster the required adjustment can be carried out, the nearer to the present are the relevant future dates, and the smaller the danger that uncalculable events will interfere... It stands to reason that the reverse is true of a highly immobile system, where adjustment takes considerable time, with the result that the relevant dates are shifted to a distant future, and where the input of large indivisibilities raises the total costs of adjustment.

In a later paper, Lowe writes that ease of mobility of resources, resulting from the relative 'smallness and non-specificity of capital equipment... shortened the time horizon for adjustment... a prime condition for stabilizing expectations' (Lowe, 1969, p. 13):

"large-scale technology and the long-term financial commitments it demands, coupled with the spread of monopoly in the markets of goods and productive services, are progressively immobilizing the flow of resources, thus extending the time span over which dispositions must be made, as well as reducing the subjective certainty and objective accuracy of business expectations. (Lowe, 1969, p. 14)"

For Lowe, high elasticity of the production system is a relatively more appropriate description of an earlier capitalism, with small-scale, labor-intensive production carried out by independent producers with low fixed (and other) capital costs, operating at low levels of (relatively slowly changing) mechanization, making for greater mobility and adaptability. Like Keynes - who stated in the quote above that the mainstream theory 'might work reasonably well in a world where goods were necessarily consumed within a short interval of their being produced,' Lowe also held that the orthodox approach that abstracted from the uncertainty of expectations would be better suited to an earlier era in which time horizons tended to be shorter due to the technological structure of production. Large-scale production of modern industrial capitalism, with huge fixed costs, highly mechanized, capital-intensive methods, rapidly changing technologies, long-term financial obligations, and highly specialized capital equipment, is characterized by great immobility and thus inability to make fast adjustments. Slower moving, slower adapting capital structure means longer adjustment time and hence a greater likelihood that something unexpected will happen. The transition to industrial capitalism increases the average time horizon, increasing the uncertainty of investment.

One of the great contributors to the analysis of expectations and uncertainty, George Shackle, read Lowe's 1951 paper, and wrote to Lowe praising the article, specifically referring to the passage quoted above from page 429. Lowe replied in a letter to Shackle of April 12, 1952 that 'I do think that uncertainty is a function of the economic horizon, other things being equal. And if I am right in assuming that what I call the "degree of mobility" largely determines the economic horizon, and actually should do so, we have here one simple factor for the determination of the macro-economic constraints.' What Lowe here calls the 'macro-economic constraint' is nothing other than what we have been identifying as the transsubjective structural context. Lowe also remarks in the letter that 'there is no contradiction between our procedures; they rather supplement each other, mine probably adding a macro-economic constraint to yours.' Lowe is correct that the focus on the subjective and intersubjective states of uncertainty need not be in conflict with the analysis of transsubjective structural context, as long as it is admitted that there may be differing degrees and even qualities of uncertainty, and that these are not merely due to an agent's 'computational and intellectual limitations.'

While others (Lavoie, 1992; Dequech, 1999, 2000) have noted that technical innovation affects uncertainty in that investors never know when a new innovation will be discovered and introduced, nowhere in the recent and ongoing revival of interest in 'fundamental uncertainty' is the degree of uncertainty directly linked to technical structure (but see Dequech, 2004, on an earlier version of the present paper). Ongoing technological change means ongoing transformation of the transsubjective structural context, and thus changing subjectivities of agents. The additional recent and ongoing transsubjective transformations associated with the microelectronic revolution may have additional implications for subjective uncertainties, and thus, among other things, the level and stability of employment.

Piore (1979) has argued that technological structure itself is partially determined by the nature of demand for the product being produced. Stable demand for a product gives firms the assets and incentives to invest in high-tech equipment; unstable and uncertain demand for a product means firms are afraid to invest too much in retooling and may not have the funds to do so anyway. It follows from this that if investors are aware that government policy is committed to maintaining high, stable rates of growth in aggregate demand, firms will have both the incentive and the resources to commit to research and development and retooling, whereas if government is perceived to be weak or hesitant in its support for expansionary policies, uncertainty regarding future demand will tend to lead to extended use of older techniques. Thus, technological structure itself can be affected by the degree of uncertainty of investor expectations, and government policy is capable of playing a stabilizing role. Government policy creating the structural context or 'macro constraints' that may reduce the uncertainty of investor expectations and thus promote high and stable levels of
investment, output and employment, is nothing other than Ingrid Rima's 'enlightened interventionism' (Rima, 1997).

References


