Does the Comparative Advantage Theory of Competition Really Replace the Neoclassical Theory of Perfect Competition?

The Comparative Advantage Theory of Competition (CATC) is proposed by Hunt and Morgan (1995) to replace the Neoclassical Theory of Perfect Competition (NTPC). The new theory claims to offer a better explanation for key macro and micro phenomena. The authors’ purpose in this article is to evaluate the CATC’s potential as a replacement for the neoclassical theory. They argue that (1) both the NTPC and CATC are offshoots of the exchange paradigm; furthermore, (2) the efficient theories in the exchange paradigm family cannot claim superiority over one another since a supracriterion for their contest is lacking; and (3) the CATC—even when considered efficient—cannot challenge the NTPC, let alone replace it. In addition to meeting a host of conditions, a successful contender must come from a new paradigm, which the CATC does not. Therefore, the replacement assertion remains unjustified.

In their *Journal of Marketing* article, Hunt and Morgan (1995) offer an interesting and provocative essay. They observe three strands in recent research in marketing: The first gravitates toward competitive strategy, the second advocates market orientation for superior firm performance, and the third explores shifting values in the wake of emergent structural forms, such as alliances and networks. Hunt and Morgan assert that the “strategy debate” in marketing has been evolving toward a new theory of competition in place of the dominant Neoclassical Theory of Perfect Competition (NTPC), which has retained its status despite many deficiencies. To address the limitations of the dominant perspective, they propose the Comparative Advantage Theory of Competition (CATC). Using CATC, they explain the abundance, admirable quality, and innovativeness of goods and services in market-based economies. In addition, they aim to account for the presence of firm diversity in such economies.

There is a clear need for a new paradigm with its own constellation of theories (see also Anderson 1982). Accordingly, Hunt and Morgan (1995) attempt to consolidate a theory in the exchange paradigm tradition with an eclectic approach. In particular, they draw attention to the consensus on relating firm performance to the firm’s special competencies in deploying and combining intangible assets. In contrast to the NTPC, the CATC accentuates intangible aspects, such as organizational climate, as more specific to the firm and therefore treats them as more significant performance enhancers. The CATC warns us that if change, uncertainty, disequilibria, and institutional complexity are important parts of the picture, then some implications derived from the exchange paradigm theories must be viewed carefully.

The Hunt and Morgan (1995) contribution is important in several respects. First, it raises sensitivity to epistemic issues in marketing (see also Anderson 1982, 1983, 1986; Angelmar and Pinson 1975; Bush and Hunt 1982; Hunt 1993; Leone and Schultz 1980; Peter 1992). Second, it provides an opportunity to rethink the bridge between marketing and economic theories. Third, by challenging the dominant perspective, it opens the door for the development of fresh views on competitive behavior.

Nevertheless, the claim that the CATC can replace the deficient NTPC is dubious. This article argues against that claim by suggesting an epistemological framework, summarized in Table 1. The table outlines a set of baseline beliefs about the nature of the theory, its contest with rivals, and its possible acceptance in the scientific community. Accordingly, an efficient theory cannot dominate when it shares a paradigmatic base with an efficient incumbent. In this case, CATC and NTPC exhibit the weaknesses of the same paradigmatic base. This is not unexpected because, as we argue, both are rooted in the exchange paradigm, albeit with a symmetric positioning in regard to inconsistency and incompleteness. Their commonality is evident from the historical perspective in Table 2, which compares NTPC with others in the same theory constellation. Under the supposition that

---

Z. Seyda Deligönül is a professor, Department of Management, St. John Fisher College. S. Tamer Çavuşgil is University Distinguished Professor and The John William Byington Endowed Chair in Global Marketing, Department of Marketing and Supply Chain Management, Michigan State University. The authors gratefully acknowledge the constructive and helpful comments of three anonymous *Journal of Marketing* reviewers. Their thoughtful suggestions on previous versions of this article greatly strengthened the arguments offered here. They also appreciate useful comments of Preet Aulakh, Aydin Cacen, M.B. Sarkar, and Shaoming Zou.
TABLE 1
Baseline Beliefs to Justify the Arguments
Offered in This Article

1. Paradigms provide an idiomatic framework and a belief system so that theories develop their footing in substantive assertions. These assertions are not open to corroboration.

2. Theories also articulate specifying assertions. These define the scope and internal reason. Therefore, their justification in terms of the substantive assertions and their testing are relevant.

