

Capturing markets? A review essay on Harrison White on producer markets

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This essay explores White's arguments in *Markets from Networks* (2002), highlighting differences and analogies to economic models of markets and the complexity of White's approach. It argues that construing markets from the viewpoint of producer firms' market strategies may be theoretically limiting and politically inadequate in a world increasingly characterized by market mechanisms and by struggles over the definition of markets.

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1. Introduction

With his groundbreaking article 'Where Do Markets Come From?'³ (1981) Harrison White first took on markets, the institution at the heart of capitalist economies. Some 20 years later, Harrison White's new book *Markets from Networks* (2002) expands on this early work. As Richard Swedberg has pointed out (2003, p. 105), economists themselves have paid little attention to the discussion of the central institution that underlies neoclassical economics—to markets. White's book is a bold attempt to address the discontent with the current state of knowledge about markets by proposing a sociology-based mathematical model that focuses on production markets. Does he succeed? Do we have the answers now that have been

This review emerged from intense discussions of Harrison White's book with Alex Preda, Aaron Pitluck and Ivan Tchalaikov, to whom I am deeply indebted for their independent insights and understandings of White's work. A portion of this review was presented in the Author Meets Critics Session, Annual Meeting of the American Sociological Association, Atlanta, GA, August 17, 2003.

missing so far? Can we finally match the economists' market mechanism with our very own social mechanism of market behaviour?¹

The answer is not easy to give. There are several reasons for this, but one surely is White's writing. Though the book is written in a much clearer style than his earlier work, it is still hard to read. White likes to shift back and forth between topics, and the maths is stark. White's reasoning reminds one of Adorno's 'nervous theorizing'. Adorno thought his own thinking was visceral—nerve cells responding and firing—and his theorizing was *the post hoc* attempt to trace the nervous hits in his stimulated consciousness. White's writing is the electrochemistry of idiosyncratic thought painfully transferred into a textual structure. The text often appears to be composed entirely of supplements. White frequently cross-refers us to passages that supplement the one we are currently reading, thus insinuating that they provide the closure that we cannot get where we actually are. I am sure he does this in a genuine effort to help us to get to grips with his complex thinking. But closure of course is never reached, even if we make the effort to go through all supplements. The struggle with the text that ensues—on our part and his—would warm the heart of Derridans, who might find much confirmation for their claims in the supplemental structure of White's text. The maze of text bytes is difficult for ordinary readers to navigate though.

Harrison White's take on this is that he is piling layer after layer onto the core version of his model (2002, p.18), making the whole more complex and comprehensive. And he does pile on layers. The basic intuition that guides White's model is that production markets (the molecules) are composed of firms (the atoms) that are confronted with Knightian uncertainty in their upstream supply chains (also firms and markets) and downstream buyer chains, which may equally be firms and markets. Will the firms get the supplies they need and be able to set up a production process? Will buyers be interested in their products or substitute someone else's products for them? Substitutability is the key anxiety and uncertainty in this model. To combat uncertainty, firms orient themselves by other firms—those engaged in producing products that may be substitutable for their own. So firms watch the immediate competition. This is Harrison White's original idea put forward in 1981 (p. 543), when he said that 'Markets are tangible cliques of producers watching each other'. How do consumers get into the picture? Only indirectly, as reflected in 'the mirror' of firms' costs, production schedules and revenues, which White

¹ It is not quite true of course that economists have not discussed markets. They have simply preferred to focus on what they consider the heart of the beast, which for them is price formation. As Swedberg also noted, it would be a serious mistake for economic sociologists to ignore what economists have to say about markets (2003, p. 105). Harrison White, as I shall argue, pays considerable attention to economists' models.

