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Reflections on the interplay between cognition, action and outcomes in industries and business markets: What have we learned so far and where might we go next?

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ABSTRACT

This essay traces the genesis and evolution of research pertaining to the interplay between cognition, action, and outcomes in industries and business markets and offers suggestions for the advancement of theory, research, and practice. Through a process of autobiographical self-reflection, covering the period from the mid-1980s–present, the author offers his views on developments and progress, first at a philosophical level, and then in terms of theory development and empirical advances, the development and application of methods for mapping actors' representations of strategic knowledge, and what this body of work has contributed and might contribute, going forward, to the design and evaluation of intervention tools and practices to aid strategic adaptation.

"… *From a cognitive perspective, decision makers act on a mental model of the environment. Thus any explanation for strategic responses to competitive pressures must ultimately take into consideration the mental models of competitive strategists… before competitive strategies can be formulated, decision makers must have an image of who their rivals are and on what dimensions they will compete. Given the diverse range of organizational forms and decision makers' limited capacity to process complex interorganizational cues, the task of defining 'the competition' is both important and problematic*" (Porac & Thomas, 1990: 224–225).

1. Introduction

A quarter of a century has elapsed since Porac, Thomas, and Baden-Fuller (1989) published their seminal article, 'Competitive groups as cognitive communities: The case of Scottish knitwear manufacturers', in which they mapped out a far reaching agenda for advancing understanding of the cognitive foundations of business rivalry. Problematizing an issue that lies at the heart of industrial marketing management, they set out the case for a social constructionist analysis of competitor definition. Based on a series of semi-structured interviews with top-level executives (typically CEOs and owner managers) of various knitwear producers located within the Hawick region of Scotland, a geographically self-contained community, their central thesis was that discernable competitive industry structures, as studied by strategic management theorists rooted in the tradition of industrial organization economics (e.g. Caves & Porter, 1977; Porter, 1980), are ultimately the outcome of a negotiated order.

In this essay I want to take the opportunity to reflect on what has been accomplished in this fascinating area of research concerning the interplay between cognition, action and outcomes in industries and business markets over the 25 years that have elapsed all-too quickly since the publication of this seminal contribution and offer some suggestions for the future advancement of theory, research and practice. My coverage of the literature is necessarily selective and the reflections I am going to offer are partial, being largely autobiographical. Reflecting on my own intellectual journey from the mid-1980s–present, I will offer my views on developments and progress, first at a philosophical level, and then in terms of theory development and empirical advances, the development and application of methods for mapping actors' representations of strategic knowledge, and finally, my reflections on what this body of work has contributed and might contribute, going forward, to the advancement of management practice. Before doing so, however, I shall begin with a brief overview of the literature as it stood in the run up to the Porac et al. (1989) Scottish knitwear study and then sketch some brief details of my personal background that were germane to my entry into this

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area of research and which have been foundational to the development of my career to date.[1]

1.1. The state of the literature on business rivalry circa 1985

Conventional approaches to the analysis of business competition in industries and markets had been dominated by the (highly deterministic) structure → conduct → performance paradigm of industrial organization (I/O) economics (Bain, 1956; Mason, 1957). The initial impetus for cognitively-oriented theory and research pertaining to managers' mental models of competitor definition, during the mid-late 1980s (e.g. Dess & Davis, 1984; Fombrun & Zajac, 1987; Gripsrud & Gronhaug, 1985; Porac, Thomas, & Emme, 1987; Porac et al., 1989; Reger, 1987), stemmed from a growing dissatisfaction with the body of work located firmly within the I/O economics tradition, centered on the notion of strategic groups, a concept developed by Hunt (1972) in a study that examined the differential performance of firms in the American home appliance industry (so-called 'white goods') in the 1960s. However, it is Michael Porter who is credited with advancing the commonly accepted definition of this concept:

> A strategic groups is the group of firms in an industry following the same or a similar strategy along the strategic dimensions. An industry could have only one strategic groups if all the firms followed essentially the same strategy. At the other extreme, each firm could be a different strategic groups. Usually, however, there are a small number of strategic groups which capture the essential strategic differences among firms in the industry." (Porter 1980: 129)

The bulk of the conventional strategy literature on business competition had been concerned with the refinement of techniques for the analysis of competitive structures in industries, based on this notion (see, e.g., Athanassopoulos, 2003; Bogner, Thomas, & McGee, 1996; Cool & Dierickx, 1993; Cool & Schendel, 1987, 1988; Fiegenbaum & Thomas, 1990, 1993; Harrigan, 1980, 1985; Hatten & Hatten, 1987; Hatten, Schendel, & Cooper, 1978; Hawes & Crittenden, 1984; Johnson & Thomas, 1987; Lewis & Thomas, 1990; Newman, 1978; Oster, 1982). The ultimate goal of the economic theory underpinning the strategic groups notion was, as it remains, to account for intra-industry variations in the competitive behavior and performance of firms; that is, the theory seeks to explain why it is that firms within a given industry do not all follow the same strategies (conduct), nor return uniform levels of performance. According to this body of theory, firms within a given strategic groups resemble one another closely in terms of their strategic capabilities. Consequently, they are able to anticipate one another's likely reactions to environmental jolts and are likely to recognize their mutual dependence on one another and respond accordingly. Between strategic groups, however, a rather different scenario is predicted, resulting in significant between-groups differences in organizational performance (Porter, 1979).