3. Given the other assertions, the heuristic part of theorizing is to narrate the story so that the scientific community can make sense of the explanation. Yet, this explanation stops at a simulacrum account, which gives only the selective form and appearance of things and not their substance or proper qualities. It deals with a cognitive world that features metaphors, unwritten propositions, and descriptions. In this sphere, isomorphism to external reality is secondary. Any theory that rests chiefly on this language, however, is doomed to remain a folk science.

4. The constellation of theories under the dominant paradigm marks the set of Pareto-efficient theories in a discipline at a given time. For the lack of a better term, efficiency here implies the degree of proximity to the best model, an ideal that is yet to be articulated.

5. A good theory clearly states and carefully distinguishes the different layers of its constituent assertions.

6. As a formal system, theory cannot be both complete and consistent. Nevertheless, it strives toward a balance between incompleteness and inconsistency.

7. Although we recognize the characteristics of a good theory by its traits, we cannot establish definitive criteria for superiority within the constellation of efficient theories rooted in the same paradigm. (Which is more beautiful: Mozart’s 40th Symphony or Beethoven’s 7th?) The superiority in this case is unsettled because of the lack of a supra criterion (based on Arrow’s theorem [1963]).

8. In the absence of the necessary criteria, the efficient theories of a single paradigm cannot compete against one another because they speak the same language but pose themselves for different levels of consistency and completeness.

9. Testing of theories is never decisive, but it provides the professional community with the pro or con arguments for the verdict.

10. In the end, scholarly judgment vindicates a theory by placing it in textbooks, journals, and so on or ignores it as merely inferior.

11. When efficient, a theory reigns until a new theory from another paradigm prevails. Even then, the efficient theory persists beyond its time despite the dominance of the superior replacement. It does this because researchers prolong its life by using the old theory as a referent standard and continue to benefit from its approximating nature in commercial and technological undertakings. These theories cannot hold vigorous scientific communities around them and remain infertile for generating progressive propositions.

What CATC Fails to Achieve

Does CATC Provide a Fresh View?

CATC does not provide a fresh perspective for our challenging times. The fundamental premises of the comparative advantage theory have been noted already by numerous authors. Table 3 outlines some of these familiar tenets, which are central to a constellation of theories from early in this century. As in the NTPC, the CATC firm is the combiner of resources. It is an efficiency seeker in production and distribution, as in Chicago School thinking, and it operates under the forces emanating from the environment, as in the Bain framework. The CATC model also nearly coincides with the view of resource-based theory (see Conner 1991), which in turn exhibits striking similarities to the Austrian School (Jacobson 1992). CATC’s high accord with the other members of the exchange paradigm is readily apparent from Table 2. Therefore, we submit that CATC is hardly a new perspective.

Although the CATC is introduced as a ground-breaking theory to replace the NTPC, its explanation of firm diversity and abundance in market economies is not at all epistemologically novel. This results because CATC borrows heavily from a European version of neoclassical theory that flourished in Austria during the past century. Austrian thinking accentuates continuous innovation as a driver of higher performance and points to such factors as flexibility, interfirm heterogeneity, intertemporal variation, and intangible resources (see Jacobson 1992). These are exactly the factors that CATC uses in its explanation. In particular, CATC includes a list of reasons to explain firm diversity: integration of firms under varying degrees of trust, reliance on expansion of in-house capability, and uniqueness of firms. Hunt and Morgan also offer such factors as different assortments of resources and the resulting comparative advantages, heterogeneity of demand, and innovativeness. The list can be expanded easily from the preceding literature to incorporate factors other than those noted by Hunt and Morgan. This is not surprising because the search for comparative advantage in resources as a motivation for not only enhancing efficiency but also creating new resources is a tired tenet. Versions have appeared in many theories apart from the Austrian School, including strategic choice theory, the population ecology model, and resource-based models (see Conner 1991: Hall 1972, Chapter 14, for related literature; Jacobson 1992).

CATC also is silent in areas in which theories from the exchange paradigm cannot provide answers to some current questions: Why does a strategy of selective intervention not perform at least as well as the chaotic market in some circumstances? If market-mediated transactions work so well, why do firms often distribute and sell their own products and integrate vertically or horizontally rather than rely on exter-
nal market agents? Do these actions lead to company inefficiencies familiar in command economies? Why do centrally planned economies of the Eastern bloc, even after the change in political system, not foster the expansion and eventual dominance of the market system? After all, the spectacular success of market economies in Asia has shown that the market as an organizing force is not intrinsically limited to Western societies. What is the particular mechanism that accelerates the creation of resources in market economies and that seems lacking in command economies?