thinks are more observable than consumer preferences. As producers, firms are differentiated in terms of both the products produced and of the relative standing or quality of the products, an argument White takes from Chamberlin/rhus, firms are not isolated entities but ranked; there is an ordering of status among them that cues their various identities (2002, p. 32). When strung together, this ordering is what White calls a *market profile*—an ordering of a handful (or slightly more) of producers located along a curve on the worth/revenue (x) axis and volume shipped (y) axis. Producers deduct the market profile 'from evidence of actual payments (revenues received) by volume shipped, which define for them their and their rivals' position in the market¹ (2002, p. 28). Knightean uncertainty, White says, has triggered the evolution of a 'profile in rivalry*' that can be used instead of endless efforts to estimate how actors on the buying side react. An example is the market profile of the luxury car market, where Mercedes may rank before BMW, BMW (perhaps) before Audi, and so on, in perceived 'niceness'⁵ (quality), as reflected in firms' revenue against volume. Firms not only observe but also enact and reproduce this profile in rivalry—they commit themselves to production schedules on the basis of perceived market profile—while they see one another as constituting the market. In so doing they seek stability by way of stable niches and stable outcomes (profit), and the perceived market profile guides them in this. If firms are successful in this effort they establish a role structure of producer-positions in relation to each other, and they reproduce this role structure and the market itself. In this sense markets are self-reproducing role structures. Stability seeking extends to efforts to control both downstream and upstream production uncertainty, which firms also try to eliminate by means of a stable production schedule derived from the market profile.

White elaborates this model along the lines of his 1981 article by working out different types of market role structure and market region. Markets are path dependent, White suggests (2002> p. 152), but they also 'get shaken up and settle into different configurations'⁵. Market regions can be crowded and explosive, paradoxical and ordinary, The distinct regions for market correspond, White maintains, to the four different regimes that govern markets according to the French school of the economics of convention (for more on this see Favereau and Lazega, 2001). The French '*regime Industrie?*' covers White's crowded region, the '*regime domestique*' White's paradox region (characterized by rising production costs accompanied by declining quality as perceived by buyers), the '*regime marchand*' appears to overlap with White's ordinary markets and his unravelling region with French '*routier**' markets. What we may learn from this is that White's model is not static; it accommodates various sorts of realignment in market profile and setting, depending on additional mechanisms.

There are several strong innovative points in White's model, and some close analogies to economic models. The *first strong point* is that White's model does not tackle individual markets but takes into account whole series of markets

that are sequentially ordered along an upstream (the suppliers' side) and downstream (the buyers' side) axis. Thus, firms become contextualized not only by their competitors but also by supply and demand chains, and markets become contextualized by what goes on in upstream and downstream domains. To be sure* chain models neglect long-term contractual relationships between firms and their suppliers that eliminate the freedom to substitute one buyer or supplier for another. These 'long-term, complex' and often 'multiparty' contractual arrangements shelter firms from market forces and effectively replace market exchanges by inter-organizational collaborations (e.g. Goldberg, 1980, p. 338). An example is the automotive industry, where contractual relationships may last up to 25 years and longer.² Yet a general model of production markets should address the non-contractual case, and White's model is the first, to my knowledge, in sociology that provides a comprehensive view of series of interlinked markets.

The *second strong point* is that the model attempts to recognize the accomplished and dynamic character of the social reality of markets. "White sees the market mechanism as an interactive construction among producers (2002, p. 25), and markets as prone to various forms of reconfiguration. This side of White's model appears somewhat stylized, since market signalling, perception and construction are assumed rather than empirically identified. In other words, White does not specify the model's local properties and accomplished characteristics as a social construction.

Yet we may also claim that it is perhaps a *third strong point* of White's approach that his model reduces the complexity of real markets. In that he follows economic approaches. White claims that we need pay attention only to producers watching each other's revenues and Volumes shipped'. I take this to be a strategy that can be likened to the economist's tendency to opt for convenient analytical assumptions and to take operational shortcuts which are also taken by economic actors themselves as they make their ways through the thickets of economic reality. In this regard, recall that Hayek (e.g. 1945) claimed that all relevant information in a market economy is encapsulated in prices, hence there was no need to try and collect the dispersed bits of information that participants might have—a task which in any case could never be accomplished (Hayek argued against socialist non-market economies on account of their inability to match the information efficiency of the price mechanism). Though today's analysts, engaged in the business of collecting and interpreting market information, might say that Hayek ignored various aspects of economic reality, for example the problem of interpreting the information contained in prices, Hayek's and later authors⁵ complexity-reducing assumptions about the suggestiveness of prices retains its value for economists in weaker

² These contractual relationships are studied from a legal and applied management science perspective. See for example Esser (1996).