Strategic groups theorists maintain that once strategic groups have formed, the various players develop isolating mechanisms (barriers to entry and mobility) that serve to deter new entrants from stepping into the competitive arena and to deter existing players from attempting to switch membership from one group to another (Caves & Porter, 1977). Entry barriers constitute the various (largely economic) factors that prevent would-be players from entering a particular industry or market. Their effect is not uniform, however, with some strategic groups being afforded better protection than others. The concept of mobility barriers is a generalization of the concept of entry barriers, which seeks to explain the strategic behavior of firms already operating within an industry. Mobility barriers are the various factors that prevent members of particular strategic groups from transferring or extending their membership into other groups. The theory predicts significant between-groups performance differences will accrue, over and above differences within groups, due to the fact that mobility barriers afford stable advantages to particular groups at the expense of other groups within the same industry. Hence the concept of mobility barriers provides both an explanation for intergroup performance differences and a conceptual basis for competitively positioning rival firms (Porter, 1981: 615).

In the run up the Scottish knitwear project of Porac et al. (1989), a number of studies had failed to yield significant between-groups performance differences (for reviews see McGee & Thomas, 1986; Thomas & Venkatraman, 1988) and the notion of strategic groups came under increasingly critical scrutiny. Several researchers questioned the extent to which secondary financial and accounting information derived from company records or commercially available generic databases, as typically employed by strategic groups researchers, could capture adequately bases of competition. Ultimately, the variables selected for analysis by the researcher may not necessarily be the variables that actually guide the decision making of organizations and hence drive competition (Barney & Hoskisson, 1990; Birnbaum-More & Weiss, 1990; Calori, Johnson, & Sarnin, 1992; Hodgkinson & Johnson, 1994; Pettigrew & Whipp, 1991; Porac & Thomas, 1990; Porac et al., 1989; Reger, 1987, 1990; Reger & Huff, 1993).

A further limitation of this predominantly economic approach lies in its inability to explain how or why competitive structures in industries and markets come to develop in the first place and on what basis particular strategies are chosen. Arguably, the most extreme criticisms of the strategic groups notion came from Hatten and Hatten (1987) and Barney and Hoskisson (1990), who argued that the theoretical base underpinning strategic groups was insufficiently developed to justify the notion and that in reality strategic groups were merely analytical artifacts of the multivariate analysis techniques employed to detect them (cf. Tang & Thomas, 1992).

Drawing on the insights of Weick (1969, 1979) and Berger and Luckmann (1967), Porac and colleagues argued that strategic groups and related phenomena such as barriers to entry and mobility barriers emerge because key supply-side and demand-side actors inhabit dense social networks, extending beyond the boundaries of the firm. Over time, strategists from varying organizations come to develop highly similar (or 'shared') mental models of the competitive arena, due to the fact that they share similar technical and material problems and frequently exchange information in the conduct of their business affairs. This process of social exchange, in turn, leads to the development of a shared understanding – throughout the community of firms within the marketplace – of how to compete and with which organizations:

> "… *Indirect imitation occurs because strategists from different firms face similar technical/material problems with a finite number of solutions. Belief similarity develops as a result of interpreting the same cues and solving the same problems. Direct imitation occurs because of both formal and informal communications among the set of competitors. Such communications permit the mutual exchange of ideas and concepts by externalizing individual mental models in a publicly observable form. The net result of both indirect and direct imitation is that strategic choices of individual firms take place within the context of many shared beliefs about how and with whom to engage in transactions in the marketplace*" (Porac et al., 1989: 400).

This argument is illustrated graphically in Fig. 1. Each competitor is involved in an individual enactment process in which the mental model of its strategists is reciprocally intertwined with its strategic choices and the material conditions of the marketplace. Other parties involved in the

[1] Within the confines of an academic journal article of the present nature, I cannot possibly do full justice to the voluminous literature that has developed in the wake of the original Porac et al. (1989) paper, for which the entire field of business and management studies owes a huge debt of gratitude. As indicated above, these are my personal reflections. A self-reflective account of this important work, in which the authors provide invaluable insights into their own respective intellectual journeys prior to, during, and following its publication has been offered by Porac, Thomas, and Baden-Fuller (2011), together with additional commentary in an accompanying article by Kaplan (2011).