Can CATC Explain the Downfall of Command Economies?

When it comes to explaining and predicting nonmicro phenomena, such as the demise of the centrally planned economies, the theories in the exchange paradigm, including the CATC, are powerless (see Murrell 1991; Ofer 1987). The current directions of social change tend to increase the significance of those aspects of economics that are most anomalous. We often consider these aspects only as the effects of increasing externalities, both in a positive and negative sense. In contrast, Hunt and Morgan’s claim that their theory is capable of explaining and predicting such phenomena is not well grounded.

Their explanation is contained in three paragraphs. In the first, they point out that “command economies misallocate resources because of the lack of ‘signals’ from the marketplace as to where planners should deploy resources; prices and profits in market-based economies serve as signals and motivators for efficient resource allocation” (p. 3). Two examples are given (p. 3). In the second relevant paragraph, they state, “There is no reason to believe that Eastern bloc firms in each industry could not (and would not) have implemented in an equally competent manner the same standard production functions to produce the same quality products as did their Western market-based counterparts” (p. 4). Finally, they assert that “firms in planned economies have no natural mechanisms for rewarding higher quality goods and services” (p. 8). (The third point parallels the first, so we take these two in combination and refer to them as the first.)

In their conclusion, Hunt and Morgan recap the discussion: “Our analysis indicates that the comparative advantage theory of competition explains these key macro and micro phenomena better than its perfect competition rival” (p. 13).

Any fair analysis of Hunt and Morgan would suggest that both their statements are extant paradigm explanations. Ironically, the first one requires only the basic NTPE assumptions, much criticized by Hunt and Morgan and others. The second requires a modification of one of the NTPE’s assumptions, namely, the relaxation of the industrywide production functions. The Chicago School has already offered this version. Therefore, neither statement is new, and neither is sufficient to explain such a macro concept as a command economy, though they both pose as if they were assertions from a new theory. In centrally planned countries, purely “economic” considerations are not sufficient for explaining the behavior of the central planning authority or state enterprises. Instead, noneconomic considerations—political, social, ethnic, geographic, and so forth—may take precedence. The actors might be less guided or motivated by economic rationale in their decisions. All these are unaccounted for in the current theories because our paradigms can offer only weakly developed and inherently implausible models of human behavior. In conclusion, if Hunt and Morgan use the extant rival explanation, we believe not only that their claim of better explanation collapses, but also that they come to endorse the rival explanation.

CATC and NTPE Are Offsprings of the Exchange Paradigm

The neoclassical framework is a constellation of theories rooted in the exchange paradigm. Like others, it is characterized by a set of substantive assertions. Among these are the following: Economic agents have preferences over outcomes, agents individually optimize subject to constraints, their choices are manifest in interrelated markets, agents have full relevant knowledge, and observable outcomes are coordinated and must be discussed with reference to equilibrium states. These idioms of neoclassical theory are imperfectly interpreted premises. Each finds its particular function in a given version of the theory. That is, the terms agents, optimize, knowledge, market, and equilibrium appear in ways appropriate to a particular version (for an analysis of the term market, see Skipper and Hyman 1995). They become a shared feature among the variants. For example, the neoclassical family includes human capital theory, rational expectations economics, and the theory of optimum tariffs, among others (Weintraub 1985). We explore several descendants of the neoclassical constellation in Table 2. All share the neoclassical language, though each narrates a context different from the others. All are bounded by the specifying assertions in time and space (see Dubin 1969). In addition, they come with a set of specifying assertions that are known (or for good reason are suspected) to be approximating, and therefore inaccurate. Consequently, their empirical corroboration or falsification is relevant. Unlike substantive assertions, which are neither corroborated nor falsified, specifying assumptions always call for potentially testable propositions (Table 1, items 1 and 2).