Table 1 Comparison of microeconomic models and White's (2002) model

Microeconomic models	White (2002)
Market mechanism: equilibrium of supply and demand	Market mechanism: market profile as signalled ordering of a few producers on worth by volume curve
Supply and demand curves	Market profile curves and plane diagrams
Prices incorporate all relevant information	Profile parameters replace endless efforts to estimate how actors on buying side react
Perfect competition relaxed to less perfect competition when goods are not homogeneous, which is usually the case	Competition disciplined around substitutability
Equilibrium	Stability (stable niches, role structures)

This table has profited from a discussion of White's model in relation to micro- and macroeconomic theory by Aaron Pituck. See unnumbered note on the first page of this article.

versions, and these assumptions are clearly advantageous when modelling is involved. In Harrison White's model, what other firms signal about their revenues and volumes shipped is taken as an efficient indicator of the direct information one may wish to have about buyers' preferences and demands and about producers' situations on the cost and demand sides. This is the efficient market theory adapted to sociological concerns.

A fourth strong point surely is that the model actually specifies a mechanism, the market profile, which can be seen as White's equivalent of the economist's price mechanism. For those familiar with supply and demand curves and what one can do with them, White's worth (revenue)-volume curves immediately strike a chord—they are his sociological translation. As Phil Mirowski once suggested,³ as long as economists have formal (quantitative) mechanisms that yield predictions and we sociologists don't, we are disadvantaged. White clearly attempts to eliminate the disadvantage. One should also consider that the effect of White's market profile mechanism is stable market reproduction for firms in an uncertain environment—an outcome that seems equivalent to or at least reminiscent of the equilibrium effects economists expect from their market mechanism. Both camps emphasize stability and an equilibrated market reproduction rather than internally motivated growth or change. In strategy and goal, then, and despite his occasional sniping at economists, White's model, has something in common with the market equilibrium model—it is a clever sociological translation of economists' concerns (Table 1).

³ Personal communication, Bielefeld, November 2000.

2. Capturing markets?

But is it a felicitous translation? Not quite, I would say, if it is markets we are after. Whatever the pitfalls of the equilibrium model in economics, and there are many, as economists themselves point out, the model does address markets as a distinct theoretical category that has to be distinguished from firms and other cultural forms along the lines of structure and mechanism. White's model, on the other hand, neither promises nor delivers such a distinct category. White construes production markets from the angle and perspective of producer firms and their market strategy, as reflected in firm behaviour. This is the spin he puts on markets and the most important of his assumptions. He talks about the presumably atom-like status of producer firms in relation to market molecules, about *their* orientation to each other in interactively constructing a market, about *their perceived* market schedule and profile, *their* explosive, crowded, collusive or ordinary interrelations with the environments they constitute, *their* orientation downstream or upstream, which becomes the market orientation if a whole sector follows a consensus as to which direction to face, and so on. White captures firms* market orientation and strategy, or, as he himself says, he captures markets 'in reflection of producers'. Yet, as social scientists, we do not have to put ourselves in the position of firms and solve their uncertainty problems. We do not have to stand behind their backs and watch the world from their perspective. Capturing markets only 'in reflection of producers' may be limiting from the viewpoint of contemporary society—and sociology—as well as from a policy standpoint. It may even be limiting from the standpoint of economics. Let me enumerate some of the limitations of an exclusive focus on the producer's strategy and focus.

First, contemporary society belies the productionist perspective, clearly showing its limitations. Deriving markets from producer firms may not be the best route to choose in an economy where the production sector has been shrinking for decades and accounts for less than 20% of the economic activity in Western countries. It may not be the way to go in a knowledge economy, which many argue we now face, where knowledge and innovation raise questions that point beyond those of an industrial economy. In a knowledge economy, firms constantly adjust their products and their production methods through innovation to maintain or raise profits and escape zero profit—as economists are fully aware. What firms are guided by in these pursuits may be innovation potential (high-tech firms), government regulation (pollution reduced and petrol-efficient car engines) and long-term prospects of demand (pharmaceutical companies) rather than—or as well as—the profile of rivals in the existing market. In other words, firms will be cued by extra-market forces, and to maintain profit, they may have to add longer-term time frames, risk positions and sophisticated research (all related to innovation) to any attention they may bring to bear on their immediate rivals. Analysts in innovation and

technology management also claim that firms in this area observe and measure consumer attitudes and responses continually to assess the marketability of their product adaptations and innovations.⁴ To fold all this into market profiles is not warranted, and would hide more than it uncovers. Moreover, a major problem of firms in a knowledge economy has to do with the special character of knowledge as a public commodity that can be used repeatedly and transferred at no marginal costs. Since knowledge and innovation capacity tend to be embodied and cannot be appropriated easily, firms may have to orient themselves mainly toward labour markets—to which White suggests his model may not apply. Firms may find that their major existential threat is not the substitutability of their products on the market but their own attractiveness as a knowledge and employment environment that is continually re-evaluated from within the epistemic communities of knowledge workers. A knowledge economy would seem to force firms into the ballgame of innovation and risk ventures, which means involving them in social forms (epistemic communities and professional classes) that are not 'markets' and work by different mechanisms.