In our justification framework (Table 1), those theories that are consistent appear to be idealistic, idiomatic, stylized, and precise, yet when the emphasis shifts toward completeness or breadth, the theory shows holistic tendencies. It becomes encapsulating but imprecise, much like a folk narrative. The trade-off between incompleteness and inconsistency is the curse of Godel’s Incompleteness Theorem (Table 1, item 6). Given this vicious trade-off, we assert that NTPE and CATC are the products of the same exchange paradigm but pose themselves for the trade-off differently. NTPE prefers to emphasize consistency, whereas CATC favors comprehensiveness. In Hunt and Morgan’s (1995) Table 1, the second and third columns exhibit cases of the same concept. For example, homogeneity and heterogeneity are the limiting states in which the “variety-count” approaches zero or many, respectively. “Self-interest maximization without a constraint” is a special case of a “constrained” situation, and so on.
<table>
<thead>
<tr>
<th></th>
<th>How CATC is Similar</th>
<th>How CATC is Different</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NTPC</strong></td>
<td>• Firm is an input combiner.</td>
<td>• Critical resources are immobile, intangible, and self-compounding.</td>
</tr>
<tr>
<td></td>
<td>• Humans are motivated by self-interest.</td>
<td>• Demand is heterogeneous and dynamic.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Information is imperfect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Firms are content with superior financial performance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The firm is not a black box.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Market equilibrium is a pernicious abstraction. Instead, markets are in constant turmoil.</td>
</tr>
<tr>
<td><strong>The Austrian School</strong></td>
<td>• Firm is an innovation seeker.</td>
<td>• Imulation can result in only parity returns, whereas acquiring a new resource can result in a sustained competitive advantage and superior returns. This way, profits do not necessarily dissolve as more and more imitation occurs.</td>
</tr>
<tr>
<td></td>
<td>• Markets are dynamic processes of discovery that mobilize dispersed and imperfect information.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The firm is motivated by the desire for supernormal profits as a vehicle for promoting discovery and for realizing opportunities in a constantly changing (disequilibrium) marketplace.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• By assuming market efficiency, this school precludes persistent profit opportunities. Profits exist only to the extent of uncertainty and disequilibrium.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Entrepreneurs see a mismatch (imperfection) between the offerings and demand, and their arbitrage results in profits.</td>
<td></td>
</tr>
<tr>
<td><strong>Bain's Firm Theory</strong></td>
<td>• Firm is an output restrainer.</td>
<td>• The firm is not a rent seeker. The earnings are not necessarily a reflection of monopoly power or collusion, coupled with entry deterrence.</td>
</tr>
<tr>
<td></td>
<td>• Firm's ecology poses critical constraints on its attainment of goals.</td>
<td>• The appropriate unit of analysis is the firm, not industry.</td>
</tr>
<tr>
<td></td>
<td>• Performance differential results from firm heterogeneity, either among the firms within the industry or between industry incumbents and those blocked from entry.</td>
<td>• Management (internal efficiency) of the firm is a salient factor.</td>
</tr>
<tr>
<td></td>
<td>• In the long-run equilibrium, earning differentials are possible.</td>
<td>• The firm’s behavior is more a deliberate choice than a foregone conclusion from external factors.</td>
</tr>
<tr>
<td><strong>Schumpeterian Theory</strong></td>
<td>• Firm is a competitive advantage seeker.</td>
<td>• Healthy earnings can result from less-than-radical innovative leaps.</td>
</tr>
<tr>
<td></td>
<td>• Returns result from advantages accrued from new ways of competing.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Entrepreneurial vision is central to firm success.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Potential imitators always exist.</td>
<td></td>
</tr>
<tr>
<td><strong>The Chicago School</strong></td>
<td>• Firms are efficiency seekers.</td>
<td>• Efficiency is self-reinforcing.</td>
</tr>
<tr>
<td></td>
<td>• Firms have heterogeneous production functions.</td>
<td>• CATC disagrees with the profit-maximization ideal.</td>
</tr>
<tr>
<td></td>
<td>• Firm-specific (size and scope) competency differences reflect the extent to which production and distribution efficiencies are achieved.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Information is costly.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Emphasis is on the efficiency differentials.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The focus is on long-term behavior.</td>
<td></td>
</tr>
<tr>
<td><strong>Transaction Costs Theory</strong></td>
<td>• The firm is an avoider of transaction costs that result from market exchange.</td>
<td>• Focus is on deployment and combination of resources to meet heterogeneous and dynamic demand rather than on avoidance of negative aspects of market exchange.</td>
</tr>
<tr>
<td></td>
<td>• Such costs include all the negotiation, monitoring, and enforcement costs. These are necessary to ensure that contracted goods and services between and within firms are forthcoming.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Asset specificity, uncertainty, and bounded rationality are critical concepts constraining the firm's achievement.</td>
<td></td>
</tr>
</tbody>
</table>
Resource-Based Theory

- Firm is a seeker of unique or otherwise costly-to-copy inputs.
- The appropriate unit of analysis is the firm, not industry.
- The management (internal efficiency) of the firm is a salient factor.
- Firm behavior is a deliberate choice more than a foregone conclusion from external factors.
- Healthy earnings can result from less-than-innovative leaps of the Schumpeterian type.
- Focus is on deployment and combination of resources to meet heterogeneous and dynamic demand rather than on other considerations, such as avoidance of negative aspects of market exchange.

*Although Schumpeter frequently is linked to the Austrian School, his notion of the market being, at times, in equilibrium separates him from the mainstream Austrian perspective. Austrians argue that for an economy to be in equilibrium, innovations must be discontinuous. They view innovation as a continuous process, so their market is never in equilibrium (Jacobson 1992).*

Adequacy of Assertions in CATC

Contrary to the requisite distinction between different categories of assertions, the authors of CATC adopt a loose argumentation style. Consider, for example, their disagreement with the assertion of “maximizing performance.” Hunt and Morgan are not the first to reject this proposition. The maximization principle has long been a source of discontent for its realism as a substantive assertion of neoclassical theory (see, e.g., Robinson 1979, p. 94). Nevertheless, neoclassical theory treats the profit-maximization assumption to mean that firms actually behave as if their profits are at the maximum. The orthodox assumption of “operating at the maximized profit state” differs from the assumption that “things happen as if firms are seeking rationally to maximize their profits.” The former is a substantive assumption of orthodox microeconomic theory. The latter is a heuristic assumption of that theory (Cyert and Pottinger 1979). Given the premise that substantive assumptions are not subject to a reality check (Table 1, item 1), a criticism of the maximization assertion that is based on unrealistic falls short of theoretical or empirical logic (for formal defense of this assertion, see Boland 1981).

Our purpose here is not to defend the maximization principle. Rather, we argue that Hunt and Morgan’s suggestion of gauging performance to the superior referent is equally problematic as a substantive assumption. Because they subscribe to the view of “superior and sustainable performance ... relative to the world’s best rivals” (p. 6), they are vulnerable to the same criticism made by Keynesians against the neoclassical maximization assumption. Shackley (1973), following Hayek and Keynes, argues that the maximization supposition demands the knowledge necessary for the process of choosing the “best” alternative. From a behavioral perspective, if maximization is a deliberate act, then the actor must have acquired all the information necessary to determine or calculate which alternative maximizes utility. So must the firm that compares its performance to the best rivals. Because perfect information is denied even for consumers in another substantive assumption of CATC (Table 3, tenet 2), the gauging of performance to the best rivals is impossible.

<table>
<thead>
<tr>
<th>TABLE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Fundamental Premises of CATC Are Familiar Tenets</td>
</tr>
</tbody>
</table>

1. CATC views industry demand as significantly heterogeneous and dynamic (Alderson 1957; Dickson 1992).
2. Consumers have imperfect information regarding products that might match their tastes and preferences, and obtaining such information is often costly in terms of both time and money (March 1988; Simon 1957; Zey 1992).
3. In their roles as both consumers of products and managers of firms, humans are motivated by the constraint of self-interest seeking (a fundamental belief since Adam Smith).
4. The firm’s primary objective is superior financial performance rather than maximizing a profit function (Cyert and Pottinger 1979; Jacobson 1992; Papendreou 1952).
5. Resources are the tangible and intangible entities available to the firm that enable it to produce efficiently and/or effectively a market offering with value for some market segment or segments (Barney 1991; Wernerfelt 1984).
6. Resources are both significantly heterogeneous across firms and time and imperfectly mobile (Barney 1991; Collis 1991; Conner 1991; Dierickx and Cool 1989; Peteraf 1993).
7. The role of management in the firm is to recognize and understand current strategies, create new strategies, select prefered strategies, implement or manage those selected, and modify them over time (Hall 1972).
8. Whereas neoclassical theory—together with the traditional organizational view (Bain 1956)—assumes that the firm’s environment, particularly the structure of its industry, determines its conduct (or strategy) and performance (profits), the CATC—within the Austrian tradition—maintains that environmental factors only influence the firm’s conduct and performance (Child 1972; Jacobson 1992; Lawrence and Lorsch 1967; Perrow 1986; Thompson 1967; Van de Ven 1979).