My second argument is more general. It derives from the fact that when we construe markets, even producer markets, from the viewpoint of producer firms we deliberately forgo any direct conceptualization of market transactions, of groups constitutive of markets and of markets as *distinctive non-firm mechanisms* and social institutions. Why do we need such a distinctive understanding? Historically, markets have distinctive roots. Markets are much older than the modern firm and many markets, for example financial markets, do not involve traditional production firms. Conversely, firms as organized, legally constituted production units may exist and do exist without markets, as long as there is some other mechanism in place that deals with the distribution and allocation of goods. Thus, historically, markets and firms appear to be two distinct phenomena. The word market derives from the Latin term *mercatus*, meaning trade, and its cognate forms *merx*, *merchandise* and *meteor*, to buy. As worlds of trade, markets have been central to capitalism, and they appear to be gaining importance in more than one way in the post-industrial age of a consumer society and of transnational flows and globalization—as terms like marketization, commodification and financialization suggest. Markets do not have the same problems as firms; they have their own problems—and their own institutions and specific ways of addressing these problems.

One task specific to the market is the organization of buying and selling, which includes retail stores, wholesale firms, sales personnel, dealing, brokering and accounting. For example, the primary market actors in the art market would appear

⁴ Personal communication of the results of studies conducted by Hans Georg Gemünden, Technology and Innovation Management, Technical University of Berlin (20 September 2003).

to be the art dealers and auction houses and perhaps museums but not, as a rule, the artists themselves. Does the logic of operation of these market actors differ in significant ways from that of artists? One would assume so. Art dealers and others specialize in buying, selling and speculative position-taking as market makers and they will presumably dedicate much time to the observations necessary to succeed in these activities (see Velthuis, 2004). Artists will have to devote their time to the process of creating art and to securing the stimulation they need for their creativity—and many artists apparently find that this task, and the observation needed to accomplish it, prevents them from understanding and playing the market for their work—or 'the market'⁵ of art dealers, their agents. Do we necessarily *have* to draw a line between artists' production activities and observational work and that of the art world's dealers and market makers? Surely not. The idea that producers of any kind observe the immediate competition and its profile in rivalry on which White's model rests seems general and at the same time parsimonious enough to apply to a wide range of situations, including situations that White may not want to classify as markets. Furthermore, it is often illuminating to subsume domains of diverse behaviour under general and parsimoniously defined concepts. But *should we* draw the respective distinction when the topic is markets? My preference is to say yes—we may lose too much of the phenomenon under scrutiny if we ignore distinctions embodied in real institutions and functions, and in societal transitions.

One activity that engages production market actors is marketing: that is, commercializing goods, measuring demand and marketability and persuading consumers of the worth of products. On an empirical level, it would appear, producer firms not only observe other firms, they also use market research to measure actual and potential demand, both before and after they introduce a product. Another activity that involves market actors is that of observing and representing markets, marketing research apart. For example, if producer firms issue bonds or stocks, they will be observed and evaluated by analysts and rating agencies in relation to their performance, and those varying rankings of worth will influence firm behaviour, as Fligstein (e.g. 2001) and others have argued. One might indeed think of production markets as interface structures—as White did in earlier work (1992; see also Williamson, 1981)—as that set of institutions that organizes the connections between different categories of agent and activity. Production markets would then be organized fields of activity focused on the work of interfacing between categories of agent. As fields of activity they do involve role structures; those characteristic of all the different professions that constitute and service markets. As fields of activity, they also bring into view the institutions and relationships in which markets are embedded. What White appears to be making is an audacious attempt to transcend the idea of the market as a differentiated institutional system by conceiving of all relevant actors involved as producers of sorts. The existence and properties of the market are all roped together and conceived here as regularities in

the signalling and perception of these producers 'that reinforce each other to keep reproducing the market as a social construction'¹ (see White, 2002, p. 319).³ One admires the boldness of White's design in embracing a particular kind of perspective, and the sophistication with which he pursues its various elaborations and specifications. But any view of markets as producer-based market constructions, if it comes as a substitute for 'real markets' (Smith 2003), may hide more than it reveals, making it appear that there was no phenomenon out there that warranted separate attention and a detailed study in its own right.