A similar predicament can be traced with respect to tenets 3 and 4 (Table 3). If firm performance is the principal concern and a deliberate goal (tenet 4), the agents constituting the firm must not only forgo their self-interest under certain conditions but also make commitments to act against their own interests. Because such a provision is denied in tenet 3, achievement of superior performance is at best a rel-
ative concept and perhaps an impossibility. Moreover, in the CATC world, because firms are universally not opportunistic (p. 9), but customers are self-interest seekers (tenet 3), it is likely that firms become vulnerable to exploitation.

Epistemic Difficulties

Theories that are based on heuristic assertions tell a more sensible story. To be convincing, however, a clear statement must be made of substantive and specifying assertions and their intended theoretical mechanism. When we state that a market consists of heterogeneous firms, we attribute a certain quality to the firms, in the same sense as the billiard ball representation of the perfect theory of gases. As a heuristic assumption, the billiard ball image is a powerful device for cognitive projection. It facilitates communication between two individuals and also eases the problem-solving process; however, when used as a specifying or substantive assumption, it blurs the intended purpose within the semantic complexity.

For a good fresh theory, the assertions should stand with their explicit implications. CATC can be criticized for stating its substantive assertions as if they were heuristic (Table 1, items 1 and 3). For example, the assertions of heterogeneous and dynamic demand are umbrella terms for a world that consists of different entities and has a temporarily changing nature. Although this might seem vividly realistic in a literary work, its place in a scientific theory needs further elaboration. Unless explicated in this or another theory, the idiom “heterogeneous and dynamic demand” remains a heuristic language, an ambiguous delineation from a folk science. It is a whole semantic field rather than a unique meaning. The same is true of the assertions about intangible assets, immobility of resources, and so on. It is the responsibility of the authors and not of the audience to clarify terms, how they affect the underlying mechanism, and why they appear in the theory. Otherwise, telling the story in a loose language (with heuristic assertions) might be an enticing proposition. However, it presents perplexing epistemic difficulties stemming from the imprecision of such qualifiers as “heterogeneous” demand, “temporal” behavior, “varying” preferences, “limited” information, “imperfectly” mobile resource, “intangible” resource, and “superior” performance. For each, we require a theory in itself.

Sensitivity to language is particularly important in social science because a new theory not only spells out its assertions in a language of its choice but also often partially invents the language. Newton’s invention of calculus for the theory of mechanics is different from designing a survey questionnaire to understand the concept of innovation. The former is progressive because it creates its language (calculus) separately from the intended use (mechanical theory). The latter is tuned to its use. As it self-references, it can easily become self-perpetuating and regressive. Consequently, our language, perhaps arbitrarily, narrates not the phenomenon under study but itself. Like a snake swallowing its tail, as it self-references, it falls into the trap of paradoxes. Larger and less specific semantic fields (heuristic assertions) easily find their way into the final language. The resulting theory is less likely to prompt the desired level of precision. This hardly improves the eventual qualities of the theory.

Amorphous Concepts and Circularity

Consider the example of innovation, a proposed antecedent of firm diversity. Any hypothesis that links firm diversity to innovativeness can plausibly serve as a substantive assertion. The lack of appropriate specification, however, makes the theory vulnerable to circular, tautological, epiphenomenal, and vacuous statements. As it stands, CATC cannot escape some of those pitfalls because of the heuristic nature of its assertions. It is circular because it explains firm diversity by uniqueness and comparative advantage differentials. It is tautological because things that are individually “unique” always are collectively “diverse.” Also, these terms lend themselves to circular relationships. In the case of innovation, when it is related to another variable (such as technology, new product development, and quality improvement), this variable also becomes innovative. For instance, it might be claimed that quality improvement determines innovation, but quality improvement is often an innovative trait. Therefore, it is determined by the concept of which it is a part.

Besides having conclusions equivalent to its assertions, concepts such as innovation and intangible assets become vague constructs. The specification and implications of such concepts have drawn little agreement among scholars. Their temporal and situational nature makes their consensual delineation a difficult task. For example, Miller and Shamsie (1996) complain that the concept of resource remains an amorphous one that rarely is operationally defined or tested for its implications. Conner (1991, p. 145) joins them in the critique of resource-based theory, asserting that “in the end everything in the firm becomes a resource and hence resources lose explanatory power.” After a literature review, Miller and Shamsie (1996) are satisfied with the resource definition of Barney (1991), who conceives the resource as values that confer enduring competitive advantages to a firm to the extent that the resource is rare or hard to imitate, has no direct substitutes, and enables companies to pursue opportunities or avoid threats. Given this definition, we have a puzzling ambiguity in CATC, which views the greater abundance in market-based economies as stemming from rewards established through higher-order resources. Search for a comparative advantage in resources becomes a powerful motivation not only for efficient use of existing resources but also for creating new ones. In CATC’s explanation of abundance, therefore, the causes (search for a comparative advantage in resources) cause causes (create new resources that confer further competitive advantage), which in turn cause further causes to cause causes (for problems with this mechanism, see Wilden 1972, p. 39). To say the least, this is ambiguous. Therefore, it is unfair to the audience to leave the term resource as an amorphous concept.

Can CATC Replace NTPC?

Past writers have raised three related sets of objections to NTPC. First, it is faulted for ignoring real-life concerns that give legitimacy to economic analysis. Second, it is accused of incongruity with empirical results. Third, it is blamed for
biasing economic arguments in favor of a particular political-moral norm. In order to accept CATC’s superiority over NTPC, we first must be satisfied that its propositions constitute a clear, coherent, cogent set of assertions with desirable qualities. As a necessary condition, we expect the contender theory (CATC) to be Pareto efficient under a new paradigm (Table 1, items 4 and 5). Furthermore, in order to replace an existing theory, the challenger must convince the scientific community that the incumbent (NTPC) is Pareto inefficient (Table 1, items 4, 7, and 8). These conditions are hardly met in CATC’s challenge of NTPC.

**Theories in Social Science Are Tenacious**

It is difficult to expunge our theories on the grounds of logical or empirical considerations. This partly stems from the nature of language in these theories. CATC is no exception. The statements in our Table 1 are existentially qualified statements or derivatives of this form and, hence, are irrefutable solely on logical grounds. In addition, the methodological problems of their empirical refutation are widely accepted. Therefore, substantively fused theoretical constructs, and a language loaded with existential qualifiers as well as our own values, are not amenable to replacement. We can modify, expand, and merge them, but we can hardly expunge them.

From this angle, the robustness of CATC is trivial. This is because it speaks with some universal qualifiers and convenient adjectives. That is, it ensures its validity by moving from homogeneous to heterogeneous, static to temporal, constant to varying, perfectly mobile to imperfectly mobile, tangible to intangible. Such a language secures convenient irrefutability qualities, but it states the uninteresting, commonsensical, unsurprising, and uninformative. According to Lakatos (1970, p. 118), straightforward generalizations, even empirical ones, constitute no progress. For progress to occur, the fact must be pleasantly surprising, improbable, or even impossible in light of previous knowledge.

**Problems with the Replacement Hypothesis**

CATC is conceived as a replacement (not reformation) of NTPC, but we believe this is questionable. In our view, the replacement can happen in two ways: First, the contender can convince the scientific community that NTPC has been inefficient, in which case the new theory must cogently refute the incumbent; and second, the contender can allow that NTPC was efficient in its time but no longer, since CATC, a new theory under an emergent paradigm, cogently prevails in the scientific community.

Let us examine the first condition, that NTPC has been inefficient all along. This assertion is highly dubious or at best unlikely. NTPC has successfully provided explicit propositions that lend themselves to the derivation of tractable and possibly testable hypotheses. NTPC has a record of some predictive and explanatory power. There is little evidence to refute the conclusions derived from the theory. Its scope, exceptions, and contingencies have been explicated. It is based on explicit assertions that also connect well with extant macroeconomic concepts (Nelson 1984). Moreover, the neoclassical model is adequately comprehensive within its intended framework. It is not clear that the explanatory or predictive purpose of scholars would be served better by fusing this theory with any other model.

There is other evidence for NTPC’s efficiency. First, the underlying premises, such as rational pursuit of self-interest, are reasonable starting points for a theory of competition. Second, the implications of its assertions have been traced out in great detail. Empirical hypotheses derived from the theory have been a topic of extensive testing. In the final analysis, there is not much evidence to refute the conclusions drawn from this theory. Third, scientists often begin with an axiomatic system. They then investigate the logical implications of its assertions without considering whether these are true. These specifying assertions are then slightly modified or relaxed by considering the complexities that initially were assumed away. Taking a simplified view of the world, we can begin to formulate a fundamental understanding of the “messier” real world. In this way a stylized nucleus such as NTPC conveniently extends itself to more sophisticated situations. This is acceptable, because it would be extravagant to assert that a single theory can serve all our explanatory and predictive purposes. Rather, a single theory accounts for some or all of the major phenomena, as indicated in its specifying assumptions. Given these arguments, it is not convincing to suppose that the scientific community has been faulty in placing NTPC into its textbooks, journals, and professional libraries.