Sociology is not in my view in the business of withholding attention from the phenomenal world, but of bestowing it upon that world. Unlike, perhaps, economics in the past, it prides itself on taking the phenomenal world seriously. I see no particular advantage in knowing a particular phenomenal domain or practice only as a reflection of some other actor. Capturing producer firms' market constructions is a valuable goal in its own right. But it is not a good substitute for examining and theorizing what 'real' markets are. Economists have started to subject the real phenomenal world of markets to microscopic analysis. One example of this development is the rise of behavioural economics and its deconstruction of the supposedly rational economic man through experimental studies of decision-making processes. Young economists also increasingly turn to empirical survey research to make sense of the real world in terms of statistical analysis rather than in terms of their discipline's not infrequently ill-fitting mathematical models. In other words, they may be discovering the advantages of complexity-increasing rather than complexity-reducing methodologies. Even if we take economics as the model discipline with which we should compete, we may wish to retain our old emphasis on direct measurement and observation.

I have a third argument. This is that it may be advantageous to have a distinctive conception of markets that is not only theoretical, but also political. On a macro-economic level, many societies appear to be involved in a struggle to define what it means to be a market society, given their own economic history, cultural preferences and environmental conditions. Some economists respond to these efforts by imposing—via the appropriate global institutions—their own definition of a market economy and of market mechanisms. We might want to offer our own sociological understandings of how markets work in ways related and adapted to local conditions. But for that we need concepts of markets as distinctive social forms and institutional mechanisms that can be seen as different from non-market mechanisms—whatever our attitude towards either market or non-market mechanisms may be. If the sociology of economics wants to contribute to the vast area of political market reasoning it will need concepts of markets that are

³ White's own formulation is that he wishes to tie together market existence and properties as (producers') 'interactional' regularities (2002, p. 319).

independent of those of firms* orientations toward markets, as well of the orientations of such other social categories as communities, families and states toward markets. We need concepts that address a multiplicity of local conditions and empirical situations, and general notions of market mechanisms and processes that are normatively relevant to specific political and socio-economic situations.

3. Conclusion

Taking the producer-firm as a point of departure surely is in line with the role that production has played in the discipline's understanding of capitalism and the focus early economic sociologists placed on the internal workings of organizations (Carruthers and Uzzi, 2000, p. 486). But it is not in line with what we need theoretically, which is a conceptualization and understanding of markets as distinct theoretical entities. Indeed, it underutilizes the distinctive sociological focus on social relations that economic sociologists have extended to the understanding of markets (see Swedberg, 2003, p. 123 ff. for an overview and the studies cited in Lie, 1997 and Powell and Smith Doerr, 2004). We have something to gain theoretically, empirically and politically from keeping firms and markets separate as two kinds of social organization—as two ways of organizing activities that can serve as conceptual tools in understanding social reality and that belong in the toolbox of sociological concepts and analysis. At this point in time, the conceptual understanding we have of firms as complex organizations and as fields of production would seem to be much more sophisticated and advanced than the understanding we have of markets. Yet such an understanding would appear to be of some importance at a time when production firms are losing some of their organizational and bureaucratic complexity and becoming more market-like as they reconfigure themselves as network structures, create internal markets and adopt shareholder-oriented frameworks of operation. It would also seem to be important at a time when market mechanisms are expanding into many areas of non-market activity, and when markets are becoming more complex and differentiated internally, which suggests that we need to think in terms of multiple markets (Zelizer, 1988). If the industrial society was the age of the producer firm, post-industrial societies maybe the age of markets. Seen in this context, White's book, in addressing markets via producer firms, is an extremely stimulating effort to structure a theory of markets that connects both eras by conceiving of markets as arising out of the signalling, observation and construction processes of producer firms. It is clearly a monumental and admirable scholarly achievement, and, as a model that evolved over 20 years, a lifetime achievement. But it remains complementary to the view of markets as a set of mechanisms and processes that point away from production systems, from the state and from other social forms that one finds implemented in the social world.

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