We now explore the second possibility, that NTPC was efficient in its time, but its reign comes to a close with CATC’s new paradigm. This is also a dubious proposition, since we have already argued that the symmetry between CATC and NTPC does not justify replacement. CATC gathers its idioms from an extant paradigm—namely, the exchange paradigm—and positions them diagonally from NTPC. Unless one indulges in linguistic solipsism, the dyadic relationships (such as mobile/immobile, costless/costly) between CATC and NTPC are obvious. Moreover, CATC’s qualifiers (dynamic, intangible, and so on) and dated idioms also argue against a new paradigm. In conclusion, we maintain that (1) the efficient members of the exchange paradigm cannot claim superiority over one another (Table 1, item 8) and (2) if this is true, then CATC—even when considered to be efficient—cannot challenge NTPC, let alone replace it. A successful challenger, in addition to meeting a host of conditions, must come from a new paradigm.

**Conclusion**

CATC attempts to explain the global downfall of command economies vis-à-vis the abundance and firm diversity found in market economies. It does not succeed, however, because its explanation is hardly cogent and “pleasantly surprising” (as Lakatos [1970] would demand from a new theory). Clearly, we would welcome a fresh theory under a new paradigm, but the new model would have to avoid the familiar deficiencies of extant theories. It would have to be precise but not useless, comprehensive but not overextended.

The following arguments are warranted. First, CATC and NTPC are rooted in the same paradigm, but they balance incompleteness and inconsistency in different ways. NTPC
emphasizes consistency and cannot be dismissed on the grounds of incompleteness. In the Weberian sense, theories that focus on ideal types emphasize the stylized models of the phenomenon under consideration. They provide the sufficiency explanations for a discipline. That is, dominant results from idealized theories serve as a benchmark for the logical (internal) consistency of more comprehensive theories. CATC strives for a larger scope in reacting to the deficiencies of NTPC, but in doing so it opens itself to attack. No theory is intended to answer all questions. The desire to become overly extensive easily compels a theory to employ a loose (heuristic) narrative, and the theory then falls into the ambiguity trap. It wants, conversely, to provide solid and nonarbitrary articulation of a huge scope. On the other hand, it desires to leave itself a safe line of retreat: Those who object can always be told that no such conclusion is relevant and that the presentation is conditional. This was the method of astrologers in antiquity and still is the style of many theorists in social science.

Second, theories that thrive on comprehensiveness easily become vulnerable. Under the banner of greater generalization or superior abstraction, they often face the predicaments stemming from semantic confusion. This is exactly the situation with CATC. In particular, using the idioms of the exchange paradigm, CATC proposes a collection of statements in a complementary (symmetric) form to NTPC (Table 1 in Hunt and Morgan). That is, it attempts to arrive at a useful theory by extending terms homogeneous to heterogeneous, static to temporal, constant to varying, perfectly mobile to imperfectly mobile, tangible to intangible. This secures for CATC a convenient irrefutability quality, but it then becomes vulnerable to the criticism of adopting a heuristic language. Such a theory will be accused of assuming coherence in the fragmented assertions from a folk science.

Third, the replacement supposition is dubious. When it comes to theory efficiency, Kuhn and Polanyi propose that social choice settles the score. According to them, the legitimacy of a theory is the result of social acceptance emergent over time. Therefore, in Kuhinian terms, our colleagues eventually will decide whether CATC is efficient. Let us assume it achieves that status and secures itself a place next to NTPC. Even so, the question of supremacy will remain inconclusive. There will be no score to settle between the two because, as evidenced by Table 1 in Hunt and Morgan, their substantive idioms coincide and bear symmetrical specifications. Given that CATC and NTPC are both offshoots of the exchange paradigm and given that we lack a supracriterion for their contest, the replacement is impossible.

This article draws attention to some common flaws, to some disputable ideas in the epistemology of marketing, so that they do not become conventionalized. We certainly need more discussion about what we are doing in theory construction, why we are doing it, and how to go about it. A collection of sentences does not necessarily make a story, and a collection of assertions, even after being verified in some form, does not necessarily make a theory. It reduces the theory to a dictionary of language without sentences (Hornans 1964, p. 957; Sutton and Staw 1995).

REFERENCES


